MachairWind Offshore Windfarm

Appendix 5 WDA Mitigation and Commitments Register

TABLE OF CONTENTS

List of Tables

GLOSSARY OF ACRONYMS

Term	Definition
AEZ	Archaeological Exclusion Zones
BWM	The International Convention for the Control and Management of Ships' Ballast Water and Sediments
CBRA	Cable Burial Risk Assessment
CMS	Construction Method Statement
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMP	Environmental Management Plan
EPS	European Protected Species
FLO	Fisheries Liaison Officer
FLOWW	Fisheries Liaison with Offshore Wind and Wet Renewables
FMMCP	Fisheries Mitigation, Monitoring and Communication Plan
HAT	Highest Astronomical Tide
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IEMA	Institute of Environmental Management and Assessment
IMO	International Maritime Organisation
INNSMP	Invasive Non-Native Species Mitigation Plan
JNCC	Joint Nature Conservation Committee
km	Kilometres
LMP	Lighting and Marking Plan
MARPOL	The International Convention for the Prevention of Pollution from Ships
MCA	Maritime Coastguard Agency
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MMMP	Marine Mammal Mitigation Protocol
MOD	Ministry of Defence
MPCP	Marine Pollution Contingency Plan
NLB	Northern Lighthouse Board
NSP	Navigational Safety Plan
O&M	Operation and Maintenance
OREI	Offshore Renewable Energy Installations

Term	Definition
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PAD	Protocol for Archaeological Discoveries
ROV	Remotely Operated Vehicle
SAR	Search and Rescue
SOLAS	International Convention for the Safety of Life at Sea
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UXO	Unexploded Ordnance
WDA	Windfarm Development Area
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator

GLOSSARY OF TERMS

Term	Definition
Cable protection	Protective measure to minimise the effects of scour and hazards along the offshore cables (e.g. to prevent cable exposure or snagging of vessel anchors or fishing gear), as well as for protecting these cables at infrastructure crossing points.
Collision	The act or process of two moving objects colliding.
Development Area	Application boundary for consenting purposes which, for the Project, consists of a Windfarm Development Area, Offshore Export Cable Corridor, and Onshore Transmission Development Area. Separate consent and marine licence applications will be submitted for each Development Area where applicable.
Environmental Impact Assessment (EIA)	The process of evaluating the likely significant environmental effects of a proposed development over and above the existing circumstances (or 'baseline').
Highest astronomical tide	The highest level that can be expected to occur under average meteorological conditions and under any combination of astronomical conditions.
Landfall	The area from Mean Low Water Springs to a transition bay(s), where the offshore export cable(s) come ashore.
Landings	Quantitative description of the amount of fish returned to port for sale, in terms of value or weight.
Lowest Astronomical Tide (LAT)	The lowest level that can be expected to occur under average meteorological conditions and under any combination of astronomical conditions.
MachairWind Offshore Windfarm	An offshore windfarm capable of exporting around 2 GW of renewable energy to the National Electricity Transmission System. MachairWind Offshore Windfarm comprises three Development Areas: • The WDA – located on the west coast of Scotland to the northwest of Islay and west of Colonsay; • The Offshore Export Cable Corridor – a preliminary boundary extending from the WDA to mean high water springs at a landfall location near Girvan, South Ayrshire; and • The Onshore Transmission Development Area – a preliminary boundary which extends landward from mean low water springs and includes the land required for the landfall of the offshore export cable(s) and their route up to but not including the proposed high voltage direct current switching station which will be developed and constructed by Transmission Owner, ScottishPower Transmission. Separate consent and licence applications will be submitted for each Development Area.
Mean High Water Springs (MHWS)	The average, over a year, of the heights of two successive high waters during those periods of 24 hours (once every fortnight) when the range of the tide is greatest.
OSPAR	OSPAR started in 1972 with the Oslo Convention against dumping and was broadened to cover land-based sources of marine pollution and the offshore industry by the Paris Convention of 1974. These two conventions were unified, updated and extended by the 1992 OSPAR Convention. OSPAR is so named because of the original Oslo and Paris Conventions ("OS" for Oslo and "PAR" for Paris).
Plan Option	A spatial plan area proposed through the Sectoral Marine Plan for offshore wind energy (as adopted in 2020). As part of the ScotWind leasing round, offshore wind developers submitted bids for Plan Options which, following a successful bid, become OAAs.
Safety zones	An area of water around or adjacent to a wind turbine generator or Offshore Substation Platform and associated substructure which is to be constructed, extended, operated or decommissioned, from which certain or all classes of vessels are excluded and within which

