

VESSEL MANAGEMENT PLAN
KINCARDINE OFFSHORE WINDFARM PROJECT

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ACRONYMS, ABBREVIATIONS and DEFINITIONS

ACC	Aberdeen City Council
AHTS	Anchor Handling Tug Supply
BP	Bollard Pull
CAA	Civil Aviation Authority
CaP	Cable Plan
CLV	Cable Lay Vessel
CMS	Construction Method Statement
COLREGS	International Regulations for Preventing Collisions at Sea
DS	Design Statement
ECOW	Environmental Clerk of Works
EMP	Environmental I Management Plan
ERCoP	Emergency Response and Co-operation Plan
ERP	Emergency Response Plan
ES	Environmental Statement
IMO	International Maritime Organisation
KOWF	Kincardine Offshore Wind Farm
KOWL	Kincardine Offshore Windfarm Limited
kV	Kilo Volt
MCA	Maritime and Coastguard Agency
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MOD	Ministry of Defence



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MS-LOT	Marine Scotland Licensing and Operations Team
MW	Megawatt
NLB	Northern Lighthouse Board
nm	Nautical mile
NSP	Navigational Safety Plan
PEMP	Project Environmental Monitoring Plan
PLGR	Pre-Lay Grapnel Run
SNH	Scottish Natural Heritage
SOLAS	Safety of Life at Sea
VMP	Vessel Management Plan
VMP	Vessel Management Plan
WTG	Wind Turbine Generator

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1 INTRODUCTION

1.1 Purpose of the Document

This document has been created to satisfy Condition 14 of the Section 36 Consent issued by the Marine Scotland Licensing Operations Team (MS-LOT) to Kincardine Offshore Wind Limited (KOWL) for the Kincardine Offshore Windfarm (the Project).

Condition 14 requires the production of a Vessel Management Plan (VMP) to provide details of KOWL's plans to ensure the Project vessels (during both the construction and operational phases of the Project) are managed in such a manner as to minimise risk to third party traffic and the marine environment and to abide by Marine Scotland requirements.

1.2 Scope of Document

The VMP sets out the management measures KOWL will set in place to ensure risks to third party traffic and the environment are minimised. The VMP includes details of the following:

- Numbers, types, and specifications of vessels used during the construction and operation of the Project;
- How vessels will be managed;
- Number of vessel movements;
- Working ports to be used;
- Anticipated KOWL vessel routing.

1.3 Amending and Updating of this Document

The nature of the construction process proposed for the Project means that updates to this document may be required as the project progresses.

Where the need for an update or amendment to this document is identified following approval from Marine Scotland Licensing Operations Team (MS-LOT), either through a consultation response, or due to practicalities arising as the project progresses, KOWL will communicate the suggested update/amendment to MS-LOT prior to editing the approved document.

1.4 Compliance

Compliance with the various consent conditions are documented in the Commitments Register and where applicable throughout the VMP.

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2 Project Overview

2.1 Summary

The Project is considered a commercial demonstrator site, which will utilise floating foundation technology, and will be one of the world's first array of floating wind turbines. It has been included within the Survey, Deploy and Monitoring scheme for offshore renewable systems (similar to wave and tidal devices).

The Project is located south-east of Aberdeen approximately 8nm (15km) from the Scottish coastline, in a location that provides suitable water depth for a floating offshore wind demonstrator development (approximately 60-80m).

The project is split into the following areas:

- The Development Area – the wind farm area including the Wind Turbine Generators (WTG) and inter-array cables.
- The Offshore Export Cable Corridor – the area within which the proposed export cables will be laid, from the perimeter of the Development Area to the onshore area at Mean High Water Spring (MHWS).
- The Onshore Area – the onshore area above MHWS including the underground cables connecting to the onshore substation at Redmoss.

2.2 Turbine Locations

The project originally consisted of 8 locations. This has been reduced to 6 locations and hence the designations have now changed as follows;

Table 2-1 Location Designation Changes

Location designation Pre-2019	New location designation Post-2019
KIN-01	KIN-01
KIN-02	KIN-02
KIN-03	KIN-03
KIN-04	n/a
KIN-05	n/a
KIN-06	KIN-04
KIN-07	KIN-05
KIN-08	KIN-06

The position of the locations 'KIN-01' through to 'KIN-06' together with the key project boundaries are detailed in Appendix A in drawing KOWL-DR-0001-015.

