Inch Cape
OFFSHORE LIMITED

Inch Cape Offshore Wind Farm

Vessel Management and Navigational Safety Plan (VM&NSP)

November 2024

Inch Cape Acceptance

Originator	Reviewed by	Accepted by	Accepted by
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Revision History (previous five)

Date	Rev.	Purpose of Issue	Description of revision	Initials
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Consent Plan Overview

Purpose and Objectives of the Plan

This Vessel Management Plan (VMP) and Navigational Safety Plan (NSP) has been prepared to address the specific requirements of the relevant conditions attached to the following consent documents (collectively referred to as 'the Consents'):

- Section 36 Consent (dated 14th June 2023);
- Generating Station Marine Licence (MS-00010140 dated 15th June 2023); and
- Offshore Transmission Infrastructure (OfTI) Marine Licence (MS-00010593 dated 9th November 2023).

The Consents have been issued to Inch Cape Wind Offshore Limited (hereafter referred to as 'ICOL'), for the construction, operation and decommissioning of the Inch Cape Offshore Wind Farm (OWF) and OfTI, (hereafter referred to as 'the Development').

This offshore VMP and NSP has been prepared to discharge consent conditions for both the Generating Station and OfTI simultaneously.

The overall aims and objectives of the VMP and NSP is to provide details of vessel management and navigational safety of the Development, in accordance with relevant guidance. It is intended that in doing so, this document satisfies the relevant requirements of the Section 36 Consent, Generating Station Marine Licence, and OfTI Marine Licence. All relevant Inch Cape Contractors involved in the Inch Cape Project are required to comply with this VMP and NSP through their conditions of contract.

This document is applicable to the construction phase and operation and maintenance (O&M) phase of the project, i.e. all construction and commissioning to be undertaken up to the Final Commissioning of the Development, as well as throughout the operational lifetime of the Development.

This document should be read in conjunction with the Construction Environmental Management Plan (IC02-INT-EC-OFC-007-INC-PLA-001).

The VMP and NSP is a live document that will be reviewed regularly and updated as required. Information within this document is accurate at the time of submission, but it is recognised that amendments or updates may be required to reflect changes following consultation, changes to best practice and lessons learned prior to the end of the construction and O&M phases of the Development. The process by which this VMP and NSP will be reviewed is presented in Section 1.5.

Scope of the Plan

This document has been produced in line with the requirements of the consent conditions, industry standards, and best practices. The VMP and NSP conveys information on the following:

- Marine coordination
- Temporary and operational lighting and marking
- Construction and operational safety zones
- Cable laying/inspections and Restricted Ability to Manoeuvre (RAM) operations
- Emergency Response Cooperation Plan (ERCoP) and Emergency Response Plan (ERP)
- Injury, Destruction or Decay of the Development
- Notifications to Mariners
- Radio navigational warnings
- UK marine reporting requirements

Plan Structure

The VMP and NSP has been structured as follows:

- Section 1. Introduction
- Section 2. Wind Farm and OfTI Overview
- Section 3. Consent Conditions & EIAR Compliance
- Section 4. Navigational Safety Measures during Construction
- Section 5. Navigational safety Measures during O&M
- Section 6. Promulgation of Information
- Section 7. Location of Working Ports
- Section 8. Management and Coordination of Vessels
- Section 9. Types and Specifications of Vessels
- Section 10 Numbers and Movements of Vessels
- Section 11. Transit Route Corridors

- Section 12. Anchoring Areas
- Section 13. Compliance with MGN 654
- Section 14. Compliance with the Application
- Section 16. References

Plan Audience

This VMP and NSP will be submitted for approval to the Scottish Ministers/Licensing Authority in consultation with other stakeholders. Once approved, and the conditions under the Consents discharged, the VMP and NSP is intended to be referred to by personnel involved in the construction and operation of the Development. This includes ICOL personnel, contractors and subcontractors. All documentation and method statements produced in relation to the Development must incorporate the requirements and comply with this VMP and NSP.

Compliance with the VMP and NSP will be monitored by ICOL's Environmental Clerk of Works (ECoW), ICOL's Consent Team, Inch Cape appointed contractors, and Marine Directorate - Licencing Operations Team (MD-LOT).

Plan Locations

Copies of this VMP and NSP will be available from the following locations:

- ICOL's Project Office, 5th Floor, 40 Princes Street, Edinburgh, EH2 2BY;
- ICOL's Marine Coordination Centre (MCC);
- The premises of any main contractors and subcontractors undertaking work on behalf of ICOL;
- ICOL's ECoW; and
- Aboard any vessels carrying out construction or operational activities for the Development.

Table of Contents

Acronyms & Abbreviations

Acronym	Term
AIS	Automatic Identification System
ARPA	Automatic Radar Plotting Aid
ASMS	Active Safety Management System
AtoN	Aid to Navigation
BEIS	Department of Business, Energy and Industrial Strategy
CAA	Civil Aviation Authority
CCTV	Closed Circuit Television
CLV	Cable Lay Vessel
CMS	Construction Method Statement
COLREGS	International Regulations for Preventing Collisions at Sea
CoP	Construction Programme
CSV	Construction Support Vessel
CTV	Crew Transfer Vessel
DSC	Digital Selective Calling

Acronyms & Abbreviations

Acronym	Term
DWT	Dead Weight Tonnage
ECoW	Environmental Clerk of Works
EIAR	Environmental Impact Assessment Report
ERCoP	Emergency Response Co-operation Plan
ERP	Emergency Response Plan
ES	Environmental Statement
ESRI	Environmental Systems Research Institute
ETRS89	European Terrestrial Reference System 1989
GIS	Geographical Information System
GLA	General Lighthouse Authority
HLV	Heavy Lift Vessel
HMCG	His Majesty's Coastguard
IAC	Inter-array cable
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities

Acronyms & Abbreviations

Acronym	Term
ICOL	Inch Cape Wind Offshore Limited
IHO	International Hydrographic Organisation
IMO	International Maritime Organization
JUV	Jack-Up Vessel
KIS-ORCA	The Kingfisher Information Service – Offshore Renewables & Cable Awareness
km	Kilometre
km^2	Square kilometre
kV	Kilovolts
kW	Kilowatt
LMP	Lighting and Marking Plan
LNtM	Local Notice to Mariners
m	Metre
MAIB	Marine Accident Investigation Branch
MCA	Maritime and Coastguard Agency

Acronyms & Abbreviations

Acronym	Term
MCC	Marine Coordination Centre
MD-LOT	Marine Directorate Licensing Operations Team
MF	Medium Frequency
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MoD	Ministry of Defence
MPCP	Marine Pollution Contingency Plan
MRCC	Maritime Rescue Coordination Centre
MSI	Maritime Safety Information
MW	Mega Watt
NAVAREA	Navigation Area
Navtex	Navigational Telex
NLB	Northern Lighthouse Board
nm	Nautical miles

Acronyms & Abbreviations

Acronym	Term
NRA	Navigational Risk Assessment
NSP	Navigational Safety Plan
NtM	Notice to Mariners
O&M	Operation and Maintenance
OCV	Offshore Construction Vessel
OfCom	Office of Communications
OfTI	Offshore Transmission Infrastructure
OfTO	Offshore Transmission Owner
OMP	Operation and Maintenance Programme
OREI	Offshore Renewable Energy Installation
OSP	Offshore Substation Platform
OSV	Offshore Support Vessel
PEMP	Project Environmental Monitoring Programme
PLGR	Pre-Lay Grapnel Run

Acronyms & Abbreviations

Acronym	Term
RAM	Restricted Ability to Manoeuvre
SACs	Special Areas of Conservation (designated for different species and habitats from the Habitats Directive)
SAR	Search and Rescue
SOLAS	International Convention for the Safety of Life at Sea
SOV	Service Operations Vessel
SPAs	Special Protection Areas (designated for supporting seabirds and other bird species)
SSCV	Semi-Submersible Crane Vessel
SSSIs	Sites of Special Scientific Interest (designated for terrestrial and intertidal wildlife amongst other features
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
VHF	Very High Frequency
VMP	Vessel Management Plan
VTS	Vessel Traffic Services

Acronyms & Abbreviations

Acronym	Term
WGS84	World Geodetic System 1984
WTG	Wind Turbine Generator

Glossary

Defined Term	Meaning
Development	The Inch Cape Offshore Wind Farm (the Wind Farm) and Offshore Transmission Infrastructure (OfTI) being developed by ICOL.
Development Area	The area for the Wind Farm, within which all WTGs, IACs, interconnector cables, OSP and the initial part of the Offshore Export Cable and any other associated works must be sited. As stipulated in the Crown Estate agreement for lease.
2013 Environmental Statement (ES)	Refers to the document in which the Environmental Impact Assessment (EIA) was carried for the Inch Cape 2014 Consent.
2018 Environmental Impact Assessment (EIA) Report (EIAR)	Refers to the document produced in 2018 to accompany the application for Consent of the Development (granted in 2019) following a material change in design.
Inch Cape Offshore Transmission Infrastructure (OfTI)	Components of the Development comprising the offshore export cable and OSP which are permitted by the OfTI Marine Licence (MS-00010593).

Glossary

Defined Term	Meaning
Inch Cape Offshore Wind Farm (OWF)/the Wind Farm	A component of the Development, comprising wind turbines and their foundations and substructures, and IACs.
Offshore Export Cables	The subsea, buried or protected electricity cables running from the offshore wind farm substation to the landfall and transmitting the electricity generated to the onshore cables for transmission onwards to the onshore substation and the electrical grid connection.
Offshore Export Cable Corridor	The area within which the Offshore Export Cables will be laid from the OSP and up to Mean High Water Springs (MHWS).
(The) Consents	Collective term used to describe the Section 36 consents and Marine Licences issued to ICOL.

1 Introduction

1.1 Background

The Inch Cape Offshore Wind Farm (the Wind Farm) and Offshore Transmission Infrastructure (OfTI), hereafter referred to as the Development, is being developed by Inch Cape Offshore Limited (ICOL).

ICOL originally applied for consent for the Development in 2013, and this was updated, and a revised application submitted in 2018. In 2013 an Environmental Statement (ES) was produced to accompany the initial application based on the original design of the Wind Farm. This was also subsequently updated in 2018 with the production of an Environmental Impact Assessment Report (EIAR) to enable the use of progressions in technology following the original consent, through a reduction in turbine numbers (fewer turbines with larger generating capacity), and reduction in associated cabling (inter-array and export cables) in order to maximise efficiencies whilst minimising environmental impacts. The EIAR updated the 2013 ES and where impacts were predicted to be less than those already assessed, a new assessment was not undertaken as the conclusions drawn in the original 2013 ES remained valid.

Section 36 and Marine Licence consents for the revised design were granted by Scottish Ministers in 2019. Since then, ICOL has successfully sought two variations to the Section 36 and Generation Station Marine Licence respectively, to optimise wind farm efficiency. Both variation applications were granted consent in June 2023 (Section 36 Variation dated 14 June 2023 and Generation Marine Licence Variation MS-00010140 dated 15 June 2023).

In 2019 a revised Marine Licence was granted for the OfTI connecting the landfall location, near Cockenzie, East Lothian, and the Inch Cape Offshore Wind Farm. A varied Marine Licence (MS-00010593), to capture changes to deposit quantities and revision to the Offshore Export Cable Corridor coordinates, was granted 9th November 2023.

A separate Marine Licence (MS-00010672, dated 15th January 2024) has also been granted for Additional Landfall Works to facilitate the construction of the export cables through the seawall.

1.2 Plan Objectives

This Vessel Management Plan (VMP) and Navigational Safety Plan (NSP) has been prepared to address the specific requirements of the relevant conditions in the OfTI Marine Licence (Conditions 3.2.2.11 and 3.2.2.13), Generation Station Marine Licence (Conditions 3.2.2.12 and 3.2.2.14) and Section 36 consent (Annex 2 Conditions 15 and 17). The conditions must be discharged through approval of the Scottish Ministers prior to the commencement of offshore construction, which includes the approval of this VMP and NSP.

The objectives of the VMP and NSP are to provide details of vessel management and navigational safety of the Development, in accordance with relevant guidance, during construction and operation

and maintenance (O&M) phases.

The relevant conditions setting out the requirement for the VMP and NSP approval, and which are to be discharged by the VMP and NSP are presented in full in Section 3.

1.3 Linkages with other Consent Plans and Consent Conditions

The consent conditions require that the development of the VMP and NSP will be consistent with a number of other consent plans and consent conditions. Details of the linkages and relevant cross references are set out in Table 1-1.

It should be noted that information is not repeated across consent plans, rather, where pertinent information is available in linked consent plans, the relevant consent plans are referred to. The plans detailed below are not required for approval of this VMP and NSP but are provided for ease of reference.

Table 1-1: VMP and NSP Links with Other Consent Plans and Documents

Reference	Description and relevance to the VMP and NSP	Relevant section of this Offshore VMP and NSP affected
Construction Method Statement (CMS) (Section 36 Condition 10, OfTI and GS MLs: Condition 3.2.2.6 and 3.2.2.7)	Details the construction methods, setting out good practice construction measures and how mitigation measures proposed in the EIAR are being implemented during construction	Construction mitigations are detailed in Section 4.
Environmental Management Plan (EMP) (Section 36 Condition 14, MLs Condition 3.2.2.10 and 3.2.2.11)	This condition will be discharged through the submission of two documents rather than one. The Construction EMP details the mitigation measures that will be put in place to minimize the impact of the construction works, as far as reasonably practicable, on sensitive environmental receptors within the Development site. The CEMP also sets out the roles and responsibilities of the ECoW who will provide advice and guidance on the compliance and implementation of this plan. Subsequently, the O&M EMP will be submitted prior to Final Commissioning, aiming to satisfy the same criteria but tailored specifically for the O&M phase of the project.	As required under Condition 15 of the Section 36, this NSP and VMP is consistent with the EMP.