Term	Definition
	activities can be regulated for the purpose of securing safety of the wind turbine generator, substructure or vessels in that vicinity, and individuals on both the wind turbine generator, substructure or vessel, in line with Section 95 of the Energy Act 2004.
ScotWind	A Crown Estate Scotland seabed leasing round which enabled developers to propose offshore wind projects and apply for seabed rights to plan and build windfarms in Scottish waters.
Scour protection	Protective measures to avoid sediment being eroded away from the base of the wind turbine generator foundations as a result of the flow of water.
The Applicant	The legal entity submitting consent applications for the MachairWind Offshore Windfarm, namely Machairwind Limited.
The Project	MachairWind Offshore Windfarm including all its Development Areas and associated infrastructure.
WDA infrastructure	The offshore generation and transmission infrastructure located within the WDA including but not limited to: WTGs, WTG fixed foundations (and associated scour protection), OSP(s), OSP fixed foundations (and associated scour protection), IACs, OSP link and offshore export cable(s) and their associated external cable protection (insofar as these are located within the WDA) and fibre optic cables.
Wind Turbine Generator (WTG)	A wind turbine generator which converts wind energy into electrical energy. Each wind turbine generator is a complex system composed of a high number of components. Typically, the main components include the rotor assembly (composed of three blades and a hub); the nacelle (containing a generator, shaft and gearbox, power electronic converter and transformer); and the tower (containing lifting equipment and the switchgear).
Windfarm Development Area (WDA)	The application boundary within the OAA where consent will be sought for the proposed WDA infrastructure. The WDA infrastructure is subject to Section 36 consent and marine licence applications (generation and transmission) which are being applied for separately from the Offshore ECC infrastructure and OnTDA infrastructure.

1 INTRODUCTION

1. Machairwind Limited ('The Applicant') is seeking consent under Section 36 of the Electricity Act 1989 and marine licences under the Marine (Scotland) Act 2010 for the Windfarm Development Area (WDA) infrastructure. The MachairWind Offshore Windfarm Project ('the Project'), located off the west coast of Scotland, northwest of Islay and west of Colonsay.

2. When operational, the WDA is anticipated to have a capacity of around 2 Gigawatts (GW) generated by up to 144 Wind Turbine Generators (WTGs). This will have the potential to generate renewable electricity for up to two million United Kingdom (UK) homes, contributing to Scotland and the UK's transition to Net Zero and the UK's energy security in line with Government policy.

3. Further details of the Project can be found in **Chapter 3 Project Description** of the EIAR.

1.1 PURPOSE OF THIS DOCUMENT

4. This appendix provides a summary of the proposed embedded mitigation applicable to WDA Environmental Impact Assessment (EIA), as detailed in each technical chapter of this Environmental Impact Assessment Report (EIAR) (**Chapters 7 to 21**).

5. **Table 1.1** lists all measures proposed on a topic-by-topic basis and signposts where the commitments made in the EIA are secured by Section 36 consent and Marine Licence conditions.

