Bellrock Offshore Wind Farm

Wind Farm Development Area

Volume V

Outline Vessel Management and Navigational Safety Plan

Date: April 2026

Document Number: RHDV_BEL_CST_REP_0006_005

Revision Number: 1

Classification: Public

Revision History

Rev.	Prepared By	Checked By	Approved By	Date
1	Anatec Limited	ES	BMcG	01/04/2026

This page is intentionally blank

Contents

List of Tables

Glossary of Terminology

Term	Definition
Applicant	Bellrock Offshore Wind Farm Limited, the legal entity submitting Section 36 Consent and Marine Licence applications for Bellrock Wind Farm Development Area.
Automatic Identification System	A system by which vessels automatically broadcast their identity, key statistics including location, destination, length, speed, and current status, e.g. under power. Most commercial vessels and United Kingdom /European Union fishing vessels over 15 metre length are required to carry Automatic Identification System.
Bellrock Offshore Wind Farm (or the Bellrock Project)	An offshore wind farm capable of exporting around 1.8 gigawatts of renewable energy to the National Electricity Transmission System. The Wind Farm Development Area is located 120 kilometres east of Stonehaven, and will connect to the National Electricity Transmission System at the SSEN Transmission proposed Hurlie substation, west of Stonehaven in Aberdeenshire. The Bellrock Offshore Wind Farm comprises of the following Development Areas: ▪ Wind Farm Development Area; ▪ Offshore Transmission Development Area; and ▪ Onshore Transmission Development Area.
Construction port	Port that may be used during the construction of the Wind Farm Infrastructure and includes integration port(s) and assembly port(s).
Construction works	Works to install the Wind Farm Infrastructure as authorised by the Wind Farm Development Area Section 36 Consent/Marine Licence, such as: ▪ Site preparation works undertaken after commencement of construction; ▪ Pre-installation surveys (intrusive and/or non-intrusive); ▪ Placement on or installation in the seabed of anchors and associated scour protection, and mooring lines, and associated scour protection; ▪ Towing or transportation of the floating offshore unit to the Wind Farm Development Area from a port or wet storage facility; ▪ Floating offshore unit installation and commissioning, including hooking-up to the pre-installed mooring system; ▪ Trench excavation for inter-array cables; ▪ Laying of inter-array cables in or on the seabed and, associated cable protection; ▪ Installation of subsea cable hubs, including placing of associated foundation; ▪ Final commissioning following cable connections and snagging; and ▪ Post installation surveys.
Floating offshore unit	The combined wind turbine generator and floating substructure.
Floating substructure	A floating structure which provides buoyancy and, in conjunction with the station keeping system, supports a superstructure (e.g. wind turbine generator or offshore substation), and maintaining its position within the structure's excursion limit.

Term	Definition
Inter-array cable	Armoured cable containing electrical and fibre optic cores, which link the wind turbine generators to each other and to the subsea cable hubs and/or the offshore substations and include dynamic inter-array cables and static inter-array cables sections.
Lowest astronomical tide	The lowest level that can be expected to occur under average meteorological conditions and under any combination of astronomical conditions.
Marine Guidance Note	A system of guidance notes issued by the Maritime and Coastguard Agency which provides significant advice relating to the improvement of the safety of shipping at sea, and to prevent or minimise pollution from shipping.
Offshore substation	An offshore platform which houses electrical equipment such as transformers, switchgear, and protection and control systems, enabling the wind farm's renewable electricity to be received via inter-array cables and exported via the offshore export cables.
Offshore Renewable Energy Installation	As defined by Marine Guidance Note 654 (Merchant and Fishing) Safety of Navigation: Offshore Renewable Energy Installations – Guidance on United Kingdom Navigational Practice, Safety and Emergency Response (Maritime and Coastguard Agency, 2021). For the purposes of this report and in keeping with the consistency of the environmental impact assessment, Offshore Renewable Energy Installations can mean offshore wind turbines and the associated electrical infrastructure such as offshore substations.
Operation and maintenance port	Port that may be used in the operations and maintenance phase of the Wind Farm Development Area and mainly comprises of a day-to-day operation and maintenance port and other port(s) required for major maintenance.
Radio Detection and Ranging	An object-detection system which uses radio waves to determine the range, altitude, direction or speed of objects.
Safety Zone	An area of water around or adjacent to a floating offshore unit which is to be constructed, extended, operated or decommissioned, from which certain or all classes of vessels are ded and within which activities can be regulated for the purpose of securing safety of the floating offshore unit or vessel in that vicinity, and individuals on the floating offshore unit and vessel, in line with Section 95 of the Energy Act 2004.
Station keeping system	The system (including mooring lines and anchors) used to hold a floating substructure within its excursion limit and maintain the intended orientation of the floating substructure.
Subsea cable hub	A subsea device, with a gravel pad foundation, which allows the connection of multiple inter-array cables.
Towing	Transportation of a floating offshore unit or floating substructure between a port, and/or wet storage and/or the Wind Farm Development Area.
Wet storage	The temporary storage/anchorage of floating substructures and/or floating offshore units prior to their transportation to the Wind Farm Development Area.

Term	Definition
Wind Farm Development Area	The boundary within which the Wind Farm Infrastructure will be constructed, operated and maintained, and decommissioned.
Wind Farm Infrastructure	Infrastructure located within the Wind Farm Development Area including wind turbine generators; floating substructures, station keeping systems and associated scour protection; inter-array cables and associated cable protection; subsea cable hubs; and ancillary infrastructure including buoys (including activities associated with the Wind Farm Infrastructure construction, operation and maintenance, and decommissioning).
Wind turbine generator	A wind turbine generator converts wind energy into electrical energy. The main components include rotor assembly (composed of three blades and a hub); nacelle (containing the generator, shaft and gearbox, power electronic converter and transformer); and a tower (containing lifting equipment and switchgear).

