Cenos Offshore Windfarm Limited

Cenos EIA

Appendix 32 - Outline Environmental Management Plan

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CONTENTS

ACRONYMS

ACRONYM	DEFINITION
AC	Alternating Current
ADD	Acoustic Deterrent Device
CaP	Cable Plan
CBRA	Cable Burial Risk Assessment
CMS	Construction Management Plan
CoP	Construction Programme
ECoWs	Environmental Clerk of Works
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EICC	Export/Import Cable Corridor
EMF	Electromagnetic Fields
EMP	Environmental Management Plan
EMS	Environmental Management System
EPS	European Protected Species
ERCoP	Emergency Response Cooperation Plan
EU	European Union
FIR	Fishing Industry Representative
FLO	Fisheries Liaison Officer
FTU	Floating Turbine Unit
FMMS	Fisheries Management and Mitigation Strategy
HDD	Horizontal Directional Drilling
HSE	Health Safety and Environment
HVAC	High Voltage Alternating Current
IAC	Inter-Array Cable
IEMA	Institute of Environmental Management and Assessment
IMS	Integrated Management System
INNS	Invasive Non-Native Species
INNSMP	Invasive Non-Native Species Management Plan
INTOG	Innovation and Targeted Oil & Gas
JNCC	Joint Nature Conservation Committee
km	Kilometre

ACRONYM	DEFINITION
MARPOL	Marine Pollution Convention
MCA	Maritime and Coastguard Agency
MCC	Marine Coordination Centre
MD-LOT	Marine Directorate – Licensing Operations Team
MEPC	Marine Environmental Protection Committee
MGN	Marine Guidance Note
MHWS	Mean High-Water Springs
MMMP	Marine Mammal Mitigation Protocol
MMO	Marine Mammal Observer
MPCP	Marine Pollution Contingency Plan
MW	Megawatt
NSP	Navigational Safety Plan
NtMs	Notices to Mariners
OFLO	Offshore Fisheries Liaison Officer
OMP	Operation and Maintenance Programme
OSCP	Offshore Substation Converter Platform
OSPAR	Oslo-Paris Convention
PAD	Protocol for Archaeological Discoveries
PAM	Passive Acoustic Monitoring
PEMP	Project Environmental Monitoring Programme
POLREP	Pollution Report
PS	Pilling Strategy
QHSE	Quality, Health, Safety, Environment
RAG	Regional Advisory Group
RAMS	Risk Assessment and Method Statements
SAR	Search and Rescue
ScotMER	Scottish Marine Energy Research
SMWWC	Scottish Marine Wildlife Watching Code
SOPEP	Ship Oil Pollution Emergency Plan
TAR	Transportation Audit Report
TOG	Targeted Oil & Gas
UK	United Kingdom
VMP	Vessel Management Plan

ACRONYM	DEFINITION
WMP	Waste Management Plan
WNoO	Weekly Notices of Operations
WSI	Written Scheme of Investigations
WTG	Wind Turbine Generator

GLOSSARY

TERM	DEFINITION
2023 Scoping Opinion	Scoping Opinion received in June 2023, superseded by the 2024 Scoping Opinion.
2023 Scoping Report	Environmental Impact Assessment (EIA) Scoping Report submitted in 2023, superseded by the 2024 Scoping Report.
2024 Scoping Opinion	Scoping Opinion received in September 2024, superseding the 2023 Scoping Opinion.
2024 Scoping Report	EIA Scoping Report submitted in April 2024, superseding the 2023 Scoping Report.
Area of Opportunity	The area in which the limits of electricity transmission via High Voltage Alternating Current (HVAC) cables can reach oil and gas assets for decarbonisation. This area is based on assets within a 100 kilometre (km) radius of the Array Area.
Array Area	The area within which the Wind Turbine Generators (WTGs), floating substructures, moorings and anchors, Offshore Substation Converter Platforms (OSCPs) and Inter-Array Cables (IAC) will be present.
Cenos Offshore Windfarm ('the Project')	'The Project' is the term used to describe Cenos Offshore Windfarm. The Project is a floating offshore windfarm located in the North Sea, with a generating capacity of up to 1,350 Megawatts (MW). The Project which defines the Red Line Boundary (RLB) for the Section 36 Consent and Marine Licence Applications (MLA), includes all offshore components seaward of Mean High Water Springs (MHWS) (WTGs, OSCPs, cables, floating substructures moorings and anchors and all other associated infrastructure). The Project is the focus of this Environmental Impact Assessment Report (EIAR).
Cenos Offshore Windfarm Ltd. (The Applicant)	The Applicant for the Section 36 Consent and associated Marine Licences.
Cumulative Assessment	The consideration of potential impacts that could occur cumulatively with other relevant projects, plans, and activities that could result in a cumulative effect on receptors.

TERM	DEFINITION
Developer	Cenos Offshore Windfarm Ltd., a Joint Venture between Flotation Energy and Vårgrønn As (Vårgrønn).
Environmental Impact Assessment (EIA)	The statutory process of evaluating the likely significant environmental effects of a proposed project or development. Assessment of the potential impact of the proposed Project on the physical, biological and human environment during construction, operation and maintenance and decommissioning.
Environmental Impact Assessment Regulations	This term is used to refer to the Environmental Impact Assessment Regulations which are of relevance to the Project. This includes the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended); and the Marine Works (Environmental Impact Assessment) Regulations 2007.
Environmental Impact Assessment Report	A report documenting the findings of the EIA for the Project in accordance with relevant EIA Regulations.
Export/Import Cable	High voltage cable used to export/import power between the OSCPs and Landfall.
Export/Import Cable Bundle (EICB)	Comprising two Export/Import Cables and one fibre-optic cable bundled in a single trench.
Export/Import Cable Corridor (EICC)	The area within which the Export/Import Cable Route will be planned and the Export/Import Cable will be laid, from the perimeter of the Array Area to MHWS.
Export/Import Cable Route	The area within the Export/Import Export Corridor (EICC) within which the Export/Import Cable Bundle (EICB) is laid, from the perimeter of the Array Area to MHWS.
Floating Turbine Unit (FTU)	The equipment associated with electricity generation comprising the WTG, the floating substructure which supports the WTG, mooring system and the dynamic section of the IAC.
Flotation Energy	Joint venture partner in Cenos Offshore Windfarm Ltd.

TERM	DEFINITION
Habitats Regulations	The Habitats Directive (Directive 92/43/ECC) and the Wild Birds Directive (Directive 2009/147/EC) were transposed into Scottish Law by the Conservation (Natural Habitats &c) Regulations 1994 ('Habitats Regulations') (up to 12 NM); by the Conservation of Offshore Marine Habitats and Species Regulations 2017 ('Offshore Marine Regulations') (beyond 12 NM); the Conservation of Habitats and Species Regulations 2017 (of relevance to consents under Section 36 of the Electricity Act 1989); the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001; and the Wildlife and Countryside Act 1981. The Habitats Regulations set out the stages of the Habitats Regulations Appraisal (HRA) process required to assess the potential impacts of a proposed project on European Sites (Special Areas of Conservation, Special Protection Areas, candidate SACs and SPAs and Ramsar Sites).
Habitats Regulations Appraisal	The assessment of the impacts of implementing a plan or policy on a European Site, the purpose being to consider the impacts of a project against conservation objectives of the site and to ascertain whether it would adversely affect the integrity of the site.
High Voltage Alternating Current (HVAC)	Refers to high voltage electricity in Alternating Current (AC) form which is produced by the WTGs and flows through the IAC system to the OSCPs. HVAC may also be used for onward power transmission from the OSCPs to assets or to shore over shorter distances.
High Voltage Direct Current (HVDC)	Refers to high voltage electricity in Direct Current (DC) form which is converted from HVAC to HVDC at the OSCPs and transmitted to shore over longer distances.
Horizontal Directional Drilling (HDD)	An engineering technique for laying cables that avoids open trenches by drilling between two locations beneath the ground's surface.
Innovation and Targeted Oil & Gas (INTOG)	In November 2022, the Crown Estate Scotland (CES) announced the Innovation and Targeted Oil & Gas (INTOG) Leasing Round, to help enable this sector-wide commitment to decarbonisation. INTOG allowed developers to apply for seabed rights to develop offshore windfarms for the purpose of providing low carbon electricity to power oil and gas installations and help to decarbonise the sector. Cenos is an INTOG project and in November 2023 secured an Exclusivity Agreement as part of the INTOG leasing round.