This drawing is a controlled document and shall form the approved source for all coordinates in both UTM and Latitude/Longitude positions.

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It must be stressed that the locations are the centre of the turbine and not the centre of the substructure.

2.3 Principal Components

The maximum generation capacity of the windfarm is capped at 50MW, the main difference between the various stages of the applications have been the number, size and power rating of the turbines, together with the substructure type.

The Project will now consist of the following offshore components:

- 1 x 2MW WTG (currently inoperation)
 - 5 x 9.5MW WTG (to be installed 2020)
 - 5 x 33kv inter-array cables (to be installed 2020)
 - 2 x export cables (one currently installed)
- All turbine substructures are the semi-submersible Windfloat™ design.

2.4 Installed Components

The onshore sub-station has been completed.

The first deployment was a 2MW WTG and associated substructure, anchors and mooring lines in 2018 on location 'KIN-01'. One export cable was also installed, through a Horizontal Directional Drilling (HDD) hole from landfall to circa 20m water depth and then along the export cable corridor to 'KIN-01' location.

A condition in the existing marine licence requires Third Party Certification or Verification (or suitable alternative as agreed, in writing, with the Licensing Authority) for all WTGs, mooring systems and WTG substructures prior to the commencement of the works.

2.5 Project Design Life

The design life for the windfarm is 25 years.

2.6 Construction Programme Overview

The construction of the project is anticipated to occur in two 'Tranches' in-line with the Programme outlined in the document "Construction Programme", KOWL-REP-0004-001.

One Tranche has been completed and the Construction Programme for the second tranche will be provided to Scottish Ministers prior to commencement of the construction as a requirement of the consent conditions.

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3 Consent Conditions

Conditions in the Section 36 Consent and Marine Licence that are relevant to the VMP will be addressed in this document are shown in Table 3-1 and Table 3-2 below.



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Table 3-1 Consent Conditions to be discharged by this VMP

Consent Document	Condition Reference	Condition Text	Where Addressed
S. 36 Consent	Condition 14	<i>The Company must, no later than 6 months prior to the Commencement of the Development or at such a time as agreed with the Scottish Ministers, submit a Vessel Management Plan, in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with Scottish National Heritage (SNH), Maritime and Coastguard Agency (MCA), Traffic Scotland, ACC and any other navigational advisors or organisations as may be required at the discretion of the Scottish Ministers.</i>	<p>This document sets out the VMP for approval by the Scottish Ministers.</p> <p>Consultation to be undertaken by Scottish Ministers.</p>
		<i>The VMP must include, but not be limited to, the following details:</i> <ul style="list-style-type: none"> <i>The number, types and specification of vessels required;</i> 	Section 4
		<ul style="list-style-type: none"> <i>How vessel management will be co-ordinated, particularly during construction but also operation;</i> 	Section 5
		<ul style="list-style-type: none"> <i>Location of working port(s), how often vessels will be required to transit between port(s) and KOWF and indicative vessel transit corridors proposed to be used during construction and operation of KOWF; and</i> 	<p>Section 6.2 (Working ports)</p> <p>Section 6.3 (Routeing)</p> <p>Section 7 (Movements)</p>

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Consent Document	Condition Reference	Condition Text	Where Addressed
		<ul style="list-style-type: none"> <i>The means by which vessel movements will be avoided or minimised during the last two weeks of July and first two weeks of August.</i> 	Section 7.4
		<ul style="list-style-type: none"> <i>The confirmed individual vessel details must be notified to the Scottish Ministers, in writing, no later than 14 days prior to the Commencement of KOWF or at such a time as agreed with the Scottish Ministers 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 KOWF.</i> 	Section 4.1



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Table 3-2 Other Consent Conditions Relevant to this VMP


Consent Document	Condition Reference	Summary of Condition	Where Addressed
Marine Licence	3.1.3	<i>The Licensee must provide, as soon as reasonably practicable in advance of their engagement in the Works authorised under this licence, the name and function of any vessel, vehicle, agent, contractor or sub-contractor appointed to engage in KOWF to the Licensing Authority. Where applicable the notification must include the vessel type, vessel International Maritime Organisation (IMO) number and vessel owner or operating company.</i>	Section 8.3
		<i>The Licensee must ensure that any changes to the supplied details must be notified to the Licensing Authority, in writing, 14 days prior to any vessel, vehicle, agent, contractor or sub-contractor engaging in KOWF.</i>	Section 8.3
		<i>The Licensee must ensure that only those vessels, vehicles, operators, agents, contractors or sub-contractors notified to the Licensing Authority are permitted to carry out any part of KOWF.</i>	Section 8.3
		<i>The above details must be recorded in section 2.5 and 2.6 of this licence. If not provided at application these details and any subsequent changes will require a variation to the licence to update section 2.5 and 2.6 prior to engagement of KOWF.</i>	The details will be made available for a variation to the license when known.
		<i>The Licensee must satisfy themselves that any masters of vessels or vehicle operators, agents, contractors or sub-contractors are aware of the</i>	Section 5.2 (Construction)

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Consent Document	Condition Reference	Summary of Condition	Where Addressed
		<i>extent of the Works for which this licence has been granted, the activity which is licensed and the terms of the conditions attached to this licence. All masters of vessels or vehicle operators, agents, contractors and sub-contractors permitted to engage in KOWF must abide by the conditions set out in this licence.</i>	Section 5.3 (Operation)
		<i>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 and section 72 of the 2009 Act, to the masters of any vessels, vehicle operators, agents, contractors or sub-contractors permitted to engage in KOWF, and must ensure that the licence and any such variations are read and understood by those persons.</i>	Section 5.2 (Construction) Section 5.3 (Operation)
Marine License	3.2.1.1	<i>In the event of any breach of health and safety or environmental obligations relating to the Works during the period of this licence, the Licensee must provide written notification of the nature and timing of the incident to the Licensing Authority, including confirmation of remedial measures taken and/ or to be taken to rectify the breach, within 24 hours of the incident occurring.</i>	Section 8.2
Marine License	3.2.3.1	<i>The Licensee must submit to the Licensing Authority a detailed transportation audit sheet for each calendar month during the period when construction of the Works is undertaken. This sheet must be submitted</i>	Section 8.4 (Construction) Section 8.5 (Operation)

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Consent Document	Condition Reference	Summary of Condition	Where Addressed
		<i>within 14 days of the end of each calendar month. It must cover all aspects of the construction of the Works. The transportation audit sheet must include, but not be limited to, information on the loading facility, vessels, equipment, shipment routes, schedules and all materials deposited in that calendar month. Where, following the submission of a transportation audit sheet to the Licensing Authority, any alteration is made to the component parts of the transportation audit sheet, the Licensee must notify the Licensing Authority of the alteration in the following month's transportation audit sheet.</i>	It is noted that only the requirement to report vessel details and shipment routes within the Transportation Audit Sheet is relevant to this VMP.

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4 NUMBERS, TYPES AND SPECIFICATIONS OF VESSELS

4.1 Introduction

This section describes anticipated vessel types, numbers and relevant specifications that will be employed during the construction and operational phases of the Project.

Vessel details are indicative only, however, it is noted that as per Condition 14 of the S36 Consent, KOWL will provide confirmed vessel details (in addition to vehicles, operators, agents, contractors and sub-contractors) to MS-LOT, no later than 14 days prior to commencement of offshore construction.

4.2 Construction Phase

4.2.1 *Inter-Array and Export Cable Installation Vessels*

Vessel types anticipated to be required during the installation of the second export cable are presented in Table 4-1. Specific vessels to be used are yet to be confirmed, however indicative examples of vessels that may be used are included in the table (noting that it is anticipated that the final vessels used will be similar in nature to the indicative examples).

Additional vessels will be required for the installation of the inter-array cables. These vessel details will be added to an amended VMP as and when they become available.

Table 4-1 Cable Installation Vessels

Vessel Type	Example of Typical Vessel		
	Name	Length (m)	Gross Tonnage
Cable Lay Vessel (CLV)	<i>Siem Aimery</i>	95.3	8,530
Trench Lay Support Vessel	<i>Grand Canyon</i>	127.75	12,652
Pre-lay Grapnel Run (PLGR) / Route Clearance Vessel (optional)	<i>Blue Alfa</i>	65.6	1,887
Boulder Clearance Vessel (optional)	<i>Siem Marlin</i>	93.6	4,869

4.2.2 *WTG Installation Vessels (No heavy lift vessels)*

The vessel types anticipated to be required for the installation process of the first WTG are presented in Table 4-2. The specific vessels to be used are not yet known at the time of writing, however as per Condition 3.1.3 of the Marine License, a full list of all vessels to be used will be provided to MS-LOT prior to the commencement of offshore construction.


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Table 4-2 WTG Installation Vessel Types

Activity	Vessels Required
Mooring Pre-Lay	1 x Anchor Handling Tug Supply (AHTS) with > 200t Bollard Pull (BP)
Harbour Towing	2 x Tug 30-40t BP
Handover for Towing	2 x Tugs 30-40t BP 1 x AHTS or Tug > 100t BP
Offshore Towing	1 x AHTS or Tug > 100t BP
Mooring Line HookUp	1 x AHTS or Tug > 100t BP
Umbilical HookUp	1 x AHTS or Multi-Purpose Supply Vessel (MPSV)

4.2.3 Guard Vessels

Given the size of the site, guard duties may be assigned to an on-site vessel (that is not restricted in its ability to manoeuvre or monitoring of personnel on site), rather than deploying a dedicated guard vessel. It is currently anticipated that a dedicated guard vessel will be used when a risk assessment shows that there is a hazard to third party¹ safe navigation, including but not limited to the installation of the mooring lines and cables and the hook-up of mooring lines to the WTGs. Should a dedicated guard vessel be used (for example in the event of guard duties being required when no other vessel is on-site) then MS-LOT will be informed under Condition 3.1.3 of the Marine License.

4.3 Operational Phase


4.3.1 Routine Maintenance

In terms of routine maintenance, the worst-case envelope issued under the Variation Application assumed that two vessels would be on-site five days a week during summer, and that one vessel would be on-site five days a week during winter. Emergency vessel cover would also be available during the weekends. It is noted that this is a worst case, with actual days on site expected to be less.

4.3.2 Major Maintenance

Should the need for major maintenance arise, larger non-routine vessels may be required, similar to the vessels used in the installation process. The types of vessels needed will depend on requirements at the time, and as such providing vessel details at this stage is not feasible. However, notice of any works undertaken will be promulgated in advance of commencement, including details of the vessels to be used.

¹ Third party means vessels not associated with KOWL operations.

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It is noted that certain major maintenance activities may require the use of a guard vessel. This would be assessed at the time again via a risk assessment process.

5 MANAGEMENT AND COORDINATION OF VESSELS

5.1 Introduction

This section provides a summary of the associated measures that will be in place during both the construction and operational phases.

5.2 Construction Phase


Matters relating to marine coordination and management of construction vessels are set out, for approval, in the Navigational Safety Plan (NSP) (KOWL-PL-0004-007). In summary the following navigational safety and vessel management measures will be set in place by KOWL during the construction phase:

- Marine coordination (management of KOWL vessels and operations) undertaken from Aberdeen;
- Vessel movements will be avoided or minimised during the last two weeks of July and first two weeks of August;
- Compliance of all KOWL vessels with recognised international maritimestandards (ascertained via independent audits as necessary);
- All KOWL vessels with lights and shapes as per the International Regulations for Preventing Collisions at Sea (COLREGS) (IMO, 1972 as amended), notably during towing operations;
- Compliance of all KOWL vessels with the approved VMP and NSP;
- All KOWL vessels provided with a copy of (and understand the requirements of) the Marine License;
- Use of 500m safety zones around active construction work;
- Recommended transit routes for use by KOWL vessels (noting COLREGS (IMO, 1972 as amended) will remain the navigational priority), including protocols for KOWL vessels approaching and working on-site, as defined by the marine coordination;
- Use of guard vessel when required by risk assessment (either dedicated or via an on-site vessel designated guard responsibilities);
- Emergency response procedures including use of the Emergency Response Cooperation Plan (ERCoP) and Emergency Response Plan (ERP);
- Wind farm constructed in line with MCA Marine Guidance Note (MGN) 543 (MCA, 2016);
- Marking and lighting in agreement with NLB, MCA, Ministry of Defence (MOD) and the Civil Aviation Authority (CAA); and
- Promulgation of information as required by the marine licence.

All marine works and associated vessel movements will be planned, managed and monitored via marine coordination giving due regard to the VMP and NSP.

5.3 Operational and Maintenance Phase

Navigational safety measures to be implemented during the operational phase are contained in full within the NSP (KOWL-PL-0004-007). In summary the following navigational safety and vessel management measures will be set in place by KOWL during operation:


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- Marine coordination (management of KOWL vessels and operations) undertaken from Aberdeen;
- Compliance of all KOWL vessels with recognised international maritime standards (ascertained via independent audits as necessary);
- Compliance of all KOWL vessels with the approved VMP and NSP;
- All KOWL vessels provided with a copy of (and understand the requirements of) the Marine License;
- All KOWL vessels with lights and shapes as per COLREGS (IMO, 1972 as amended);
- Use of 500m safety zones around active major maintenance work;
- Recommended transit routes for use by KOWL vessels (noting COLREGS (IMO, 1972 as amended) will remain the navigational priority), including protocols for KOWL vessels approaching and working on-site, as defined via marine coordination;
- Use of guard vessel during periods of major maintenance if deemed necessary by risk assessment (either dedicated or via an on-site vessel designated guard responsibilities);
- Emergency response procedures including use of the ERCoP and ERP;
- Wind farm operated in line with MGN 543 (MCA, 2016);
- Operational lighting and marking as agreed with NLB, MCA, MOD and CAA;
- Promulgation of information in advance of notable activity on-site that may impact vessel movements (e.g., major maintenance); and
- Avoidance of large vessel operations during the last two weeks of July and first two weeks of August.

All marine works and associated vessel movements will be planned via marine coordination giving due regard to the VMP and NSP.

5.4 Distribution of this VMP

This VMP will be distributed to all Project vessels; the Project shall take active steps to ensure it is understood and implemented. Marine Coordination will be responsible for distributing a copy of the VMP in advance and as part of vessel inductions including any updated versions. Distribution of the plan will also include ensuring that the contractor is aware of the consent conditions relevant to the VMP.

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6 WORKING PORTS AND INDICATIVE TRANSIT ROUTES

6.1 Introduction

This section presents indicative routes that have been identified based on a review of the working port locations currently under consideration, and typical traffic patterns within the area in which KOWL associated vessels will be required to transit.

It is noted that while indicative transit routes are required to be identified for the purpose of this VMP (as per Condition 14(c) of the S36 Consent), the navigational priority of all KOWL vessels will remain as per COLREGS (IMO, 1972 as amended).

6.2 Working Ports

It is currently anticipated that Dundee, Peterhead, Nigg, Aberdeen, Montrose and Invergordon may be used as working ports during the construction of the Project, noting that it may be necessary to utilise other ports as the Project progresses.

It is currently anticipated that the principal operation port will be Aberdeen, however other ports may be required depending on Project requirements.

6.3 Vessel Routeing

Likely indicative routes that vessels would take to the Development Area from the working ports (see Section 6.2) are presented in Figure 6-1. Routes have been defined based on typical vessel routeing and have accounted for routeing restrictions such as shallow waters and aids to navigation. It is noted that as per passage planning processes vessels will also be required to consider temporary or third-party activities such as the placement of fishing gear. Engagement with the KOWL FLO is required if alternative routes are taken.

Routes have not been defined within the Moray Firth (noting the use of Nigg and Invergordon as working ports as per Section 6.2), however it is assumed that any associated vessels would remain coastal while transiting the Moray and Aberdeenshire coasts, given existing routeing in the area.

The routes shown are **indicative only**, and all KOWL associated vessels will passage plan as per the International Regulations for Safety of Life at Sea (SOLAS) (IMO, 1974). Vessels may choose to deviate from the indicative routes for a variety of reasons, including compliance with international marine regulations (most notably SOLAS or COLREGS as amended), adverse weather, requirements to access a location not accessible using the indicative routes or other hazards/restrictions.

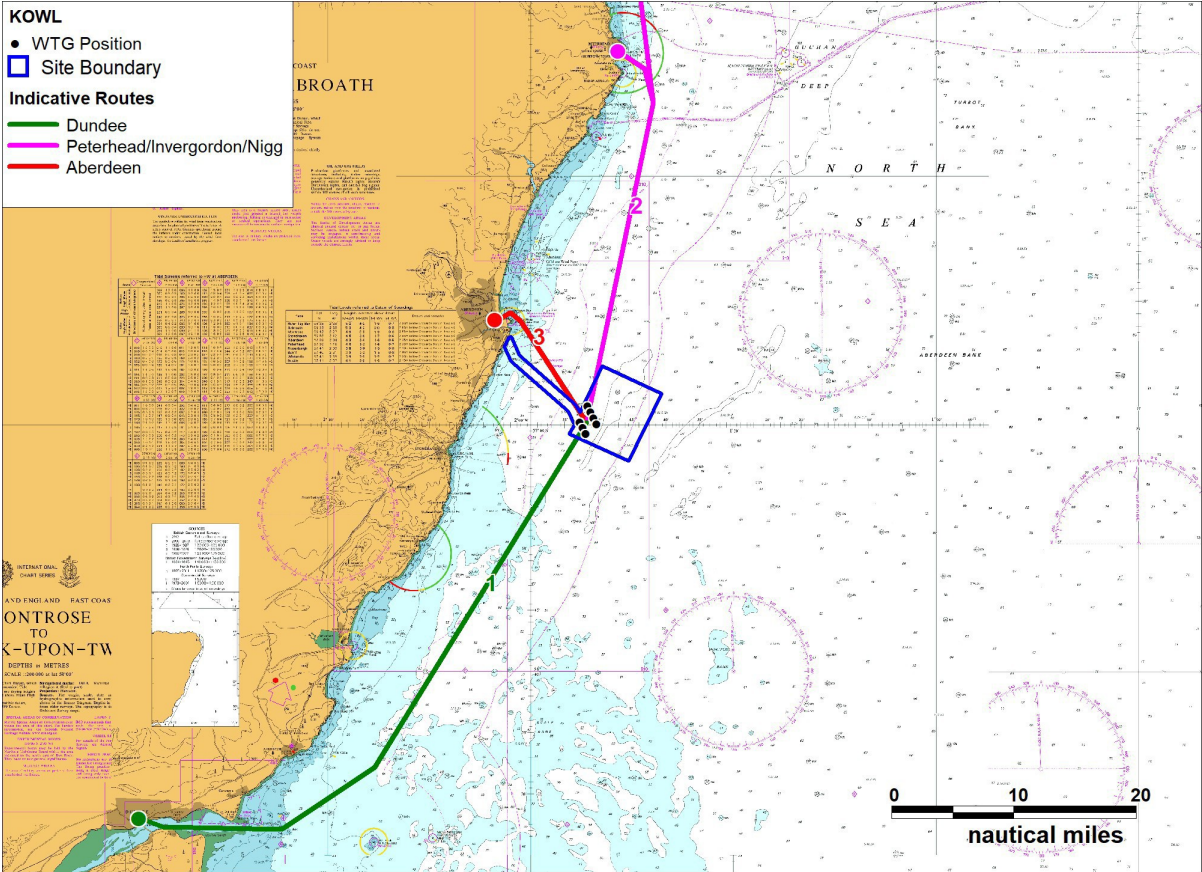



Figure 6-1 Indicative Transit Corridors – Illustrative purpose only

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7 MOVEMENT OF VESSELS

7.1 Introduction

Based on the current understanding of the construction / operation vessel requirements the following section outlines the numbers of vessel movements expected. The movement numbers presented are indicative only based on the best current understanding of the Project requirements.

Note that, in line with condition 3.1.3 of the Marine Licence (see Table 3-2), the full list of vessels will be notified to the Licensing Authority as soon as is reasonably practicable prior to their use for offshore construction purposes.

7.2 Construction Vessel Movements


The anticipated total number of vessel movements required by vessels over construction of the tranches are summarised in Table 7-1. For the purposes of this VMP a vessel movement is defined as a return journey to port.

Table 7-1 Construction Vessel Movements

Activity	Vessel (s)	Anticipated Number of Movements per Vessel
Cable Lay	CLV	3
Trench Lay	Offshore Supply Vessel	3
PLGR/Route Clearance	AHTS	2
Boulder Clearance	Offshore Supply Vessel	1
Mooring Pre-Lay	AHTS	7
Harbour Towing	2 x Tug	7
Towing Handover	2 x Tug	8
	AHTS	8
Offshore Towing	AHTS	7
Mooring Line Hookup	AHTS	8
Umbilical Hook Up	AHTS/MPSV	8

7.3 Operation and Maintenance Vessels

Operational requirements are unknown at the time of writing, however as per Section 4.3, the worst case assumes two vessels on-site five days a week during summer, and one vessel on-site five days a week during winter. Emergency vessel cover would also be available at weekends. This worst case

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therefore, corresponds to two vessel movements during a typical week in summer, and one during a typical winter week, however actual movement numbers are considered likely to be less.

It is noted that during major maintenance (or in certain cases of routine planned maintenance), additional vessel movements will be required, however this is not anticipated to be a regular occurrence. Details of any such activity would be promulgated in advance of commencement.


7.4 Movements during July/August

Condition 14 of the S36 Consent requires KOWL to avoid vessel movements during the last two weeks of July and the first two weeks of August, based on a request by SNH in relation to minimising ornithological impacts. The programmes of future Tranches are yet to be finalised however the Condition will be considered prior to finalisation, and associated vessel movements during the period stated will be avoided unless absolutely necessary.

As per Section 7.3, operational requirements are unknown at the time of writing, however KOWL will commit to restricting maintenance vessel movements during the period stated in the condition to those that are absolutely necessary for safety reasons.

Vessel operators will be made aware of the Scottish Marine Wildlife Watching Code

<https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code>).

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8 REPORTING REQUIREMENTS IN COMPLIANCE WITH VESSEL MANAGEMENT PLAN

8.1 Introduction

This section provides the reporting requirements relevant to vessel management that KOWL must fulfil, based on the conditions set out within the S36 Consent and Marine License.

8.2 Incident Reporting

As per Condition 3.2.1.1 of the Marine Licence, in the event of any breach of health and safety or environmental obligations relating to the Project during the period of the Marine Licence, KOWL will provide written notification of the nature and timing of the incident to MS-LOT, including confirmation of remedial measures taken and / or to be taken to rectify the breach, within 24 hours of the incident occurring.

8.3 Reporting Prior to Construction

As per Condition 14 of the S36 Consent, KOWL will provide confirmed details of each vessel to be used during the construction and operation of the Project to MS-LOT, no later than 14 days prior to the Commencement of the Development. MS-LOT will also be notified as soon as is practicable in the event of vessel details changing.

Only those vessels, vehicles, operators, agents, contractors or sub-contractors notified to MS-LOT will be used to carry out works associated with the Project.

8.4 Reporting during Construction

As per Condition 3.2.3.1 of the Marine Licence KOWL will provide MS-LOT with a Transportation Audit Sheet for each calendar month in which construction work is undertaken, no later than 14 days from the end of the calendar month being reported. Relevant to this VMP are the condition requirements that each Transportation Audit Sheet includes details of the vessels and shipment routes used during the corresponding calendar month.

KOWL will also provide incident reports in relation to any incident occurring during construction, as per Section 8.2.

8.5 Reporting during Operation

At present there is no intention to undertake regular reporting in relation to this VMP during operation. However, as per Section 8.2, KOWL will provide incident reports to MS-LOT in relation to any incident occurring during operation / maintenance.

8.6 Environmental Clerk of Works (ECoW)

The KOWL project has appointed An Environmental Clerk of Works (ECoW). The role of the ECoW is as follows:

- Responsible for monitoring and compliance of the consent conditions and the environmental mitigation measures, provision of ongoing advice and guidance to KOWL team in relation to achieving compliance with consent conditions, including but not limited to the conditions relating to the CMS, the EMP, the PEMP, the DS, the CaP and the VMP
- Inducting and toolbox talks to onsite construction teams on environmental policy and procedures and keeping records
- Monitoring that the development is being constructed according to the plans and the consent

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Prior to each vessel entering the worksite the ECoW will carry out a briefing with the Captain of the vessel. This will take the form of a briefing pack and a checklist which will be completed and agreed with the vessel Master. The checklist is developed from the documents listed below. This will as a minimum be a briefing pack sent by email to the vessel and a follow up conference call with the vessel Captain or a vessel visit by the ECoW.

The briefing pack consists of the following documents:

- Emergency Response and Cooperation Plan KOWL-PL-0004-008
- KOWL Vessel Management Plan KOWL-PL-0004-006
- KOWL Environmental Management Plan KOWL-PL-0004-002
- Section 36C Electricity Act 1989 Annex 2 Conditions
- Marine Licence Conditions
- Scottish Marine Wildlife Watching Code <https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code>


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9 REFERENCES

IMO (1972) *Convention on the International Regulations for Preventing Collisions and Sea (COLREGS)*, as amended. London: IMO.

IMO (1974) *Safety of Life at Sea (SOLAS) as amended*. London: IMO.

MCA (2016) *Marine Guidance Note (MGN) 543: Offshore renewable energy installations (OREIs): guidance on UK navigational practice, safety and emergency response*. Southampton: MCA.

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AUDIT REPORT
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Audit Objectives

- To determine whether the vessel is able to deliver the requirements of the Marine Licence and S36 Conditions.
- To ensure that suitable prevention, control and mitigation measures are in place to deliver responsible environmental management.
- To demonstrate that KOWL are focused on delivering environmentally compliant operations.


Auditor		Auditee	
Vessel Name		Location/Date	

Summary of activities for which the vessel is contracted


Issue	Comments	Actions Required
Has the Environmental Briefing Note been shared with relevant personnel onboard?		-
Are the Marine Licence timing constraints understood?		-
Are protocols in place to deal with invasive non-native species (INNS)?		-
Does the vessel have an Anti-Fouling Certificate?		-
Are hull inspections and bio-fouling measures recorded in the planned maintenance system or CMID?		-
What measures are in place for pre and post-use ROV marine growth surveys?		-

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Is there a Ballast Water and Sediments Management Plan in place?		-
Is there a vessel WMP on board?		-
Is the WMP reviewed and updated periodically?		-
Are personnel aware of procedures and responsibilities within the WMP?		-
Is there evidence of appropriate segregation and storage facilities on board?		-
Is waste management paperwork kept accurately?		-
Where will waste arising from this operation be disposed of?		-
Have all personnel received the relevant induction/tool box talks and are attendance records up to date?		-
Does the vessel have a valid CMID (Common Marine Inspection Document) and a CMID Report?		-
Are all chemicals stored appropriately?		-
Are all lubricants / oils stored appropriately in bunded areas?		-
Are MSDS assessments for these chemicals available		-

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Are all chemicals assessed for use under the Offshore Chemicals Regulations 2002?		-
Are emergency exercises carried out and recorded?		-
When was the last spill response exercise carried out?		-
Is there a spill response plan in place?		-
Has the spill plan been received and approved by KOWL?		-
Are spill kits available on board and are they fully stocked?		-
Does the site induction cover emergency response arrangements?		-
Are personnel aware of how and when an incident / near miss should be reported to KOWL?		-
Are the vessel's safety and environmental performance statistics displayed?		-
Are all vessel policies on display (H&S, Environment, Quality etc.)?		-
Are conditions in the Marine Licence and S36 Consent understood by the vessel master?		

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Is the vessel aware of the requirement to submit information to KOWL so that KOWL can complete a Transportation Audit / Nature and Quantity of Deposited Substances Sheet and send to Marine Scotland no later than 14 days after the end of the month in which the work was carried out?		-
What are the general impressions of housekeeping standards on board the vessel?		-

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Observations made / Discussions on site

Conclusions

Signed	Catrin Fowden	Date	September 25 th 2019
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AUDIT CHECKLIST REFERENCE DOCUMENTS

Emergency Response and Cooperation Plan KOWL-PL-0004-008
 KOWL Vessel Management Plan KOWL-PL-0004-006
 KOWL Environmental Management Plan KOWL-PL-0004-002
 Section 36C Electricity Act 1989 Annex 2 Conditions
 Marine Licence Conditions











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Final Audit Report

2020-03-31

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