Glossary of Abbreviations

Term	Definition
AIS	Automatic Identification System
AtoN	Aid to Navigation
COLREGs	Convention on International Regulations for Preventing Collisions at Sea
DWT	Dead Weight Tonnage
EIA Report	Environmental Impact Assessment Report
ERCoP	Emergency Response Cooperation Plan
ERP	Emergency Response Plan
FOU	Floating offshore unit
IAC	Inter-array cable
IMO	International Maritime Organization
KIS-ORCA	Kingfisher Information Service – Offshore Renewables and Cable Awareness
km	Kilometre
LMP	Lighting and Marking Plan
m	Metre
MC	Marine Coordinator
MCA	Maritime and Coastguard Agency
MCC	Marine coordination centre
MOD	Ministry of Defence
MRCC	Maritime Rescue Coordination Centre
NLB	Northern Lighthouse Board
nm	Nautical mile
nm^2	Square nautical mile
NSP	Navigational Safety Plan
O&M	Operation and maintenance
OfSS	Offshore substation
OfTDA	Offshore Transmission Development Area
OREI	Offshore Renewable Energy Installation

Term	Definition
Radar	Radio Detection and Ranging
RAM	Restricted in their ability to manoeuvre
s.36	Section 36 of the Electricity Act 1989
SAR	Search and Rescue
SKS	Station keeping system
SOLAS	International Convention for the Safety of Life at Sea
SOV	Service Operations Vessel
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
VHF	Very High Frequency
VMNSP	Vessel Management and Navigational Safety Plan
VMP	Vessel Management Plan
WFDA	Wind Farm Development Area

1 Introduction

1.1 Overview

1. In 2021, Crown Estate Scotland launched the ScotWind[1] leasing round which released areas of seabed in Scottish waters for new commercial scale offshore wind developments to help Scotland achieve its net-zero emissions target by 2045. In January 2022, Bellrock Offshore Wind Farm Limited (the Applicant[2]) was successfully awarded development rights for an area of seabed, to develop the Bellrock Wind Farm Development Area (WFDA), which forms part of the Bellrock Offshore Wind Farm (the Bellrock Project).

2. The Bellrock Project comprises the following three Development Areas for which separate consents and/or licences will be sought by the Applicant:

- The Bellrock WFDA within which the Bellrock Wind Farm Infrastructure will be constructed, operated and maintained, and decommissioned;
- The Bellrock Offshore Transmission Development Area (OfTDA) within which the Bellrock Offshore Transmission Infrastructure will be constructed, operated and maintained, and decommissioned; and
- The Bellrock Onshore Transmission Development Area, within which the Bellrock Onshore Transmission Infrastructure will be constructed, operated and maintained, and decommissioned.

3. The Bellrock WFDA is located 120 kilometres (km) (65 nautical miles (nm) from Stonehaven (116 km (63 nm) from Peterhead), in Aberdeenshire, Scotland, and covers an area of 280 km^2 (82 square nautical miles (nm^2)).

4. Wind Farm Infrastructure within the Bellrock WFDA will include:

- Up to 132 wind turbine generators (WTG) with floating substructures (FSS) (together referred to as floating offshore units (FOUs));
- Station keeping systems (SKS) for each FSS including mooring lines, anchoring systems and ancillary elements;
- Scour protection for FSS anchoring points;
- Inter-array cables (IACs) comprising static and dynamic sections of IACs linking the individual FOUs to subsea cable hub(s) or to the offshore substations (OfSSs);

[1] The ScotWind leasing round was initiated based on the Sectoral Marine Plan for Offshore Wind Energy (Scottish Government, 2020a), which identified a number of sustainable areas for future commercial-scale offshore wind development, and provided the spatial strategy to support Crown Estate Scotland's ScotWind leasing round.

[2] The term 'Applicant' and 'Developer' are used within this plan to reflect the pre-consent and post consent development phases of the Bellrock WFDA.

- Associated cable protection as required;
- Up to 18 subsea cable hubs; and
- Ancillary infrastructure including buoys.

5. This combined Outline Vessel Management Plan (VMP) and Navigational Safety Plan (NSP) (hereafter referred to as 'the Outline VMNSP') sets out the vessel management and navigational[3] safety measures for the Bellrock Wind Farm Infrastructure, which is located within the Bellrock WFDA, during its construction and O&M phases, in accordance with relevant guidance. This Outline VMNSP has been produced alongside the Environmental Impact Assessment Report (EIA Report) in support of the Section 36 (s.36) Consent application and Marine Licence application[4]. It aims to discharge the expected conditions in the Bellrock WFDA's s.36 Consent and Marine Licence that require the submission of to the VMP and NSP. However, at the application stage, the information provided is outline only and will be updated accordingly when detailed design and construction timelines are confirmed.

1.2 Purpose of the Vessel Management and Navigational Safety Plan

6. This Outline VMNSP will form the basis of the final VMP and NSP, which will in turn discharge the expected conditions in the Bellrock WFDA's s.36 Consent and Marine Licence that require the submission of an VMP and NSP and their approval by the Scottish Ministers prior to the commencement of construction.

7. It is acknowledged that as an outline document forming part of the application for the Bellrock WFDA, the s.36 Consent and Marine Licence conditions are unknown but will be included in the final VMNSP. Where relevant, this Outline VMNSP gives due consideration to the relevant guidance applicable during the construction and O&M phases so as to minimise the impact of project vessels and navigational risk to other legitimate users of the sea.

8. Reviews and updates to the VMNSP will be made as required (see **Section 1.4**) and based on the outputs of any future consultation or changes in best practice. The information provided in the Outline VMNSP is accurate at the time of submission and is based on the current understanding of the baseline environment and how the Bellrock WFDA will be constructed, operated and maintained using the best available technologies, in compliance with current legislation and best practice at the time of writing.

9. **Table 1.1** of the VMNSP will present the s.36 Consent and Marine Licence condition relevant to the VMP and an NSP, and identifies the relevant sections of the VMNSP which address specific requirements of the consent conditions.