TERM	DEFINITION
Inter-Array Cable (IAC)	The cables which connect the WTGs to the OSCPs. WTGs may be connected with IACs into a hub or in series as a 'string' or a 'loop' such that power from the connected WTGs is gathered to the OSCPs via a single cable.
Joint Venture	The commercial partnership between Flotation Energy and Vårgrønn, the shareholders which hold the Exclusivity Agreement with CES to develop the Cenos site as an INTOG project.
Landfall	The area where the Export/Import Cable from the Array Area will be brought ashore. The interface between the offshore and onshore environments.
Marine Licence	Licence required for certain activities in the marine environment and granted under the Marine and Coastal Access Act 2009 and/or the Marine (Scotland) Act 2010.
Marine Protected Area (MPA)	Marine sites protected at the national level under the Marine (Scotland) Act 2010 out to 12 NM, and the Marine and Coastal Access Act 2009 between 12-200 NM. In Scotland MPAs are areas of sea and seabed defined so as to protect habitats, wildlife, geology, underseas landforms, historic shipwrecks and to demonstrate sustainable management of the sea.
Marine Protected Area (MPA) Assessment	A three-step process for determining whether there is a significant risk that a proposed development could hinder the achievement of the conservation objectives of an MPA.
Mean High Water Springs (MHWS)	The height of Mean High Water Springs is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest.
Mean Low Water Springs (MLWS)	The height of Mean Low Water Springs is the average throughout a year of the heights of two successive low waters during periods of 24 hours (approximately once a fortnight).
Mitigation Measures	Measures considered within the topic-specific chapters in order to avoid impacts or reduce them to acceptable levels. • Primary mitigation - measures that are an inherent part of the design of the Project which reduce or avoid the likelihood or magnitude of an adverse environmental effect, including location or design; • Secondary mitigation – additional measures implemented to further reduce environmental effects to 'not significant' levels (where

TERM	DEFINITION
	appropriate) and do not form part of the fundamental design of the Project; and • Tertiary mitigation – measures that are implemented in accordance with industry standard practice or to meet legislative requirements and are independent of the EIA (i.e. they would be implemented regardless of the findings of the EIA). Primary and tertiary mitigation are referred to as embedded mitigation. Secondary mitigation is referred to as additional mitigation.
Mooring System	Comprising the mooring lines and anchors, the mooring system connects the floating substructure to the seabed, provides station-keeping capability for the floating substructure and contributes to the stability of the floating substructure and WTG.
Nature Conservation Marine Protected Area (NCMPA)	MPA designated by Scottish Ministers in the interests of nature conservation under the Marine (Scotland) Act 2010.
Offshore Substation Converter Platforms (OSCPs)	An offshore platform on a fixed jacket substructure, containing electrical equipment to aggregate the power from the WTGs and convert power between HVAC and HVDC for export/import via the Export/Import Cable to/from the shore. The OSCPs will also act as power distribution stations for the Oil & Gas platforms.
Onward Development	Transmission projects which are anticipated to be brought forward for development by 3rd party oil and gas operators to enable electrification of assets via electricity generated by the Project. All Onward Development will subject to separate marine licensing and permitting requirements.
Onward Development Area	The area within which oil and gas assets would have the potential to be electrified by the Project.
Onward Development Connections	Oil and gas assets located in the waters surrounding the Array Area will be electrified via transmission infrastructure which will connect to the Project's OSCPs. These transmission cables are referred to as Onward Development Connections.
Project Area	The area that encompasses both the Array Area and EICC.
Project Design Envelope	A description of the range of possible elements that make up the Project design options under consideration and that are assessed as part of the EIA for the Project.

TERM	DEFINITION
Study Area	Receptor specific area where potential impacts from the Project could occur.
Transboundary Assessment	The consideration of impacts from the Project which have the potential to have a significant effect on another European Economic Area (EEA) state's environment. Where there is a potential for a transboundary effect, as a result of the Project, these are assessed within the relevant EIA chapter.
Transmission Infrastructure	The infrastructure responsible for moving electricity from generating stations to substations, load areas, assets and the electrical grid, comprising the OSCPs, and associated substructure, and the Export/Import Cable.
Vårgrønn As (Vårgrønn)	Joint venture partner in Cenos Offshore Windfarm Ltd.
Wind Turbine Generator (WTG)	The equipment associated with electricity generation from available wind resource, comprising the surface components located above the supporting substructure (e.g., tower, nacelle, hub, blades, and any necessary power transformation equipment, generators, and switchgears).
Worst-Case Scenario	The worst-case scenario based on the Project Design Envelope which varies by receptor and/or impact pathway identified.

APPENDIX 32 OUTLINE ENVIRONMENTAL MANAGEMENT PLAN

32.1 Introduction

32.1.1 Purpose of this chapter

This outline Environmental Management Plan (EMP) has been prepared by Cenos Offshore Windfarm Limited, hereafter referred to as 'the Developer', and in accordance with the Institute of Environmental Management and Assessment (IEMA) Guidance on Environmental Management Plans (IEMA, 2008). This outline EMP supports the Environmental Impact Assessment Report (EIAR), relevant to the Cenos Offshore Windfarm (hereafter referred to as 'the Project').

This outline EMP will form the basis of the final EMP. The EMP will be finalised and adopted post-consent, ahead of construction, following approval by Scottish Ministers in accordance with relevant conditions of the Section 36 Consent and associated Marine Licences.

32.1.2 Objectives

The EMP provides the over-arching framework for the on-site environmental management of the Project during construction and operation. It will be in accordance with the Application to ensure all environmental commitments stated in the EIAR are implemented during the construction, operation and maintenance phases of the Project. Once finalised all the Developer's personnel, contractors and subcontractors involved in the Project must comply with the EMP.

32.1.3 Consent compliance

The EMP fulfils the requirements of the consent conditions for the preparation of an EMP as outlined in Table 32-1. Details of where specific consent condition requirements are addressed, are also provided in Table 32-1.

Table 32-1 Consent conditions relevant to the EMP

CONSENT REFERENCE	CONDITION	RELEVANT SECTION
[To be added post-consent]		

32.1.4 Scope of the plan

The EMP provides environmental management and mitigation measures which aim to minimise any adverse environmental impacts associated with the Project. It also provides practical guidance on procedures for incidents and compliance reporting to all those involved in the construction, operation and maintenance phases of the Project.

The EMP will cover the following:

- Project personnel, roles, responsibilities and chain of command in relation to environmental management, this must also include contractors and subcontractors;
- The means of communicating and reporting environmental issues and compliance associated with the EMP to Marine Directorate – Licensing Operations Team (MD-LOT) / Scottish Ministers and relevant stakeholders;
- The competence and environmental training expected for all personnel involved with the Project;
- Procedures associated with Accidental Deposit of an Object at Sea;
- Marine Pollution Prevention and control method statement, including contingency plans (via the Marine Pollution Contingency Plan (MPCP);
- Chemical management;
- Waste management; and
- Invasive Non-native Species (INNS) management.