Reference	Description and relevance to the VMP and NSP	Relevant section of this Offshore VMP and NSP affected
Lighting and Marking Plan (LMP) (Section 36 Condition 20, and ML Condition 3.2.2.16 and 3.2.2.17)	Details how the Development will be lit and marked in accordance with key guidelines and policies as well as requirements concerning navigational lighting.	Lighting and marking is covered in Sections 4.1 and 5.2, and is consistent with the LMP.
Project Environmental Monitoring Programme (PEMP) (Section 36 Condition 24, MLs Condition 3.2.2.18 and 3.2.2.21)	Sets out measures by which ICOL will monitor the environmental impacts of the OWF. Inch Cape environmental management, mitigation and monitoring commitments have taken account of the results and any recommendations of pre-construction monitoring and will continue to be refined depending on the results of the ongoing program of construction and monitoring described in the PEMP.	As required under Condition 15 of the Section 36, this NSP and VMP is consistent with the PEMP.
Fisheries Management and Mitigation Strategy (FMMS) (Section 36 Condition 26, MLs Condition 3.2.2.20 and 3.2.2.23)	Sets out the mitigation strategy relating to the commercial fishing industry in order to minimize or avoid effects on fishing vessels and activities	Section 11 details indicative transit routes agreed with the fishing industry of the area.

1.4 Document Structure

The structure of this VMP and NSP is provided in Table 1-2, below.

Table 1-2: VMP and NSP Document Structure

Section No	Section Title	Summary of Content
1	Introduction	An overview of the Development and its associated consents requirements.
2	Wind Farm and OfTI Overview	An overview of the Development and its design.
3	Consent Conditions & EIAR Compliance	Outlines the Consent conditions relevant to the VMP and NSP.
4	Navigational Safety Measures during Construction	Sets out the navigational safety measures that ICOL will implement during the construction phase of the Development.
5	Navigational Safety Measures during O&M	Sets out the navigational safety measures to be implemented by ICOL during the O&M phase of the Development and the O&M of the OfTI up to the transfer of assets to an OFTO.
6	Promulgation of Information	Provides details of various notifications to mariners during different phases of the Development.
7	Location of Working Ports	Overview of various ports to be used during different phases of the Development.
8	Management and Coordination of Vessels	Summarises management and coordination of vessels by the Marine Coordination Centre.
9	Types and Specifications of Vessels	Provides a breakdown of vessel details to be involved in the construction and O&M phases of the Development.

Section No	Section Title	Summary of Content
10	Numbers and Movements of Vessels	Provides details on the number of vessels to be used as well as the number of expected return trips to port.
11	Transit Route Corridors	Indicates potential routes for project vessels transiting to and from the Development.
12	Anchoring Areas	Outlines details of anchorage areas in proximity to the Development as well as those that should be avoided.
13	Compliance with MGN 654	Demonstrates how this VMP and NSP complies with the requirements of MGN 654.

1.5 Document Control and Management of Change

This VMP and NSP is a 'live document' and will be regularly revised at intervals agreed with Scottish Ministers, to ensure that the information is kept up to date. Linkages exist between a number of offshore consent plans and programmes as highlighted in Table 1-1. As plans and programmes are updated, there will be a review of inter-linkages with other documents to ensure these are also updated as relevant.

It Is expected that following a review, there may be a requirement to undertake a non-material or material update of the document. It is anticipated that a material change would be defined as one that fundamentally affects key information being communicated in the VMP and NSP; a change in proposed mitigation or monitoring commitments; or a change that may increase environmental risk. A non-material change would be expected to be one that is communicated for information only; does not fundamentally affect assumptions made based on previous information provided; does not result in deviation from agreed commitments; or does not increase the level of environmental risk.

Where an update is required, Marine Directorate - Licensing Operations Team (MD-LOT) will be consulted to determine whether the level of changes signifies a material change to an approved plan that requires formal consultation, or a non-material update to be approved by MD-LOT.

It is anticipated that the review and update process will be as follows:

1. Document review undertaken by ICOL (triggered by influencing factors listed above).
2. Need for an update of document communicated to MD-LOT, and ICOL to inform MD-LOT

whether it is deemed as material or non-material.

3. MD-LOT to notify ICOL whether they agree with the materiality of the change (and therefore whether or not formal consultation will be required).

4. If change is considered non-material, ICOL will provide an updated VMP and NSP for MD-LOT to review, approve and make available.

Or:

a) If change is considered material, ICOL updates the VMP and NSP, and a formal consultation on the updated VMP and NSP is undertaken.

2 Wind Farm and OfTI Overview

2.1 Project Description

The Inch Cape Offshore Wind Farm will be located approximately 15 to 22 kilometres (km) (eight to 12 nautical miles (nm)) off the Angus coastline, to the east of the Firth of Tay. The Development Area is approximately 150 square kilometres (km^2) and will contain 72 Wind Turbine Generators (WTGs), one Offshore Substation Platform (OSP), 66 kilovolts (kV) inter-array cabling and the initial section of the Export Cables between the Development Area boundary and OSP.

The Offshore Export Cable Corridor will contain the Offshore Export Cables. The Offshore Export Cable Corridor will consist of two 220 kV export cables approximately 85 km long, between the landfall point at Cockenzie in East Lothian and the boundary of the Development Area, and 1.4 km across at the widest point, reducing to approximately 250 metres (m) at the landfall.

The location and extent of the Development Area and Offshore Export Cable Corridor is shown in Figure 2.1.

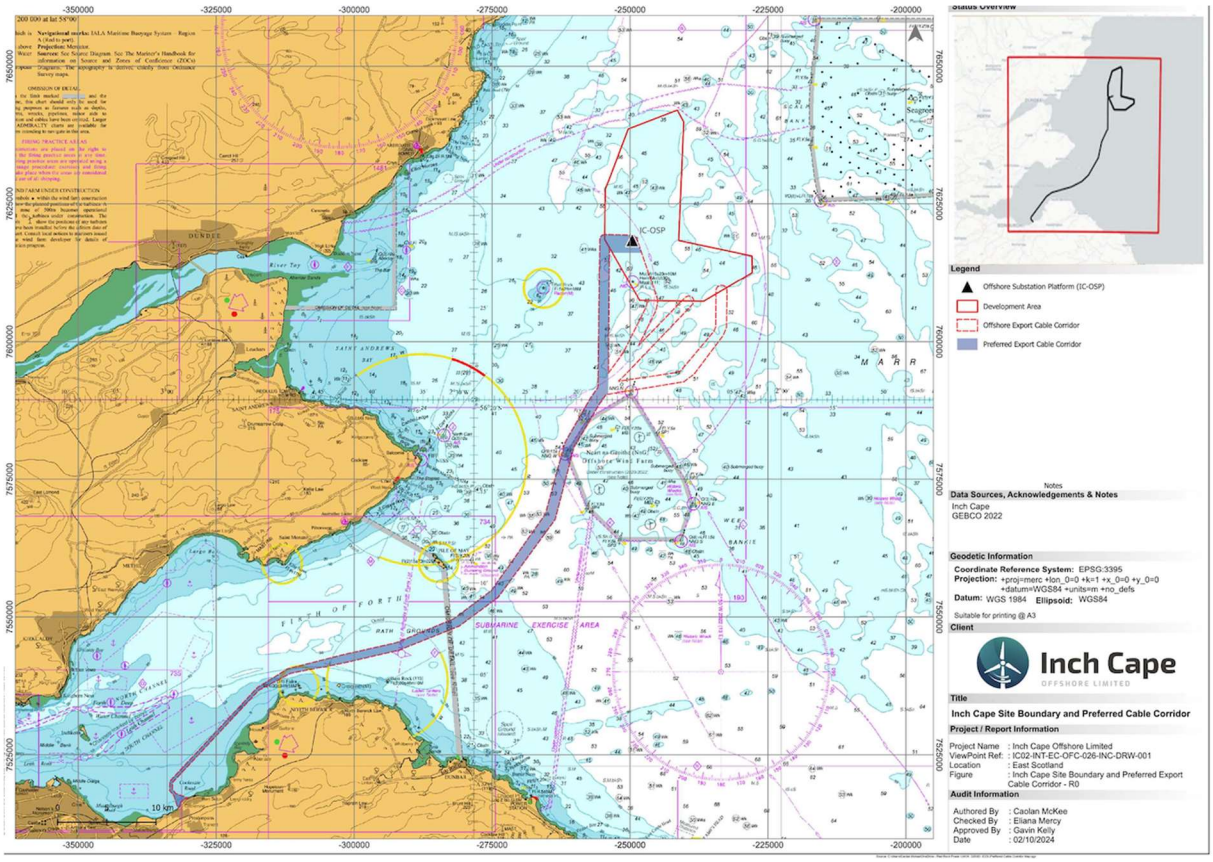

Figure 2.1: Project Location

2.2 Timing of Construction Works

Offshore construction is expected to commence in 2025 and is anticipated to take approximately 2.5 years. Details of the full programme for the construction works are provided in the Construction Programme (CoP) (IC02-INT-EC-OFC-004-INC-PRG-001) .

3 Consent Conditions & EIAR Compliance

At the time of submission of this VMP and NSP, the Inch Cape project benefits from the following consents:

- The Section 36 Consent;
- The Generation Marine Licence;
- The OfTI; and
- The Additional Landfall Works Marine Licence.

This VMP and NSP has been prepared to satisfy the criteria of the Section 36, Annex 2 conditions 15 and 17, OfTI Marine Licence conditions 3.2.2.11 and 3.2.2.13, and Generation Marine Licence conditions 3.2.2.12 and 3.2.2.14 as set out in **Error! Reference source not found.**.

Appendix 1 provides a table with the relevant consent conditions, along with details of where information to address each part of the condition has been provided. In addition to the specific licence requirements for the Development, this VMP and NSP also includes information to discharge a number of other licence conditions related to the VMP and NSP and these are also included within the table.

The requirement to construct and operate the Development in accordance with the measures identified in the Application arise from specific requirements in the Consents. The Consents require the works be constructed in accordance with the licence, the Application and supporting ES and EIAR and related documents.

This VMP and NSP, and the remaining consent plans have been put together considering the commitments made on the ES and EIAR and corresponding consent conditions.

4 Navigational Safety Measures during Construction

The following section sets out the navigational safety measures that ICOL will implement during the construction phase of the Development.

Details relating to the promulgation of information and anchorage areas are set out separately in Sections 6 and 12 respectively of this report.

4.1 Temporary Lighting and Marking including Construction Buoyage

Marine and aviation marking, including lights, visual marks and construction buoyage will be provided in accordance with the NLB, the Civil Aviation Authority (CAA), MCA and Ministry of Defence (MoD) requirements.

Detailed information relating to lighting and marking of the Development Area is set out in the LMP.

Prior to commencing construction of the Development (at least eight weeks in advance), ICOL will complete an "Application for Statutory Sanction to Alter / Exhibit" form and submit this to the NLB for the necessary sanction to be granted. This application is required for any Aids to Navigation (AtoN) that will be in situ for more than six months.

4.2 Radio and Radar Beacons

A radio beacon is a transmitter positioned at a fixed, known location which transmits a continuous or periodic radio signal on a specific radio frequency. A radar beacon returns a distinctive signal when triggered by radar. Both types of beacons would transmit their identification or location as a form of navigational aid. ICOL will ensure no radio or radar beacon operating in the marine frequency bands are installed or to be used within the Development without prior approval from the Office of Communications (OfCom).

4.3 Guard Vessels

In addition, it is possible that at particular times, for example when vessels are vulnerable due to partially completed construction works or a particular activity within the construction works, the construction area will be monitored by a guard vessel(s) to further protect and provide information to any third party vessels. This decision will be based on a risk assessment of the activities. It is noted that a guard vessel may be required to monitor safety zones (Section 4.4 and Section 5.3).

4.4 Construction Safety Zones

Section 95 and Schedule 16 of the Energy Act 2004 set out the basic requirements for applying for a safety zone to be placed around or adjacent to an Offshore Renewable Energy Installation (OREI). The Electricity (Offshore Generating Stations) (Safety Zones) (Applications Procedures and Control of Access) Regulation 2007 clarify the requirements for applications which applies to territorial waters

in or adjacent to Scotland and within the Renewable Energy Zone.

It is noted as of 1st April 2017, the application process for safety zones within Scottish waters has been devolved from the Department of Business, Energy and Industrial Strategy (BEIS) (now the Department for Energy, Security and Net Zero) to MD-LOT.

It is intended that an application will be made for safety zones of 500 m around any structure where construction is ongoing, as indicated by the presence of construction vessels (this will act to advise other marine users against entering the designated safety zone area, apart from during emergency incidents and with the exception of those vessels engaged in construction activities).

The construction safety zones will be applied on a "rolling" basis, i.e. their application will follow the progress of the construction activities as it proceeds across the Development. The rolling safety zone will be identified by the presence of a construction vessel working at a structure. Construction safety zones would be applied around the major installation works, including:

- Installation of foundation piles (WTGs and OSPs);
- Installation of jacket substructures (WTGs and OSPs);
- Installation of OSP topsides; and
- Erection of the WTGs on the foundations.

In addition, smaller safety zones of 50 m radius may be applied for around partially completed structures but where active construction work is not underway (for example around partially completed foundation or jacket substructures, completed but not commissioned WTGs etc.) and around completed structures prior to commissioning. Pre-construction safety zones will remain in place until the WTG or OSP has been commissioned.

The status and location of safety zones within the Development will be promulgated on a regular basis throughout the construction period via the method set out in Section 6 of this VMP and NSP document.

In line with the guidance set out in MGN 654, in gaining consent for a safety zone, ICOL agrees to monitor the safety zone for infringements. Any infringements will be notified to MD-LOT along with supporting evidence for the infringement (such as Automatic Identification System (AIS) or visual evidence from guard vessels), noting the MCA will also be notified of any cases of dangerous or repeated infringements.