[3] Submitted under the Electricity Act 1989.

[4] Submitted under the Marine and Coastal Access Act 2009 (MCAA).

Table 1.1: Section 36 Consent and Marine Licence Conditions Relevant to the Vessel Management and Navigational Safety Plan

Consent/Licence	Condition	Details	Relevant Section
[To be added post-consent]			

1.3 Relevant Implementation Plans

10. This Outline VMNSP forms one of a number of plans which require to be submitted to, and approved by, Scottish Ministers (in consultation with stakeholders) prior to commencement of construction.

11. The objectives of this Outline VMNSP are as follows:

- To detail the measures relating to vessel management and coordination which will be applied during the construction and O&M phases; and
- To detail other navigational safety measures which will be applied during the construction and O&M phases.

12. To reduce repetition between documents, where detailed information is not deemed fundamental to the understanding of the key objectives of this Outline VMNSP, a summary of information may be provided with a reference to where more detailed information is provided in a separate document, such as lighting and marking scheme and emergency response protocols. **Table 1.2** provides an overview of which consent documents are referenced within this document.

Table 1.2: Other Implementation Plans Related to the Vessel Management and Navigational Safety Plan

Implementation Plan	Consent/Licence Conditions	Linkage with VMNSP
Lighting and Marking Plan (LMP)	*[To be added post-consent]*	Details the lighting and marking scheme for the Bellrock WFDA and how this will be managed. An Outline LMP is provided alongside the Bellrock WFDA EIA Report.in (Volume V).
Emergency Response Cooperation Plan (ERCoP)	*[To be added post-consent]*	Details relevant information relating to the Bellrock WFDA and appropriate actions in the event of an emergency situation. Submitted to the Scottish Ministers for approval via the VMNSP, which will address all the recommendations of the Maritime and Coastguard Agency (MCA) in Marine Guidance Note (MGN) 654 (MCA, 2021).

1.4 Updates and Amendments to the Vessel Management and Navigational Safety Plan

13. It is acknowledged that this Outline VMNSP, once approved, may require updating from time to time. This section outlines the general procedure that will be followed. Factors that may influence the need for a review and/or update include:

- Significant change to the design of the Bellrock WFDA;
- Significant change in methods or schedule outlines within the VMNSP Plan;
- Significant changes in knowledge of baseline information or environment of relevance to the contents of this plan;
- Significant changes in legislation or best practice guidance;
- Significant stage in project lifecycle (for example, completion of construction); and
- Scheduled reviews.

2 Navigational Safety Measures

2.1 Construction

14. The following subsections present the navigational safety measures that will be implemented by the Applicant during the construction phase of the Bellrock WFDA.

2.1.1 Marine Coordination

15. *[Specific details of any marine coordination function to be added post-consent]*

2.1.2 Temporary Lighting and Marking

16. The lighting and marking scheme for the Bellrock WFDA during the construction phase will be determined in line with International Organization for Marine Aids to Navigation (IALA) Guideline G1162 (IALA, 2022) and Recommendation R0139 (IALA, 2021) and in consultation with:

- Northern Lighthouse Board (NLB);
- Maritime and Coastguard Agency (MCA);
- Civil Aviation Authority (CAA); and
- Ministry of Defence (MOD).

17. Further detail is provided in the Outline Lighting and Marking Plan (**Volume II**).

2.1.3 Guard Vessels

18. Guard vessels may be required at particular times, for example when third-party vessels are particularly vulnerable due to partially completed works or a particular construction activity. During these periods, the construction area may be monitored by a guard vessel(s) to further protect the area and to provide additional information to third-party vessels.

19. The decision(s) on when to use a guard vessel will be informed by a risk assessment of the activities.

20. A guard vessel may also be required to monitor Safety Zones noting this will be further assessed as part of the Safety Zone application (see **Section 2.1.4**).

2.1.4 Safety Zones

21. Section 95 and Schedule 16 of the Energy Act 2004 set out the requirements for applying for a Safety Zone to be placed around or adjacent to an Offshore Renewable Energy Installation (OREI). The Electricity (Offshore Generating Substations) (Safety Zones) (Applications Procedures and

Control of Access) Regulation 2007 clarify the requirements for applications which applies to territorial waters in or adjacent to Scotland and within the Renewable Energy Zone.

22. It is noted that as of 1 April 2017, the application process for Safety Zones within Scottish waters has been devolved from the Department of Business, Energy, and Industrial Strategy (now the Department for Energy, Security and Net Zero) to Marine Directorate – Licensing Operations Team. An application for Safety Zones will therefore be made to Scottish Ministers accompanied by a layout plan, a summary of the construction programme and construction method statement documents, as well as the proposed methodology for notifying relevant stakeholders.

23. It is intended that the following Safety Zones will be applied for in advance of construction in relation to all Bellrock WFDA surface structures:

- Up to 500 m around each FOU during its construction; and
- Up to 50 m around each FOU when construction works have been completed but prior to commissioning, or where construction works are partially completed and a construction vessel is not present.

2.1.5 Management of Buoyed Construction Area Including Safety Zones

24. **Section 5** presents the methods by which Bellrock WFDA vessels will be managed within the buoyed construction area including the use of Safety Zones.

2.1.6 Restricted in Their Ability to Manoeuvre Operations

25. Vessels that are restricted in their ability to manoeuvre (RAM) will be utilised during the construction phase and therefore have limited ability in avoiding an approaching vessel(s). All RAM vessels involved in the construction of the Bellrock WFDA will comply with the Convention on International Regulations for Preventing Collisions at Sea (COLREGs) (International Maritime Organization (IMO), 1972/77). All vessels, regardless of their nationality, are required to comply with this convention to ensure that they do not interact with vessels that are restricted in their navigational ability.

26. RAM vessels will display lights and shapes to indicate their restrictions. They will transmit safety warnings on Very High Frequency (VHF) radio to inform other vessels of their actions using the '*Securité*' message if the messages contain important information relating to navigation. Communications between RAM vessels and the marine coordination centre (MCC) will be ongoing throughout the operations.