6. The WDA EIA chapters which **Table 1.1** relates to are as follows**:**

- Chapter 7 Marine Physical Environment;
- Chapter 8 Benthic Ecology;
- Chapter 9 Fish (Including Basking Shark) and Shellfish;
- Chapter 10 Marine Mammals and Leatherback Turtle;
- Chapter 11 Offshore Ornithology;
- Chapter 12 Commercial Fisheries;
- Chapter 13 Shipping and Navigation;
- Chapter 14 Offshore Archaeology and Cultural Heritage;
- Chapter 15 Military and Civil Aviation;
- Chapter 16 Seascape, Landscape and Visual Impacts;
- Chapter 17 Infrastructure and Other Marine Users;
- Chapter 18 Socio-economics;
- Chapter 19 Greenhouse Gas Assessment;
- Chapter 20 Climate Change Risk Assessment; and
- Chapter 21 Major Accidents and Disasters.

Table 1.1 Mitigation and Commitment register

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
M-1	Use of scour protection	Where necessary, foundations will include scour protection which will minimise the amount of scour and sediment released / transported due to scour.	✓													✓		Section 36 and marine licence consent conditions. Secured via the requirement for a Development Specification and Layout Plan, which will be submitted to Scottish Ministers for approval prior to the commencement of construction..
M-2	Piling	For piled foundation types, such as monopiles, pile-driving will be used in preference to drilling where it is practicable to do so (i.e. where ground conditions allow). This would minimise the quantity of subsurface sediment released into the water column from the installation process.	✓															Section 36 and marine licence consent conditions. Secured via the requirement for a Development Specification and Layout Plan, which will be submitted to Scottish Ministers for approval prior to the commencement of construction.
M-3	Pollution from Ships	Compliance with the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78 and adherence to the "OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic".		✓	✓												✓	Section 36 and marine licence consent conditions. Secured via **Appendix 7 Marine Pollution Contingency Plan (MPCP)**. Will be implemented as part of the standard operating procedures of contractors.
M-4	Environmental Management Plan	Development of, and adherence to, an Environmental Management Plan (EMP) which will be in accordance with **Appendix 6 Outline EMP** submitted with the application for section 36 consent and marine licences.		✓	✓	✓	✓	✓										Section 36 and marine licence consent conditions. Secured via **Appendix 6 Outline EMP**.
M-5	Invasive Non-Native Species Mitigation Plan	Development of, and adherence to, an Invasive Non-Native Species Mitigation Plan (INNSMP). This plan details mitigation measures to reduce the introduction and transfer of invasive non-native species.		✓	✓			✓									✓	Section 36 and marine licence consent conditions. Secured via **Appendix 8 INNSMP**.
M-6	Piling Noise Mitigation Plan	Joint Nature Conservation Committee (JNCC) (2010) guidelines for minimising the risk of injury to marine mammals from piling noise and JNCC guidance for the use of PAM in UK waters for minimising the risk of injury to marine mammals from offshore activities are outlined in Section 4 of **Appendix 9 Draft Marine**			✓	✓		✓										Section 36 and marine licence consent conditions. Secured via **Appendix 9 Draft MMMP** which sets out the requirements for a Piling Noise Mitigation Plan.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
		Mammal Mitigation Protocol (MMMP) submitted with the application. A Piling Noise Mitigation Plan will be developed in the preconstruction phase in accordance with Section 4 of **Appendix 9 Draft MMMP**.																
M-7	MPCP	Development of, and adherence to, a MPCP. The MPCP will provide guidance to the Project personnel, contractors and subcontractors on the actions and reporting requirements in the event of spills and collision incidents. The MPCP will also contain emergency plans and mitigation procedures for a range of potential marine pollution incidents.		✓	✓	✓	✓	✓	✓									Section 36 and marine licence consent conditions. Secured via **Appendix 7 MPCP**.
M-8	Cable Plan	Development of, and adherence to, a Cable Plan (incorporating a Cable Burial Risk Assessment (CBRA)). The Cable Plan will confirm planned cable routeing, burial, and any additional external cable protection, and will set out methods for post-installation cable monitoring. Furthermore, this plan will detail environmental sensitivities and design considerations to mitigate, as far as practicable, the effects of offshore cable laying and associated protection during installation and operation of the WDA infrastructure. The amount of cable protection utilised will be minimised where practicable; protection will be used only where design burial depths are not reasonably practicable or where crossings require it.	✓	✓	✓	✓		✓	✓				✓				✓	Section 36 and marine licence consent conditions. Secured via the requirement for a Cable Plan, to be developed and submitted to the Scottish Ministers for approval before commencement of construction.
M-9	Invasive Non-Native Species	Adherence to the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM) Convention (2004) which provides global regulations to control the transfer of potentially invasive species.		✓	✓												✓	Section 36 and marine licence consent conditions. Secured via **Appendix 8 INNSMP**.