Environmental management during decommissioning of the Project will be covered by the Decommissioning Programme in accordance with Section 105(2) of the Energy Act 2004 and the guidance notes for offshore renewable energy in Scotland (Scottish Government, 2022).

32.1.5 Other relevant documents and consent plans

Once finalised, the EMP will form one of several post-consent plans produced for the Project that will be required under conditions of the Section 36 Consent and associated Marine Licences for the Project. At this stage, the list of final consent plans that will be required is not known. However, a number of outline plans have been prepared and submitted with the Application. These outline consent plans include:

- Outline Marine Mammal Mitigation Protocol (MMMP);
- Outline Fisheries Management and Mitigation Strategy (FMMS);
- Outline Written Scheme of Investigations & Protocol for Archaeological Discoveries (WSI & PAD)
- Outline Invasive Non-Native Species Management Plan (INNSMP) (within this EMP); and
- Outline Marine Pollution Contingency Plan (within this EMP).

The linkages between the EMP and other consent plans likely to be required are listed in Table 32-2. The consent plans will be prepared in consultation with key stakeholders for submission to, and approval by, Scottish Ministers (via MD-LOT) prior to the commencement of construction and in line with the Section 36 Consent and/or associated Marine Licence conditions.

These documents will reflect the commitments made in the EIAR and any associated conditions of consent or requirements agreed with the relevant authorities.

Table 32-2 Links with other consent plans

CONSENT PLAN / DOCUMENT	DETAILS
Construction Method Statement (CMS)	The CMS will specify the Project's construction methods, setting out good practice construction measures and how agreed mitigation measures from the EIAR, associated documents, Section 36 Consent, Marine Licences and those stated within the EMP are implemented during construction.
Cable Plan(s) (CaPs)	The CaPs will contain details on environmental sensitivities and design considerations to mitigate, as far as possible, the effects of cable laying and associated protection during construction and the potential effects of the operation of cables during the operation and maintenance phase. The CaPs will include the following: Cable locations, cable installation techniques, timings and duration; The results of monitoring or data collection work which will inform cable routeing; Technical specification of the cables, electro-magnetic field strengths and shielding requirements; A Cable Burial Risk Assessment (CBRA); Post-construction and operational survey methodologies for the operation and maintenance phase; and Methodologies for cable inspection during operation and maintenance with measures to address and report to the Scottish Ministers any exposure of cables.
Emergency Response Co-operation Plan (ERCoP)	Ensures the co-operation with the Maritime and Coastguard Agency (MCA) by detailing the design parameters of the Project, emergency contact details, and processes to be followed in the event of an emergency. The ERCoP will adhere to the template and guidance provided by MCA.
INNSMP	This plan will ensure appropriate biosecurity management practices are implemented during construction and operation and maintenance phases of the Project to reduce the risk of transferring INNS to and from the site to a minimum.
FMMS	Sets out the approach to commercial fisheries liaison and mitigation during the construction and operation of the Project and provides information on the role and responsibility of the Fisheries Liaison Officer (FLO).
Operation and Maintenance Programme (OMP)	The OMP will set out the procedures and good practice measures for operation and maintenance of the Project Infrastructure. The OMP will include consideration for environmental sensitivities, to appropriately safeguard environmental receptors during the operation and maintenance phase of the Project.

CONSENT PLAN / DOCUMENT	DETAILS
Project Environmental Monitoring Programme (PEMP)	Outlines the monitoring strategy for environmental impacts of the development to be undertaken throughout the lifespan of the development (pre-construction, construction, operation and maintenance and decommissioning phases. The PEMP may include benthic communities, birds, fish and shellfish, and marine mammals. Due consideration must be given to the Scottish Marine Energy Research (ScotMER) programme.
Vessel Management Plan (VMP)	The VMP will detail types, specifications and numbers of vessels, how vessel management will be coordinated and the location of ports, routes of passage and number of transits for the Project. The VMP will refer to the Scottish Marine Wildlife Watching Code and Guide to Best Practice for Watching Marine Wildlife for guidance on how vessels should behave around Marine Wildlife.
Navigational Safety Plan (NSP)	The NSP provides the required information on navigational safety measures, construction exclusion zones (if relevant) Notices to Mariners (NtMs) and radio navigation warnings, anchoring areas, temporary construction lighting and marking, buoyage, post construction monitoring and hydrographic surveys taking into account all recommendations in the MGN 654 and its annexes.
MPCP	The MPCP will detail procedures in the event of an accidental release, characterise all sources for potential contaminant releases and provide key emergency contact details for use in the event of an accidental release..
MMMP	The MMMP will outline protocols to reduce underwater noise impacts on marine mammals in relation to pre-construction and construction activities, including geophysical surveys, UXO clearance and pile driving. This will include use of: • Marine Mammal Observers (MMO); • Passive Acoustic Monitoring (PAM); • Application of Acoustic Deterrent Devices (ADDs); and • Soft-start and ramp up procedure.
Piling Strategy (PS) (if impact piling is required)	The PS will include details of expected noise levels piling activities, full details of the proposed method and anticipated duration of piling at all locations, details of soft-start piling procedures and anticipated maximum piling energy required at each pile location and details of any mitigation such as PAM and visual observations undertaken by MMO(s) prior to the commencement of impact piling, to ensure that no marine mammals will be exposed to the highest levels of underwater sound, in line with Joint Nature Conservation Committee (JNCC) (2010) guidelines and use of ADDs) to deter marine mammals from the zones within which they could experience acoustic injury and monitoring to be employed.
Construction Programme (CoP)_	The Construction Programme will provide information on the commencement of the development, timings of mobilisation, timings and sequencing of work, and contingency planning.

32.1.6 Structure of the plan

This outline EMP is divided into three parts:

- Part I – Implementation of the EMP; provides information on the management and implementation of the EMP, including roles and responsibilities, lines of communication and training;
- Part II – Environmental Management, Mitigations and Controls; details the key environmental management and reporting mechanisms to be put in place as well as the environmental management, mitigation and control measures identified in the EIAR and that arise from commitments in relation to the Section 36 Consent and associated Marine Licences.;
- Part III – Appendices – including reporting proformas and sub-plans, as listed below:
  - Appendix 31 A: Commitments Register;
  - Appendix 32 B: Contacts Sheet;
  - Appendix 32 C: MPCP;
  - Appendix 32 D: INNSMP;
  - Appendix 32 E: Waste Management Plan; and
  - Appendix 32 F: Accidental Deposit of an Object at Sea Form

32.1.7 Location of the plan

Details on where copies of the EMP are located will be included within the final EMP. At this stage, it is envisaged that copies will be located at:

- The Flotation Energy office (Aberdeen);
- All Site offices (including contractors and subcontractors);
- With the Environmental Clerk of Works (ECoW(s)); and
- All construction, operation and maintenance vessels.

32.1.8 Document control

Following approval by Scottish Ministers, the EMP will represent a 'live document' and will be regularly revised and updated throughout each phase of the Project (construction, operation and maintenance) as relevant, to ensure the information is kept up to date, at intervals agreed with MD-LOT. Linkages exist between several Consent Plans as highlighted in Section 32.1.5 and within Table 32-2. As plans are updated, there will be a review of inter-linkages with other Consent Plans to ensure these are also updated as relevant. The Quality, Health, Safety, and Environment (QHSE) Manager (or an equivalent role identified post-consent) will ultimately have responsibility for ensuring that Health, Safety and Environment (HSE) related documents are revised in accordance with the relevant timescales.

32.2 Project background

In August 2021, the Scottish Government confirmed it would be undertaking a spatial planning exercise for the Innovation and Targeted Oil & Gas (INTOG) projects. Through the INTOG leasing process, the Applicant successfully secured an Exclusivity Agreement as a Targeted Oil & Gas (TOG) project in November 2023.