27. RAM vessels will comply with vessel type regulation information transmitted through Automatic Identification System (AIS) and show current navigational status at all times to ensure other vessels equipped with AIS can identify that they are RAM.

28. RAM vessel activities will also be promulgated through the notification procedure, and, if necessary, following internal risk assessment, guard vessels may be employed during the activity period.

2.1.7 Emergency Response Cooperation Plan and Emergency Response Plan

29. As required under MGN 654 (MCA, 2021a), the Applicant will produce an ERCoP in liaison with the MCA which will detail relevant information relating to the Bellrock WFDA and appropriate actions in the event of an emergency situation.

30. The Applicant will also prepare an Emergency Response Plan (ERP) which will detail the emergency planning and response control measures to be implemented during the construction phase.

2.1.8 Damage, Destruction, or Decay of the Bellrock Wind Farm Development Area

31. The Applicant will notify the Scottish Ministers, in writing, in the case of damage to, destruction, or decay of the Bellrock Wind Farm Infrastructure during the construction phase. The Scottish Ministers will advise of any remedial action to be taken and any Aid to Navigation (AtoN) to be displayed following consultation from the MCA, NLB, or any such required advisors.

2.2 Operation and Maintenance

2.2.1 Marine Coordination

32. *[Specific details of any marine coordination function to be added post-consent]*

2.2.2 Temporary Lighting and Marking

33. The LMP (the Outline LMP is presented alongside the Bellrock WFDA EIA Report in **Volume V**) will outline the lighting and marking scheme for the Bellrock WFDA during the operation and maintenance phase. Lighting and marking will be determined in line with IALA Guideline G1162 (IALA, 2022) and Recommendation R0139 (IALA, 2021) and again will be in line with consultation with the NLB, MCA, Civil Aviation Authority, and MOD.

2.2.3 Safety Zones

34. During times of major maintenance works, up to 500 m Safety Zone may be applied for around each FOU under the Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedures and Control of Access) Regulations 2007. Consideration will also be given to an application for up to 500 m operational Safety Zones throughout the O&M phase, with any such application following the relevant application process and consultation requirements in place at the time.

35. Minimum advisory safe passing distances, as defined by a risk assessment, may also be applied where Safety Zones do not apply (and will be promulgated through local notifications to mariners).

2.2.4 Restricted in their Ability to Manoeuvre Operations

36. RAM vessels may be used during maintenance operations. The same procedures will apply as per construction phase, outlined in **Section 2.1.6**.

2.2.5 Emergency Response Cooperation Plan and Emergency Response Plan

37. The approved ERCoP for the construction phase (see **Section 2.1.7**) will be updated and amended for the O&M phase, noting that the MCA-required template (MCA, 2021b) will be used and will be produced in close liaison with the MCA.

38. The Applicant will also prepare a separate ERP which shall detail the required emergency planning and response control measures to be implemented across the construction and operation and maintenance phase of the Bellrock WFDA by all the Applicant personnel and contractors. Similarly to the ERCoP, this will consist of an update to the ERP produced for the construction phase.

2.2.6 Damage, Destruction, or Decay of the Bellrock Wind Farm Development Area

39. The Applicant will notify the Scottish Ministers, in writing, in the case of significant damage to, destruction, or decay of the Bellrock WFDA during the operation and maintenance phase. The Scottish Ministers will advise of any remedial action to be taken and any AtoN to be displayed following consultation from the MCA, NLB, or any such required advisors.

3 Promulgation of Information

40. This section provides information of the proposed approach to distribution and issuing notifications to mariners and other appropriate notifications to the relevant stakeholders and other marine users.

3.1.1 Local Notifications to Mariners

41. Local notifications to mariners will be issued in advance of any activity associated with the Bellrock WFDA which may impact upon navigational safety. The Applicant will issue Local Notice to Mariners (Local NtM) to a list of relevant local and national stakeholders. The list will be regularly updated to ensure contact details remain up to date.

42. Among the organisations that the Local NtM will be issued to is the United Kingdom Hydrographic Office (UKHO). Upon receipt of a Local NtM, the UKHO will decide whether to include information in their Weekly Admiralty notifications to mariners, as described in **Section 3.2**.

43. The local notifications to mariners will be concise, detailing navigational safety information and may include, but not limited to, the information set out in **Table 3.1**. A standard template will be utilised.

Table 3.1: Content of Local Notice to Mariners

Item	Description
Title	▪ Clearly state that the document is a Local NtM and a short relevant title about the scope of the topic; and ▪ This will include the date of issue and the notification number.
Supplementary information	▪ Details of the organisation and development issuing the NtM and any relevant Local NtM issued prior to the current one.
Details	▪ Date/time of start/finish and location of the works (including co-ordinates); ▪ Vessels on site including call signs; ▪ Activity being undertaken; and ▪ Specific risk to navigation.
Contact details	▪ Sufficient details to allow mariners to contact the organisation issuing the local notifications to mariners including the MCC/24-hour emergency contact.
Guard vessel and Safety Zone details	▪ Details of any guard vessels or Safety Zones present and enforced.
Hyperlinks to additional information	▪ Provided only if necessary.

3.1.2 Local Notifications to Mariners During Site Preparation Works

44. The Applicant will, as soon as practicable prior to the Applicant undertaking relevant site preparation works, ensure that local mariners, fishermen's organisations, and His Majesty's Coastguard (in this case Joint Rescue Coordination Centre and Aberdeen Maritime Rescue Coordination Centre (MRCC)), are made fully aware of the site preparation works through Local NtM (or any other appropriate means).

3.1.3 Local Notifications to Mariners Issued Prior to Construction Activities Being Undertaken

45. The Applicant will, as soon as practicable prior to the relevant construction activities being undertaken, ensure that local mariners, fishermen's organisations, and His Majesty's Coastguard, in this case Joint Rescue Coordination Centre and Aberdeen MRCC, are made fully aware of the construction activity through Local NtM (or any other appropriate means).