M-10	Hierarchy of Unexploded Ordnance Clearance Methods	Development of an Unexploded Ordnance (UXO) Threat and Risk Assessment. The current hierarchy of UXO clearance techniques, in order of preference, are: • Avoid (through micro-siting); • Use a low-noise method to render the ordnance safe without requirement for detonation, e.g. laser cutting, mechanical removal if safe to do so; • Low-order clearance if above options not practicable; and • High-order clearance, if low-order clearance not possible, or in the unlikely event that low-order deflagration was unsuccessful.						✓					✓				✓	Will be secured via a UXO Threat Risk Assessment, which will be submitted as part of a separate Marine Licence application submission prior to construction.
M-11	UXO	A detailed MMMP based on JNCC (2025) guidelines for minimising the risk of injury to marine mammals from UXO clearance and Defra (2025) guidance on minimising environmental impacts from UXO clearance, will be included in the Final UXO MMMP prepared during the pre-construction phase. The Final UXO MMMP will			✓	✓	✓											Mitigation will be secured in the UXO MMMP as part of a separate Marine Licence application submission prior to construction.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
		accord with **Appendix 9 Draft MMMP** submitted with the application. This will ensure there are adequate mitigation measures to minimise the risk of any physical or permanent auditory injury to marine mammals from UXO clearance. Following the latest guidance, low order clearance will be the default method. The Draft MMMP for UXO clearance is presented in Section 3 of **Appendix 9 Draft MMMP**.																
M-12	Geophysical Surveys	JNCC (2017) guidelines for minimising the risk of injury to marine mammals from geophysical surveys will be followed. See Section 2.2 of the **Appendix 9 Draft MMMP**.				✓												Mitigation will be secured in the European Protected Species (EPS) licence(s).
M-13	Site selection	The WDA avoids any overlap with designated sites (SPAs or Ramsar sites) for birds.					✓											Secured within the Location Plan submitted alongside the Generation and Transmission Marine Licence Applications.
M-14	Micro-siting	Micro-siting of infrastructure, where practicable, around any identified sensitive habitats and identified anomalies of archaeological interest. Micro-siting mitigation would be agreed through consultation with MD-LOT and NatureScot on the identified sensitive benthic features (e.g. Annex I geogenic reef), and MD-LOT and historic environment advisors on anomalies of archaeological interest, which are required to be avoided. Final agreement will be through the Development Specification and Layout Plan.	✓	✓	✓					✓								Section 36 and marine licenses consent conditions. Infrastructure will be micro-sited, where practicable, to avoid identified sensitive habitats and archaeological anomalies, following site-specific surveys and design reviews in accordance with **Appendix 6 Outline EMP**. Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore Written Scheme of Investigation (WSI) and Protocol for Archaeological Discoveries (PAD)**.
M-15	WTG Selection	The Design Specification and Layout Plan of offshore windfarms and associated occupational health and safety requirements provide an inherent degree of climate change readiness and resilience. The climate change resilience (CCR) assessment accounts for the technical requirements of the WDA infrastructure, design specifications and operational strategy which are built upon best practice engineering codes and standards in the offshore wind sector, and standard health and safety procedures outlined in relevant management plans. Where likely significant effects are predicted, additional mitigation will be identified from available literature sources and in collaboration with the engineering team to support the resilience of the WDA infrastructure to impacts arising from current extreme														✓			Section 36 and marine licence consent conditions. Secured via the requirement for a Design Specification and Layout Plan, which will be submitted to Scottish Ministers for approval prior to the commencement of construction.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
		weather events and prevailing climatic conditions. Recognising uncertainties associated with longer-term climate change projections and their implications for the WDA, adaptive management measures will also be reviewed in line with IEMA guidance (2020) to support the implementation of mitigation where and when appropriate.																
M-16	Fisheries Mitigation, Monitoring and Communication Plan	Development of, and adherence to, a Fisheries Mitigation, Monitoring and Communication Plan (FMMCP)). This will set out the means of liaising and co-existing with the commercial fishing industry through construction and Operation and Maintenance (O&M) phases of the WDA. The FMMCP includes detail on any mitigation measures to be put in place to limit effects on commercial fisheries activity and will be updated as the Project design is refined and as ongoing stakeholder consultation and feedback is received.						✓										Section 36 and marine licence consent conditions. Secured via **Appendix 10 FMMCP**.