4.5 Management of the Buoyed Construction Area (including Safety Zones)

See Section 8 for details of management and coordination, including of the buoyed construction area and safety zones.

4.6 Navigable Depths

As required under MGN 654 (MCA, 2021), navigable depth will not be altered by more than 5% referenced to Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCA and NLB.

4.7 Cable Laying and Other RAM Operations

Restricted Ability to Manoeuvre (RAM) vessels will be utilised during the cable installation works and heavy lift operations. RAM vessels are those restricted in their ability to manoeuvre as a result of the nature of the work they are undertaking, and therefore are unable to avoid an approaching vessel. All RAM vessels involved in the construction of the development will comply with the International Regulations for Preventing Collisions at Sea (COLREGs) (International Maritime Organization (IMO), 1972). All vessels regardless of nationality are required to comply with this convention to ensure that they do not interact with vessels that are restricted in their navigational ability.

RAM vessels will display lights and shapes to indicate their restriction. They will transmit safety warnings on Very High Frequency (VHF) to inform other vessels of their actions using the 'Securité' message if the messages contain important information relevant to navigation. Communications between RAM vessels and the Marine Coordination Centre (MCC) will be ongoing throughout their operations. RAM vessels will comply with vessel type regulation information transmitted through AIS and show current navigational status at all times to ensure other vessels equipped with AIS can identify that they are RAM.

Cable laying vessels will be equipped with AIS and an Automatic Radar Plotting Aid (ARPA). Cable laying activities will be promulgated through the notification procedure (see Section 6) and, if necessary, following internal risk assessment, guard vessels may be employed during the cable laying period.

4.8 ERCoP

The ERCoP for the Development is presented as a separate document. ICOL will also prepare an Emergency Response Plan (ERP) in accordance with ICOL's Safety, Health and Environmental Management System. The ERP details the required emergency planning and response control measures to be implemented across the construction and operation of the OfTI up to transfer of assets to an Offshore Transmission Owner (OFTO) by all ICOL personnel and key contractors.

4.9 Injury, Destruction or Decay of the Development

ICOL will notify the Licensing Authority, in writing, in the case of injury to, destruction or decay of the Development during construction. The Licensing Authority will advise of any remedial action to be taken and any AtoN to be displayed following consultation from the MCA, NLB or any such required advisors.

5 Navigation Safety Measures during O&M

The following section sets out the navigational safety measures to be implemented by ICOL during the O&M phase of the Development and the O&M of the OfTI up to the transfer of assets to an OFTO.

Details relating to the promulgation of information and anchorage areas are set out separately in Sections 6 and 12 respectively of this report.

5.1 Marine Coordination

See Section 8 for details of management and coordination.

5.2 Operational Lighting and Marking

Marine and aviation marking, including lights, visual marks and construction buoyage will be provided in accordance with the NLB, the CAA, MCA and MoD requirements.

Detailed information relating to lighting and marking of the Development Area during the O&M phase is set out in the LMP.

Prior to commencing operation of The Development, ICOL will complete an “Application for Statutory Sanction to Alter / Exhibit” form and submit this to the NLB for the necessary sanction to be granted. This application is required for any AtoN that will be in situ for more than six months. It should be noted that should ICOL wish to discontinue lighting, an “Application for Statutory Sanction to Discontinue” must also be completed and returned to the NLB.

5.3 Operational Safety Zones

ICOL does not currently plan on applying for routine safety zones during the operational phase of the Development.

As part of the same safety zone application outlined in Section 4.4, ICOL intend to apply for safety zones of 500 m during major maintenance works such as the replacement of a WTG blade, or during “unplanned” works, such as to repair major faults. It is anticipated that only works that would require the use of a Heavy Lift Vessel (HLV) or Jack-Up Vessel (JUV) would require the imposition of these safety zones, due to such vessels being RAM and due to the nature of these maintenance operations.

As per MGN 654, in applying and gaining consent for a safety zone, ICOL commits to monitor the zone for unlawful infringements. Any infringements will be reported to MD-LOT, with the supporting evidence of infringement, noting the MCA will also be notified of any cases of dangerous or repeated infringements.

5.4 RAM Operations

RAM vessels may be used during cable maintenance and heavy lift operations associated with the

WTGs, and will comply with COLREGs. They will transmit safety warnings on VHF to inform other vessels of their actions, using the 'Securité' message if the message contains important information relevant to navigation.

Cable maintenance will be promulgated through the notification procedures (see Section 6) and where necessary, guard vessels will be deployed during the cable maintenance period.

5.5 Subsea Cable Inspections

Following installation, an assessment will be completed identifying areas of cable at potential risk of exposure in the future. The monitoring programme will be developed through a risk-based approach. ICOL's current indicative programme assumes survey results from the first two years of operation will be used to help define the frequency of surveys for the rest of the operational life of the Development. Currently, it is assumed that surveys will be undertaken at five-year intervals.

5.6 ERCoP and ERP

The approved ERCoP for the construction phase will be updated and amended for the O&M phase.

ICOL will also prepare a separate ERP in accordance with ICOL's Safety, Health and Environmental Management System. The ERP details the required emergency planning and response control measures to be implemented across the construction and O&M phases of the Development by all ICOL personnel and key contractors.

5.7 Injury, Destruction or Decay of the Development

ICOL will notify the Licensing Authority, in writing, in the case of injury to, destruction or decay of the Development during O&M. The Licencing Authority will advise of any remedial action to be taken and any AtoN to be displayed following consultation from the MCA, NLB or any such required advisors.

6 Promulgation of Information

6.1 Local Notices to Mariners

Local Notices to Mariners (LNtMs) will be issued in advance of any activity associated with the Development which may impact upon navigational safety. ICOL will issue LNtMs to a list of relevant local and national stakeholders. This list will be regularly updated to ensure contact details remain up to date and all relevant parties are included.

The LNtMs will be concise, detailing navigational safety information and may include, but not be limited to, the information set out in Table 6-1. A standard template will be defined.

Table 6-1: Contents of LNtMs

Title	Clearly state the document is a LNtM and a short relevant title about the scope of the topic. This will include the date of issue and the notice number.
Supplementary Information	Details of the organisation and development issuing the LNtMs and any relevant LNtMs issued prior to the current one.
Detail	• Date/time of start/finish and location of work (coordinates); • Vessels on site including call signs; • Activity being undertaken; and • Specific risks to navigation.
Contact Details	Sufficient details to allow mariners to contact the organisation issuing the LNtMs including the MCC / 24 hours emergency contact.
Guard Vessel and Safety Zone Details	Details of any guard vessels or safety zones present and in force.
Hyperlinks to Additional Information	Provided only if absolutely necessary.

Among the organisations to which LNtMs will be issued is the United Kingdom Hydrographic Office (UKHO). Upon receipt of any LNtMs, the UKHO will decide whether to include information in their Weekly Admiralty Notice to Mariners (NtM), as described in Section 6.2.LNtM Issues Prior to the Commencement of the Development

ICOL will, at least one month prior to Commencement of the Works or as soon as reasonably practicable prior to the commencement of any construction activity, ensure that local mariners, fisherman's organisations and His Majesty's Coastguard (HMCG) (in this case the Aberdeen Maritime

Rescue Coordination Centre (MRCC)) are made fully aware of the Licensable Marine Activity through LNtMs (or any other appropriate means).

It is noted that, as per CAA requirements, ICOL will also arrange a Notice to Airmen with the CAA at least 14 days prior to the start of construction. Full details of promulgation of information relevant to aviation are given in the LMP.

ICOL will, no later than one calendar month prior to Commencement of the Works, notify the UKHO of the proposed works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications. In addition, no later than one calendar month prior to the Commencement of the Works and following confirmation of the approved DSLP by the Licensing Authority, ICOL will provide the positions and maximum heights of any WTGs and construction equipment to the UKHO, for nautical charting purposes, and to the DGC, for aviation purposes.

6.1.1 LNtM during Construction

The MCC will notify the UKHO and the standard list of stakeholders as to the progress of the construction of the Development. Notifiable activities include anything to pose a risk to navigational safety, including any fault to navigational aids. It is also a requirement under the ERCoP to ensure the MCA are aware of what vessels are on site (and how to contact them). An LNtM template approved by the MCA to satisfy this will be held by the MCC.

6.1.2 LNtM upon Commissioning and During Operation

ICOL will ensure that local mariners, fisherman's organisations and the MRCC are made fully aware of the completion of the construction works and the commissioning of the Development.

ICOL will ensure that relevant stakeholders are informed via LNtMs of any planned and unplanned maintenance activities that are outside the day to day maintenance activities associated with the Development.

It should be noted that the OFTO will be responsible for LNtMs associated with the OfTI assets once they have been transferred to the OFTO following commissioning as required by the prevailing regulatory regime.

6.1.3 Post Commissioning

ICOL will, upon completion of the Development, provide the 'as built' positions and maximum heights of all the WTGs, and any subsea infrastructure to the UKHO for charting.

6.2 Admiralty Notices to Mariners (UKHO)

Admiralty NtMs are issued to the UKHO and are based on the information provided within the LNtMs. The UKHO issues these on a weekly basis to provide physical corrections to charts and associated publications. It is the responsibility of mariners to look up the Weekly Editions of Admiralty NtMs which

can be found on the UKHO website and to make necessary corrections to the charts on board their vessels.

6.3 UK Hydrographic Charts

The precise locations and maximum heights of all WTGs and construction equipment over 150 m above LAT, and the details of any lighting fitted to all WTGs, will be provided to the UKHO for charting.

WTGs will be charted by the UKHO using the WTG tower or development area chart symbol (as presented in Symbols and Abbreviations used on ADMIRALTY Paper Charts NP5011 (UKHO, 2018)) used in Admiralty Charts (UKHO, 2018) on charts deemed appropriate in terms of scale.

Similarly, the UKHO will display the submarine cables associated with the Development on charts deemed appropriately scaled.

6.4 Kingfisher Bulletins and KIS-ORCA

The Kingfisher Information Service – Offshore Renewables & Cable Awareness (KIS-ORCA) project is a joint initiative between Subsea Cables UK and Renewable UK and is being managed by the Kingfisher Information Service of Seafish. Information is available in fortnightly bulletins (Kingfisher – Offshore and Marine Renewables) or downloadable from the KIS-ORCA website.

6.4.1 Notifications prior to Commencement of Construction

ICOL will ensure that details of the Development are promulgated in the Kingfisher fortnightly bulletins, at least one month in advance of, or as soon as is reasonably practicable prior to, the commencement of construction of the Development, to inform the fishing industry of vessels routes, timings, and location of the construction of the Development, and of the relevant operations.

6.4.2 Notifications During Construction

ICOL, through the MCC, will ensure that the progress of the construction of the Development is promulgated in the Kingfisher fortnightly bulletin to inform the Sea Fish Industry of the vessel routes, timings, and location of the construction activities.

Notifications to the Kingfisher fortnightly bulletin may include, for example, an overview of the Development, roles and responsibilities, method statements relevant to the scope of the work for which the notification is issued, offshore activity schedule, navigational safety procedures, advisory safety zones and any relevant drawings or other development information.

6.4.3 Notifications upon Commissioning and During Operation

ICOL will ensure that the completion of the Development is promulgated to the Kingfisher fortnightly bulletin to inform the commercial fishing industry.

ICOL will ensure notices are issued to the Kingfisher fortnightly bulletin detailing any planned or

unplanned maintenance activities that are outside the day to day maintenance carried out at the Development.

The OFTO will be responsible for KIS-ORCA notifications associated with the OfTI assets once they have been transferred to the OFTO following commissioning.

6.5 Radio Navigational Warnings

Radio navigational warnings may be issued if an activity or incident poses a danger to other marine users. Examples of when radio navigational warnings could be issued are:

- Failures to light signals, fog signals, buoys, or other AtoN;
- Establishing new AtoN;
- Cable laying activities, where a risk is posed to passing traffic;
- Other underwater operations that may constitute potential dangers in or near shipping lanes; or
- Vessels not under command or undertaking significant RAM operations.

Once details of an activity have been issued through the standard NtM process, the UKHO will then decide if the warning should be transmitted as a radio navigational warning. The UKHO will then issue the navigational warning.

In the context of radio navigational warnings, the UKHO act as the Navigation Area (NAVAREA) 1 (NEW Atlantic) Coordinator for the IMO and International Hydrographic Organisation (IHO) Worldwide Navigational Warning Service and also as the United Kingdom (UK) Coordinator for issuing coastal navigational warnings. The MCA however is the overarching body responsible for broadcasting the warnings and is the organisation responsible for charging (cost associated) to broadcast them.

For information the broadcasts are under the control of the UKHO, but tend to be made as follows:

- For vessels in NAVAREA 1, broadcasts are made through Enhanced Group Call Safety NET within 30 minutes of receiving the navigational warning or at the next scheduled broadcast (every 12 hours);
- Broadcast by Navigational Telex (Navtex) twice a day as UK Coastal Navigational Warnings by appropriate Navtex stations at each transmission time (every four hours), or upon receipt of the information if it is of a vital nature; and
- Broadcast by VHF or Medium Frequency (MF) radio selected MCA stations at the next scheduled broadcast and every 12 hours thereafter.

As per the LMP, AIS AtoNs will be installed on select periphery turbines. AIS will also be installed on

four of the five the cardinal buoys during the construction phase as has been directed by NLB. ICOL will seek relevant licences from OfCom in advance of the use of any AIS.

6.6 UK Marine Reporting Requirements

Within UK waters, all vessels are required to report any incidents to navigational safety by the quickest means possible to the Marine Accident Investigation Branch (MAIB). The MAIB has a dedicated reporting line for the purpose (+44 (0)23 8023 2527), which is staffed 24 hours a day. This includes all accidents and serious injuries. Details to be provided will include:

- Details of the incident;
- Details of the vessel(s) involved; and
- Details of personnel involved.