3.1.4 Local Notifications to Mariners on Commercial Operation Date

46. The Applicant will ensure that local mariners, fisherman's organisations, and the MRCC are made fully aware of the completion of the construction works and commissioning of the Bellrock Wind Farm Infrastructure and the Bellrock WFDA entering commercial operation.

3.1.5 Local Notifications to Mariners During Operation and Maintenance

47. The Applicant will ensure that relevant stakeholders are informed via Local NtM for any planned and unplanned maintenance activities that are outside the day-to-day maintenance activities associated with Bellrock WFDA.

3.1.6 As Build Details

48. The Applicant will, upon the commissioning of the Bellrock WFDA, provide the 'as built' positions and maximum heights of all FOUs to the UKHO for aviation and nautical charting purposes as well as details of the subsea infrastructure including the SKS.

3.2 Admiralty Notices to Mariners

49. Admiralty NtMs are issued to the UKHO and are based on the information provided within the local NtM. The UKHO issues Admiralty NtMs on a weekly basis to provide physical corrections to nautical charts and associated publications. It is the responsibility of the mariner to review the weekly editions of Admiralty NtM, which can be found on the UKHO website (https://msi.admiralty.co.uk/NoticesToMariners/Weekly) and to make any necessary corrections to the charts on board their vessels.

3.3 Hydrographic Charts

50. The precise locations and maximum heights of all FOUs and construction equipment over 150 m above Lowest Astronomical Tide, details of any fixed lighting fitted to all FOUs, and details of the SKS will be provided to the UKHO for aviation and nautical charting.

51. The Bellrock Wind Farm Infrastructure within the Bellrock WFDA will be charted by the UKHO using the relevant symbology or as a project area (as presented in Symbols and Abbreviations used on Admiralty Paper Charts NP5011 (UKHO, 2020)) on charts deemed appropriate in terms of scale.

3.4 Kingfisher Bulletins and Kingfisher Information Service – Offshore Renewables and Cable Awareness

52. The Kingfisher Information Service – Offshore Renewables and Cable Awareness (KIS-ORCA) project is a joint initiative between Subsea Cables United Kingdom (UK) and RenewableUK and is managed by the Seafish Kingfisher Information Service. Information is available in fortnightly bulletins or downloadable from the KIS-ORCA website (https://kis-orca.org/).

53. Notification to the Kingfisher fortnightly bulletin may include, for example, an overview of the Project, roles and responsibilities, method statements relevant to the scope of the work for which the notification is issued, offshore activity schedule, navigational safety procedures, advisory safe passing distances, and any relevant drawings or other project information.

54. The following subsections detail the KIS-ORCA notifications that will be promulgated for each phase of the Bellrock WFDA.

3.4.1 Notifications Issued Prior to Construction Activities Being Undertaken

55. The Applicant will ensure that details of the Bellrock WFDA are promulgated in the Kingfisher fortnightly bulletins, as soon as reasonably practicable prior construction activities being undertaken, to inform the fishing industry of vessels routes, timing and locations of construction works, and relevant details of the construction activities.

3.4.2 Notifications Upon Commissioning on Commercial Operation Date

56. The Applicant will ensure that the completion of construction and the Bellrock WFDA entering commercial operation is promulgated to the Kingfisher fortnightly bulletin to inform the commercial fishing industry.

57. The Applicant will ensure NtM are issued to the Kingfisher fortnightly bulletin detailing any planned or unplanned maintenance activities that are outside the day-to-day maintenance carried out within the Bellrock WFDA.

3.5 Radio Navigational Warnings

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

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

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

60. In the context of radio navigational warnings, the UKHO act as the Navigation Area 1 (NE Atlantic) Coordinator of the IMO and International Hydrographic Organization Worldwide Navigational Warning Service and also as the UK coordinator for issuing coastal navigational warnings. The MCA however is the overarching body responsible for broadcasting the warnings and is the organisation responsible for charging levies to broadcast them.

61. The broadcasts are under the control of the UKHO but tend be made as follows:

- For vessels in Navigation Area 1, broadcasts are made through Enhanced Group Call SafetyNET within 30 minutes of receiving the navigational warning, or at the next scheduled broadcast (every 12 hours);
- Broadcast by navigational telex twice a day as UK coastal navigational warnings by appropriate navigational telex stations at each transmission time (every four hours), or upon receipt of the information if it is of a vital nature; and
- Broadcast by VHF or medium frequency radio at selected MCA stations at the next scheduled broadcast and every 12 hours thereafter.

3.6 UK Marine Reporting Requirements

62. Within UK waters, all vessels are required to report all incidents relating to navigational safety by the quickest means possible to the Marine Accident Investigation Branch. The Marine Accident Investigation Branch has a dedicated reporting line for all purposes (+44 (0)23 8023 2527), which is staffed 24 hours per day.

63. Information required shall include:

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

3.7 Other Notifications

64. The Applicant will consult local Harbour Masters, where appropriate, who may wish to issue local warnings to those navigating in the vicinity of the Bellrock WFDA. The relevant local Harbour Masters will be determined prior to construction and may include those managing ports associated with construction and/or O&M phases. Those ports under consideration are listed in the **Bellrock WFDA EIA Report, Chapter 4: Project Description (Volume II)**.

4 Location of Working Ports

4.1 Construction Ports

65. *[Details of each construction port and their involvement in the delivery/transport/storage of construction parts and their role throughout the construction phase of the Bellrock WFDA will be added once known. Construction ports under consideration include Aberdeen, Ardersier, Burntisland, Cromarty Firth, Kishorn, Leith, Methil, Nigg, Orkney (Scapa), Peterhead and Rosyth.]*

4.2 Operation and Maintenance Ports

66. *[Details of the operation and maintenance port expected to be used during operation and maintenance will be added once known. Those under consideration include Aberdeen, Ardersier, Burntisland, Cromarty Firth, Fraserburgh, Leith, Montrose, Nigg and Peterhead.]*

4.3 Other Ports

67. In addition to the construction and O&M ports listed above, other ports may be used during the construction and O&M phases, with these likely to be local to the Bellrock WFDA. Information regarding any other ports used will, if necessary, be promulgated via methods outlined in **Section 3**.