The Developer is proposing the development of the Cenos Offshore Windfarm ('the Project), a floating offshore windfarm located 200 kilometres (km) offshore east of Aberdeen (Figure 32-1).

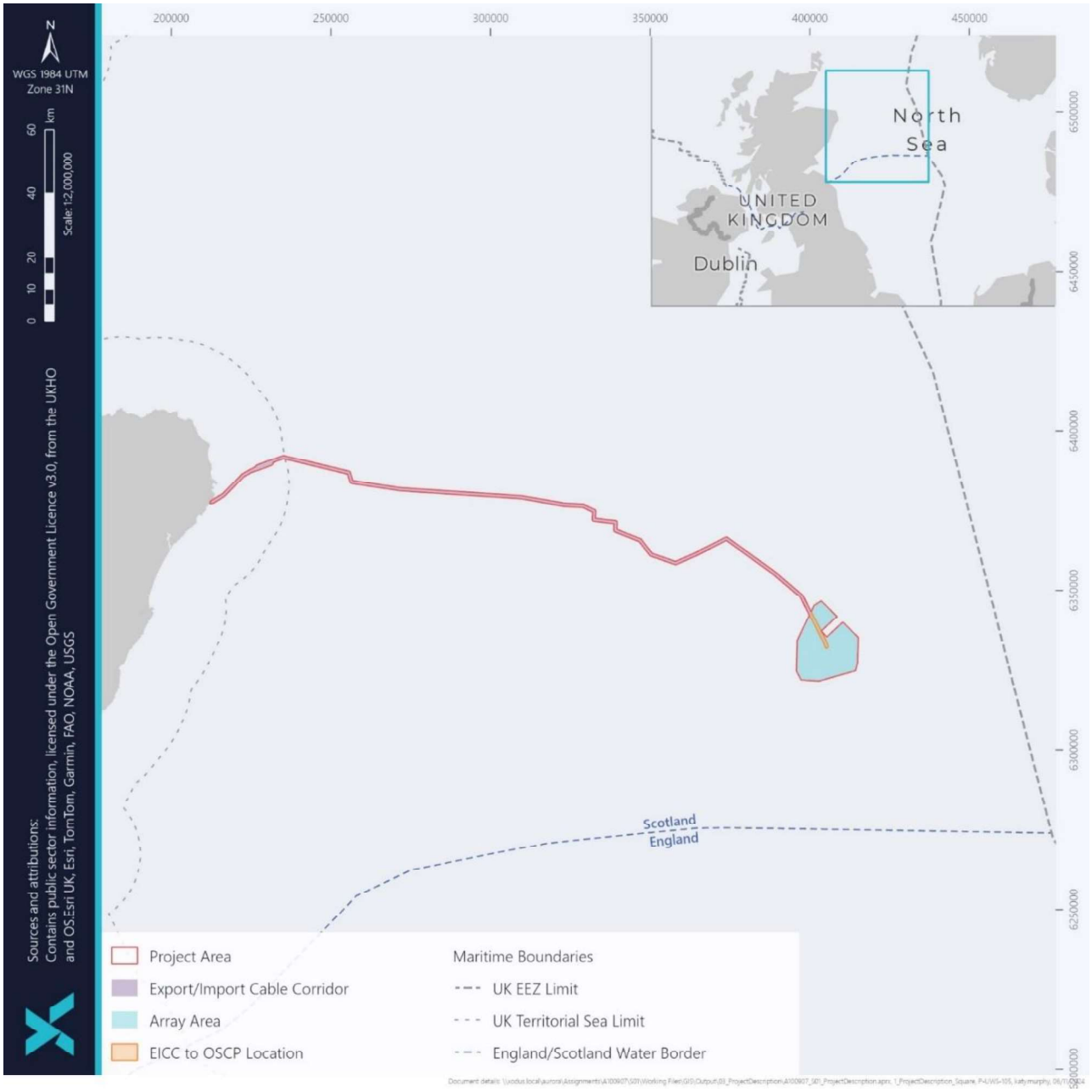

Figure 32-1 Location of the Project; Array Area, Export/Import Cable Route and EICC

The Project will consist of Floating Turbines Units (FTUs) and all infrastructure required to transmit the power generated by the Wind Turbine Generators (WTGs) to oil and gas assets and the remainder to shore.

The Onward Development Connections for oil and gas assets will be defined and brought forward by 3rd party oil and gas operators, subject to separate marine licensing and permitting requirements. These Onward Development Connections lie outside the scope of this EMP.

The key components of the Project will include:

- Up to 95 Floating Turbine Units (FTUs) each with a Wind Turbine Generator (WTG) and floating substructure, which will be anchored to the seabed to maintain station keeping an allowable radius for each FTU within the Array Area;
- Up to two Offshore Substation Convertor Platforms (OSCPs) within the Array Area, connected to the WTGs using dynamic subsea Alternating Current (AC) power cables (the Inter-Array Cables (IAC)). OSCPs topsides will be located on bottom-fixed jacket foundations with 50 metre (m) spacing between jackets. OSCPs topsides will be linked via bridge-link;
- Up to 350 km of IACs (including 280 km of buried, static cabling, and 70 km of dynamic cabling); and
- An Export/Import Cable bundle comprising two High Voltage Direct Current (HVDC) cables and a fibre optic cable bundled in a single trench. Each has a maximum length of 230 km from the OSCPs to Landfall at Longhaven.

The Project boundary includes the Array Area and the Export/Import Cable Corridor (EICC). The Array Area reflects the area awarded to the Developer through the INTOG Leasing Round. Therefore, the Project boundary encompasses:

- Array Area – the area within which the FTUs, moorings and anchors, OSCPs and IACs will be located;
- EICC - area within which the Export/Import Cable will be located; and
- One HDD exit point at a water depth of approximately 25 m below Mean High-Water Springs (MHWS).

[Section to be updated post-consent with final details of the Project]

A full list of consents and marine licences granted will be listed in Table 32-3on drafting of the final EMP post-consent.

Table 32-3 Consents granted

CONSENTS GRANTED	DATE OF CONSENT	REFERENCE NUMBER
[To be completed post-consent]		

32.3 Part 1: Implementation of the EMP

32.3.1 Roles and responsibilities

This Section outlines the roles and responsibilities associated with the implementation of the EMP. All the Developer's personnel, contractors and subcontractors will be expected to comply with the requirements of the EMP and all relevant associated documents. Contractors and subcontractors may have additional procedures but will comply with the mitigation and controls within the EMP as a minimum. Table 32-4 describes the indicative roles and responsibilities relevant to the EMP, to be finalised post-consent. Additionally, it will be further refined as part of any required updates to this EMP during the various phases of the Project.

Table 32-4 Roles and responsibilities for the implementation of the EMP

ROLE	CONTACT DETAILS	RESPONSIBILITY
Developer roles		
Project Director	[To be included post-consent]	Responsible for ensuring compliance with and delivery of the EMP through securing sufficient resources and implementing appropriate processes throughout the Project. These will be expanded on in the final EMP.
HSE Lead	[To be included post-consent]	Responsible for the coordination, management and monitoring of HSE matters that will compliment this EMP. The HSE Lead is responsible for providing HSE support, advice and guidance, will monitor HSE performance and will be responsible for reducing the environmental effects of the Project as far as practicable during construction and operation and maintenance works. These will be expanded on in the final EMP post-consent.
Quality Lead	[To be included post-consent]	Responsible for the coordination, management and monitoring of Quality matters that will compliment this EMP. The Quality Lead is responsible for providing Quality support, advice and guidance, and will monitor Quality performance.
Environmental Manager	[To be included post-consent]	Responsible for managing ongoing compliance with the final EMP and all supporting documents, with support from the Package Managers. These will be expanded on in the final EMP post-consent.
Head of Construction	[To be included post-consent]	Responsible for overseeing the construction activities of the Project ensuring the necessary resources are available to the Package Managers in order to implement the environmental management measures detailed within this EMP. These will be expanded on in the final EMP post-consent.
Package Managers	[To be included post-consent]	Package Managers will support the Environmental Manager with similar responsibilities but focussed on their specific package/work streams. These include engineering work packages covering marine installation, WTGs and transmission systems during construction. These will be expanded on in the final EMP post-consent.