M-17	Fisheries Liaison Officer	Appointment of a Fisheries Liaison Officer (FLO) throughout the lifetime of the Project to ensure ongoing communication between the Project and commercial fisheries stakeholders.						✓										Section 36 and marine licence consent conditions. Secured via **Appendix 10 FMMCP**.
M-18	Navigational Safety Plan	Development of, and adherence to, a Navigational Safety Plan (NSP). This plan will describe measures put in place related to navigational safety, including information on safety zones, charting, construction buoyage, temporary lighting and marking, and means of notification of activities associated with the WDA to other sea users.						✓	✓				✓				✓	Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**.
M-19	Notice to Mariners	Advanced warning and accurate location details of construction, maintenance and decommissioning operations, associated Safety Zones and advisory passing distances will be given via Notices to Mariners and Kingfisher webpage. All notices will be uploaded to the Project website (www.machairwind.com).						✓	✓				✓				✓	Included within NSP content which is a standard Section 36 and marine licence consent condition. An outline NSP has been provided in **Appendix 13 Outline Vessel Management Plan and NSP**.
M-20	Lighting and Marking Plan	Development of, and adherence to, a Lighting and Marking Plan (LMP). This plan will set out the marine and aviation navigational lighting and marking measures to be applied during the construction and operation of the WDA. This will be in accordance with **Appendix 12 Outline LMP** which will incorporate the requirements of the Air Navigation Order 2016, of the MOD and other relevant legislation and guidance. Infrared lights will be installed on the WTGs to ensure full compliance.						✓	✓		✓	✓	✓					✓	Section 36 and marine licence consent conditions. An outline LMP has been provided in **Appendix 12 Outline LMP**.
M-21	Best practice for fisheries engagement and	Adherence to best practice guidance with regards to fisheries liaison and procedures in the event of interactions between the WDA and fishing activities, including Marine Directorate (2021) Guidance on claim for compensation for damage or loss of fishing						✓										Section 36 and marine licence consent conditions. Secured via **Appendix 10 FMMCP**.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
	managing interactions	gear, loss of fishing time, or damage to vessel by suspected offshore renewable activity.																
M-22	Commercial Fisheries Working Group	A Commercial Fisheries Working Group will be organised to encourage collaboration between the Project and fishing community and provide a forum to discuss shared issues, concerns, and suggestions to help inform the Project approach. Noting the confidential nature of some commercial fisheries information and areas of interest, one-to-one engagement will continue to be offered to fishers throughout the lifetime of the Project.						✓										Section 36 and marine licence consent conditions. Secured via **Appendix 10 FMMCP**.
M-23	Safety Zones	Application for and use of Safety Zones of up to 500 m during construction, major repairs and decommissioning phases. Where appropriate, guard vessels will also be used to ensure adherence with Safety Zones or advisory passing distances, as defined by risk assessment, to mitigate any impact which poses a risk to surface navigation during construction, O&M and decommissioning phases. Such impacts may include partially installed structures or cables, extinguished navigation lights or other unmarked hazards. During the O&M phase, there would be 500 m safety zones around any structure where major maintenance is ongoing.						✓	✓				✓				✓	Application submitted under Section 95 and Schedule 16 of the Energy Act 2004. Will also be referenced within the NSP, secured under standard Section 36 and Marine Licence condition.
M-24	Dropped Objects	Dropped objects on the seabed during works associated with the WDA which may pose a hazard will be reported in line with the Marine Directorate - Licensing Operations Team procedures. Objects will be recovered where they pose a hazard to other marine users and where recovery is possible.						✓					✓				✓	Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**.
M-25	Marking	All WDA infrastructure will be appropriately marked on the UK Hydrographic Office (UKHO) Admiralty Charts.						✓	✓				✓				✓	Provision of relevant information to UKHO required under standard marine licence conditions.
M-26	Search and Rescue	Development of a Search and Rescue (SAR) checklist in consultation with the Maritime and Coastguard Agency (MCA) to ensure compliance with Marine Guidance Note (MGN) 654 and its annexes. This will be completed post consent.							✓		✓		✓				✓	Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**.
M-27	Emergency Response and Cooperation Plan	Development of, and adherence to, an Emergency Response and Cooperation Plan. This plan ensures co-operation with the Maritime and Coastguard Agency (MCA) by detailing the design parameters of the WDA, emergency contact details, and processes to be followed.						✓	✓		✓		✓			✓	✓	Section 36 and marine licence consent conditions. Secured via an Emergency Response and Cooperation Plan which will be developed and submitted prior to construction.
M-28	Guard Vessels	Where appropriate, guard vessels will be used to ensure adherence with Safety Zones (M-23) or advisory passing distances.						✓	✓				✓				✓	Section 36 and marine licence consent conditions. Secured via