68. *[Details of any other ports used in the facilitation of project vessels throughout the project lifetime will be added once known.]*

5 Management and Coordination of Vessels

69. During construction of the Bellrock WFDA, the following measures of relevance to management and coordination of vessels will be in place:

- A Marine Coordinator (MC) based at the MCC will be responsible for co-ordinating and monitoring marine based construction activities;
- Permission for construction vessels to enter the construction area and Safety Zones will be co-ordinated by the MC, for example using a Permit to Work system;
- The MC will liaise with vessels with regards to agreed routeing destinations/berth/anchorage (where applicable);
- The MC will continually monitor vessels and personnel via communication with vessels and AIS for any potential vessel access conflicts. The MC will assist in detecting and monitoring unauthorised vessels;
- The MC will co-ordinate and monitor, for example, compliance of Safety Zones, no-go locations;
- The MC will obtain and provide localised weather information for vessels working within the Bellrock WFDA to assist in the planning and co-ordination or marine activities;
- The MC will provide a the central contact point for all parties working offshore in the case of an emergency and will maintain a copy of the ERCoP; and
- The MC will co-ordinate the issuing of notifications to mariners from all parties working offshore after being reviewed and approved by the Applicant.

70. All marine operations and vessel movements will be planned with due regard to the requirements of the VMNSP.

71. During the O&M phase, similar provisions for vessel coordination will be established with marine coordination via the MC throughout the O&M phase.

6 Types and Specifications of Vessels

72. This section will outline the types and specifications of vessels to be utilised during the construction phase (**Section 6.2**) and O&M phase (**Section 0**). Depending on information available, the VMNSP may include indicative vessels and specifications where specific vessels are not yet known, and these may vary depending on market availability. Specifications will include, but are not limited to, vessel type, dimensions, propulsion, and mooring/station keeping.

6.1 Standards and Requirements

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

74. Vessel crews will be required to meet the requirements for the size, type, and area of operation in line with Standards for Training, Certification and Watchkeeping as set out by the IMO, and any site specific requirements implemented by the Applicant above the minimum standards outlined above in **Section 5**.

75. All vessels involved in the construction of the Bellock WFDA will display the required lights and day shapes in accordance with the requirements of COLREGs (IMO, 1972/77). All construction vessels (excluding daughter craft) will be equipped with AIS receivers and transmitters.

76. The Applicant will require all construction vessels to comply with the procedures set out in this document and any other relevant plan.

6.2 Construction Phase

77. The construction works for which vessel specifications will be provided include:

- FOUs installation;
- Anchor and mooring line installation;
- IAC installation;
- Subsea cable hub installation; and
- Construction support including towage of FOUs from the integration port or wet storage areas, scour installation and guard vessels.

78. The following subsections will be populated with the relevant information when it becomes available. The VMNSP will detail all known vessel types and their associated activities, and may include indicative vessels and specifications where specific vessels are not yet known.

6.2.1 Floating Offshore Unit Installation

6.2.1.1 *[Insert Vessel Type/Name]*

79. The FOUs will be installed by a *[insert vessel type/name]*. The *[insert vessel type/name]* will collect the FOUs from *[insert port/wet storage location]*.

80. Key details of an indicative *[insert vessel type/name]* are presented in **Table 6.1**.

Table 6.1: *[Insert vessel type/name]* Key Details

Vessel Parameter		**Value or Detail**
Name		*[Information to be added when known]*
Type		
Contact		
Role		
Key characteristics	Length	
	Breadth	
	Dead Weight Tonnage (DWT)	
Propulsion		
Mooring/station keeping		

6.2.2 Anchor and Mooring Line Installation

81. The anchors and mooring lines will be installed by a *[insert vessel type/name]*. The *[insert vessel type/name]* will collect the anchors and mooring lines from *[insert port/wet storage location]*.

82. Key details of an indicative *[insert vessel type/name]* are presented in **Table 6.3**.

Table 6.2: *[Insert vessel type/name]* Key Details

Vessel Parameter		Value or Detail
Name		*[Information to be added when known]*
Type		
Contact		
Role		
Key characteristics	Length	
	Breadth	
	DWT	
Propulsion		
Mooring/station keeping		

6.2.3 Inter-array Cable Installation

6.2.3.1 *[Insert Vessel Type/Name]*

83. The IACs will be installed by a *[insert vessel type/name]*. The *[insert vessel type/name]* will collect the IACs from *[insert port/wet storage location]*.

84. Key details of an indicative *[insert vessel type/name]* are presented in **Table 6.3**.

Table 6.3: *[Insert vessel type/name]* Key Details

Vessel Parameter		Value or Detail
Nam		*[Information to be added when known]*
Type		
Contact		
Role		
Key characteristics	Length	
	Breadth	
	DWT	
Propulsion		
Mooring/station keeping		

6.2.4 Subsea Cable Hub Installation

6.2.4.1 *[Insert Vessel Type/Name]*

85. The subsea cable hubs will be installed by a *[insert vessel type/name]*. The *[insert vessel type/name]* will collect the subsea cable hubs from *[insert port/wet storage location]*.

86. Key details of an indicative *[insert vessel type/name]* are presented in **Table 6.3**.

Table 6.4: *[Insert vessel type/name]* Key Details

Vessel Parameter		Value or Detail
Name		*[Information to be added when known]*
Type		
Contact		
Role		
Key characteristics	Length	
	Breadth	
	DWT	
Propulsion		
Mooring/station keeping		

6.2.5 Construction Support

6.2.5.1 [Insert Vessel Type/Name]

87. The construction support vessel will be *[insert vessel type/name]*. The *[insert vessel type/name]* will operate from *[insert port]*.

88. Key details of an indicative *[insert vessel type/name]* are presented in **Table 6.5**.

Table 6.5: *[Insert vessel type/name]* Key Details

Vessel Parameter		Value or Detail
Name		*[Information to be added when known]*
Type		
Contact		
Role		
Key characteristics	Length	
	Breadth	
	DWT	
Propulsion		
Mooring/station keeping		

6.3 Operation and Maintenance Phase

89. During the O&M phase, it is anticipated that similar vessels are likely to be required, at various times, to those described for construction in **Section 6.2**.

7 Numbers and Movements of Vessels

7.1 Construction Vessels

90. The number of vessels within the Bellrock WFDA at any one time will vary during the construction phase, with peaks in vessel activity reflecting the timing of major installation works.

91. For each vessel type anticipated to be entering the Bellrock WFDA, **Table 7.1** will present the indicative number of vessels involved in construction, the main construction activities they will be involved in and the anticipated number of return trips (one return trip being a transit to the Bellrock WFDA and then back to port) they will make (if known). It should be noted that the number of transits will be a best estimate based on the available information at the time of writing, and the actual numbers may differ during the construction phase.

Table 7.1: Construction Vessel Activities Summary

Vessel Type	Anticipated Total Number	Key Construction Activities	Approximate Number of Return Journeys[1]
[Details to be added post-consent]			
Notes: [1] One return trip comprises two movements (i.e. one to and one from the Bellrock WFDA).			

7.2 Operation and Maintenance Vessels

92. The number of vessels within the Bellrock WFDA during the O&M phase at any one time will vary, with peaks in vessel activity reflecting the timing of major maintenance works. Consequently, it is not possible at this time to provide precise numbers of vessel movements during the operations and maintenance phase. Estimates based on current information will be provided in **Table 7.2.**

Table 7.2: Operational Vessel Activities Summary

Vessel Type	Anticipated Total Number	Trips to Port	Approximate Number of Return Journeys[1]
[Details to be added post-consent]			
Notes: [1] One return trip comprises two movements (i.e. one to and one from the Bellrock WFDA).			

8 Indicative Transit Corridors

93. The indicative transit corridors for the major construction vessels between the Bellrock WFDA and the relevant construction ports will be presented in **Figure 8.1** (**Appendix 1**) *[to be added to the VMNSP once known]*.

94. Indicative transit corridors are not intended to be prescriptive but do provide a general indication to third-party vessels of where they may expect an increased encounter rate with project related construction vessels.

95. All vessels shall passage plan as per the International Convention for the Safety of Life at Sea (SOLAS) (IMO, 1974). In addition, project related construction vessels may deviate from the indicative transit corridors at the discretion of the vessel Master. Circumstances where this may occur include:

- To ensure compliance with COLREGs as required;
- To account for prevailing weather, tidal, or tidal level conditions;
- To account for navigational hazards as indicated on charts, or notified through notifications to mariners or such sources;
- Where indicative transit corridors do not account for the origin or destination of the project related construction vessel;
- Where instructions are issued by the MCC or other responsible persons in charge of coordinating and managing construction vessel traffic; and
- Any other reason the vessel Master may deem relevant for the purpose of ensuring the safety of their vessel or another.

9 Anchoring

96. No anchorage areas were identified in proximity to the Bellrock WFDA due to its distance offshore and water depths (see Section 7 within **Appendix 12.1: Navigational Risk Assessment (NRA) (Volume IV)**). However, if anchoring is required for any operation, then **Figure 9.1** (**Appendix 1**) will present the locations of designated anchorages in the vicinity of the Bellrock WFDA at the time of the VMNSP being produced. Details pertaining to the anchorage areas noted in the North Sea (West) pilot (NP54) (UKHO, 2021) will be provided in **Table 9.1**.

97. Nevertheless, anchoring is at the discretion of the vessel Master who may consult with the MCC or port authorities, where relevant. However, standard marine practice requires that when a vessel proceeds to anchor, consideration is given to:

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

98. All vessels associated with the Bellrock WFDA will take the above into consideration prior to anchoring as per standard marine practice. Construction and O&M vessels requiring anchorage within the Bellrock WFDA will request permission to do so from the MCC.

Table 9.1: Anchorage Areas in Proximity to the Bellrock Wind Farm Development Area

Anchorage Number	Anchorage Name	Description
[Anchorage details to be added post-consent]		

10 Environmental Sensitivities Relevant to Vessel Management

99. This section will summarise the marine mammal and ornithological sensitivities relevant to vessel traffic associated with construction and O&M of the Bellrock WFDA (where applicable). This section shall also describe the indicative transit corridors as detailed in **Section 8** above in the context of the environmental sensitivities.

100. This section will summarise the marine mammal and ornithological sensitivities relevant to vessel traffic associated with construction and O&M activities at the Bellrock WFDA. The section will also consider the indicative transit corridors described in **Section 8** in the context of these sensitivities.

101. The final VMNSP will outline relevant good practice measures to minimise interactions with marine wildlife, including reference to the Scottish Marine Wildlife Watching Code (NatureScot, 2017a) and Best Practice for Watching Marine Wildlife (NatureScot, 2017b) where practicable. However, as noted in **Section 8**, vessel Masters may deviate from such measures where required to ensure safe navigation and compliance with the SOLAS and COLREGs.

11 Compliance with Marine Guidance Note 654

102. The s.36 Consent and Marine Licence conditions are likely to require the Bellrock WFDA to demonstrate that the VMNSP has adequately addressed all of the recommendations of MGN 654 and its annexes (MCA, 2021a) that may be appropriate to the Bellrock WFDA, or any other relevant document which may supersede said guidance prior to approval of the VMNSP.

103. MGN 654 (MCA, 2021(a)) has therefore been reviewed and all appropriate recommendations (at this pre-construction stage of the development) have been identified. In each case it will be indicated where each of these recommendations will have been addressed within the VMNSP (or other relevant consent plan) for the Bellrock WFDA. The review summary will be provided in **Table 11.1** for the VMNSP post-consent.

Table 11.1: MGN 654 Compliance

MGN 654 Section	Checklist	Where Addressed
4.5: Site and Installation Co-ordinates	Developers are responsible for ensuring that formally agreed co-ordinates and subsequent variations of site perimeters and individual OREI structures are made available, on request, to interested parties at relevant project stages, including application for consent, development, array variation, operation, and decommissioning. This should be supplied as authoritative Geographical Information System data, preferably in Environmental Systems Research Institute format. Metadata should facilitate the identification of the data creator, its date and purpose, and the geodetic datum used. For mariners' use, appropriate data should also be provided with latitude and longitude co-ordinates in [World Geodetic System 1984] (ETRS89) datum.	*[To be added post-consent]*
4.10: Assessment of Access to and Navigation Within, or Close to, an OREI	It should be determined to what extent navigation would be feasible within or near to the OREI site itself by assessing whether: a. Navigation within and/or near the site would be safe: – For all vessels; or – For specified vessel types, operations and/or sizes. – In all directions or areas; or – In specified directions or areas. – In specified tidal, weather or other conditions. b. Navigation in and/or near the site should be prohibited or restricted: – For specified vessels types, operations and/or sizes; – In respect of specific activities;	*[To be added post-consent]*

MGN 654 Section	Checklist	Where Addressed
	– In all areas or directions; or – In specified areas or directions; or – In specified tidal or weather conditions; or simply – recommended to be avoided. c. Where it is not feasible for vessels to access or navigate through the site it could cause navigational, safety or routeing problems for vessels operating in the area e.g. by causing a vessel or vessels to follow a less than optimum route or preventing vessels from responding to calls for assistance from persons in distress obligations.). d. Guidance on the calculation of safe distance of wind farm boundaries from shipping routes has been considered.	
4.11: Search and rescue, maritime assistance service, counter pollution and salvage incident response	a. An ERCoP will be developed for the construction, operation and decommissioning phases of the OREI.	*[To be added post-consent]*
	b. The MCA's guidance document Offshore Renewable Energy Installation: Requirements, Advice and Guidance for Search and Rescue [SAR] and Emergency Response for the design, equipment and operation requirements will be followed.	*[To be added post-consent]*
	c. A SAR checklist will be completed to record discussions regarding the requirements, recommendations and considerations outlined in the above document (to be agreed with MCA)	*[To be added post-consent]*
4.12: Hydrography	In order to establish a baseline, confirm the safe navigable depth, monitor seabed mobility and to identify underwater hazards, detailed and accurate hydrographic surveys are included or acknowledged for the following stages and to MCA specifications: ▪ Pre-construction: The proposed generating assets area and proposed cable route; ▪ On a pre-established periodicity during the life of the development; ▪ Post-construction: Cable route(s); and ▪ Post-decommissioning of all or part of the development: the installed generating assets area and cable route.	*[To be added post-consent]*
4.14: Risk mitigation measures recommended for OREI during construction, operation and decommissioning	Promulgation of information and warnings through notices to mariners and other appropriate maritime safety information dissemination methods.	*[To be added post-consent]*
	Continuous watch by multi-channel VHF, including Digital Selective Calling.	*[To be added post-consent]*
	Safety Zones of appropriate configuration, extent and application to specified vessels.	*[To be added post-consent]*
	Provision of AtoN as determined by the General Lighthouse Authority.	*[To be added post-consent]*

MGN 654 Section	Checklist	Where Addressed
	Monitoring by Radio Detection and Ranging (Radar), AIS, Closed Circuit Television or other agreed means.	*[To be added post-consent]*
	Appropriate means for OREI operators to notify, and provide evidence of, the infringement of Safety Zones.	*[To be added post-consent]*
	Creation of an ERCoP with the MCA's Search and Rescue Branch for the construction phase onwards.	*[To be added post-consent]*
	Use of guard vessels, where appropriate	*[To be added post-consent]*

12 Compliance With the Application

104. In addition to the s.36 Consent and Marine Licence conditions presented for the Bellrock WFDA in **Section 1.2**, other consent conditions that have also been considered will be outlined in **Table 12.1**, including where they have been addressed in this VMNSP.

Table 12.1: Compliance with the Bellrock WFDA EIA Report

Source	Mitigation	Where Addressed
[To be added post-consent]		

13 References

IALA (2021). IALA Recommendation 0139 on The Marking of Man-Made Offshore Structures: Edition 3.0. Saint Germain en Laye, France: IALA.

IALA (2022). G1162 The Marking of Offshore Man-Made Structures, Edition 1.1. Available at: https://www.iala.int/product/g1162/.

IMO (1972/77). Convention on International Regulations for Preventing Collisions at Sea (COLREGs).

IMO (1974). International Convention for the Safety of Life at Sea (SOLAS). London: IMO.

MCA (2021a). Marine Guidance Note (MGN) 654 and Annexes – Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response. Southampton: MCA.

MCA (2021b). Emergency Response Cooperation Plans (ERCoP): Template for Construction, Operations and Decommissioning phases. Southampton: MCA.

NatureScot. (2017a). Scottish Marine Wildlife Watching Code. Available at: https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code.

NatureScot. (2017b). Guide to Best Practice for Watching Marine Wildlife. Available at: https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code.

UKHO (2020). NP5011 - Symbols and Abbreviations used in Admiralty Charts. Taunton: UKHO.

UKHO (2021). North Sea (West) Pilot (NP54). Taunton: UKHO

This page is intentionally blank

.

Appendix 1: Figures

[Figures to be added post-consent]

This page is intentionally blank

This page is intentionally blank

Bellrock
OFFSHORE WIND

www.bellrockwind.co.uk