ROLE	CONTACT DETAILS	RESPONSIBILITY
Contractor, subcontractor and supporting roles		
Independent ECoW	[To be included post-consent]	Responsible for the quality assurance of final draft versions of all consent plans and programmes required under the Section 36 Consent and Marine Licences, providing on-going advice, monitoring and reporting of compliance with the consent conditions and all environmental mitigation and monitoring measures included in the application for the Project. The ECoW will also be involved with providing environmental training and will establish communication and reporting protocols for issues relating to the environment. These will be expanded on in the final EMP post-consent.
Contractor Environmental Manager	[To be included post-consent]	The contractor's environmental manager will ensure the Contactor compliance with all environmental responsibilities in the EMP and supporting documents during the construction and operation and maintenance phases of the Project. These will be expanded on in the final EMP post-consent.
Stakeholder/Community Liaison Officer	[To be included post-consent]	The Stakeholder/Community Liaison Officer will act as a point of contact for residents neighbouring the Project and local authorities. These will be expanded on in the final EMP post-consent.
Retained Archaeologist/contactor	[To be included post-consent]	The Retained Archaeologist will be in place throughout the construction phase, and, if required, during the operation and maintenance phase, and will support the Environmental Manager in relation to archaeological matters. These will be expanded on in the final EMP post-consent.
MMO (if required)	[To be included post-consent]	An MMO may be in place during noisy activities, such as piling and other construction activities if required. These activities and the roles and responsibilities associated with the MMO are outlined in the outline MMMP. These will be expanded on in the final EMP post-consent.
FLO	[To be included post-consent]	A FLO has been appointed for the Project and will continue to be appointed for the construction and operation and maintenance phase. The FLO will develop a positive working relationship with the local fishing industry and will have a solid understanding of the potential interactions between the Project and the local fishing industry.

ROLE	CONTACT DETAILS	RESPONSIBILITY
		The FLO will be the interface between the Developer, contractors and subcontractors and the fishing industry, and may also represent the Developer at fisheries meetings. The FLO will act as a primary point of contact for the fishing industry where communication with the Developer is required and will also disseminate information to the fishing industry (potentially via the FIR). The FLO will maintain a database of fisheries contacts and organisations to ensure Project-related information is circulated in a timely manner. The FLO will also assist the Developer in resolving fisheries issues as they arise and facilitate the relocation of static fishing gear, as required. These will be expanded on in the final EMP post-consent.
Offshore Fisheries Liaison Officer (OFLO)	[To be included post-consent]	The main role of the OFLO is to minimise any at-sea conflict between the Project and fishing activities during the construction and operation and maintenance phase. The OFLO will be stationed on construction vessels, as required, and will act as an on-site point of communication for fishing vessels. The OFLO will maintain contact with the FLO (based onshore) and the Developer to communicate relevant information to fishing vessels. The OFLO will also record details of any fishing activity at the Project when on-site as required to the Developer and the FLO. These will be expanded on in the final EMP post-consent.
FIR	[To be included post-consent]	The FIR will be the direct point of contact(s) for the local fishing industry and will be a key support to the FLO. The FIRs will circulate information from the Developer and the FLO, as required. The FIRs may attend fisheries stakeholder meetings and will liaise directly with local fishers around their concerns on the Project to report back to the FLO. These will be expanded on in the final EMP post-consent.

32.3.1.1 Contact details

A Project Contacts Sheet (Appendix 32 B) will be compiled prior to the commencement of construction of the Project. This list will include contact details of all Developer, contractor / subcontractor and relevant third parties. This list will be made available to relevant personnel and will be regularly updated throughout the construction and operation and maintenance phases.

As a minimum, the Contacts Sheet will include the following information:

- Company/organisation;
- Role;
- Name;
- Telephone/mobile number;
- Email address; and
- Office location.

32.3.2 Communication and reporting procedures

32.3.2.1 Internal communications

Internal communications will be finalised post-consent but are likely to involve regular progress meetings before and during construction, operation and maintenance activities, between the Developer personnel and relevant contractors / subcontractors, including the EcoW as required.

Reviews of contractor / subcontractor Risk Assessment and Method Statements (RAMS) will be undertaken, and copies of the relevant consents will be provided to the contractors and/or subcontractors. They will also be made aware of the obligations associated with a particular activity via environmental training and awareness sessions detailed in Section 32.3.3.

All Developer personnel, contractors and subcontractors will report any environmental concerns or issues, including on-site potential or actual environmental incidents or emergencies, as soon as possible.

32.3.2.2 External communications

The Developer Project team will liaise with MD-LOT and relevant external stakeholders on matters relating to environmental management. External communications, notifications and reporting including of any environmental incidents in relation to the Project activities will be carried out in accordance with the commitments included in the EIAR and the requirements of the Section 36 Consent / Marine Licence conditions. The external communications required for reporting on activities are listed in Table 32-5. The details of this table will be finalised post-consent.

Table 32-5 Methods of reporting on activities to the relevant external stakeholders

EXTERNAL COMMUNICATION	RELEVANT STAKEHOLDER AND METHODS
ECoW Compliance Reporting	[To be completed post-consent]
Cenos Offshore Windfarm Consenting updates	[To be completed post-consent]
Chemical Usage	[To be completed post-consent]
Transportation Audit Report (TAR)	[To be completed post-consent]
Regional Advisory Group (RAG) (If applicable)	[To be completed post-consent]
Notices to Mariners	[To be completed post-consent]
Weekly Notice of Operations	[To be completed post-consent]
Vessel Reporting	[To be completed post-consent]
Noise registry	[To be completed post-consent]

These will be further refined and outlined in the final EMP, and any other post-consent plans as required.

32.3.2.2.1 Environmental incidents

The potential environmental incidents that could occur during the Project construction, and operation and maintenance phases, along with the methods of reporting such incidents, are detailed in Table 32-6. The details of this table will be finalised post-consent.

Table 32-6 Methods of reporting on incidents to the relevant external stakeholders

EXTERNAL COMMUNICATION	RELEVANT STAKEHOLDER AND METHODS
Non-Compliance Reporting	Non-compliance proforma, as required
Pollution Reporting	Section 32.4.2
Accidental Deposit of an Object at Sea Reporting	Section 32.4.5
Wildlife incidents	Section 32.4.7

32.3.2.2.2 Contractor communications

During the various phases of the Project, designated personnel on each vessel will be responsible for providing daily progress reports, including environmental management, to the Developer. The details of the reporting methods and requirements will be finalised post-consent and following appointments of contractors.

32.3.2.2.3 Environmental Clerk of Works communications and reporting

The ECoW will play a key role in the delivery of the EMP (see Table 32-4). They will be responsible for establishing communication channels with key personnel across the Project and will provide support as and when required.

32.3.3 Methods for environmental training and awareness

All personnel, including Developer's personnel and contractors, will have the required skills, education and training to perform their tasks in accordance with the EMP. Contractors and subcontractors will ensure they have adequate environmental management resources and procedures for the duration of the Project scope for which they are contracted. To ensure adherence to the EMP and environmental and consents requirements, all contractors' documentation relating to good environmental practice and environmental commitments will be reviewed by the Developer.

The Environmental Manager, contractor's environmental manager and/or ECoW will be responsible for providing environmental training and promoting awareness regarding environmental management. Toolbox talks, inductions and environmental training will be supported by the ECoW for expert advice and support. Some potential methods for environmental training and awareness are detailed in Table 32-7. The details of this table will be finalised post-consent.