6.7 Other Notifications

ICOL will consult with local harbour Masters where appropriate, who may wish to issue local warnings to alert those navigating in the vicinity to the presence of the Development during the construction as per condition 3.2.2.17 of the OfTI Marine Licence.

ICOL will promulgate targeted information to local fishing and recreational sailing clubs as well as local ports and harbours. This is in line with the mitigation measures outlines in the ICOL Navigational Risk Assessment (NRA) (Anatec, 2013).

7 Location of Working Ports

The following ports are under consideration for use:

- Dundee;
- Montrose;
- Newcastle;
- Blyth; and
- Port of Leith.

In addition to the ports detailed above, other ports may be used during the construction and O&M phases, with these likely to be local to the Development. Smaller vessels such as, but not limited to, Crew Transfer Vessels (CTV), guard vessels and small workboats that will travel to and from the Development more frequently may potentially use local ports and harbours within the Firth of Forth and along the Scottish east coast.

8 Management and Coordination of Vessels

In summary, during construction, the following measures will be in place:

- An MCC will be established from where construction activities will be managed;
- Permission for construction vessels to enter the construction area and safety zones will be managed by the MCC, for example using the Permit to Work system;
- The MCC will liaise with vessels with regards to agreed routeing destinations/berth/anchorage (where applicable); Most of the anchorage areas near the Development Area sit within designated sites (SACs, SPAs, SSSIs); anchorage in these areas will only occur after prior consultation with the ICOL Environmental Lead and the MCC who will consider any seasonal constraints (e.g. last two of weeks of July and first two weeks of August) and any other specific environmental requirements that may be depending on the time of the year.
- The MCC will constantly monitor vessels and personnel via communication with vessels and AIS for any potential vessel access conflicts. The MCC will also detect and monitor unauthorised vessels;
- The MCC will define safety zones, no-go locations etc.;
- The MCC will advise vessels of seasonal constraints in place and will reinforce the use and adherence to the Scottish Marine Wildlife Watching Code (SMWWC).
- The MCC will promulgate the importance of adherence with the agreed indicative transit routes.
- The MCC will obtain and provide localised weather information for vessels working on the Development to plan the work being undertaken;
- The MCC will be the central contact point for contractors in case of an emergency, they will maintain a copy of the ERCoP; and
- Issue NtMs received from contractors after being reviewed and approved by ICOL.

All marine operations and vessel movements will be planned, giving due regard to the requirements of the VMP and NSP.

All vessels will be required to adhere to the provisions of the **Scottish Marine Wildlife Watching Code (SMWWC)** to ensure best practice during transits and when operating around marine wildlife. (The Scottish Marine Wildlife Watching Code (SMWWC) - Part 1. SNH Guidance. Available from: https://www.nature.scot/doc/scottish-marine-wildlife-watching-code-smwwc).

Bunkering is likely to be required during the construction phase. Vessel bunkering will typically be conducted at port only for vessels engaged in works associated with the Development. Offshore fuel bunkering will not be permitted unless otherwise agreed in advance by ICOL personnel including the

ICOL Environmental Lead, ECoW and Lead Marine Co-ordination. Offshore fuel bunkering if approved will be considered a contingency measure only. A Ship to Ship Transfer regulations exemption is required to conduct bunkering. This will be requested by the Principal Contractor (or their Contractor or Subcontractor) to the MCA.

During operation, similar provisions for vessel coordination will be established with marine coordination continuing from the MCC throughout O&M. The OSP maintenance and export cables repairs will be the responsibility of the OFTO following transfer of the OfTI assets. Further information on marine coordination during the operational phase will be provided, for approval, in the Operation and Maintenance Programme (OMP).

9 Types and Specifications of Vessels

This section presents details of likely vessel requirements. Where known, specific vessels are named, in other cases representative vessel types are set out. Where indicative vessel specifications are presented, these may vary depending on the typical market availability. The requirements under the Section 36 Consents and OfTI Licences (as set out in Appendix 1) to notify the Scottish Ministers/Licensing Authority of the final vessel list prior to the commencement of construction or operation works is noted in this regard.

At least five days prior to its engagement in the Licensed Activities, the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in the Works and, where applicable, the master's name, vessel type, vessel IMO number and vessel owner or operating company will be fully detailed in the Vessel Report, which will be made available on the Inch Cape Wind Offshore Limited webpage: https://www.inchcapewind.com/library/.

Any changes to the supplied details will be uploaded to the Vessel Report and the Contractor Report and the Licensing Authority will be notified, in writing, prior to any vessel, vehicle, agent, contractor or sub-contractor which has not yet been notified to the Licensing Authority engaging in the Licensed Activities. Only those vessels, vehicles, agents, contractors or sub-contractors detailed in the Vessel Report will be permitted to carry out any part of the Licensed Activities.

Vessel crews will be required to meet recognised standards and comply with the international maritime rules (as adopted by the relevant flag state) and regulations for their class and area of operation. ICOL will conduct independent vessel audits on construction vessels as necessary to check that they meet these standards and are appropriate for the purpose of their desired roles.

Vessel crews will be required to meet the requirements for the size, type and area of operation in line with Standard for Training, Certification and Watchkeeping set out by the IMO, and any site specific requirements Implemented by ICOL above minimum standards.

All vessels involved in the construction of the development will be marked and lit as per the COLREGs and in accordance with the UK Standard Marking Schedule for Offshore Installations (DECC, 2011). All of the construction vessels will be equipped with AIS receivers and transmitters.

ICOL will require that all construction vessels comply with the procedures set out in this VMP and NSP as well as other relevant consent plans such as the EMP and the LMP, and will be required to comply with these documents.

9.1 Construction Phase

The following subsections set out examples of those types of vessels that will be used during the construction works, specifically relating to:

- Foundation and jacket substructure and OSP topside installation;
- Inter-array cable installation;
- WTG installation;
- Export cable installation; and
- Construction support.

These details are also set out in the CoP and CMS documents.

9.1.1 OSP Installation

9.1.1.1 Semi-Submersible Crane Vessel

OSP Jacket, Pile and Topside will be installed by the semi-submersible crane vessel (SSCV) *Sleipnir,* for which key details are provided in Table 9-1.

Table 9-1: *Sleipnir* Key Details

Vessel Name		*Sleipnir*
Vessel Type		SSCV
Contracting Entity		Heerema Marine Contractors
Vessel Role		OSP Jacket, Pile and Topside installation
Vessel Key Characteristics	**Length**	220 m
	Breadth	102 m
	Dead Weight Tonnage (DWT)	155,702 DWT
Propulsion		12 sets of 8-megawatt (MW) generators, eight units of 5.5MW propulsion motors
Mooring/Station Keeping		DP3

9.1.1.2 *Infield Support Tug*

An infield support tug will be used to assist with offshore mooring operations prior to the lifts by the SSCV. Key details are provided in Table 9-2.

Table 9-2: Infield Support Tug

Vessel Name		TBC
Vessel Type		Tug
Contracting Entity		TBC
Vessel Role		Assist with offshore mooring operations
Vessel Key Characteristics	**Length**	72 m
	Breadth	18 m
	DWT	3142 t
Propulsion		TBC
Mooring/Station Keeping		DP1/2

9.1.1.3 *Construction Support Vessel*

As part of the installation process for the foundations there may be a need for cleaning activities to be undertaken for the piles by a Construction Support Vessel (CSV), further details are provided in Table 9-3.

Table 9-3: CSV Key Details

Vessel Name		TBC
Vessel Type		CSV
Contracting Entity		TBC
Vessel Role		Pile clearing and pile grouting
Vessel Key Characteristics	**Length**	124
	Breadth	27
	DWT	10,000
Propulsion		Main: 4 x 3,360 kW 2 x 3,500 kW thrusters 1 x 1,500 kW swing up thruster 2 x 1,500 kW tunnel thrusters
Mooring/Station Keeping		DP2

9.1.1.4 Jack-Up Vessel

A Jack Up Vessel (JUV) (to be nominated) will be used for OSP Jacket and Topside completion and hook up / commissioning works. Indicative details are provided in Table 9-4.

Table 9-4: JUV Key Details (OSP Completion, Hook Up and Commissioning)

Vessel Name		*JB-117*
Vessel Type		JUV
Contracting Entity		ICOL
Vessel Role		OSP Completion, Hook Up and Commissioning)
Vessel Key Characteristics	**Length**	75.90 m
	Breadth	40 m
	DWT	TBC
Propulsion		N/A
Mooring/Station Keeping		• Jacking up position (80 m overall leg length) • Leg diameter 3.5 m • Spudcan 47.6 m2

9.1.2 WTG Foundation Installation & WTG Installation

9.1.2.1 Heavy Lift Vessel

Up to two Heavy Lift Vessels (HLV) will be used for installation of the WTG foundation substructures (monopiles, transition pieces and jackets), key details are provided in Table 9-5. Support will be provided by an Offshore Support Vessel (OSV), or an Offshore Construction Vessel (OSC). Indicative details are provided in Table 9-6.

Table 9-5: *HLV* Key Details

Vessel Name		Seaway 7 Alfa Lift
Vessel Type		HLV
Contracting Entity		TBC
Vessel Role		WTG Foundation Installation
Vessel Key Characteristics	**Length**	244.6 m
	Breadth	56 m
	DWT	44,000 t
Propulsion		Main engine generators 4x 6,875 kW Tunnel thrusters 3x 3,200 kW Stern thrusters 3x 5,500 kW Bow azimuth thruster 1x 3,200 kW
Mooring/Station Keeping		DP2

Table 9-6: OSC / OSV Key Details

Vessel Name		TBC
Vessel Type		OSC / OSV
Contracting Entity		TBC
Vessel Role		WTG jacket pile plug removal, cleaning and grouting operations.
Vessel Key Characteristics	**Length**	130 m
	Breadth	30
	DWT	10, 000 t
Propulsion		Main engine 4 x 3,360 kW 2 x azipull thrusters Bow thruster 1 x 1,500 kW Tunnel thruster 2 x 1,500 kW
Mooring/Station Keeping		DP2

9.1.2.2 Cargo Vessels

The transport and delivery of WTG components to the Port of Dundee will be undertaken by cargo vessels.

Table 9-7: Cargo Vessel Key Details

Vessel Name		MV Bravewind
Vessel Type		Deck Cargo Ship
Contracting Entity		Vestas
Vessel Role		Transport and delivery of the WTG components
Vessel Key Characteristics	**Length**	148.5 m
	Breadth	28 m
	DWT	10,532 t
Propulsion		• 2 x 605kW bow thrusters • 1 x 370 kW stern thruster
Mooring/Station Keeping		TBC

9.1.2.3 Jack-Up Vessel

It is expected that the WTG's will be transported from the Pre-Installation Port at Dundee Port to the Inch Cape Site and installed using a jack-up vessel (JUV).

Table 9-8: JUV Key Details

Vessel Name		*TBC*
Vessel Type		JUV
Contracting Entity		Vestas
Vessel Role		WTG Installation
Vessel Key Characteristics	**Length**	183 m
	Breadth	56 m
	DWT	TBC
Propulsion		• 7 x 3,500 kW azimuth thrusters
Mooring/Station Keeping		• DP2 • Jacking up position (109m overall leg length, extendable to 82.4m below the hull)

9.1.3 Scour Protection

Pre-installed scour protection will be installed by a scour protection installation vessel, for which key details are provided in Table 9-9.

Table 9-9: Scour Protection Installation Vessel

Vessel Name		*TBC*
Vessel Type		Scour Protection Installation Vessel
Contracting Entity		TBC
Vessel Role		Installation of scour protection
Vessel Key Characteristics	**Length**	154 m
	Breadth	28 m
	DWT	TBC
Propulsion		TBC
Mooring/Station Keeping		DP3

9.1.4 Array Cable Installation

9.1.4.1 Pre-Lay Grapnel Vessel

The Pre-Lay Grapnel Run (PLGR) vessel involves dragging a grapnel or hook along the seabed of the cable route. This clears away any debris which may hinder cable installation and trenching. This work will be completed by the multi-purpose vessel *Isle of Jura*, for which key details are provided in Table 9-10.

Table 9-10: *Isle of Jura* Key Details

Vessel Name		*Isle of Jura*
Vessel Type		Multi-Purpose Vessel
Contracting Entity		Boskalis
Vessel Role		PLGR
Vessel Key Characteristics	**Length**	33 m
	Breadth	15 m
	DWT	500 t
Propulsion		Total propulsion power 2.560 kW = 3.481 BHP
Mooring/Station Keeping		DP2

9.1.4.2 Pre-lay and Post Lay Survey Vessel

A Survey Vessel will be used to conduct the pre-lay survey prior to installing the inter array cables and to survey the cables after. This work will be completed by the *Ocean Geograph*, for which details are included in Table 9-11.

Table 9-11: *Ocean Geograph* Vessel Key Details

Vessel Name		*Ocean Geograph*
Vessel Type		Survey Vessel
Contracting Entity		Boskalis
Vessel Role		Survey
Vessel Key Characteristics	**Length**	70 m
	Breadth	14.6 m
	DWT	2800 t
Propulsion		Main engines 2 Caterpillar 3612TA 2 x 3,460 kW Stern thrusters 2 x retractable RR 1,000kW ; Bow thrusters 1 x retractable RR 983 kW azimut
Mooring/Station Keeping		DP2

9.1.4.3 Cable Lay Vessel

A Cable Lay Vessel (CLV) will be used to load and install the cables on the seabed. This work will be completed by the CLV *Boka Ocean*, for which key details are provided in Table 9-12.

Table 9-12: *Boka Ocean* Key Details

Vessel Name		*Boka Ocean*
Vessel Type		CLV
Contracting Entity		Boskalis
Vessel Role		Cable Laying, trench and bury
Vessel Key Characteristics	**Length**	136.6 m
	Breadth	27 m
	DWT	TBC
Propulsion		Main engines Wärtsilä 4 x 3,360 kW 2 x RR Azimuthing pulling propellers 3,500 kW each Bow thrusters 1 x RR swing up thruster 1,500 kW 2 x RR tunnel thrusters 1,500 kW each
Mooring/Station Keeping		DP2

9.1.4.4 Walk to Work vessel

The walk to work vessel *Norside Supporter* will be used to support cable pulling, termination and testing of the cables on the WTG foundations. Key details are provided in Table 9-13.

Table 9-13: *Norside Supporter* Key Details

Vessel Name		*Norside Supporter*
Vessel Type		Walk to Work Vessel
Contracting Entity		Boskalis
Vessel Role		Support for cable pulling, termination and testing on foundations
Vessel Key Characteristics	**Length**	90 m
	Breadth	16.5 m
	DWT	TBC
Propulsion		Main engines 4xMTU 16C400M23S 4x1840kW/1750kW FWD azimuth 1x1000kW FWD tunnel thruster 2x880kW
Mooring/Station Keeping		DP2

9.1.4.5 Seabed Works Vessel

The Trenching Support Vessel *Ndeavor* will be used for the seabed works to trench and bury the subsea cables. Key details for this vessel are presented in Table 9-14.

Table 9-14: *Ndeavor* Key Details

Vessel Name		*Ndeavor*
Vessel Type		Trenching Support Vessel
Contracting Entity		Boskalis
Vessel Role		Burial of Subsea Cables
Vessel Key Characteristics	**Length**	99 m
	Breadth	30 m
	DWT	TBC
Propulsion		Main engines 7,280 kW Azimuth thrusters 2 x 1,250 kW + 2 x 1,000 kW Bow thruster 550 kW
Mooring/Station Keeping		DP2

9.1.5 Export Cable Installation

9.1.5.1 Pre-Lay Grapnel Vessel

The Pre-Lay Grapnel Run (PLGR) vessel involves dragging a grapnel or hook along the seabed of the cable route. This clears away any debris which may hinder cable installation and trenching. This work will be completed by the multi-purpose vessel *Sentosa*, for which key details are provided in Table 9-105.

Table 9-15: *Sentosa* Key Details

Vessel Name		*Sentosa*
Vessel Type		Multi-Purpose Vessel
Contracting Entity		Boskalis
Vessel Role		PLGR
Vessel Key Characteristics	**Length**	51.80 m
	Breadth	15 m
	DWT	925 t
Propulsion		Wärtsilä 8L26 2 x 3,650 bhp (2,720 kW)
Mooring/Station Keeping		DP2

9.1.5.2 Pre-Lay and Post Lay Survey Vessels

Two Survey Vessels will be used to conduct the pre-lay survey prior to installing the export cables. This work will be completed by the *Titan Endevour* (nearshore) and the *Ocean Geograph* (offshore). Details of the *Titan Endevour* are included in Table 9-6.

Table 9-16: *Titan Endevour* Key Details

Vessel Name		*Titan Endevour*
Vessel Type		Powerglide 46 Catamaran
Contracting Entity		Boskalis
Vessel Role		Nearshore pre-lay survey
Vessel Key Characteristics	**Length**	14.1 m
	Breadth	5 m
	DWT	TBC
Propulsion		Twin 450hp IVECO diesel engines, 2x marinized diesel 6kW Lombardini generator
Mooring/Station Keeping		Anchor

9.1.5.3 Cable Lay Vessel

A Cable Lay Vessel (CLV) will be used to load and surface lay the cables on the seabed. This work will be completed by the CLV *Ndurance*, for which key details are provided in Table 9-7.

Table 9-117: *Ndurance* Key Details

Vessel Name		*Ndurance*
Vessel Type		CLV
Contracting Entity		Boskalis
Vessel Role		Cable Laying
Vessel Key Characteristics	**Length**	99 m
	Breadth	30 m
	DWT	TBC
Propulsion		Main engines 7,280 kW Azimuth thrusters 2 x 1,250 kW + 2 x 1,000 kW Bow thruster: 1 x 550 kW
Mooring/Station Keeping		6 point mooring system / DP2

9.1.5.4 Anchor Handling Tugs

Two Anchor handling Tugs (AHT) will be used to relocate the anchors of the cable lay vessel while working on the nearshore .This work will be completed by the *AHT Forth Warrior* and the Multipurpose Vessel *Sentosa*. Key details for the *Forth Warrior* are provided in Table 9-8.

Table 9-128*: Forth Warrior* Key Details

Vessel Name		*Forth Warrior*
Vessel Type		Multi-Purpose Vessel
Contracting Entity		Boskalis
Vessel Role		PLGR Nearshore / Anchor handling tug for nearshore cable installation
Vessel Key Characteristics	**Length**	27.27 m
	Breadth	11.50 m
	DWT	TBC
Propulsion		2 x Caterpillar C32 TTA
Mooring/Station Keeping		4 x Dromec 15T SWL mooring winch

9.1.5.5 Seabed Works Vessels

The *EDT Hercules* will be used for seabed mattress installation at the cable and gas pipe crossings and to protect the export cable joint locations. Key details for this vessel are presented in Table 9-9.

Table 9-19: *EDT Hercules* Key Details

Vessel Name		*EDT Hercules*
Vessel Type		Multipurpose
Contracting Entity		Boskalis
Vessel Role		Seabed mattress installation
Vessel Key Characteristics	**Length**	88.8 m
	Breadth	19 m
	DWT	3625.2 t
Propulsion		Main Engines—Generators 4 x Wartsila 9L20 Main Propellers 2 x Schottel SCD 2020 Azimuth @ 2,500 kW each Auxiliary Generators 2 x Cummins 300 ekW each Bow Thrusters 1 x Brunvoll Tunnel @ 1,200 kW 1 x Brunvoll Retractable Azimuth @ 850 kW
Mooring/Station Keeping		DP2

The *Rockpiper* will be used for seabed rock protection installation. Key details for this vessel are presented in Table 9-.

Table 9-20: *Rockpiper* Key Details

Vessel Name		*Rockpiper*
Vessel Type		Rock installation
Contracting Entity		Boskalis
Vessel Role		Rock protection installation
Vessel Key Characteristics	**Length**	158 m
	Breadth	36 m
	DWT	TBC
Propulsion		Main engines 3 x 4,500 kW (3x main generator sets) Main propellers 2 x 4,500 kW (2x azimuth thrusters) Azimuth thrusters 2 x 1,500 kW (2x retractable thrusters) Bow thruster 1 x 1,000 kW 7,000 kW 2 x 1,250 kW + 2 x 1,000 kW
Mooring/Station Keeping		DP2

9.1.5.6 Vessels supporting export cable installation at landfall and nearshore

The export cable installation at landfall and nearshore will be conducted using smaller vessels. The following vessels or similar will be used:

Table 9-13: Cable installation landfall and nearshore vessels details

Specification	Workboat cable burial	Tugboat	Workboat cable installation support	Crew Transfer	Safety Boat
Vessel Name	Haven Seajack	Coastworker	Coastbuster	Coastworks	N/A
Vessel Type	Jack up barge	Tug	Workboat	RIB	Safety Boat
Contracting Entity	Charles Brand	Charles Brand	Charles Brand	Charles Brand	Charles Brand
Length	18.30 m	19.5 m	21.5 m	10.6 m	5.5 m
Breath	18.30 m	6 m	7.8 m	2.5 m	2 m

9.1.6 Other Supporting Vessels

9.1.6.1 Crew Transfer Vessels

CTVs will be used during the construction phase to aid the transfer of equipment and personnel between shore and the offshore works. Support will be provided to a number of activities including inter array cable installation, export cable installation and foundation installation, WTG commissioning and OSP topside commissioning. Key details for an example CTV, are provided in Table 9-2.

Table 9-22: Windcat Key Details

Vessel Name		*TBC*
Vessel Type		CTV
Contracting Entity		TBC
Vessel Role		Crew Transfer
Vessel Key Characteristics	**Length**	22 m
	Breadth	6.5 m
	DWT	TBC
	Max Speed	26 knots
Mooring/Station Keeping		Anchor

9.1.6.2 Transport Vessels

Barges and tugs will be used to assist with the transportation of the OSP jacket and topside from shore to the Development.

The tug contracted for the OSP transportation is the *XXX*, for which further details are provided in Table 9-1423.

Table 9-14: Key Details

Vessel Name		*H407* (barge) Tug TBC
Vessel Type		Barge and Tug
Contracting Entity		Heerema Marine Contractors
Vessel Role		OSP jacket and Topside transportation
Vessel Key Characteristics	**Length**	Barge: 122 m Tug: TBC
	Breadth	Barge: 36.6 m Tug: TBC
	Dead Weight Tonnage (DWT)	Barge: XXX Tug: TBC
Propulsion		Barge: N/A Tug: TBC
Mooring/Station Keeping		Barge: N/A Tug: TBC

9.1.6.3 *Service Operations Vessel*

A Service Operations Vessel (SOV) based out of Dundee will be used to commission and test the WTGs.

The Acta Centaurus or similar type of vessel will be contracted for SOV work. Details are provided in Table 9-1524.

Table 9-15: Acta Centaurus Key Details

Vessel Name		*Acta Centaurus*
Vessel Type		SOV
Contracting Entity		Vestas
Vessel Role		Commissioning and Testing of WTGs
Vessel Key Characteristics	**Length**	93 m
	Breadth	18 m
	DWT	3.175 t
Propulsion		2x Stern thrusters each 1.500 kW @ 0 - 1.200 rpm 1x Bow thruster (tunnel thruster) 1040 kW @ 1.200 rpm 2x Bow thrusters (swing-up thruster) each 880 kW @ 1.800 rpm
Mooring/Station Keeping		DP2

9.1.6.4 *Other Vessels*

Guard vessels will be located on the export cable route and on the windfarm site during all construction activities to provide information to third party vessels in proximity and monitor any active safety zones.

9.2 O&M Phase

Vessels which may be required during the O&M phase are similar to those considered for the construction phase, including an SOV, CTV and JUV.

10 Numbers and Movements of Vessels

10.1 Construction Vessels

The number of vessels within the Development at any one time will vary over the course of the construction period, with peaks in vessel activity reflecting the timing of major installation works.

For each vessel type predicted to be entering the Development, Table 10-1 presents the indicative number of vessels involved in construction, the main construction activities they will be involved in, and the anticipated number of return journeys they will make (where this information is available). One return journey equates to a vessel transiting to the Development and returning to port once. It should be noted that the number of transits given is a best estimate based on the available information at the time of writing, and the actual numbers may differ during the construction phase.

Table 10-1: Indicative Construction Vessel Number, Key Construction Activities and Return Journeys

Vessel Type	Anticipated Total Number	Key Construction Activities	Approximate Number of Return Journeys to Port
SSCV	1	OSP Jacket, Pile and Topside installation	2
HLV	1	Jacket Installation	20
HLV	1	Monopile	11
CSV	1	Pile Installation and Jacket Installation	20
CSV	1	Grouting	15
CSV	1	Scour Protection	10
JUV	1	WTG Installation	18
JUV	1	OSP completion, hookup and commissioning	0

Vessel Type	Anticipated Total Number	Key Construction Activities	Approximate Number of Return Journeys to Port
Multi-purpose Vessel	2	PLGR	12
Survey vessels	3	Pre-lay and post lay surveys	20
CLV	2	Cable Laying	8
CSV	1	Walk to Work cables	15
Seabed Works Vessel	2	Subsea Cable Burial	15
CSV	1	Mattress Installation	3
Seabed Works Vessel	1	Subsea Rock Installation	15
CTV	TBC	Crew Transfer	Daily
Tug and Barge	1	OSP Jacket and Topside Transportation	1
Tug	1	Support of OSP barge mooring operations	1
Guard Vessel	5	Guard Duties	Twice per month
SOV	1	Commissioning and Testing of WTGs	Twice Per Month

10.2 O&M Vessels

The number of vessels within the Development during the O&M phase of the Development at any one time will vary over the operational period, with peaks in vessel activity reflecting the timing of major

maintenance works. Consequently, it is not possible at this time to provide numbers of vessel movements during the O&M of the Development. Table 10-2 presents the vessels involved in O&M activities, the anticipated number of trips and return journeys they will make (where this information is available).

Table 10-2: Indicative O&M Vessel Type and Journey Information

O&M Activities	Anticipated Total Number	Vessels Required	Trips to Port	Number of Annual Transits
Ongoing scheduled and unscheduled maintenance activities	1	SOV	Twice per month	24
Ongoing scheduled and unscheduled maintenance activities	2	CTV	Every day	600
Major component exchange activities	TBC	JUV	TBC	TBC

11 Transit Route Corridors

As per Condition 15 of the Section 36 Consent conditions, indicative transit corridor routes for project vessels have been defined. The establishment of these agreed indicative transit route corridors will reduce the impacts of construction vessel movements on the local fishing industry and will promote a sustainable co-existence during the construction / commissioning phase of the project. However, requirements for site vessels to comply with COLREGS (IMO, 1972) shall remain the key navigational priority at all times. On this basis it should be noted that these indicative routes are not intended to be prescriptive for the purposes of navigation and will not be followed precisely by every vessel. All vessels shall passage plan as per the International Convention for the Safety of Life at Sea (SOLAS) (IMO, 1974). The indicative transit routes identified can be expected to be used when possible by the larger vessels involved in the construction phase, however vessels may deviate from these indicative routes for a variety of reasons at the discretion of the vessel's Master, for example due to:

- Compliance with COLREGS (IMO, 1972) or SOLAS (IMO, 1974);
- Prevailing weather, tidal or sea state conditions;
- Navigational hazards as indicated on charts or notified through NtM or other such sources;
- Due to the vessel originating from or being bound for a destination not indicated by the transit routes;
- Advice from the MCC or other responsible persons in charge of coordinating and managing construction vessel traffic; and
- Such other reasons as the Master of a vessel may deem relevant for the purposes of ensuring the safety of his vessel or another vessel.

In the event that the master of a vessel decides that there is a need to deviate from the established transit corridors the MCC will be informed as soon as practicable.

All vessels will be required to adhere to the provisions of the **Scottish Marine Wildlife Watching Code (SMWWC)** to ensure best practice during transits and when operating around marine wildlife. (The Scottish Marine Wildlife Watching Code (SMWWC) - Part 1. SNH Guidance. Available from: https://www.nature.scot/doc/scottish-marine-wildlife-watching-code-smwwc).

The indicative transit corridors for the major construction vessels between the Development and other relevant ports directions are presented in Figure 11.1. As some construction ports are still to be confirmed, the vessel routeing has been based on the scenario that a construction vessel may come from a port located north, west or south of the Development. Further details on the routeing presented are discussed below:

- **Dundee** – therefore a route from the west of the site has been included;

- **Montrose** is being used as a base port for CTVs – therefore a route from the north west of the site has been included;
- **Newcastle** and **Blyth -** therefore a route from the south of the site has been included;
- A route from the north has also been included in case transits from Aberdeen occur.

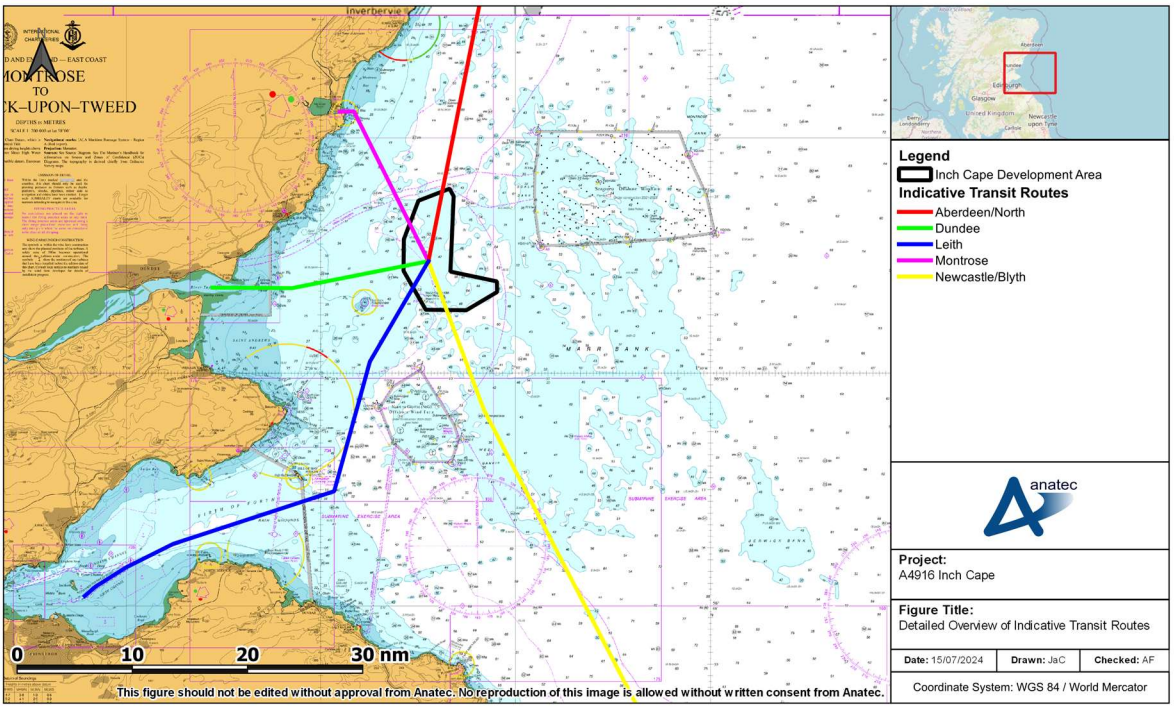

Figure 11.1: Indicative Transit Routes

The indicative transit routes will be reviewed throughout the lifetime of the project, in consultation between The Development and the fishing industry to ensure they continue to avoid areas of intense fishing activity.

12 Anchoring Areas

Figure 12.1 shows the locations of known anchorage areas in the vicinity of the Development based upon Admiralty Sailing Directions North Sea (West) Pilot (UKHO, 2021) and local UKHO Admiralty Charts. Details pertaining to the anchorage areas noted in the Pilot Book are provided in Table 12-1.

Anchoring is at the discretion of the vessel Master but can be in conjunction with information provided by the MCC or port authorities where relevant; however standard marine practice requires that when a vessel proceeds to anchor, consideration is given to:

- Water depth;
- Seabed type and charted hazards included cables / pipelines;
- Weather and tidal information including current and predicted weather;
- Avoidance of prohibited anchorage areas;
- Consideration of other anchored vessels;
- Avoidance of known areas of other marine activity such as fishing or recreational boating; and
- Avoidance of main commercial routes, pilot boarding areas or other navigational features such as spoil grounds or subsea cables.

All vessels associated with the Development will take the above into consideration prior to anchoring as per standard marine practice. Construction and O&M vessels requiring anchorage within the Development Area will request permission to do so from the MCC. Most of the anchorage areas sit within designated sites (SACs, SPAs, SSSIs); anchorage in these areas will only occur after prior consultation with the ICOL Environmental Lead and the MCC who will consider any seasonal constraints (e.g. last two of weeks of July and first two weeks of August) and any other specific environmental requirements that may be depending on the time of the year.

Table 12-1: Summary of Anchorage Areas in the Proximity of The Development

Anchor Number	Anchorage Name	Description
1	Stonehaven Bay	Anchorage may be obtained in Stonehaven Bay, in depths of 11 m with good holding ground.
2	Scurdie Ness	Anchorage is available 1.47 nm East of Scurdie Ness in depths of 24 m.

Anchor Number	Anchorage Name	Description
3	Lunan Bay	Lunan Bay is sandy and free from dangers, apart from rocky ledges off Bobbin Point and Red Head. There is a good anchorage in the bay in depths of 14 m. Small craft can anchor in Ethie Haven which lies in the south west corner of Lunan Bay.
4	Fairway Light Buoy	Anchorage in a depth of about 20 m is available in the vicinity of the Fairway Light Buoy.
5	Tay Bridge	An anchorage area is located 2 nm south west of the Tay Bridge.
6	Methil Anchorage	Five anchorage berths are situated south east of Methil and are allocated by Vessel Traffic Service (VTS). There is also an anchorage for small vessels closer inshore.
7	Kirkcaldy Anchorage	There are nine anchor berths for vessels off Kirkcaldy and are allocated by VTS. There is also an anchorage area for small vessels in Kirkcaldy Bay.
8	Aberlady Bay Anchorage	There are ten anchorage berths off Aberlady Bay on the south side of the estuary which are allocated by VTS.
9	Largo Bay Anchorage	A small vessel anchorage is available in Largo Bay and provides some shelter in gales from the east. A recommended berth in a depth of 11 m is located four miles west of Elie Ness with the Ness open south of Chapel Ness.
10	Cockenzie Anchorage	An anchorage for small vessels is situated west of Cockenzie in depths of 8 m.

Anchor Number	Anchorage Name	Description
11	Fisherrow and Musselburgh Harbour	Vessels may anchor in a depth of about 5 m on a mud bottom.
12	Leith Road	There are three designated anchorage berths in Leith Road and a small anchorage to the north of Granton. However, these anchorages lie within the area of compulsory pilot.
13	Granton Harbour	There is an anchorage for small vessels 0.9 nm north of the harbour entrance. Anchoring is prohibited within 2.5 cables of the harbour entrance.
14	Inchkeith Small Vessel Anchorage	There is a VTS controlled anchorage for small vessels five cables east of the island.
15	Burntisland Road	There are three designated anchorage berths in Burntisland Road which is situated between the port of Burntisland and the Forth Deep Water Channel and are allocated by VTS.
16	Hound Point Anchorage	Two anchor berths (uncharted) for cruise vessels lie five cables downstream of Forth Railway Bridge.
17	Rosyth	Four anchor berths lie in the fairway south west of Rosyth.
18	Eyemouth Outer Anchorage	An anchorage shown on the chart is available in depths of 5 m in the bay to the south west of the Hurkars.
19	Coldingham Bay	Anchorage may be obtained in Coldingham Bay four cables south of Saint Abb's Boat Harbour.

Please note that all the designated areas shown on Figure 12.1 have not been included in the table above.

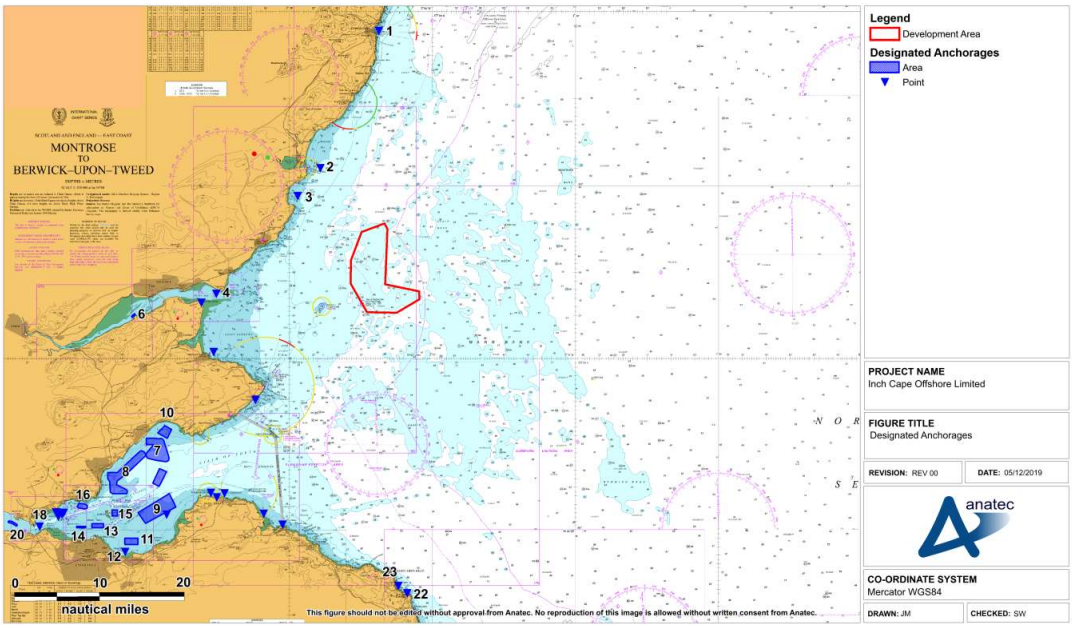

Figure 12.1: Designated Anchorages in the Vicinity of The Development

12.1 Anchoring Areas to be Avoided

According to the Pilot Book, anchoring is prohibited in a number of areas listed below:

- In the vicinity of submarine cables crossing the River Tay west of the Tayport High Lighthouse and the submarine gas pipeline which runs north northeast across the river from Tentsmuir Point. The landing places of the pipeline are marked by light beacons.
- Off Dundee Harbour which is indicated on the relevant charts.
- One mile either side of the submarine gas pipeline which crosses the Firth of Forth from the north coast at the east side of Largo Bay to the south coast just southwest of Eyebroughy.
- Between Charlestown and the Blackness on the south bank where gas pipelines and submarine cables cross the river. Two light beacons standing west of Charlestown indicate the line of one of the pipelines.
- An area between Bo'ness and low Torry on the north bank where a crude oil pipeline crosses the river.

The consultation undertaken to date has not indicated the need for any specific areas to be avoided by construction vessels when anchoring; operational experience may, however, identify such areas and where this is the case such areas will be communicated to all relevant vessels engaged in construction or O&M activity.

13 Compliance with MGN 654

The Section 36 Consent and the OfTI Licences set out in Appendix 1 require ICOL to demonstrate the VMP and NSP has adequately addressed all of the recommendations of MGN 654 and its annexes that may be relevant to the Development, or any other relevant document which may supersede said guidance prior to the approval of the VMP and NSP.

MGN 654 has therefore been reviewed and all appropriate recommendations (at this pre-construction stage of the Development) have been identified. In each case it has been indicated where each of these recommendations has been addressed within this VMP and NSP document (or other relevant consent plans) for the development.

The requirements and where they have been addressed are set out in Table 13-1, following the structure of the MGN 654 Checklist.

Table 13-1: MGN 654 Checklist Elements Relevant to the VMP and NSP

MGN Section	Checklist	Where Addressed in this report
4.5 Site and Installation Co- ordinates.	Developers are responsible for ensuring that formally agreed co-ordinates and subsequent variations of site perimeters and individual OREI structures are made available, on request, to interested parties at relevant project stages, including application for consent, development, array variation, operation and decommissioning. This should be supplied as authoritative Geographical Information System (GIS) data, preferably in Environmental Systems Research Institute (ESRI) format. Metadata should facilitate the identification of the data creator, its date and purpose, and the geodetic datum used. For mariners' use, appropriate data should also be provided with latitude and longitude coordinates in World Geodetic System 1984 (WGS84) (European Terrestrial Reference System 1989 (ETRS89)) datum.	Section 6 details how information will be promulgated. The ERCoP (see Section 4.8) will also describe the procedures for communication of structure positions in the event of an emergency.