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
																		Appendix 13 Outline Vessel Management Plan and NSP.
M-29	Marine Coordination Centre	A marine coordination centre will be implemented to manage Project vessels throughout construction, O&M and decommissioning phases.						✓	✓				✓				✓	Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**.
M-30	Blade Tip Clearance / Air Gap	Blade tip clearance height / Air Gap of at least 28.40 m above Highest Astronomical Tide (HAT), noting this exceeds MGN 654 requirements.					✓		✓								✓	Compliance with MGN 654 is a standard Section 36 and marine licence consent condition (typically captured under NSP condition) and secured under project design.
M-31	Vessel Marine Regulations	Compliance of all Project vessels with international Marine Regulations as adopted by the Flag State, notably Convention on International Regulations for Preventing Collisions at Sea (COLREGs) IMO, 1972/77) and International Convention for the Safety of Life at Sea (SOLAS) (IMO, 1974).						✓	✓				✓				✓	Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**. The Project will employ a dedicated competent resource to verify compliance with international Marine Regulations, including a Marine Operations Management Manual and a suite of Project documentation specific to Marine Operations.
M-32	Vessel Management Plan	Development of, and adherence to, a Vessel Management Plan. This plan will provide the procedures for management and coordination of vessels to mitigate the impact of Project vessels.						✓	✓				✓			✓		Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**.
M-33	Aeronautical Navigational Marking	Appropriate marking of the WDA on aeronautical charts. This will include provision of the positions and heights of structures to the Civil Aviation Authority, Ministry of Defence (MOD) and Defence Geographics Centre.									✓						✓	Section 36 and marine licence consent conditions. Secured via **Appendix 13 Outline Vessel Management Plan and NSP**.
M-34	Development Specification and Layout Plan	Development of, and adherence to, a Development Specification and Layout Plan. The layout of the WTGs will be finalised post consent. Consultation with the MCA and Northern Lighthouse Board (NLB) will be undertaken to ensure that the specific WTG layout is compatible with potential SAR activity (M-26).						✓	✓		✓		✓				✓	Section 36 and marine licence consent conditions. Secured via the requirement for a Design Specification and Layout Plan, which will be submitted to Scottish Ministers for approval prior to the commencement of construction.
M-35	Failures of Lighting and Marking	Failures of the lighting and marking in the WDA will be appropriately reported and rectified as soon as practicable. Interim hazard warnings (i.e. Notice to Mariners (M-19)) or alternate temporary mitigation will be put in place as required. Associated						✓	✓		✓		✓				✓	Section 36 and marine licence consent conditions. Secured via **Appendix 12 Outline LMP**.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
		communication procedures, including with the MCA and NLB will be included in the post-consent LMP (M-20).																
M-36	Site Navigation Marking	Marking and lighting of the site following consultation with NLB and in line with International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) Guidance G1162 (IALA, 2021) including a buoyed construction area.						✓	✓								✓	Section 36 and marine licence consent conditions. Secured via **Appendix 12 Outline LMP**.
M-37	Archaeological Exclusion Zones	The implementation of AEZs around sites identified as having known, or high/medium archaeological potential to mitigate the potential impacts from offshore infrastructure.								✓								Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-38	Archaeological Survey Input	Archaeological experts will provide input into the specifications for and analysis of future preconstruction geotechnical and geophysical surveys. Archaeological input into the specifications for and analysis of future preconstruction geotechnical and geophysical surveys.								✓								Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-39	WSI	Development of, and adherence to, an Offshore WSI. This will clearly detail the process and approach to undertaking heritage works associated with the WDA.								✓								Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-40	PAD	Development of, and adherence to, a PAD. This will provide procedures for avoidance where practicable, as well as reporting and investigation of unexpected archaeological discoveries found during the site investigations and construction activities.								