Table 32-7 Methods for environmental training and awareness

METHOD	DESCRIPTION
Inductions	Environmental induction training will be presented to all personnel working and visiting the site (Developer personnel, contractor and/or subcontractor employees, suppliers and other visitors). Where relevant, training will include information on applicable elements of the EMP.
Toolbox Talks	Toolbox talks delivered by specialist staff on-site to discuss any update to the EMP relevant to the personnel on-site, to include specific information on risks and mitigations to be implemented for specific activities they are involved in, together with environmental issues arising on-site to ensure continuous training and to reinforce environmental awareness. More information to be added post-consent.
Environmental Training	Environmental awareness training covering a variety of topics not limited to, but including training on the use of spill kits, waste management, chemical training, fuel handling and ecologically and archaeologically sensitive areas. Contractors will prepare a full schedule of training (timing and content) and include this in their EMPs. The provision of environmental training will be audited on a regular basis.
Lessons Learned	Either as part of or, in addition to any audit, inspection or investigation, the contractors shall conduct 'lessons learned' sessions as required. As a minimum, the Developer and the contractors shall conduct a joint lessons learned session on an annual basis, but may consider these relevant at different phases of the Project. Should this process, or any other, generate environmental information worth sharing, the Project Team shall inform MD-LOT and the wider industry.
Other awareness materials	Environmental notice board(s) prominently displayed to permit all personnel to be able to review a notice board on a daily basis. The type of information to be provided on the notice boards includes: • Description of the key environmental risks alongside the risk mitigation measures; • Location of emergency response equipment; and • Key contact numbers and responsible personnel. Environmental labels and signs used across the site to promote good environmental practice.

32.4 Part 2: Environmental management, mitigations and controls

This Section of the EMP translates, into an appropriate format, the commitments stated in the EIAR to allow for their practical implementation by the Developer, contractors and subcontractors. It also details the environmental management, mitigation and control measures identified in the EIAR and any other commitments generated from the Marine Licences and Section 36 Consent (once granted). This follows the IEMA Practitioner Guide, which states that *"the overall objective of an EMP is to provide a continuous link or 'bridge' between the design stage of a Proposed Development, conditions attached to consents, Proposed Development construction, and into the operational phase"* (IEMA, 2008).

32.4.1 Environmental management systems and compliance

32.4.1.1 Environmental management systems

The EMP will form part of an Integrated Management System (IMS) that will guide the practical implementation of the commitments stated in the EIAR. All contractors will have an Environmental Management System (EMS) which is appropriate to their scope of work and conformant with the Developer's EMS.

32.4.1.2 The commitments register

The complete list of environmental management, mitigation and control commitments will be provided in the Commitments Register (Appendix 32 A). The Commitments Register will be derived from the commitments made within the EIAR, Section 36 Consent and Marine Licence conditions and as such, adherence to the EMP and accompanying appendices, will ensure compliance with the Section 36 Consent and Marine Licences for the Project. It will also serve as an audit trail of compliance throughout the construction and operation and maintenance p of the Project.

The Commitments Register will be updated, reviewed and approved internally to ensure compliance in advance of each phase of the Project and will be maintained throughout.

32.4.1.3 Auditing / monitoring of compliance

Compliance with the EMP will be monitored by carrying out a number of audits during the various phases of the Project. This will ensure Project's personnel, contractors and subcontractors are aware of the commitments and measures outlined within the EMP, as well as other legislation and policies relevant to their activities. Any non-compliance will be subject to a risk assessment to identify appropriate remedial measures and will be reported to relevant stakeholders as required.

32.4.2 Marine pollution prevention and contingency planning

This will detail the measures to be put in place to minimise any impacts due to the release of pollutants during construction and operation and maintenance phases of the Project. These will be set out in the MPCP (Appendix 32 C).

Contractors and subcontractors will be expected to comply with the requirements of the MPCP.

32.4.3 Invasive and non-native species

The measures to be adopted for the management of marine INNS during construction and operation and maintenance phases of the Project will be set out in the INNSMP (Appendix Appendix 32 D). Contractors and subcontractors will be expected to supply relevant documents to demonstrate compliance with the requirements of the INNSMP.

32.4.4 Waste management

A Waste Management Plan (WMP) (Appendix 32 E) will be prepared to deal with all aspects of waste produced during construction and operation and maintenance phases of the Project (updated as necessary throughout the Project life cycle, as described in Section 32.1.8). The WMP will use the waste hierarchy of reduce, reuse and recycle wherever possible. Details of contingency planning in the event of an accidental release of materials which could cause harm to the environment will be covered by the MPCP.

32.4.5 Accidental Deposit of an Object at Sea

Any object dropped by the Project personnel, contractors or subcontractors regarded as a hazard to safe navigation will be recorded and reported to MD-LOT and other stakeholders via the Marine Scotland – DROPOB1 - Offshore Wind & Marine Renewables Accidental Deposit of an Object at Sea Form (Appendix 32 F – Accidental Deposit of an Object at Sea Form).

32.4.6 Chemical management

The Developer will ensure that all chemicals being used during the construction, operation and maintenance phases of the Project have been approved by MD-LOT prior to use. For any chemicals used in a closed system, MD-LOT will be notified prior to use. Further information will be provided in the EMP post-consent.

32.4.7 Marine species

In the event of a wildlife incident occurring as a result of activity associated with the Project (e.g. injury to a marine mammal, or an observed fish or bird mortality), the incident will be reported to the relevant project personnel as soon as possible. The relevant project personnel will then follow up with the relevant competent authority (details of the reporting procedure will be provided in the EMP post-consent).

The area around the Project may be visited regularly by marine species that are sensitive to noise disturbance. The Developer shall ensure that all personnel adhere to the Scottish Marine Wildlife Watching Code (SMWWC), vessel management procedures (outlined within the VMP, MMMP and any appropriate European Protected Species (EPS) Licence conditions during all phases of the Project. The following documents will be prepared to manage and mitigate the effects on marine animals:

- MMMP;
- PS;
- VMP; and
- CaP.

The content of these documents will not be reproduced here, but Developer personnel, contractors and subcontractors shall be provided with copies of these documents and will be required to comply with their contents.

32.5 References

JNCC (2010). Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise. Available online at: https://hub.jncc.gov.uk/assets/31662b6a-19ed-4918-9fab-8fbcff752046 [Accessed on 16/10/2024].

Institute of Environmental Management and Assessment (IEMA) (2008). Environmental Management Plans, Best Practice Series, Volume 12, December 2008.

Payne, R.D., Cook, E.J. & MacLeod, A. (2014). Marine biosecurity planning: guidance for producing site and operation-based plans for preventing the introduction of non-native species. Available online at: https://www.clydemarineplan.scot/wp-content/uploads/2016/05/Guidance-Biosecurity-Planning.pdf [Accessed on 11/10/2024].

Scottish Government (2012). Non-native species: code of practice. Available online at: https://www.gov.scot/publications/non-native-species-code-practice [Accessed on 11/10/2024].

Scottish Government (2020). 2020 Challenge for Scotland's Biodiversity. Available online at: https://www.gov.scot/publications/2020-challenge-scotlands-biodiversity-strategy-conservation-enhancement-biodiversity-scotland/. [Accessed on 11/10/2024].