MGN Section	Checklist	Where Addressed in this report
4.10 Assessment of Access to and Navigation Within, or Close to, an OREI	It should be determined to what extent navigation would be feasible within or near to the OREI site itself by assessing whether: a. Navigation within and /or near the site would be safe: i. for all vessels, or ii. for specified vessel types, operations and/or sizes. iii. in all directions or areas, or iv. in specified directions or areas. v. in specified tidal, weather or other conditions. b. Navigation in and/or near the site should be prohibited or restricted: i. for specified vessels types, operations and/or sizes, ii. in respect of specific activities, iii. in all areas or directions, or iv. in specified areas or directions, or v. in specified tidal or weather conditions, or simply vi. recommended to be avoided c. Where it is not feasible for vessels to access or navigate through the site it could cause navigational, safety or routeing problems for vessels operating in the area e.g. by preventing vessels from responding to calls for assistance from persons in distress d. Guidance on the calculation of safe distance of OREI boundaries from shipping routes has been considered	Navigational safety risk has been assessed within the Inch Cape Environmental Statement (2013) and the Revised Design EIA Report (2018). These were informed by a Navigation Risk Assessment.
4.11 Search and rescue (SAR), maritime assistance service, counter pollution and salvage incident response.	a. An ERCoP will be developed for the construction, operation and decommissioning phases of the OREI. b. The MCA's guidance document Offshore Renewable Energy Installation: Requirements, Advice and Guidance for Search and Rescue and Emergency Response for the design, equipment and operation requirements will be followed.	See Sections 4.8 and 5.6. ICOL will be MGN 654 compliant including in terms of creating a SAR checklist.

MGN Section	Checklist	Where Addressed in this report
	c. A SAR checklist will be completed to record discussions regarding the requirements, recommendations and considerations outlined in the above document (to be agreed with MCA)	
4.12 Hydrography	In order to establish a baseline, confirm the safe navigable depth, monitor seabed mobility and to identify underwater hazards, detailed and accurate hydrographic surveys are included or acknowledged for the following stages and to MCA specifications: I. Pre-construction: The proposed generating assets area and proposed cable route II. On a pre-established periodicity during the life of the development Post-construction: Cable route(s) III. Post-decommissioning of all or part of the development: the installed generating assets area and cable route	ICOL will be MGN 654 compliant including in terms of hydrographic requirements.
4.14 Risk mitigation measures recommended for OREI during construction, operation and decommissioning.	Promulgation of information and warnings through notices to mariners and other appropriate maritime safety information (MSI) dissemination methods.	Section 6 details how information will be promulgated.
	Continuous watch by multi-channel VHF, including Digital Selective Calling (DSC).	See Section 8.
	Safety zones of appropriate configuration, extent and application to specified vessels.	See Sections 4.4 and 5.3
	Provision of AtoN as determined by the General Lighthouse	See Sections 4.1

MGN Section	Checklist	Where Addressed in this report
	Authority (GLA).	and 5.2.
	Monitoring by radar, AIS, CCTV or other agreed means.	Associated requirements to be agreed as part of the SAR checklist process.
	Appropriate means for OREI operators to notify, and provide evidence of, the infringement of safety zones.	See Sections 4.4 and 5.3.
	Creation of an ERCoP with the MCA's Search and Rescue Branch for the construction phase onwards.	See Sections 4.8 and 5.6.
	Use of guard vessels, where appropriate	See Section 4.3.

14 References

DECC (2011). Standard Marking Schedule for Offshore Installations. London: DECC (now BEIS).

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ICOL (2018). Inch Cape Offshore Wind Farm (Revised Design) EIA Report. Edinburgh: ICOL.

IMO (1972). Convention on International Regulations for the Prevention of Collisions at Sea. London: IMO.

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UKHO (2021). Admiralty Sailing Directions North Sea (West) Pilot. Taunton: UKHO.

UKHO (2018). Symbols and Abbreviations used on ADMIRALTY Paper Charts NP5011. 7th Edition. Taunton: UKHO.

Appendix 1 Consent Conditions to be discharged by this document

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
Section 36	Condition 15	The Company must, no later than six months prior to the Commencement of The Development, submit a VMP, in writing, to the Scottish Ministers for their written approval.	This document sets out the VMP for written approval by the Scottish Ministers.
		Such approval may only be granted following consultation by the Scottish Ministers with Scottish National Heritage (SNH), Whale and Dolphin Conservation (WDC), Forth Ports (FP), Maritime and Coastguard Agency (MCA), Northern Lighthouse Board (NLB), Scottish Fishermen's Federation (SFF) and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers.	Consultation to be undertaken by the Scottish Ministers.
		The VMP must include, but not be limited to, the following details: a. The number, types and specification of vessels required; b. How vessel management will be coordinated, particularly during construction but also during operation; and c. Location of working port(s), the route of passage, how often vessels will be required to transit between port(s) and the site and indicative vessel transit corridors proposed to be used during construction and operation of The Development.	The number, types and specifications of vessels required are outlined in Section 9 and Section 10. Vessel management coordination is outlined in Section 8. Location of working ports is outlined in Section 7, frequency of vessel movements is outlined in Sec are outlined in Section 11.
		The confirmed individual vessel details must be notified to the Scottish Ministers in writing no later than 14 days prior to the Commencement of The Development, and thereafter, any changes to the details supplied must be notified to the Scottish Ministers, as soon as practicable, prior to any such change being implemented in the construction or operation of The Development.	Individual vessel details known at this stage are outlined in Section 9. Confirmed vessel details will timelines.
		The VMP must, so far as is reasonably practicable, be consistent with the Construction Method Statement (CMS), the Environmental Management Plan (EMP), the PEMP, the NSP, and the LMP.	Linkages with other documents are outlined in Section 1.3.
		The Company must, no later than six months prior to the Commencement of The Development, submit an NSP, in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with MCA, NLB and any other navigational advisors or organisations as may be required at the discretion of the Scottish Ministers.	This document sets out the NSP for written approval by the Scottish Ministers.
	Condition 17	The NSP must include, but not be limited to, the following issues: a. Navigational safety measures; b. Construction exclusion zones; c. Notice(s) to mariners and radio navigation warnings; d. Anchoring areas; e. Temporary construction lighting and marking; and f. Buoyage.	Navigational safety measures are outlined in Section 4 and Section 5. Construction safety zones are outlined in Section 4.4. Promulgation of information is outlined in Section 6. Temporary construction lighting and marking including buoyage is outlined in Section 4.1.
		The company must confirm within the NSP that they have taken into account and adequately addressed all of the recommendations of the MCA in the current Marine Guidance Note (MGN) 543 (MCA, 2016), and its annexes that may be appropriate to The Development, or any other relevant document which may supersede this guidance prior to approval of the NSP.	Compliance with MGN 654 (superseded MGN 543 in 2016) is outlined in Section 13.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
MS-00010140 Marine Licence Generating Station	Condition 27	Prior to the Commencement of the Development, the Company must at its own expense, and with the approval of the Scottish Ministers in consultation with SNH, appoint an independent Environmental Clerk of Works ("ECoW"). The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this consent to Scottish Ministers, in sufficient time for any preconstruction monitoring requirements, and remain in post until agreed by the Scottish Ministers. The terms of appointment must also be approved by the Scottish Ministers in consultation with SNH. The terms of the appointment must include, but not be limited to: a. Quality assurance of final draft versions of all plans and programmes required under this consent; b. Responsible for the monitoring and reporting of compliance with the consent conditions and the environmental mitigation measures for all wind farm infrastructure; c. Provision of on-going advice and guidance to the Company in relation to achieving compliance with consent conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP; d. Provision of reports on point b & c above to the Scottish Ministers at timescales to be determined by the Scottish Ministers; e. Induction and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops and keeping a record of these; f. Monitoring that the Development is being constructed in accordance with the plans and this consent, the Application and in compliance with all relevant regulations and legislation; g. Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to the Scottish Ministers; and h. Agreement of a communication strategy with the Scottish Ministers.	An ECoW has been appointed.
	Condition 3.2.2.12	The Licensee must, no later than six months prior to the Commencement of the Works, submit a VMP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted.	This document sets out the VMP for written approval by the Scottish Ministers.
		Such approval may only be granted following consultation by the Licensing Authority with SNH, WDC, FP, MCA, NLB, SFF and any other advisors or organisations as may be required at the discretion of the Licensing Authority.	Consultation to be undertaken by the Scottish Ministers.
		The VMP must include, but not be limited to, the following details: a. The number, types and specification of vessels required; b. How vessel management will be coordinated, particularly during construction but also during operation; and c. Location of working port(s), the routes of passage, how often the vessels will be required to transit between port(s) and the site and indicative vessel transit corridors proposed to be used during construction and operation of the Works.	The number, types and specifications of vessels required are outlined in Section 9 and Section 10. Vessel management coordination is outlined in Section 8. Location of working ports is outlined in Section 7, frequency of vessel movements is outlined in Se ; are outlined in Section 11.
		The confirmed individual vessel details must be notified to the Licensing Authority in writing no later than 14 days prior to the Commencement of the Works, and thereafter, any changes to the details supplied must be notified to the Licensing Authority, as soon as practicable, prior to any such change being implemented in the construction or operation of the Works.	Individual vessel details are outlined in Section 9. Confirmed vessel details will be provided separa
		The VMP must, so far as is reasonably practicable, be consistent with the CMS, the EMP, a PEMP and NSP, and an LMP.	Linkages with other documents are outlined in Section 1.3.
	Condition 3.2.2.14	The Licensee must, no later than six months prior to the Commencement of the Works, submit an NSP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted.	This document sets out the NSP for written approval by the Scottish Ministers.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
		Such approval may only be granted following consultation by the Licensing Authority with MCA, NLB and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority.	Consultation to be undertaken by the Scottish Ministers.
		The NSP must include, but not be limited to, the following issues: a. Navigational safety measures; b. Construction exclusion zones; c. Notice(s) to mariners and radio navigation warnings; d. Anchoring areas; e. Temporary construction lighting and marking; and f. Buoyage.	Navigational safety measures are outlined in Section 4 and Section 5. Construction safety zones are outlined in Section 4.4. Promulgation of information is outlined in Section 6. Temporary construction lighting and marking including buoyage is outlined in Section 4.1.
		The licensee must confirm within the NSP that they have taken into account and adequately addressed all of the recommendations of the MCA in the current MGN 543, and its annexes that may be appropriate to the Works, or any other relevant document which may supersede this guidance prior to approval of the NSP.	Compliance with MGN 654 (superseded MGN 543 in 2016) is outlined in Section 13.
	Condition 3.2.2.15	The Licensee must, no later than six months prior to the Commencement of the Works, submit an Emergency Response Cooperation Plan (ERCoP) for the construction, operation, maintenance and decommissioning phases of the Works in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted. Such approval may only be granted following consultation by the Licensing Authority with the MCA and the NLB and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority. The ERCoP should follow the MCA template and guidance. The ERCoP must be developed in discussion with the MCA and be in accordance with condition 18 of the Section 36 consent."	See Sections 4.8 and 5.6.
	Condition 3.2.2.18	The Licensee must, no later than one calendar month prior to Commencement of the Works, notify the UKHO of the proposed works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system. The Licensee must, no later than one calendar month prior to the Commencement of the Works and following confirmation of the approved DSLP by the Licensing Authority (refer to condition 3.2.2.9), provide the positions and maximum heights of any WTGs and construction equipment to the UKHO, for nautical charting purposes, and to the DGC, for aviation purposes. The Licensee must, no later than one calendar month prior to Commencement of the Works, ensure that local mariner's organisations and local fishermen's organisations and HM Coastguard are made fully aware of the Works through local Notice to Mariners or by any other appropriate means.	The UKHO, DGC, local fishermen's organisations and HM Coastguard will be notified as per Secti
		The Licensee must ensure that details of the Licensed Activities are promulgated in the Kingfisher Fortnightly Bulletin, no later than one calendar month prior to the Commencement of the Works to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.	Details will be promulgated in the Kingfisher Fortnightly Bulletin as per Section 6.4.
		The Licensee must, no later than eight weeks prior to the Commencement of the Works, complete an "Application for Statutory Sanction to Alter/Exhibit" form and submit this to the NLB for the necessary sanction to be granted.	Statutory sanction will be applied for as per Section 4.1.
	Condition 3.2.2.24	Prior to the Commencement of the Works, the Licensee must, at its own expense, and with the approval of the Licensing Authority in consultation with SNH, appoint an independent EcoW. The EcoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this licence to the Licensing Authority, in sufficient time for any pre-construction monitoring requirements, and remain in post until agreed by the Licensing Authority. The terms of appointment must also be approved by the Licensing Authority in consultation with	An EcoW has been appointed.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
		SNH. The terms of the appointment must include, but not be limited to: a. Quality assurance of final draft versions of all plans and programmes required under this licence; b. Responsible for the monitoring and reporting of compliance with the licence conditions and the environmental mitigation measures for the Works authorised by this licence; c. Provision of on-going advice and guidance to the Licensee in relation to achieving compliance with licence conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP; d. Provision of reports on point b & c above to the Licensing Authority at timescales to be determined by the Licensing Authority; e. Induction and toolbox talks to onsite construction teams on environmental policy and procedures including temporary stops and keeping a record of these; f. Monitoring that the Works are being constructed in accordance with the plans and this licence, the Application and in compliance with all relevant regulations and legislation; g. Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to the Licensing Authority; and h. Agreement of a communication strategy with the Licensing Authority.	
		The Licensee must notify the UKHO of the progress of the construction of the Works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system.	The UKHO will be updated on progress as per Section 6.1.1.
		The Licensee must ensure that progress of the Works is promulgated regularly in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.	Details will be promulgated in the Kingfisher Fortnightly Bulletin as per Section 6.4.
	Condition 3.2.3.2	The Licensee must in the case of damage to, or destruction or decay of, the Works, notify the Licensing Authority, in writing, as soon as reasonably practicable, following such damage, destruction or decay. The Licensee must carry out any remedial action as required by the Licensing Authority, following consultation with the MCA, the NLB or any such advisers as required by the licensing Authority.	The Licensing Authority will be notified of any damage to, destruction or decay of, the Works will n bly practicable following the damage, destruction or decay as per Sections 4.9 and 5.7.
		The Licensee must ensure that any vessels permitted to engage in the construction of the Works are marked in accordance with the International Rules for the Prevention of Collisions at Sea whilst under way, and in accordance with the UK Standard Marking Schedule for Offshore Installations if the vessel is secured to the seabed.	All vessels involved in the construction of the development will be marked and lit as per the COLRt dard Marking Schedule for Offshore Installations as per Section 9.
		The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of Ofcom.	See Section .4.2.
		The Licensee must ensure that navigable depth is not altered by more than 5% referenced to Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCA and NLB.	See Section 4.6.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
		The Licensee must notify the UKHO of the Completion of the Works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system. The Licensee must, within one mont" of the Completion of the Works, provide the "as-built" positions and maximum heights of all WTG, along with any sub-sea infrastructure, to the UKHO for aviation and nautical charting purposes.	The UKHO will be notified of the Completion of the Works as per Section 6.1.3.
		The Licensee must, as per the requirements of the MCA's MGN 543 and supplementary updates, complete post-installation hydrographic surveys of the Site or subsections thereof, to the IHO Order 1a survey standard. On completion of these surveys, the data and a corresponding report of survey must be supplied to the UKHO, with notification to the MCA hydrography manager and the Licensing Authority.	As per Section 13, ICOL will undertake hydrographic surveys as per MGN 654 (MCA, 2021), whicl
	Condition 3.2.4.4	The Licensee must ensure that local mariners, fishermen's organisations and HM Coastguard, in this case the National Maritime Coastguard Centre are made fully aware of the Completion of the Works.	See Section 6.1.2.
		The Licensee must ensure that the Completion of the Works is promulgated in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry.	See Section 6.4.3.
		The Licensee must, where any damage, destruction or decay is caused to the Works, notify the Licensing Authority, in writing, of such damage, destruction or decay as soon as reasonably practicable following such damage, destruction or decay. The Licensee must carry out any remedial action which the Licensing Authority advises the Licensee, in writing, as requiring to be taken, which may include a requirement to display aids to navigation, following consultation by the Licensing Authority with the MCA, the NLB or any such advisers as required.	The Licensing Authority will be notified of any damage to, destruction or decay of, the Works will n bly practicable following the damage, destruction or decay as per Sections 4.9 and 5.7.
		The Licensee must ensure that the WTG are actively monitored during the operation and maintenance phases. The Licensee must ensure that a contingency plan is in place to respond to any reported catastrophic failures which may result in the WTG, or part(s) thereof, breaking loose and becoming a buoyant hazard. This contingency plan should include the transmission of local radio navigation warnings.	Emergency responses plans and procedures will be detailed in the ERCoP (see Sections 4.8 and
		The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of the Ofcom.	See Section 4.2.
		The Licensee must not exhibit, alter or discontinue navigational lighting of the Works without the statutory sanction of the Commissioners of Northern Lighthouses. An 'Application for Statutory Sanction to Exhibit/Discontinue' form must be completed by the Licensee as fully as possible and returned to the NLB for the necessary sanction to be granted prior to exhibiting, altering or discontinuing navigational lighting.	Statutory Sanction will be sought where needed as per Sections 4.1 and 5.2.
MS-00010593 Marine	Condition 3.1.3	The Licensee must ensure that at least five days prior to its engagement in the Licensed Activities, the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in the Works and, where applicable, the master's name, vessel type, vessel IMO number and vessel owner or operating company are fully detailed in the Vessel Report. The Licensee	See Section 9.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
Licence OfTI		must make the Vessel Reports and the Contractor reports available on the Inch Cape Wind Offshore Limited webpage: https://www.inchcapewind.com/library/.	
		Any changes to the supplied details must be uploaded to the Vessel Report and the Contractor Report and the Licensing Authority must be notified, in writing, prior to any vessel, vehicle, agent, contractor or sub-contractor which has not yet been notified to the Licensing Authority engaging in the Licensed Activities. Only those vessels, vehicles, agents, contractors or sub-contractors detailed in the Vessel Report are permitted to carry out any part of the Licensed Activities. The Licensee must satisfy itself that any masters of vessels or vehicle operators, agents, contractors or sub-contractors are aware of the extent of the Licensed Activities and the conditions of the licence. All masters of vessels or vehicle operators, agents, contractors and sub-contractors permitted to engage in the Works must abide by the conditions of this licence. The Licensee must give a copy of this licence, and any subsequent variations made to this licence in accordance with section 30 of the 2010 Act, to the masters of any vessels, vehicle operators, agents, contractors or sub-contractors permitted to engage in the Works and must ensure that the licence and any such variations are read and understood by those persons.	See Section 9.
Condition 3.2.2.11		The Licensee must, no later than six months prior to the Commencement of the Works, submit a VMP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted.	This document sets out the VMP for written approval by the Scottish Ministers.
		Such approval may only be granted following consultation by the Licensing Authority with SNH, WDC, FP, MCA, NLB, SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.	Consultation to be undertaken by the Scottish Ministers.
		The VMP must include, but not be limited to, the following details: a. The number, types and specification of vessels required; b. The manner in which vessel management will be coordinated, particularly during construction but also during operation; and c. Location of working port(s), the routes of passage, the frequency with which vessels will be required to transit between port(s) and the site and indicative vessel transit corridors proposed to be used during construction and operation of the Works.	The number, types and specifications of vessels required are outlined in Section 9 and Section 10. Vessel management coordination is outlined in Section 8. Location of working ports is outlined in Section 7, frequency of vessel movements is outlined in Se ; are outlined in Section 11.
		The confirmed individual vessel details must be notified to the Licensing Authority in writing no later than 14 days prior to the Commencement of the Works, and thereafter, any changes to the details supplied must be notified to the Licensing Authority, as soon as practicable, prior to any such change being implemented in the construction or operation of the Works.	Individual vessel details are outlined in Section 9. Confirmed vessel details will be provided separa
		The VMP must, so far as is reasonably practicable, be consistent with the CMS, the EMP, the PEMP, the NSP, and the LMP.	Linkages with other documents are outlined in Section 1.3.
Condition 3.2.2.13		The Licensee must, no later than six months prior to the Commencement of the Works, submit an NSP, in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted.	This document sets out the NSP for written approval by the Scottish Ministers.
		Such approval may only be granted following consultation by the Licensing Authority with MCA, NLB and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority.	Consultation to be undertaken by the Scottish Ministers.
		The NSP must include, but not be limited to, the following issues: a. Navigational safety measures;	Navigational safety measures are outlined in Section 4 and Section 5. Construction safety zones are outlined in Section 4.4.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
		b. Construction exclusion zones; c. Notice(s) to mariners and radio navigation warnings; d. Anchoring areas; e. Temporary construction lighting and marking; and f. Buoyage.	Promulgation of information is outlined in Section 6. Temporary construction lighting and marking including buoyage is outlined in Section 4.1.
		The Licensee must confirm within the NSP that they have taken into account and adequately addressed all of the recommendations of the MCA in the current MGN 654, and its annexes that may be appropriate to the Works, or any other relevant document which may supersede this guidance prior to approval of the NSP.	Compliance with MGN 654 (superseded MGN 543 in 2016) is outlined in Section 13.
	Condition 3.2.2.14	The Licensee must, no later than six months prior to the Commencement of the Works, submit an ERCoP for the construction, operation, maintenance and decommissioning phases of the Works in writing, to the Licensing Authority for its written approval. Commencement of the Works cannot take place until such approval is granted. Such approval may only be granted following consultation by the Licensing Authority with the MCA and the NLB and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority. The ERCoP should follow the MCA template and guidance. The ERCoP must be developed in discussion with the MCA.	See Sections 4.8 and 5.6.
	Condition 3.2.2.17	The Licensee must, no later than one calendar month prior to Commencement of the Works, notify the UKHO of the proposed works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system. The Licensee must, no later than one calendar month prior to the Commencement of the Works and following confirmation of the approved DSLP by the Licensing Authority (refer to condition 3.2.2.8), provide the positions and maximum heights of any OSP and construction equipment to the UKHO, for nautical charting purposes, and to the DGC, for aviation purposes. The Licensee must, no later than one calendar month prior to Commencement of the Works, ensure that local mariner's organisations and local fishermen's organisations and HM Coastguard are made fully aware of the Works through local Notice to Mariners or by any other appropriate means.	The UKHO, DGC, local fishermen's organisations and HM Coastguard will be notified as per Secti

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
		The Licensee must ensure that details of the Licensed Activities are promulgated in the Kingfisher Fortnightly Bulletin, no later than one calendar month prior to the Commencement of the Works to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.	Details will be promulgated in the Kingfisher Fortnightly Bulletin as per Section 6.4.
		The Licensee must, no later than eight weeks prior to the Commencement of the Works, complete an “Application for Statutory Sanction to Alter/Exhibit” form and submit this to the NLB for the necessary sanction to be granted.	Statutory sanction will be applied for as per Section 4.1.
	Condition 3.2.2.21	"Prior to the Commencement of the Works, the Licensee must, at its own expense, and with the approval of the Licensing Authority in consultation with SNH, appoint an independent ECoW. The ECoW must be appointed in time to review and approve the draft version of the first plan or programme submitted under this licence to the Licensing Authority, in sufficient time for any pre-construction monitoring requirements, and remain in post until agreed by the Licensing Authority. The terms of appointment must also be approved by the Licensing Authority in consultation with SNH. The terms of the appointment must include, but not be limited to: a. Quality assurance of final draft versions of all plans and programmes required under this licence; b. Responsible for the monitoring and reporting of compliance with the licence conditions and the environmental mitigation measures for the Works authorised by this licence; c. Provision of on-going advice and guidance to the Licensee in relation to achieving compliance with licence conditions, including but not limited to the conditions relating to and the implementation of the CMS, the EMP, the PEMP, the PS, the CaP and the VMP; d. Provision of reports on point b & c above to the Licensing Authority at timescales to be determined by the Licensing Authority; e. Induction and toolbox talks to onsite construction teams on environmental policy and procedures, including temporary stops and keeping a record of these; f. Monitoring that the Works are being constructed in accordance with the plans and this licence, the Application and in compliance with all relevant regulations and legislation; g. Reviewing and reporting incidents/near misses and reporting any changes in procedures as a result to the Licensing Authority; and h. Agreement of a communication strategy with the Licensing Authority.	An ECoW has been appointed.
		The Licensee must notify the UKHO of the progress of the construction of the Works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system.	The UKHO will be updated on progress as per Section 6.1.1.
		The Licensee must ensure that progress of the Works is promulgated regularly in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.	Details will be promulgated in the Kingfisher Fortnightly Bulletin as per Section 6.4.
	Condition 3.2.3.2	The Licensee must in the case of damage to, or destruction or decay of, the Works, notify the Licensing Authority, in writing, as soon as reasonably practicable, following such damage, destruction or decay. The Licensee must carry out any remedial action as required by the Licensing Authority, following consultation with the MCA, the NLB or any such advisers as required by the Licensing Authority.	The Licensing Authority will be notified of any damage to, destruction or decay of, the Works will n bly practicable following the damage, destruction or decay as per Sections 4.9 and 5.7.
		The Licensee must ensure that any vessels permitted to engage in the construction of the Works are marked in accordance with the International Rules for the Prevention of Collisions at Sea whilst under way, and in accordance with the UK Standard Marking Schedule for Offshore Installations if the vessel is secured to the seabed.	All vessels involved in the construction of the development will be marked and lit as per the COLRI dard Marking Schedule for Offshore Installations as per Section 9.
		The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of Ofcom.	See Section .4.2.

Condition Document	Condition Reference	Condition Text	Relevant Section of this VMP and NSP
		The Licensee must ensure that navigable depth is not altered by more than 5% referenced to Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCA and NLB.	See Section 4.6.
		The Licensee must notify the UKHO of the Completion of the Works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system. The Licensee must, within one month of the Completion of the Works, provide the "as-built" positions and maximum heights of the OSP, along with any sub-sea infrastructure and cabling, to the DGC and the UKHO for aviation and nautical charting purposes.	The UKHO will be notified of the Completion of the Works as per Section 6.1.3.
		The Licensee must, as per the requirements of the MCA's MGN 654 and any appropriate updates, complete post-installation hydrographic surveys of the Site or subsections thereof, to the IHO Order 1a survey standard. On completion of these surveys, the data and a corresponding report of survey must be supplied to the UKHO, with notification to the MCA hydrography manager and the Licensing Authority.	As per Section 13, ICOL will undertake hydrographic surveys as per MGN 654 (MCA, 2021), whicl
		The Licensee must ensure that local mariners, fishermen's organisations and HM Coastguard, in this case the National Maritime Coastguard Centre are made fully aware of the Completion of the Works.	See Section 6.1.2.
	Condition 3.2.4.4	The Licensee must ensure that the Completion of the Works is promulgated in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry. The Licensee must, where any damage, destruction or decay is caused to the Works, notify the Licensing Authority, in writing, of such damage, destruction or decay as soon as reasonably practicable following such damage, destruction or decay. The Licensee must carry out any remedial action which the Licensing Authority advises the Licensee, in writing, as requiring to be taken, which may include a requirement to display aids to navigation, following consultation by the Licensing Authority with the MCA, the NLB or any such advisers as required.	See Section 6.4.3.
		The Licensee must ensure that the Works are actively monitored during the operation and maintenance phases. The Licensee must ensure that a contingency plan is in place to respond to any reported catastrophic failures which may result in the Works, or part(s) of the Works, breaking loose and becoming a buoyant hazard. This contingency plan should include the transmission of local radio navigation warnings.	The Licensing Authority will be notified of any damage to, destruction or decay of, the Works will n bly practicable following the damage, destruction or decay as per Sections 4.9 and 5.7.
		The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of Ofcom.	See Section 4.2.
		The Licensee must not exhibit, alter or discontinue navigational lighting of the Works without the statutory sanction of the Commissioners of Northern Lighthouses. An 'Application for Statutory Sanction to Exhibit/Discontinue' form must be completed by the Licensee as fully as possible and returned to the NLB for the necessary sanction to be granted prior to exhibiting, altering or discontinuing navigational lighting.	Statutory Sanction will be sought where needed as per Sections 4.1 and 5.2.