✓								Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-41	Further Investigation	Further investigation of anomalies identified as high/medium archaeological potential that cannot be avoided by micro-siting of design.								✓								Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-42	Archaeological Watching Briefs	Archaeological Watching Briefs are a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. These will be carried out prior to any activities that interact with the seabed.								✓								Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-43	Distance from Coast	The northern and eastern boundary of the WDA has been defined by implementation of a buffer of at least 12 km from the nearest points of Islay and Colonsay. This will reduce the magnitude of impact on seascape, landscape and visual impact receptors. Further refinement of the WDA boundary is likely once additional data is collected following the completion of further WDA surveys and studies, and as part of the outcomes of the EIA process, including feedback from stakeholders.										✓						Secured under the proposed Section 36 and marine licence condition detailed in Section 2.4.2 of the **Planning Statement**.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
M-44	Community Engagement Manager	Employment of a Community Engagement Manager, to develop and maintain long-term relationships with local communities. They will act as a bridge between local communities and the Applicant and its or their contractors, and contractors, ensuring queries are responded to in a timely manner, concerns are addressed, and social disruptions are minimised.												✓				Committed to within the **Socio-economic Action Plan**. The Applicant has already employed a Local Community Engagement Manager and will continue to do so.
M-45	Skills Strategy	Development of a skills strategy to expand the local workforce with relevant skills, in co-ordination with education providers.												✓				Engagement with local, regional and national skills providers. Committed to within the **Socio-economic Action Plan**.
M-46	Decommissioning Programme	Development and adherence to a Decommissioning Programme. This programme will identify all the items of equipment, infrastructure and materials that have been installed or drilled and describes the decommissioning solution for each, whilst considering the potential environmental effects of each method alongside appropriate mitigation techniques that can be implemented.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	Section 36 and marine licence consent conditions. Secured via a Decommissioning Programme, which will be developed and submitted to Scottish Ministers for approval before commencement of construction.
M-47	Construction Method Statement	Development of, and adherence to, a Construction Method Statement (CMS), to set out good working practices during construction. This will include a clear outline of roles and responsibilities and reference to health and safety protocols. The CMS will outline how the construction programme is adaptable to adverse weather.				✓										✓	✓	Section 36 and marine licence consent conditions. Secured via a CMS, which will be developed and submitted to Scottish Ministers for approval before commencement of construction.
M-48	WDA boundary refinement	The WDA has been refined following review of the Scoping Opinion and further public and stakeholder consultation to reduce potential impacts on various receptor groups. The northern, eastern and southern boundaries of the WDA have been refined, resulting in an overall reduction of the WDA by approximately 40% when compared with the W1 Plan Option Agreement Area. The reduction in the WDA has also reduced the horizontal spread of WTGs. Further information is provided in **Chapter 4 Site Selection and Alternatives**.									✓	✓						Secured within the Location Plan submitted alongside the Generation and Transmission Marine Licence Applications.
M-49	Dubh Artach setback distance	A two nautical mile buffer has been introduced around the helipad at Dubh Artach lighthouse to ensure the safety of any vessels and helicopters associated with any works for the lighthouse.								✓	✓	✓						Secured within the Location Plan submitted alongside the Generation and Transmission Marine Licence Applications.
M-50	Pre-construction Remotely Operated Vehicle (ROV) or diver surveys	Archaeologists to be consulted in the preparation of any pre-construction ROV or diver surveys and in monitoring/checking of data, if appropriate based upon the findings of the archaeological assessment of geophysical survey data.							✓									Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.

ID	Measure	Description of Measure	Marine Physical Environment	Benthic Ecology	Fish (Including Basking Shark) & Shellfish	Marine Mammals and Leatherback Turtle	Offshore Ornithology	Commercial Fisheries	Shipping & Navigation	Offshore Archaeology & Cultural Heritage	Military & Civil Aviation	Seascape, Landscape & Visual Impacts	Infrastructure & Other Marine Users	Socio-economics	Greenhouse Gas Assessment	Climate Change Risk Assessment	Major Accidents & Disasters	Securing Mechanism
M-51	Final layout and design	Anomalies of archaeological potential will be reviewed against the final layout and design. If they are likely to be impacted, these anomalies would undergo further archaeological investigation. Should these anomalies prove to be of archaeological importance then future AEZs may be implemented.								✓					✓			Section 36 and marine licence consent conditions. Secured via **Appendix 11 Offshore WSI and PAD**.
M-52	Removal of Gravity Base Structure (GBS) foundations for WTGs from Project design envelope	Since scoping, and following site-specific engineering development and design refinement, GBS foundations for WTGs have been removed from the design envelope which results in a large reduction in the worst-case seabed preparation requirements and seabed footprint of the WDA infrastructure. This reduces the magnitude of temporary physical disturbance / habitat loss, increased SSCs and permanent habitat loss impacts.		✓	✓													Secured through Project design specifications in the generation marine licence.
M-53	Lighting	Excess lighting, above levels set by regulatory requirements for navigation, aviation, escape/emergency procedures and general activity, will be avoided wherever possible. External general lighting will use methods to reduce excessive lighting of the WTGs and OSPs.					✓											Section 36 and marine licence consent conditions. Secured via **Appendix 12 Outline LMP**.

REFERENCES

FLOWW (2014). FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Liaison. January 2014.

FLOWW (2015). FLOWW Best Practice Guidance for Offshore Renewables Developments: Recommendations for Fisheries Disruption Settlements and Community Funds.

IALA (2021). IALA Guidance G1162 The Marking of Offshore Man-Made Structures. Edition 1.1. Saint Germain en Laye, France: IALA.

IEMA (2016). Environmental Impact Assessment Guide to: Delivering Quality Development. Published by the Institute of Environmental Management and Assessment, July 2016.

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

MCA (2021). Marine Guidance Note 654 (Merchant and Fishing) safety of Navigation: offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response. Southampton: MCA.