Scottish Government (2022). Decommissioning of Offshore Renewable Energy Installations in Scottish waters or in the Scottish part of the Renewable Energy Zone under The Energy Act 2004. Guidance notes for industry (in Scotland). Available online at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2022/08/offshore-renewable-energy-decommissioning-guidance-scottish-waters/documents/decommissioning-offshore-renewable-energy-installations-scottish-waters-scottish-part-renewable-energy-zone-under-energy-act-2004-guidance-notes-industry-scotland/decommissioning-offshore-renewable-energy-installations-scottish-waters-scottish-part-renewable-energy-zone-under-energy-act-2004-guidance-notes-industry-scotland/govscot%3Adocument/decommissioning-offshore-renewable-energy-installations-scottish-waters-scottish-part-renewable-energy-zone-under-energy-act-2004-guidance-notes-industry-scotland.pdf [Accessed on 11/10/2024].

The Crown Estate and Wessex Archaeology (2014). Protocol for Archaeological Discoveries. Offshore Renewables Projects. The Crown Estate. Available online at: https://www.thecrownestate.co.uk/media/1782/ei-protocol-for-archaeological-discoveries-offshore-renewables-projects.pdf [Accessed on 11/10/2024].

The Crown Estate (2021). Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects. The Crown Estate. Available online at: https://www.thecrownestate.co.uk/media/3917/guide-to-archaeological-requirements-for-offshore-wind.pdf [Accessed on 11/10/2024].

APPENDIX 32 A COMMITMENTS REGISTER

All environmental commitments generated from the EIAR and any other relevant documents will be detailed here on drafting of the final EMP.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) RECEPTOR	DETAILS OF MITIGATION	PURPOSE / GENERAL DESCRIPTION OF COMMITEMENT	RELEVANT CONSENT PLAN(S)
[to be included post-consent]			

APPENDIX 32 B CONTACTS SHEET

To be completed on drafting of the final EMP.

NAME	ROLE	COMPANY	PHONE NUMBER	EMAIL ADDRESS	OFFICE LOCATION
[to be included post-consent]					

APPENDIX 32 C MARINE POLLUTION CONTINGENCY PLAN

The MPCP will be drafted post-consent and will include the procedures to safeguard the marine environment from any potential accidental pollution events associated with Tier 1 oil or fuel spills during the construction, operation and maintenance phases of the Project. The MPCP will be drafted post-consent but will include sections similar to the following.

32C.1 Introduction

This Section will provide background to the Project, the consent requirements, an overview of the scope and structure of the MPCP, including objectives of the MPCP, and the key contacts for emergency situations (additional contacts will be listed within the appendices). It will also identify other consent plans and documentation that are relevant to pollution prevention and contingency planning and the linkages between those plans and documents and the MPCP.

C.2 Roles and responsibilities

This Section will describe the roles and responsibilities relating to the implementation of the MPCP. The roles likely to be included are listed in Table 32-8 below.

Table 32-8 MPCP roles and responsibilities

ROLE	CONTACT DETAILS	RESPONSIBILITY
The Developer	[to be included post-consent]	Ensuring contractors and subcontractors take appropriate responsibility for pollution events.
Developer Environmental Manager	[to be included post-consent]	Responsible for the overall preparation and implementation of the MPCP.
The Environmental Clerk of Works	[to be included post-consent]	Providing quality assurance for the MPCP, ensuring it is implemented in line with consent conditions and is responsible for reporting on compliance and incidents.
Contractors and Subcontractors	[to be included post-consent]	They will be expected to comply with the Developer's MPCP as well as produce their own. They will also be expected to ensure their staff have adequate pollution prevention and response training.
Spill Response Contractor	[to be included post-consent]	Required to be in place prior to construction and provide oil spill response as required.

C.3 Training and exercises

This Section will detail types of pollution prevention training that will be provided and the intervals at which they will be given.

C.4 Pollution sources and risk assessment

This Section will provide information on the potential sources of pollution, the associated level of risk, and the level of response likely to be required, based on the tier classification detailed in Table 32-9 below. It will also detail any control measures and monitoring requirements that have been established to mitigate against possible pollution events, in line with measures identified within the EIAR.

Table 32-9 Pollution tier classifications

TIER	CLASSIFICATION
Tier 1	Response within the capability of onsite resources
Tier 2	Response requires regional resources
Tier 3	Response requires national / international resources

C.5 Pollution incident response strategies

This Section will detail the specific procedures to be adhered to, both at sea and along shorelines, in the event of a marine pollution incident. It will include:

- Pollution incident response procedures to be adhered to in response to a marine pollution incident from a vessel or Project installation;
- Reporting requirements and procedures;
- Response checklist detailing the key actions to be implemented in the event of a pollution incident; and
- Spill response strategies to be implemented, and the associated procedures for dealing with any affected wildlife, based on the tier classification detailed in Table 32-9.
  - Tier 1 response for the minimal release of oil to the marine environment, which the Development can respond to within its own capacity; and
  - Tier 2/3 response where additional support is required from contractors or national pollution response services.

C.6 Appendices

A spill Risk Proforma (CG77 Pollution Report (POLREP) – Pollution Reporting Form), and Non-compliance Reporting Proforma will be included in the appendices of the MPCP, as well as a contacts directory for non-emergency contacts.

APPENDIX 32 D INVASIVE NON-NATIVE SPECIES MANAGEMENT PLAN

The INNSMP will be drafted post-consent and will follow NatureScot guidance on marine biosecurity planning (Payne *et al.*, 2014). The Developer shall ensure appropriate biosecurity management practices are implemented during construction and operation and maintenance phases of the Project to reduce the risk of transferring INNS to and from the site to a minimum.

The INNSMP will be drafted post-consent but will include sections similar to the following.

D.1 Introduction

This Section will provide a background to the Project and the INNSMP, details of all relevant United Kingdom (UK) Guidance and legal requirements around the management of INNS, as well as any linkages with other consent plans. It will also provide an overview of the scope and structure of the INNSMP.

The Project is aware of legislation, policy and guidance relevant to INNS, and this will be included in the final version of the INNSMP. This includes the following

- European Union (EU) Regulation 11/43/2014 on the prevention and management of the introduction and spread of invasive alien species:
  - The Invasive Non-Native Species (Amendment etc.) (EU Exit) Regulations 2019;
- Animal Welfare and Invasive Non-Native Species (Amendment etc.) (EU Exit) Regulations 2020;
- Wildlife and Countryside Act 1981;
- Code of Practice on Non-Native Species (Scottish Government, 2012);
- Wildlife and Natural Environment (Scotland) Act 2011;
- Environment Liability (Scotland) Regulations 2009;
- The International Conversion for the Control and Management of Ships' Ballast Water and Sediments (adopted in 2004);
- Merchant Shipping (Anti-Fouling Systems) Regulations 2009;
- Resolution Marine Environmental Protection Committee (MEPC).207(62) 2011 Guidelines for the Control and Management of Ships Biofouling to Minimize the Transfer of Invasive Aquatic Species; and
- Marine Biosecurity Planning. Guidance for Producing Site and Operation-based Plans for Preventing the Introduction of Non-Native Species (Payne *et al.*, 2014).

In Scotland, INNS are covered by Section 14 of the Wildlife and Countryside Act 1981. This regulation was amended in 2012 when the INNS section of the Wildlife and Natural Environment (Scotland) Act 2011 came into force. In 2012, the Scottish Government published the Code of Practice on Non-Native Species (Scottish Government, 2012), which sets out a framework of responsibilities for bodies with powers relating to INNS. The Code provides practical guidance on how developers should act responsibly and within the law to ensure that INNS do not cause harm to the marine environment. This Code focuses on a three-tiered approach, including prevention, rapid response and control and containment.

Furthermore, the Scottish Government (2020) strategy for biodiversity, which aims to protect and restore biodiversity, supporting healthier ecosystems, recognises INNS as a "significant threat to our marine biodiversity and industries such as aquaculture". It also highlights the need to "implement a rapid-response framework to prevent colonisation of new invasive species in Scotland's seas and islands", as they represent a significant threat to marine biodiversity (Scottish Government, 2020).

The INNSMP (within this EMP) will be updated post consent once relevant Project details are available. It will be informed by all relevant legislation and guidance and risk assessment and include consideration of all aspects of the Project (construction, operation and maintenance and decommissioning) and vessel operations, identifying the measures necessary to prevent and/or reduce the risk of introducing and/or spreading INNS in the marine environment and reflect the three-tiered approach outline above. The specific risks will be able to be confirmed following detailed design and contractor appointment.

D.2 Roles and responsibilities

This Section will describe the roles and responsibilities relating to the implementation of the INNSMP. The roles likely to be included are listed below in Table 32-10.

Table 32-10 INNSMP roles and responsibilities

ROLE	CONTACT DETAILS	RESPONSIBILITY
The Developer	[to be included post-consent]	Ensuring the implementation of the INNSMP and monitoring and clearance/disposal of INNS at the Project.
ECoW	[to be included post-consent]	Providing quality assurance for the INNSMP, ensuring it is implemented in line with consent conditions and reporting any incidents with INNS.
Contractors and Subcontractors	[to be included post-consent]	Comply with the INNSMP. Provide early notification if INNS are identified. Where relevant, develop own INNS plan to align with the Developer's.

D.3 Potential pathways for INNS introduction and/or spread

This Section will provide an assessment of site-specific biosecurity risks, including potential pathways of INNS introduction and/or spread. The specific risks will be confirmed once the detailed design and contractor appointment has been finalised.

Key risks with regards to INNS in relation to offshore windfarms include:

- Vessel ballast water;
- Vessel hull contamination; and
- Towed structures

D.4 Biosecurity control measures

This Section will detail the biosecurity control measures to be implemented to protect against negative INNS impacts, including a contingency plan in case of introduction or spread of INNS.

D.5 Surveillance monitoring and reporting

This Section will detail the types of surveying, reporting and record keeping required for INNS and list the persons responsible for carrying these out. A plan review schedule will also be detailed to help ensure the INNSMP stays up to date and relevant, and to help identify the need for any further studies or actions.

APPENDIX 32 E WASTE MANAGEMENT PLAN

The WMP will cover all waste generated from the Project during all Project phases, including details of contingency planning in the event of accidental release of materials. Where possible the hierarchy of reduce, reuse, recycle should be used. Contractors and subcontractors are likely to produce their own WMP which will be provided to the Developer. Any WMPs will be provided to the Developer for approval prior to commencement of any activities and will be updated prior to the commencement of those activities. The WMP will be drafted post-consent but will include sections similar to the following.

E.1 Overview and objectives

This Section will provide background to the Project and the WMP, details of all relevant UK guidance and legal requirements around the management of waste, and any specific waste management objectives of the Project. It will also provide an overview of the scope and structure of the WMP.

E.2 Types of waste

This Section will provide the legal definitions for the types of waste likely to be produced. It will also include the waste hierarchy principles, shown in Figure 32-2 below, that will be implemented throughout the Project.

Figure 32-2 Waste Hierarchy

E.3 Roles and responsibilities

This Section will describe the roles and responsibilities relating to the implementation of the WMP. Some of the key responsibilities of the contractors and subcontractors addressed in the WMP will include:

- Complying with all relevant legislative and EIAR requirements and ascertaining any relevant permits or licences;
- Strategies to increase awareness of recycling and waste reduction through education and plan distribution;
- Details of how waste will be handled, sorted and stored;
- Agreeing with the principles of the Basel Convention of 1989 to avoid hazardous waste being unfairly exported to developing countries.

E.4 Storage and handling of waste

This Section will detail the proposed methods of storing and handling the various types of waste produced by the Project, including how it will be segregated, how waste containers will be handled to ensure no waste runoff, and how it will be transported off site.

E.5 Treatment and fate of wastes

This Section includes Table 32-11 detailing the waste types that might be produced during normal construction and their likely fates.

Table 32-11 Types of waste and their likely fates

TYPE OF WASTE	SOURCE OF WASTE	FATE OF WASTE
[to be completed post-consent]		

All waste generated will be taken to shore and appropriately disposed of in line with current guidance.

E.6 Monitoring and incident reporting

This Section will detail the records that will need to be kept for the management of waste, how they will be audited and the reporting procedures for any non-conformances or incidents

APPENDIX 32 F ACCIDENTAL DEPOSIT OF AN OBJECT AT SEA FORM

Offshore Renewable Energy - Accidental Deposit of an Object at Sea Reporting Form

Marine Directorate form for reporting an accidental deposit of an object at sea from the offshore renewable energy industry.

In the event of an immediate risk of debris or an accidental deposit of an object at sea being a danger or hazard to navigation, immediate notification (as soon as reasonably possible, but no later than six hours) must be made to the relevant HM Coastguard rescue coordination centre by telephone, and the UK Hydrographic Office (navwarnings@ukho.gov.uk).

For all accidental deposits of an object or debris in the sea, an 'accidental deposit of an object at sea form' must be submitted electronically to the organisations listed below as soon as possible and no later than 24 hours after the event takes place.
Where required, updates can be provided.

Organisation	Organisation details
Marine Directorate (MD)	MD.MarineRenewables@gov.scot
Maritime & Coastguard Agency (MCA)	navigationsafety@mcga.gov.uk renewables@hmcg.gov.uk OELO@mcga.gov.uk
Kingfisher at Seafish (Kingfisher)	kingfisher@seafish.co.uk
Northern Lighthouse Board (NLB)	Navigation@nlb.org.uk
United Kingdom Hydrographic Office (UKHO)	navwarnings@ukho.gov.uk
Scottish Fishermen's Federation (SFF)	PON2@sff.co.uk
Regional Inshore Fisheries Group (RIFG) – contact relevant RIFG	rifg.scot

1. Details	
AD reference number *MD staff only*:	
Date of first report (MM/DD/YYYY):	
Version and date of any report updates:	
Full Name of Reporter:	**Position/Title:**
Contact Telephone number:	
Contact email address:	
Operator/Organisation/Company responsible for accidental deposit of an object:	

Project name:
Name of licensee (where applicable) for accidental deposit of an object:

Name of vessel/installation (where applicable) for the accidental deposit of an object:
2. Location/position of the accidental deposit of an object at sea
Location/position of the installation/vessel at the time of the loss
Latitude (WGS84 DD MM.MMM):
Longitude (WGS84 DD MM.MMM):
Location/position of the accidental deposit of an object at sea
Latitude (WGS84 DD MM.MMM):
Longitude (WGS84 DD MM.MMM):
Date dropped: Time (24hrs):
Weather conditions at time: **Depth of sea (metres):**
Beaufort scale (tide rate/direction): Wave height (metres):
If the location of the accidental deposit of an object at sea is not immediately known, please provide as much information as possible:
3. Accidental deposit of an object(s) at sea details
Provide a full description of the object(s), materials involved, function of object, dimensions, shape etc. Any maritime safety equipment (e.g. life rafts, life rings, life jackets etc) lost to sea must be reported to minimise the likelihood of unnecessary response mobilisation. Provide photos if available in all circumstances:

If the object(s) are resting on the seabed, are they near any offshore assets? (Yes or No). If yes, provide more detail:

Are the materials likely to float on sea surface or in water column? (Yes or No). If yes, provide more detail:
If the answer above is yes – are materials likely to reach shore or cross an international border?
Circumstances for accidental deposit of an object(s) at sea:
What are the plans to recover the object(s)? Include anticipated timescales for any recovery operation. If there are no plans to recover the object(s), specify why this is:
What are considered to be the risks and dangers to other users of the sea as a result of the lost or dumped object(s) not being recovered and how will these risks be mitigated?

Who will be/has been consulted as part of this decision making process?
Is there any further information that may be useful:

In addition to the mandatory organisations stated at the top of this form, please list the organisations you have/will copy this form to: