Arklow Bank Wind Park 2

Environmental Impact Assessment Report

Volume II, Chapter 25: Summary of Factored-In Measures, Mitigation and Monitoring

Version	Date	Status	Author	Reviewed by	Approved by
1.0	25/05/2024	Final (External)	GoBe Consultants	Sure Partners Limited	Sure Partners Limited

Statement of Authority

Please refer to each topic specific EIAR chapter for relevant statements of authority.

Contents

Tables

Glossary

Term	Meaning
Arklow Bank Wind Park 1 (ABWP1)	Arklow Bank Wind Park 1 consists of seven wind turbines, offshore export cable and inter-array cables. Arklow Bank Wind Park 1 has a capacity of 25.2 MW. Arklow Bank Wind Park 1 was constructed in 2003/04 and is owned and operated by Arklow Energy Limited. It remains the first and only operational offshore windfarm in Ireland.
Arklow Bank Wind Park 2 – Offshore Infrastructure	"The Proposed Development", Arklow Bank Wind Park 2 Offshore Infrastructure: This includes all elements under the existing Maritime Area Consent.
Arklow Bank Wind Park 2 (ABWP2) (The Project)	Arklow Bank Wind Park 2 (ABWP2) (The Project) is the onshore and offshore infrastructure. This EIAR is being prepared for the Offshore Infrastructure. Consents for the Onshore Grid Infrastructure (Planning Reference 310090) and Operations Maintenance Facility (Planning Reference 211316) has been granted on 26th May 2022 and 20th July 2022, respectively. • Arklow Bank Wind Park 2 Offshore Infrastructure: This includes all elements to be consented in accordance with the Maritime Area Consent. This is the subject of this EIAR and will be referred to as 'the Proposed Development' in the EIAR. • Arklow Bank Wind Park 2 Onshore Grid Infrastructure: This relates to the onshore grid infrastructure for which planning permission has been granted. • Arklow Bank Wind Park 2 Operations and Maintenance Facility (OMF): This includes the onshore and nearshore infrastructure at the OMF, for which planning permission has been granted. • Arklow Bank Wind Park 2 EirGrid Upgrade Works: any non-contestable grid upgrade works, consent to be sought and works to be completed by EirGrid.
Array Area	The Array Area is the area within which the Wind Turbine Generators (WTGs), the Offshore Substation Platforms (OSPs), and associated cables (export, inter- array and interconnector cabling) and foundations will be installed.
Cable Corridor and Working Area	The Cable Corridor and Working Area is the area within which export, inter-array and interconnector cabling will be installed This area will also facilitate vessel jacking operations associated with installation of WTG structures and associated foundations within the Array Area.
Cable protection	External armouring applied to exposed cables or used at cable crossings, typically comprised of rock (berms or bags), ducting (polyurethane, steel, High Density Polyethylene (HDPE), cast iron or plastic) or concrete mattresses.
EirGrid	State-owned electric power transmission system operator (TSO) in Ireland and Transmission Asset Owner (TAO) for the Project's transmission assets.
Mitigation Measure	Measure which would avoid, reduce, or offset an impact.
The Application	The full set of documents that will be submitted to An Bord Pleanála in support of the consent.

Term	Meaning
The Developer	Sure Partners Ltd.

Acronyms

Term	Meaning
ABWP1	Arklow Bank Wind Park 1
ABWP2	Arklow Bank Wind Park 2
ADD	Acoustic Deterrent Device
AEZ	Archaeological Exclusion Zone
ALAN	Artificial Lighting at Night
AMP	Archaeology Management Plan
BAS	Burial Assessment Study
CBRA	Cable Burial Risk Assessment
COLREGs	International Regulations for Preventing Collisions at Sea
CNMP	Construction Noise Management Plan
DHLGH	Department of Housing, Local Government and Heritage
DoD	Description of Development
ECMG	East Coast Monitoring Group
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMF	Electromagnetic Fields
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
ERCoP	Emergency Response Cooperation Plan
EVMP	Environmental Vessel Management Plan
FLO	Fisheries Liaison Officer
FMMS	Fisheries Management and Mitigation Strategy
GVA	Gross Value Added
IAA	Irish Aviation Authority
IAIP	Integrated Aeronautical Information Package

Term	Meaning
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IMO	International Maritime Organisation
INISMP	Invasive Non-Indigenous Species Management Plan
IRCG	Irish Coast Guard
LAT	Lowest Astronomical Tide
LMP	Lighting and Marking Plan
MAC	Maritime Area Consent
MDSS	Material Data Safety Sheet
MMMP	Marine Mammal Mitigation Plan
MPCP	Marine Pollution Contingency Plan
MSO	Marine Survey Office
MW&SQ	Marine Water and Sediment Quality
NMS	National Monuments Service
NSR	Noise Sensitive Receptor
NtM	Notice to Mariners
OFLO	Offshore Fisheries Liaison Officer
OGI	Onshore Grid Infrastructure
OMF	Operations and Maintenance Facility
PAM	Passive Acoustic Monitoring
PSR	Primary Surveillance Radar
PTS	Permanent Threshold Shift
ROV	Remotely Operated Vehicle
SAR	Search and Rescue
SLVIA	Seascape Landscape and Visual Impact Assessment
SOLAS	International Convention for the Safety of Life at Sea
SOPEP	Shipboard Oil Pollution Emergency Plan
UXO	Unexploded Ordnance

Term	Meaning
VMP	Vessel Management Plan
WTG	Wind Turbine Generator

25 Summary of Factored-In Measures Mitigation and Monitoring

25.1 Introduction

25.1.1.1 This chapter sets out a summary of the factored-in measures, mitigation and monitoring commitments detailed within the Environmental Impact Assessment Report (EIAR) for the Arklow Bank Wind Park 2 (ABWP2) Offshore Infrastructure (hereafter referred to as 'the Proposed Development'). For each commitment, the means of implementation is also specified.

25.2 Summary of factored-in measures, mitigation and monitoring

25.2.1 Coastal Processes

Table 25.1: Coastal processes factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
6.1	Chapter 6: Coastal Processes	Increased suspended sediment concentrations and associated deposition	✓	✓	✓	Volume II, Chapter 4: Description of Development provides cable laying plan, including refined cable laying techniques and refined cable burial depths (based on the parameters assessed in the EIAR). Operational and Maintenance activities are set out in Volume II, Chapter 4: Description of Development, this includes the procedure for setting out the refined parameters of any cable repair or reburial activities. Adherence to the Rehabilitation Schedule which outlines the measures for the decommissioning of the Proposed Development. Environmental Monitoring – Operational and Maintenance asset monitoring commitments include survey of seabed and assets every six months for the first two years and annually thereafter (Volume II: Chapter 4: Description of Development).	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Commitment to Operational and Maintenance asset monitoring as set out in Volume II: Chapter 4: Description of Development.

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
6.2	Chapter 6: Coastal Processes	Presence of infrastructure may lead to changes to tidal currents, wave climate, sediment transport and seabed morphology	×	✓	×	Scour protection. In the absence of scour protection, there is potential for scour pits to develop around foundations. This may result in the release of sediment into the water column and a change to seabed habitat in the vicinity of the foundation. Scour protection will be installed as described in Volume II, Chapter 4: Description of Development. Cables will be buried where possible and protected where not possible. Undertaking of post-installation cable burial surveys and periodic monitoring of cables. This will monitor the impacts of cable burial/protection with respect to seabed features, including sandwave fields, sandbanks and scour development around cable protection.	None	Installation of scour protection as defined in Volume II, Chapter 4: Description of Development. Commitment to the burial of cables where possible and protected where not possible, as set out in Volume II, Chapter 4: Description of Development. Commitment to post-installation cable burial surveys and periodic monitoring of cables as set out in Volume II, Chapter 4: Description of Development.
						Monitoring		
N/A	Chapter 6: Coastal Processes	N/A	-	-	-	No coastal processes monitoring to test the predictions made within the impact assessment is considered necessary. However, seabed monitoring will take place for asset integrity purposes, and in line with the requirements of the Maritime Area Consent (MAC), as set out in Volume II, Chapter 6: Coastal Processes.		Asset integrity monitoring as set out in Volume II, Chapter 4: Description of Development.

25.2.2 Marine Water and Sediment Quality

Table 25.2: Marine Water and Sediment Quality (MW&SQ) factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
7.1	Chapter 7: MW&SQ	Deterioration in water quality due to suspension of sediments	✓	✓	✓	An Environmental Management Plan (EMP) will be implemented, this includes mitigation/monitoring measures and commitments made within the EIAR, including but not limited to chemical usage, invasive and non-native species, pollution prevention and waste management. Scour protection will be installed as described in Volume II, Chapter 4: Description of Development; In the absence of scour protection, there is potential for scour pits to develop around foundations. This may result in the release of sediment, and concurrent sediment-bound contaminants, into the water column. However, scour protection will be installed prior to the foundations in order to reduce the development of scour around the structures. Operational and Maintenance activities are set out in Volume II, Chapter 4: Description of Development, this includes the procedure for setting out the refined parameters of any cable repair or reburial activities.	None	Implementation of and adherence to the EMP: (Volume III, Appendix 25.1). Installation of scour protection as defined in Volume II, Chapter 4: Description of Development. Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						Adherence to the Rehabilitation Schedule; (Volume III, Appendix 4.1).		be implemented and adhered to by the Developer during the decommissioning phase.
7.2	Chapter 7: MW&SQ	Release of sediment bound contaminants from disturbed sediments.	✓	✓	✓	Adherence to the EMP: (Volume III, Appendix 25.1) Scour protection will be installed as described in Volume II, Chapter 4: Description of Development; Operational and Maintenance activities are set out in Volume II, Chapter 4: Description of Development, this includes the procedure for setting out the refined parameters of any cable repair or reburial activities. Adherence to the Rehabilitation Schedule; (Volume III, Appendix 4.1).	None	Implementation of and adherence to the EMP: (Volume III, Appendix 25.1); Installation of scour protection as defined in Chapter 4: Description of Development. Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
								the Developer during the decommissioning phase.
7.3	Chapter 7: MW&SQ	Accidental releases or spills of materials or chemicals.	✓	✓	✓	Adherence to the Marine Pollution Contingency Plan (MPCP) (Volume III, Appendix 25.1 EMP, Annex 2). The MPCP will ensure that any potential risk of spillage or pollution is minimised. This commitment is standard practice and ensures the use of appropriate preventative measures and serves as an embedded mitigation against this type of pollution incidence. If an accidental spill occurs, all relevant parties would be informed as required in the MPCP; and Adherence to the Vessel Management Plan (VMP). The VMP confirms the types and numbers of vessels that will be engaged on the proposed development and consider vessel coordination including indicative transit route planning (Marine Coordination). This commitment is standard practice and relates to consideration of impacts associated with non-native species, accidental pollution, habitat loss/disturbance and collision risk.	None	Implementation of and adherence to the MPCP ; (Volume III, Appendix 25.1 EMP, Annex 2). Implementation of and adherence to the VMP; (see Volume III, Appendix 25.7).
						Monitoring		
N/A	Chapter 7: MW&SQ	N/A	-	-	-	No MW&SQ monitoring to test the predictions made within the impact assessment is considered necessary.		N/A

25.2.3 Airborne Noise

Table 25.3: Airborne Noise factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
8.1	Chapter 8: Airborne Noise	Increased noise levels at Noise Sensitive Receptors (NSR) along the coastline from piling during construction.	✓	×	×	Adherence to the Construction Noise Management Plan (CNMP) (Volume III, Appendix 25.8).	Industry standard methods of mitigating using a screen and / or a dolly, or the use of programming of piling during periods not favourable to noise propagation will be implemented during piling events in evening and night-time periods as outlined in the Construction Noise Management Plan (CNMP) (Volume III, Appendix 25.8	Implementation of and adherence to the CNMP (Volume III, Appendix 25.8).

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
8.2	Chapter 8: Airborne Noise	Airborne noise impact at NSRs along the coast during operation	×	✓	×	None	None	N/A
						Monitoring		
8.1	Chapter 8: Airborne Noise	Increased noise levels at NSRs along the coastline from piling during construction.	✓	×	×	In the event of noise complaint, onshore noise monitoring will be undertaken at NSR to determine noise levels from piling.		Implementation of and adherence to the CNMP (Volume III, Appendix 25.8).

25.2.4 Benthic, Subtidal and Intertidal Ecology

Table 25.4: Benthic, Subtidal and Intertidal Ecology factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
9.1	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Temporary subtidal habitat loss/disturbance	✓	✓	✓	Implementation of an EMP; this includes mitigation/monitoring measures and commitments made within the EIAR, including to chemical usage, minimisation of the spread and introduction of invasive and non-native species, pollution prevention and waste management. The EMP will include a MPCP which will include key emergency contact details (e.g. Environmental Protection Agency (EPA)) Confirmatory surveys to be undertaken within the Array Area and Cable Corridor and Working Area. Confirmatory surveys will include a geophysical survey carried out prior to construction which will confirm the location and extent of any potential areas of Annex I Sabellaria reef habitat which will then be ground-truthed via underwater video (i.e. Remotely Operated Vehicle (ROV)). Any areas of Annex I Sabellaria reef habitat identified will be avoided via micro-routing and micro-siting of infrastructure. In addition, the presence of Annex I bedrock or stony reef and blue mussel	None	Implementation of and adherence to the EMP and associated annexes; (Volume III, Appendix 25.1). Commitment to confirmatory surveys as set out in Volume II, Chapter 4 Description of Development. Implementation of and adherence to the VMP (Volume III, Appendix 25.7). Implementation of and adherence to the Invasive Non-Indigenous Species

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						beds will be identified and avoided via micro-routing and micro-siting. Adherence to the Vessel Management Plan (VMP) which outlines considerations for anchoring. Adherence to the Rehabilitation Schedule which outlines the measures for the decommissioning of the Proposed Development.		Management Plan (INISMP) (Volume III, Appendix 25.4). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.
9.2	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Increased suspended sediment concentrations and associated sediment deposition	✓	✓	✓	Scour protection. In the absence of scour protection, there is potential for scour pits to develop around foundations. This may result in the release of sediment into the water column and a change to seabed habitat in the vicinity of the foundation. Scour protection will be installed as described in Volume II, Chapter 4: Description of Development.	None	Installation of scour protection as defined in Volume II, Chapter 4: Description of Development.
9.3	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Injury and/or disturbance from underwater noise and vibration	✓	×	×	Adherence to soft starts and maximum piling energies as set out in Volume II, Chapter 4 Description of Development	None	Implementation of and adherence to the piling parameters and use of soft starts (Volume II, Chapter 4

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
								Description of Development).
9.4	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Long-term subtidal habitat loss/change	×	✓	×	Implementation of the EMP as detailed for Reference No 9.1 above. Confirmatory surveys to be undertaken within the Array Area and Cable Corridor and Working Area. Confirmatory surveys will include a geophysical survey carried out prior to construction which will confirm the location and extent of any potential areas of Annex I Sabellaria reef habitat which will then be ground-truthed via underwater video (i.e. ROV). Any areas of Annex I Sabellaria reef habitat identified will be avoided via micro-routing and micro-siting of infrastructure. In addition, the presence of Annex I bedrock or stony reef and blue mussel beds will be identified and avoided via micro-routing and micro-siting. Implementation of the INISMP The plan outlines measures to ensure vessels comply with the International Maritime Organisation (IMO) ballast water management guidelines, it will consider the origin of vessels and contain standard housekeeping measures for such vessels as well as measures to be adopted in the event that a high alert species is recorded. Cables will be buried where possible and protected where not possible.	None	Implementation of and adherence to the EMP; (Volume III, Appendix 25.1). Commitment to confirmatory surveys as set out in Volume II, Chapter 4 Description of Development. Implementation of and adherence to the INISMP; (Volume III, Appendix 25.4). Commitment to the burial of cables where possible and protected where not possible, as set out in Volume II, Chapter 4: Description of Development.

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
9.5	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Colonisation of hard structures	✓	✓	✓	Implementation of the EMP as detailed for Reference No 9.1 above. Confirmatory survey as detailed for Reference No 9.1 above. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented by the Developer during the decommissioning phase. Implementation of the INISMP as detailed for Reference No 9.1 above.	None	Implementation of and adherence to the EMP; (Volume III, Appendix 25.1) Commitment to confirmatory surveys as set out in Volume II, Chapter 4 Description of Development. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Implementation of and adherence to the INISMP; (Volume III, Appendix 25.4).
9.6	Chapter 9: Benthic, Subtidal	Alterations of seabed habitats arising from	×	✓	×	Scour protection will be installed as described in Volume II, Chapter 4: Description of Development; In the absence of scour	None	Installation of scour protection as defined in

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
	and Intertidal Ecology	changes in physical processes				protection, there is potential for scour pits to develop around foundations. This may result in the release of sediment into the water column and a change to seabed habitat in the vicinity of the foundation. Volume II, Chapter 4: Description of Development sets out the cable laying techniques, cable burial depths and schedule of O&M activities.		Volume II, Chapter 4: Description of Development. Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors.
9.7	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Removal of hard structures resulting in loss of colonising communities	×	×	✓	Adherence to a Rehabilitation Schedule. The Rehabilitation Schedule outlines measures for the decommissioning of the Proposed Development.	None	The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.
9.8	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Increased risk of introduction and spread of invasive and non-native species	✓	✓	✓	An INISMP will be implemented. The plan outlines measures to ensure vessels comply with the International Maritime Organisation (IMO) ballast water management guidelines, it will consider the origin of vessels and contain standard measures for such vessels as well as measures to be adopted in the event that a high alert species is recorded.	None	Implementation of and adherence to the INISMP; (Volume III, Appendix 25.4).

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
9.9	Chapter 9: Benthic, Subtidal and Intertidal Ecology	Accidental pollution	✓	✓	✓	A MPCP is included in the EMP. This ensures plans are in place to manage any marine pollution spills and including key emergency contact details.	None	Implementation of and adherence to the MPCP; (Volume III, Appendix 25.1 EMP, Annex 2).
						Monitoring		
N/A	Chapter 9: Benthic, Subtidal and Intertidal Ecology	N/A				No benthic subtidal and intertidal ecology monitoring to test the predictions made within the impact assessment is considered necessary. However, confirmatory surveys to determine the extent, distribution and quality/condition of reef habitats will be undertaken, and any sites identified as containing vulnerable species will be avoided where possible, via micro-siting/routing and monitored throughout the pre-construction, construction and operational phases, as set out in Volume II, Chapter 9: Benthic Subtidal and Intertidal Ecology.		N/A

25.2.5 Fish, Shellfish and Sea Turtle Ecology

Table 25.5: Fish, Shellfish and Sea Turtle Ecology factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D	**Factored-in measures**	**Further mitigation**	
10.1	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Temporary habitat loss/disturbance	✓	✓	✓	Implementation of the construction plan / techniques as set out in Volume II, Chapter 4 Description of Development. Adherence to a Rehabilitation Schedule. The Rehabilitation Schedule outlines measures for the decommissioning of the Proposed Development. Measures implemented that will mitigate against effects on fish, shellfish and sea turtle include leaving scour protection in-situ. Confirmatory surveys to verify the presence or absence of Annex I features (blue mussel beds, reefs) and to confirm predicted benthic habitats present. Measures to avoid and minimise direct and indirect impacts on these features will be implemented via micro-routing and micro-sitting.	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Commitment to confirmatory surveys as set out in Volume II,

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
								Chapter 4 Description of Development.
10.2	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Increased suspended sediment concentrations and associated deposition.	✓	✓	✓	Implementation of the construction plan / techniques as set out in Volume II, Chapter 4 Description of Development. Adherence to a Rehabilitation Schedule as detailed in Reference No. 10.1. Management of bentonite spills as set out in Volume II, Chapter 4 Description of Development. Monitoring of mud volumes and pressure, detection of break outs and pausing drilling, plugging fissures and ongoing monitoring. Scour protection will be installed as described in Volume II, Chapter 4: Description of Development; In the absence of scour protection, there is potential for scour pits to develop around foundations. This may result in the release of sediment into the water column and a change to seabed habitat in the vicinity of the foundation.	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Management of bentonite spills as set out in Volume II, Chapter 4 Description of Development

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
								(Volume II, Chapter 4). Installation of scour protection as defined in Volume II, Chapter 4: Description of Development.
10.3	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Injury and/or disturbance to fish and shellfish from underwater noise and vibration	✓	✓	×	Implementation of the construction plan / techniques as set out in Volume II, Chapter 4 Description of Development. Adherence to a Rehabilitation Schedule as detailed in Reference No. 10.1. Implementation of and adherence to a Marine Mammal Mitigation Plan (MMMP). This identifies appropriate mitigation measures during offshore activities that are likely to produce underwater noise and vibration levels capable of potentially causing injury or disturbance to marine mammals Factored-in measures adopted to reduce the risk of injury to marine mammal receptors as described in the plan will also be employed to reduce the risks to fish and other marine megafauna (such as sea turtles and basking sharks). Adherence to soft starts and maximum piling energies as set out in Volume II, Chapter 4 Description of Development	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Implementation of and

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
								adherence to the MMMP; (see Volume III, Appendix 25.2).
10.4	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Injury and/or disturbance to basking shark and sea turtles from increased vessel activities	✓	✓	✓	Commitment to the maximum vessel numbers as set out in Volume II, Chapter 4 Description of Development. Adherence to a Rehabilitation Schedule as detailed in Reference No. 10.1. Issuing of an EVMP to all project vessel operators to advise on how to avoid impacts on basking sharks and sea turtles.	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Implementation of and adherence to the EVMP; (Volume III, Appendix 25.10).

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
10.5	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Accidental pollution from vessels, vehicles, equipment and machinery	✓	✓	✓	Adherence to a Rehabilitation Schedule as mentioned in reference 10.1. Implementation of an EMP, this includes mitigation/monitoring measures and commitments made within the EIAR, including but not limited to chemical usage, invasive and non-native species, pollution prevention and waste management. Adherence to the MPCP as detailed in Reference No. 10.3.	None	The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Implementation of and adherence to the EMP (Volume III, Appendix 25.1). Implementation of and adherence to the MPCP (Volume III, Appendix 25.1 EMP, Annex 2).
10.6	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Long term habitat loss	×	✓	×	Cables will be buried where possible and protected where not possible. Development of and adherence to Environmental Monitoring. Operational and Maintenance asset monitoring commitments include survey of seabed and assets every 6	None	Commitment to the burial of cables where possible and protected where not possible, as set out in Volume

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						months for the first two years and annually thereafter (Volume II: Chapter 4: Description of Development).		II, Chapter 4: Description of Development. Commitment to Operational and Maintenance asset monitoring as set out in Volume II: Chapter 4: Description of Development.
10.7	Chapter 10: Fish, Shellfish and Sea Turtle Ecology	Alterations of seabed habitats arising from changes in physical processes	×	✓	×	Implementation of the Operational and Maintenance activities as set out in Volume II, Chapter 4 Description of Development. Scour protection will be installed as described in Volume II, Chapter 4: Description of Development. In the absence of scour protection, there is potential for scour pits to develop around foundations. This may result in the release of sediment into the water column and a change to seabed habitat in the vicinity of the foundation.	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. Installation of scour protection as defined in Chapter 4: Description of Development.
10.8	Chapter 10: Fish, Shellfish and Sea	Temporary changes in Electromagnetic Fields (EMF)	×	✓	×	Cables will be buried where possible and protected where not possible which reduces	None	Commitment to the burial of cables where possible and

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment	Means of implementation
	Turtle Ecology	from subsea electrical cabling		the effect of EMF (as set out in Volume II, Chapter 4 Description of Development).	protected where not possible, as set out in Volume II, Chapter 4: Description of Development.
				Monitoring	
N/A	Chapter 10: Fish, Shellfish, and Sea Turtles	N/A	- - -	No fish, shellfish and sea turtle monitoring to test the predictions made within the impact assessment is considered necessary	N/A

25.2.6 Marine Mammals

Table 25.6: Marine Mammals factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
11.1	Chapter 11: Marine Mammals	Injury and/or disturbance to marine mammals from underwater noise during pile driving	✓	×	×	A MMMP will be implemented. The MMMP details the piling methodology, duration of piling, soft-start procedures, maximum piling energy and includes details of mitigation and monitoring parameters. The implementation of a MMMP will mitigate for the risk of permanent auditory injury to marine mammals within a 'mitigation zone'. The mitigation zone is determined considering the potential for instantaneous auditory injury based on the initial hammer strike energy of 825 kJ (i.e. soft-start hammer energy). The soft-start will provide an audible cue to allow marine mammals to flee the area before piling at increased hammer energy commences. The soft-start will help to mitigate any potential for auditory injury. Acoustic Deterrent Devices (ADDs) as stated in Volume III, Appendix 25.2 MMMP, will be used prior to the soft-start to ensure marine mammals are deterred.	None	Implementation of and adherence to the MMMP; (see Volume III, Appendix 25.2). Commitment to the use of soft starts as set out in Volume II, Chapter 4 Description of Development and Volume III, Appendix 25.2 MMMP.

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
11.2	Chapter 11: Marine Mammals	Injury and/or disturbance to marine mammals from vessel activities	✓	✓	✓	The implementation of an EVMP which includes best practice guidance measures to minimise the potential for collision risk, potential injury to, and disturbance of marine mammals from vessel activities.	None	Implementation of and adherence to the EVMP (Volume III, Appendix 25.10).
11.3	Chapter 11: Marine Mammals	Changes in fish and shellfish community affecting prey resources	✓	✓	✓	None	None	N/A
11.4	Chapter 11: Marine Mammals	Accidental pollution	✓	✓	✓	An EMP will be implemented. The EMP provides the overarching framework for environment management during construction, operational and maintenance, and decommissioning phases of the Proposed Development. The EMP includes mitigation/monitoring measures and commitments made within the EIAR and a MPCP which will include key emergency contact details (e.g. EPA, Irish Coast Guard (IRCG).). In this manner, accidental release of contaminants from vessels will be strictly controlled, thus providing protection for marine life across all phases of the Proposed Development.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1). Implementation of and adherence to the MPCP (Volume III, Appendix 25.1 EMP, Annex 2).

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						Any accidental pollution of the marine environment shall be immediately reported to the IRCG and to any other local authorities who are likely to be affected by such pollution.		
11.5	Chapter 11: Marine Mammals	Changes in EMF from subsea electrical cabling	×	✓	×	Cables will be buried where possible and protected where not possible which reduces the effect of EMF (as set out in Volume II, Chapter 4 Description of Development). While burial of cables will not reduce the strength of potential EMF, it does increase the distance between the source of EMF (i.e. the operational cables) and marine mammal receptors, thereby potentially reducing the potential effect on those receptors.	None	Commitment to the burial of cables where possible and protected where not possible, as set out in Volume II, Chapter 4: Description of Development
11.6	Chapter 11: Marine Mammals	Injury and/or disturbance to marine mammals from underwater noise during Unexploded Ordnance (UXO) clearance	✓	×	×	A MMMP will be implemented. MMMP for UXO clearance detailing the clearance methodologies, and details of mitigation and monitoring parameters. A UXO MMMP will be implemented during any UXO clearance required. The MMMP will include measures to ensure the risk of instantaneous Permanent Threshold Shift (PTS) to marine mammals is negligible. The measures contained in the MMMP are in accordance with best practice guidance.	None	Implementation of and adherence to the MMMP for UXO; (Volume III, Appendix 25.2).

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						The specific measures for the Proposed Development are outlined in the MMMP.		
11.7	Chapter 11: Marine Mammals	Injury and/or disturbance from underwater noise during site surveys	✓	×	×	MMMP for site surveys, detailing the survey equipment to be deployed, details of mitigation and monitoring parameters. The MMMP will be implemented during site surveys and will include measures to ensure the risk of PTS to marine mammals is negligible.	None	Implementation of and adherence to the MMMP for site surveys; (Volume III, Appendix 25.2).
						Monitoring		
11.1	Chapter 11: Marine Mammals	Injury and/or disturbance to marine mammals from underwater noise during pile driving	✓	×	×	Monitoring has been proposed to understand the potential for behavioural disturbance to marine mammals during piling. Such monitoring will include both visual monitoring and the use of Passive Acoustic Monitoring (PAM). The details of this monitoring commitments are set out in Volume II, Chapter 4: Description of Development, Table 4.10.		Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors.

25.2.7 Offshore Ornithology

Table 25.7: Offshore Ornithology factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment		Means of implementation
				Factored-in measures	**Further mitigation**	
12.1a	Chapter 12: Offshore Ornithology	Wind Turbine Generator (WTG) model 1a/1b Direct disturbance and displacement	✓ ✓ ✓	Implementation of the Environmental Vessel Management Plan (EVMP). The EVMP: • Minimises the risk of collision and injury to marine wildlife; • Minimises the risk of disturbance to marine wildlife; • Offers guidance to contractors conducting activities on behalf of the Proposed Development in proximity to wildlife; and • Provides contractors with the procedures for reporting vessel collisions with seabirds.	None	Implementation of and adherence to the EVMP (Volume III, Appendix 25.10).
12.1b	Chapter 12: Offshore Ornithology	WTG model 2 Direct disturbance and displacement	✓ ✓ ✓	Implementation of the EVMP as detailed in Reference No. 12.1a.	None	Implementation of and adherence to the EVMP (Volume III, Appendix 25.10)

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment		Means of implementation
12.2a	Chapter 12: Offshore Ornithology	WTG model 1a/1b Indirect disturbance and displacement resulting from changes to prey species and habitats	✓ ✓ ✓	Best practice vessel and marine machinery operation will be complied with as follows • All hazardous substances stored in a dedicated storage room; • Substances categorized as “Danger” will be stored in a locker and may only be used with a Permit To Work; • Updated Safety Data Sheet (formally known as Material Data Safety Sheet (MDSS)) will be readily accessible in storage rooms; • The amount of hazardous material is kept to a minimum; • Hazardous substances stored, handled and disposed of in accordance with the regulations in force; • All storage facilities and handling equipment will be in good working order and designed in such a way as to prevent and contain any spillage as far as practicable; • Use appropriate and certified hoses only; • Procedures in case of bunkering, spillage, Shipboard Oil Pollution Emergency Plan (SOPEP), discussed in a toolbox before each bunker operation; • Identified personnel trained in the use of equipment; • Regular drills;	None	Implementation of and adherence to the EMP and associated annexes (Volume III, Appendix 25.1)

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment		Means of implementation
				• Spill kits located near hydrocarbon storage areas and replenished if required; and, • Retention around the work area The identified measures have been proposed specifically to prevent diminution of water quality and associated deterioration of Annex I habitat types or accidental spillages of oil products from causing a reduction in prey biomass of qualifying species or oiling of seabirds.		
12.2b	Chapter 12: Offshore Ornithology	WTG Model 2 Indirect disturbance and displacement resulting from changes to prey species and habitats	✓ ✓ ✓	Best practice vessel and marine machinery operation as detailed in Reference No. 12.2a.	None	Implementation of and adherence to the EMP and associated annexes (Volume III, Appendix 25.1)
12.3a	Chapter 12: Offshore Ornithology	WTG model 1a Collision risk	× ✓ ×	Lower blade tip height of 37m From Lowest Astronomical Tide (LAT) - Minimises potential seabird collision risks since the	None	Adherence to the Description of Development (Volume II, Chapter 4) by the

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						abundance of birds decreases with increasing height above the sea surface. Maximum number of wind turbines of 56 for Project Design Option 1. The number of wind turbines has been refined to minimise the potential collision risk impacts.		Developer and all associated contractors.
12.3b	Chapter 12: Offshore Ornithology	WTG model 1b Collision Risk	×	✓	×	Lower blade tip height of 37m from LAT- Minimises potential seabird collision risks since the abundance of birds decreases with increasing height above the sea surface. Maximum number of wind turbines of 56 for Project Design Option 1. The number of wind turbines has been refined to minimise the potential collision risk impacts.	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors.
12.3c	Chapter 12: Offshore Ornithology	WTG Model 2 Collision risk	×	✓	×	Lower blade tip height of 37m from LAT - Minimises potential seabird collision risks since the abundance of birds decreases with increasing height above the sea surface. Maximum number of wind turbines 47 for Project Design Option 2.The number of wind turbines has been refined to minimise the potential collision risk impacts.	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors.
12.4a	Chapter 12: Offshore Ornithology	WTG model 1a/1b	×	✓	×	None	None	N/A

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
		Barrier Effect						
12.4b	Chapter 12: Offshore Ornithology	WTG model 2 Barrier Effect	×	✓	×	None	None	N/A
						Monitoring		
12.1a	Chapter 12: Offshore Ornithology	WTG model 1a/1b Direct disturbance and displacement	✓	✓	✓	Monitoring during the construction phase and for a period of five years post-construction. Collection of distribution data via digital aerial surveys before/after construction.		Commitment to ornithological monitoring as set out in Volume II, Chapter 12: Offshore Ornithology.
12.1b	Chapter 12: Offshore Ornithology	WTG model 2 Direct disturbance and displacement	✓	✓	✓	Monitoring during the construction phase and for a period of five years post-construction. Collection of distribution data via digital aerial surveys before/after construction.		Commitment to ornithological monitoring as set out in Volume II, Chapter 12: Offshore Ornithology.
12.3a; 12.3b	Chapter 12: Offshore Ornithology	WTG model 1a/1b	×	✓	×	Collection of data to reduce uncertainties in collision risk parameters.		Commitment to ornithological monitoring and participation in the ECMG as

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment	Means of implementation
		Collision risk		Note also that the Developer is committed to participating in the 'East Coast Monitoring Group' (ECMG), to discuss and agree potential strategic monitoring initiatives in relation to offshore ornithology. The need for strategic monitoring and the level of participation by individual projects, will be determined by the conclusions of the EIAR process, in consultation with statutory and technical stakeholders, and with a focus on validation and evidence gathering.	set out in Volume II, Chapter 12: Offshore Ornithology.
12.3c	Chapter 12: Offshore Ornithology	WTG Model 2 Collision risk	✗ ✓ ✗	Collection of data to reduce uncertainties in collision risk parameters. Maximum number of wind turbines of 47 for Project Design Option 2 Note also that the Developer is committed to participating in the ECMG, to discuss and agree potential strategic monitoring initiatives in relation to offshore ornithology. The need for strategic monitoring sand the level of participation by individual projects, will be determined by the conclusions of the EIAR process, in consultation with statutory and technical stakeholders, and with a focus on validation and evidence gathering.	Commitment to ornithological monitoring and participation in the ECMG as set out in Volume II, Chapter 12: Offshore Ornithology.

25.2.8 Offshore Bats

Table 25.8: Offshore Bats factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
13.1	Chapter 13: Offshore Bats	Direct disturbance and displacement due to anthropogenic noise	✓	✓	✓	None	None	N/A
13.2	Chapter 13: Offshore Bats	Direct disturbance and displacement due to increased vessel activity and infrastructure presence	✓	✓	✓	None	None	N/A
13.3	Chapter 13: Offshore Bats	Disturbance and displacement due to Artificial	✓	✓	✓	None	None	N/A

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
		Lighting at Night (ALAN)						
13.4	Chapter 13: Offshore Bats	Indirect disturbance and displacement resulting from changes to prey	✓	✓	✓	None	None	N/A
13.5	Chapter 13: Offshore Bats	Collision and Barotrauma	×	✓	×	Minimum lower blade tip height of 37 m above LAT for Project Design Option 1 and Project Design Option 2. Minimises potential bat collision risks since most activity occurs below 40m. Maximum number of wind turbines of 56 for Project Design Option 1 and 47 for Project Design Option 2. The number of wind turbines has been refined to minimise the potential collision risk impacts (see Chapter 3: Consideration of Alternatives).	None	Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors.
						Monitoring		
13.1	Chapter 13: Offshore Bats	Direct disturbance and displacement due to	✓	✓	✓	The Developer is committed to participating in the ECMG, to discuss and agree potential strategic monitoring initiatives in relation to offshore bats. The need for strategic monitoring and the level of participation by individual projects will be determined by the conclusions of the EIAR process, in consultation with statutory and		Commitment to bat monitoring and participation in the ECMG as set out in Volume

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment	Means of implementation
		anthropogenic noise				technical stakeholders, and with a focus on validation and. evidence gathering.	II, Chapter 13: Offshore Bats.
13.2	Chapter 13: Offshore Bats	Direct disturbance and displacement due to increased vessel activity and infrastructure presence	✓	✓	✓	The Developer is committed to participating in the ECMG, to discuss and agree potential strategic monitoring initiatives in relation to offshore bats. The need for strategic monitoring and the level of participation by individual projects will be determined by the conclusions of the EIAR process, in consultation with statutory and technical stakeholders, and with a focus on validation and. evidence gathering.	Commitment to bat monitoring and participation in the ECMG as set out in Volume II, Chapter 13: Offshore Bats.
13.3	Chapter 13: Offshore Bats	Disturbance and displacement due to ALAN	✓	✓	✓	The Developer is committed to participating in the ECMG, to discuss and agree potential strategic monitoring initiatives in relation to offshore bats. The need for strategic monitoring and the level of participation by individual projects will be determined by the conclusions of the EIAR process, in consultation with statutory and technical stakeholders, and with a focus on validation and evidence gathering.	Commitment to bat monitoring and participation in the ECMG as set out in Volume II, Chapter 13: Offshore Bats.
13.4	Chapter 13: Offshore Bats	Indirect disturbance and displacement resulting from changes to prey	✓	✓	✓	The Developer is committed to participating in the ECMG, to discuss and agree potential strategic monitoring initiatives in relation to offshore bats. The need for strategic monitoring and the level of participation by individual projects will be determined by the conclusions of the EIAR process, in consultation with statutory and technical stakeholders, and with a focus on validation and. evidence gathering.	Commitment to bat monitoring and participation in the ECMG as set out in Volume II, Chapter 13: Offshore Bats.
13.5	Chapter 13:	Collision and Barotrauma	×	✓	×	The Developer is committed to participating in the ECMG, to discuss and agree potential strategic monitoring initiatives in	Commitment to bat monitoring

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment	Means of implementation
	Offshore Bats			relation to offshore bats. The need for strategic monitoring and the level of participation by individual projects will be determined by the conclusions of the EIAR process, in consultation with statutory and technical stakeholders, and with a focus on validation and. evidence gathering.	and participation in the ECMG as set out in Volume II, Chapter 13: Offshore Bats.

25.2.9 Commercial Fisheries and Aquaculture

Table 25.9: Commercial Fisheries and Aquaculture factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
14.1	Chapter 14: Commercial Fisheries and Aquaculture	Loss of grounds or restricted access to fishing grounds within the Array Area	✓	✓	✓	Implementation of the Fisheries Management and Mitigation Strategy (FMMS). The FMMS also provides details on the following roles which will be fulfilled: Fisheries Liaison Officer (FLO); Offshore Fisheries Liaison Officer (OFLO). Development of a Cable Burial Risk Assessment (CBRA) (pre-construction). The aim of the CBRA is to undertake a risk assessment in order to determine suitable burial depths for a cable along the entire route to protect the cable from third party and natural hazards. This includes identifying all hazards to the cable and carrying out a risk assessment to make recommendations on the burial depth required along the length of the cable to ensure that the risk to the cable is within acceptable limits. The CBRA includes an assessment of seabed conditions (based on available survey data) and an assessment of shipping, fishing,	None	Implementation of and adherence to the FMMS (Volume III, Appendix 25.3). Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. Development of and adherence to the CBRA (to be developed in the pre-construction phase). Commitment to the burial of cables where possible and protected where not possible, as set out in Volume II,

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment	Means of implementation
				dredging, military activities etc. Burial requirements are normally driven by the risk from fishing gear and vessel anchors, as well as the seabed conditions along the cable route (which affects the anchor and fishing gear penetration depths). This process will be informed by a Burial Assessment Study (BAS) which looks at the different installation methodologies available (Volume II, Chapter 4: Description of Development) and provides recommendations as to the suitability of each option based on the seabed conditions. The BAS also identifies areas where burial may not be feasible and additional protection (e.g. rock placement) may be required. This will feed into the CBRA to provide cable protection requirements (burial and external protection). Implementation of advisory safety zones. Implementation and adherence to the construction programme and construction methodology as set out in Volume II, Chapter 4 Description of Development;	Chapter 4: Description of Development Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. Implementation of and adherence to the EMP (Volume III, Appendix 25.1). Commitment to surveys as set out in Volume II, Chapter 4 Description of Development. Implementation of and adherence to the LMP (Volume III, Appendix 25.6). Implementation of and adherence to the VMP

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						Implementation of the EMP. Pre and Post-Construction surveys as set out in Volume II, Chapter 4 Description of Development. Implementation and adherence to the operational and maintenance methodology set out in Volume II, Chapter 4 Description of Development. Implementation of the Lighting and Marking Plan (LMP). Implementation of the Rehabilitation Schedule. Timely and efficient posting of Notice to Mariners (NtM) and navigational warnings.		(Volume III, Appendix 25.7). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.
14.2	Chapter 14: Commercial Fisheries and Aquaculture	Loss of grounds or restricted access to fishing grounds within the Cable Corridor and Working Area	✓	✓	✓	Factored in measures as detailed in Reference No. 14.1.	None	As detailed in Reference No. 14.1.

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
14.3	Chapter 14: Commercial Fisheries and Aquaculture	Displacement of fishing activity into other areas	✓	✓	✓	Factored in measures as detailed in Reference No. 14.1.	None	As detailed in Reference No. 14.1.
14.4	Chapter 14: Commercial Fisheries and Aquaculture	Interference with fishing activities	✓	✓	✓	Factored in measures as detailed in Reference No. 14.1.	None	As detailed in Reference No. 14.1.
14.5	Chapter 14: Commercial Fisheries and Aquaculture	Increased steaming times to fishing grounds	✓	✓	✓	Factored in measures as detailed in Reference No. 14.1.	None	As detailed in Reference No. 14.1.
14.6	Chapter 14: Commercial Fisheries and Aquaculture	Effects on commercially exploited species	✓	✓	✓	As detailed in Table 25.5 for Fish, Shellfish and Sea Turtle Ecology.	None	Volume II, Chapter 10: Fish, Shellfish and Sea Turtle Ecology.
14.7	Chapter 14: Commercial Fisheries and Aquaculture	Potential for snagging of gear	✓	✓	✓	Factored in measures as detailed in Reference No. 14.1.	None	As detailed in Reference No. 14.1.

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment	Means of implementation
						Monitoring	
N/A	Chapter 14: Commercial Fisheries and Aquaculture	N/A	-	-	-	No commercial fisheries monitoring to test the predictions made within the impact assessment is considered necessary	N/A

25.2.10 Shipping and Navigation

Table 25.10: Shipping and Navigation factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
15.1	Chapter 15: Shipping and Navigation	Displacement of Routeing Vessel Traffic	✓	✓	✓	Charting of all structures associated with the Proposed Development on relevant nautical and electronic charts. To ensure third party vessels are aware of the Proposed Development and associated locations to facilitate passage planning and minimise allision risk. (Volume III, Appendix 25.6, Lighting and Marking Plan (LMP)). Implementation of a buoyed construction/decommissioning area around the Array Area during the respective phases. To ensure the area within which works are ongoing is clear to passing traffic. (Volume III, Appendix 25.6, Lighting and Marking Plan (LMP)). Implementation of the MPCP to ensure plans are in place to manage any marine pollution spills. Circulation of information via Notice to Mariners (NtMs) and other appropriate	None	Implementation of and adherence to the LMP (Volume III, Appendix 25.6). Implementation of and adherence to the VMP (Volume III, Appendix 25.7). Implementation of and adherence to the MPCP (Volume III, Appendix 25.1 EMP, Annex 2). Implementation of and adherence to the Fisheries Management and Mitigation Strategy (FMMS) (Volume III, Appendix 25.3).

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						methods including a Fisheries Liaison Officer (FLO). To ensure details of the Proposed Development are provided to parties that may be affected to facilitate passage planning. Adherence to a Rehabilitation Schedule.		The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.
15.2	Chapter 15: Shipping and Navigation	Port Access Restrictions	✓	✓	✓	Circulation of information via NtMs and other appropriate methods including FLO as detailed in Reference No. 15.1. Marine coordination, including VMP. To ensure project vessel movements are appropriately managed.	None	Implementation of and adherence to the FMMS (Volume III, Appendix 25.3). Implementation of and adherence to the VMP; (Volume III, Appendix 25.7).
15.3	Chapter 15: Shipping and Navigation	Increased Collision Risk	✓	✓	✓	Circulation of information via NtMs and other appropriate methods including FLO as detailed in Reference No. 15.1. Marine coordination, including VMP. Compliance from all project vessels with Irish Law (including the holding of correct	None	Implementation of and adherence to the FMMS (Volume III, Appendix 25.3). Implementation of and adherence to the VMP;

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						certification as required by Marine Survey Office (MSO), and international maritime regulations as adopted by the relevant flag state including International Regulations for Preventing Collisions at Sea (COLREGs) (IMO, 1972/77) and International Convention for the Safety of Life at Sea (SOLAS) (IMO, 1974). To ensure interactions/encounters with third party traffic are suitably and safely managed (Volume III, Appendix 25.7: VMP). Implementation of emergency response plans in consultation with IRCG. To ensure emergency response procedures (i.e. the Emergency Response Cooperation Plan (ERCoP)) are clearly defined including how the Proposed Development will cooperate with the IRCG in an emergency, and how emergency response will be facilitated. Adherence to a Rehabilitation Schedule.		(Volume III, Appendix 25.7). Implementation of and adherence to the MPCP (Volume III, Appendix 25.1 EMP, Annex 2). Implementation of and adherence to the ERCoP; (Volume III, Appendix 25.5). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.
15.4	Chapter 15: Shipping and Navigation	Increased Allision Risk	✓	✓	✓	Application and use of 'rolling' 500 m advisory safe passing distances surrounding all fixed structures where work is being undertaken by a construction or maintenance vessel, and around cable installation/maintenance vessels.	None	Implementation of and adherence to the VMP (Volume III, Appendix 25.7).

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment	Means of implementation
						Application and use of 50 m advisory safe passing distances around all surface structures up until the point of commissioning. Necessary to ensure safe passing distances are made clear to third party traffic. Circulation of information via NtMs and other appropriate methods including FLO as mentioned in reference 15.1. Charting of all structures associated with the Proposed Development on relevant nautical and electronic charts. Lighting and marking to be agreed with Irish Lights via a Lighting and Marking Plan (LMP), whose requirements align with International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) Guidance G1162 (IALA, 2022). To ensure appropriate lighting and marking of the Proposed Development, including temporary lighting and marking during the construction phase to alert passing vessels to potential hazards. Adherence to a Rehabilitation Schedule.	Implementation of and adherence to the FMMS (Volume III, Appendix 25.3). Implementation of and adherence to the LMP; (Volume III, Appendix 25.6). Implementation of and adherence to the EMP (Volume III, Appendix 25.1). Implementation of and adherence to the ERCoP (Volume III, Appendix 25.5). Implementation of and adherence to the MPCP; (Volume III, Appendix 25.1 EMP, Annex 2). The Rehabilitation Schedule (Volume III, Appendix 4.1) will

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
								be implemented and adhered to by the Developer during the decommissioning phase.
15.5	Chapter 15: Shipping and Navigation	Cable Interaction Risk	✓	✓	✓	Circulation of information via NtMs and other appropriate methods including FLO as mentioned in reference 15.1. Cable Burial Risk Assessment (CBRA) undertaken pre-construction including consideration of under keel clearance and appropriate cable protection applied based upon the outcomes. Cable will be buried to 0.5 m where possible, cable protection will be utilised where identified as necessary. The aim of the CBRA is to undertake a risk assessment in order to determine suitable burial depths for a cable along the entire route to protect the cable from third party and natural hazards. This includes identifying all hazards to the cable and carrying out a risk assessment to make recommendations on the burial depth required along the length of the cable to ensure that the risk to the cable is within acceptable limits. The CBRA includes an assessment of seabed conditions (based on available survey data) and an assessment	None	Implementation of and adherence to the VMP (Volume III, Appendix 25.7). Implementation of and adherence to the FMMS (Volume III, Appendix 25.3). Development of and adherence to the CBRA (to be developed in the pre-construction phase). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						of shipping, fishing, dredging, military activities etc. Burial requirements are normally driven by the risk from fishing gear and vessel anchors, as well as the seabed conditions along the cable route (which affects the anchor and fishing gear penetration depths). This process will be informed by a Burial Assessment Study (BAS) which looks at the different installation methodologies available (see Volume II, Chapter 4: Description of Development for further details) and provides recommendations as to the suitability of each option based on the seabed conditions. The BAS also identifies areas where burial may not be feasible and additional protection (e.g. rock placement) may be required. This will feed into the CBRA to provide cable protection requirements (burial and external protection). To ensure cable protection is sufficient to limit cable interaction and under keel clearance risks. Adherence to a Rehabilitation Schedule.		decommissioning phase.
15.6	Chapter 15: Shipping and Navigation	Diminished Emergency Response Capability	✓	✓	✓	Provision of self-help capability. To provide additional emergency response resources to facilitate response to emergency incidents.	None	Implementation of and adherence to the ERCoP (Volume III, Appendix 25.5)

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment	Means of implementation
							Implementation of and adherence to the MPCP (Volume III, Appendix 25.1 EMP, Annex 2).
						Monitoring	
15.1	Chapter 15: Shipping and Navigation	Displacement of Routeing Vessel Traffic	✓	✓	✓	Traffic Monitoring	Commitment to vessel traffic monitoring as set out in Volume II, Chapter 15 Shipping & Navigation.
15.2	Chapter 15: Shipping and Navigation	Port Access Restrictions	✓	✓	✓	Traffic Monitoring	Commitment to vessel traffic monitoring as set out in Volume II, Chapter 15 Shipping & Navigation.
15.3	Chapter 15: Shipping and Navigation	Increased Collision Risk	✓	✓	✓	Traffic Monitoring	Commitment to vessel traffic monitoring as set out in Volume II, Chapter 15

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment	Means of implementation
							Shipping & Navigation.
15.4	Chapter 15: Shipping and Navigation	Increased Allision Risk	✓	✓	✓	Traffic Monitoring	Commitment to vessel traffic monitoring as set out in Volume II, Chapter 15 Shipping & Navigation.
15.5	Chapter 15: Shipping and Navigation	Cable Interaction Risk	✓	✓	✓	Cable burial and cable protection surveys	Commitment to operational and maintenance asset monitoring as set out in Volume II: Chapter 4: Description of Development. Development of and adherence to the CBRA (to be developed in the pre-construction phase).
15.6	Chapter 15: Shipping	Diminished Emergency	✓	✓	✓	Traffic Monitoring	Commitment to vessel traffic monitoring as set out in Volume II,

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment	Means of implementation
	and Navigation	Response Capability			Chapter 15 Shipping & Navigation.

25.2.11 Civil and Military Aviation

Table 25.11: Civil and Military Aviation factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D	**Factored-in measures**	**Further mitigation**	
16.1	Chapter 16: Civil and Military Aviation	Creation of physical obstacles affecting air traffic	✓	✓	✓	Installation of appropriate lighting and marking in accordance with the Irish Aviation Authority (IAA) guidance and specific Description of Development (DoD) requirements to ensure compatibility with night vision equipment. IAA, DoD and IRCG consulted to ensure final layout is compatible with Search and Rescue (SAR) helicopter operations and DoD aviation operations, and that night vision equipment requirements are met. Adherence to the Rehabilitation Schedule; (Volume III, Appendix 4.1).	None	Implementation of and adherence to the LMP (Volume III, Appendix 25.6). Implementation of and adherence to the ERCoP (Volume III, Appendix 25.5). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
16.2	Chapter 16: Civil and Military Aviation	Interference with civil and military Primary Surveillance Radar (PSR) systems	✗	✓	✗	None	None	N/A
						Monitoring		
N/A	Chapter 16: Civil and Military Aviation	N/A	-	-	-	No civil and military aviation monitoring to test the predictions made within the impact assessment is considered necessary		N/A

25.2.12 Seascape, Landscape and Visual Impact Assessment (SLVIA)

Table 25.12: SLVIA factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
17.1	Chapter 17: SLVIA	Visual Effects	✓	✓	✓	Implementation of an adherence to the LMP. The LMP confirms compliance with legal requirements with regards to shipping, navigation and aviation marking and lighting. Implementation and adherence to the Rehabilitation Schedule. The Rehabilitation Schedule outlines measures and programme for the decommissioning of the Proposed Development. Promulgation of information to the IAA. The IAA will be informed of the locations, heights and lighting status of the wind turbines, including estimated and actual dates of construction and the maximum heights of any construction equipment to be used, prior to the start of construction, to allow inclusion on aviation charts and in the IAA Integrated Aeronautical Information Package (IAIP) (Volume III, Appendix 25.6 LMP).	None	Implementation of and adherence to the LMP (Volume III, Appendix 25.6). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase. Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors.
17.2	Chapter 17: SLVIA	Seascape effects	✓	✓	✓			

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment	Means of implementation
			C	O	D		
17.3	Chapter 17: SLVIA	Landscape character effects	✓	✓	✓	Layout design. The layout of WTGs and substation(s) have been designed in such a way as to minimise the impacts on Seascape, Landscape, Visual Impacts Assessment (SLVIA) where possible. Charting of all structures associated with the Proposed Development on relevant nautical and electronic charts (Volume III, Appendix 25.7: Vessel Management Plan). To ensure third party vessels are aware of the Proposed Development and associated locations to facilitate passage planning and minimise allision risk.	Implementation of and adherence to the VMP (Volume III, Appendix 25.7).
17.3	Chapter 17: SLVIA	Landscape designation effects	✓	✓	✓	Aviation lighting will include WTG mounted lights of up to 2,000 Candela (Cd) displayed at night only. Dimmable to 200 Cd when visibility is greater than 5 km. White light fittings will be fully cut off so that practically no light will be emitted below the horizontal (Volume III, Appendix 25.6 LMP).	
						Monitoring	
N/A	Chapter 16: Seascape, landscape and visual impact assessment	N/A	-	-	-	No seascape, landscape and visual monitoring to test the predictions made within the impact assessment is considered necessary.	N/A

25.2.13 Marine Archaeology and Cultural Heritage

Table 25.13: Marine Archaeology and Cultural Heritage factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
18.1	Chapter 18: Marine Archaeology and Cultural Heritage	Sediment disturbance and deposition leading to effects on known and unknown heritage assets.	✓	✓	✓	Archaeological Exclusion Zones (AEZ) will be established around each known shipwreck site and potential site, within which no installation activities should take place. The AEZs are set out in Volume III, Appendix 18.1: Marine Archaeology and Cultural Heritage Technical Report, and in Volume III, Appendix 25.9: Archaeological Management Plan. In the event that site preparation and installation works are unable to avoid activities within an AEZ, the works can only proceed with the consent of the National Monuments Service (NMS). Confirmatory marine geophysical surveys, Remote Operated Vehicles (ROV) surveys and geotechnical surveys conducted for the Proposed Development prior to construction will be reviewed by a maritime archaeologist as part of the project design team and the findings will be communicated to the NMS and will inform the need for micro-siting.	None	Implementation of and adherence to the Archaeological Management Plan (Volume III, Appendix 25.9). Commitment to confirmatory surveys as set out in Volume II, Chapter 4 Description of Development. The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the

Reference	Cross reference to EIAR	Potential impact	Phase C O D	Commitment	Means of implementation
				An Archaeology Management Plan (AMP) has been prepared to inform the construction, operational and maintenance and decommissioning phases of works. The AMP is provided in Volume III, Appendix 25.9: Archaeological Management Plan. The AMP sets out the principal protocols that the Developer will put in place to ensure the protection of archaeological heritage through the course of the project lifetime. The AMP facilitates the recording and reporting of any archaeological material discovered during project lifetime should this occur. The AMP addresses protocols for archaeological monitoring of works where the recovery of material to the surface is possible. The AMP addresses protocols for recording and reporting observations where the recovery of material to the surface is not possible and where the seabed has already been surveyed comprehensively and no archaeological features recorded. The AMP addresses protocols for archaeological inputs when a discovery of archaeological material is made. The principle of avoidance has informed the design process, whereby impacts on known archaeological sites have been avoided wherever possible. Project maritime archaeologists, operating under licence from the Department of Housing, Local Government and Heritage	decommissioning phase.

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						(DHLGH), will be engaged on the project to monitor construction activities and observe any works where material of archaeological importance may be uncovered. Adherence to the Rehabilitation Schedule; (Volume III, Appendix 4.1).		
18.2	Chapter 18: Marine Archaeology and Cultural Heritage	Direct impact on historic shipwreck sites.	✓	✓	✗	All measures as detailed in Reference No. 18.1.	None	Implementation of and adherence to the Archaeological Management Plan (Volume III, Appendix 25.9).
18.3	Chapter 18: Marine Archaeology and Cultural Heritage	Direct impact on buried palaeo-landscapes.	✓	✓	✓	All measures as detailed in Reference No. 18.1.	None	Implementation of and adherence to the Archaeological Management Plan (Volume III, Appendix 25.9).
18.4	Chapter 18: Marine Archaeology and Cultural Heritage	Indirect impact on the setting of terrestrial cultural heritage sites	✓	✓	✓	None	None	N/A
						Monitoring		

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment	Means of implementation
			C	O	D		
N/A	Chapter 18: Marine Archaeology and Cultural Heritage	N/A	-	-	-	No Marine Archaeology and Cultural Heritage monitoring to test the predictions made within the impact assessment is considered necessary.	N/A

25.2.14 Infrastructure and Other Users

Table 25.14: Infrastructure and Other Users factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
19.1	Chapter 19: Infrastructure and Other Users	Potential for damage to Arklow Bank Wind Park 1 (ABWP1) export cable.	✓	✓	×	Ongoing consultation with Arklow Energy Limited throughout the remaining lifetime of ABWP1. If ABWP1 is still in operation when the Proposed Development is constructed, the Developer will enter into an agreement with Arklow Energy Limited to account for any wake impact on ABWP1. The implementation of the ABWP1 cable crossings will be coordinated with Arklow Energy Limited in order to minimise the potential for any impact on the ABWP1 export cables, in accordance with recognised industry good practice.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
19.2	Chapter 19: Infrastructure and Other Users	Restriction of access to ABWP1 for maintenance activities	✓	✓	×	Coordination of cable crossing installations and ongoing consultation with Arklow Energy Limited as detailed in Reference No. 19.1.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
19.3	Chapter 19: Infrastructure and Other Users	Impact on the ABWP1 existing cables from scour and sediment mobilisation	×	✓	×	Ongoing consultation with Arklow Energy Limited as detailed in Reference No. 19.1.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
19.4	Chapter 19: Infrastructure and Other Users	Displacement of other users due to the physical presence of infrastructure	✓	✓	✓	Notices to Mariners advising of the location, nature and timing of activities; information and notices posted at the Landfall; database of known users (including local yacht clubs, local dive clubs and local recreational activity centres) to act as a mailing list for direct issue of Notices to Mariners. Adherence to a LMP. Navigational aids and marine charting, also to be agreed with the Commissioners of Irish Lights to ensure other marine users are aware of the location of the Proposed Development (Chapter 15: Shipping and Navigation). The LMP will confirm compliance with legal requirements with regards to shipping, navigation and aviation marking and lighting. Charting of all structures associated with the Proposed Development on relevant nautical and electronic charts to ensure other marine users are aware of the location of the Proposed Development (Chapter 15: Shipping and Navigation).	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1). Implementation of and adherence to the LMP (Volume III, Appendix 25.6). The Rehabilitation Schedule (Volume III, Appendix 4.1) will be implemented and adhered to by the Developer during the decommissioning phase.

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment		Means of implementation
						Adherence to the Rehabilitation Schedule (Volume III, Appendix 4.1).		
19.5	Chapter 19: Infrastructure and Other Users	Displacement of other users due to increased vessel movements	✓	✓	✓	Notices to Mariners advising of the location, nature and timing of activities; information and notices posted at the Landfall; database of known users (including local yacht clubs, local dive clubs and local recreational activity centres) to act as a mailing list for direct issue of Notices to Mariners; appointment of a Community Engagement Manager during the pre-construction and construction phase to ensure that as many interested parties as possible are aware of Proposed Development activities.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
19.6	Chapter 19: Infrastructure and Other Users	Increased suspended sediment concentrations and associated deposition affecting recreational diving sites and recreational fishing activities	✓	✓	✓	Notices to Mariners advising of the location, nature and timing of activities; database of known users (including local dive clubs) to act as a mailing list for direct issue of Notices to Mariners; appointment of a Community Engagement Manager during the pre-construction and construction phase.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
19.7	Chapter 19: Infrastructure and Other Users	Restrictions to potential aggregate resource availability	✓	✓	✓	Notices to Mariners advising of the location, nature and timing of activities; information and notices posted at the Landfall; database of known users.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
19.8	Chapter 19: Infrastructure and Other Users	Reduced production of ABWP1 due to proximity of Proposed Development.	×	✓	×	Ongoing consultation with Arklow Energy Limited	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
						Monitoring		
N/A	Chapter 19: Infrastructure and Other Users	N/A	-	-	-	No infrastructure and other users monitoring to test the predictions made within the impact assessment is considered necessary.		N/A

25.2.15 Air Quality and Climate

Table 25.15: Air Quality and Climate factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
20.1	Chapter 20: Air Quality and Climate	Emissions to atmosphere	✓	✓	✓	Commitments to environmental management in pre-construction, during and post-construction phases. These commitments will include measures and commitments relating to energy use: • Regular maintenance of plant and equipment used during the construction phase. Technical inspection of vessels and plant to ensure they will perform the most efficiently; • All vessel engines will be properly maintained in line with manufacturers requirements to ensure emissions are minimised; • Implement energy efficiency measures such as fuel efficiency for the duration of the works; • The contractor will be required to measure and record all activity data (fuel use, material use, transport, etc.) to allow for the development of a carbon footprint for the construction phase of the Proposed Development.	None	Implementation of and adherence to the EMP (Volume III, Appendix 25.1). Adherence to the Description of Development (Volume II, Chapter 4) by the Developer and all associated contractors. Commitment to energy use measures as set out in Volume II, Chapter 20: Air Quality and Climate. Implementation of and adherence to the VMP (Volume

Reference	Cross reference to EIAR	Potential impact	Phase C	Phase O	Phase D	Commitment	Means of implementation
						• Materials with a reduced environmental impact will also be incorporated into the construction design where practicable through re-use of materials or incorporation of recycled materials in place of conventional materials.	III, Appendix 25.7).
						Monitoring	
N/A	Chapter 20: Air Quality and Climate	N/A	-	-	-	No air quality and climate monitoring to test the predictions made within the impact assessment is considered necessary.	N/A

25.2.16 Population and Human Health

Table 25.16: Population and Human Health factored-in measures, mitigation and monitoring commitments

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
						Factored-in measures	**Further mitigation**	
21.1	Chapter 21: Population and Human Health	Economic Activity in the Local Area (Gross Value Added (GVA))	✓	✓	✓	Appointment of a Community Engagement Manager and a Financial Liability Officer during the pre-construction and construction phase.	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
21.2	Chapter 21: Population and Human Health	Economic Activity in the Local Area (Employment)	✓	✓	✓	Appointment of a Community Engagement Manager and a Financial Liability Officer during the pre-construction and construction phase	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
21.3	Chapter 21: Population and Human Health	Economic Activity in Ireland (GVA)	✓	✓	✓	Appointment of a Community Engagement Manager during the pre-construction and construction phase.	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment		Means of implementation
			C	O	D			
21.4	Chapter 21: Population and Human Health	Economic Activity in Ireland (Employment)	✓	✓	✓	Appointment of a Community Engagement Manager during the pre-construction and construction phase.	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
21.5	Chapter 21: Population and Human Health	Tourism Economy Impact in the Local Area	✓	✓	✓	Appointment of a Community Engagement Manager during the pre-construction and construction phase.	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
21.6	Chapter 21: Population and Human Health	Tourism Asset Impacts in the Local Area	✓	✓	✓	Appointment of a Community Engagement Manager during the pre-construction and construction phase.	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
21.7	Chapter 21: Population and Human Health	Residential Amenities and Community Facilities	✓	✓	✓	Appointment of a Community Engagement Manager during the pre-construction and construction phase.	None	Following best practice. Implementation of and adherence to the EMP (Volume III, Appendix 25.1).
						Monitoring		

Reference	Cross reference to EIAR	Potential impact	Phase			Commitment	Means of implementation
			C	O	D		
N/A	Chapter 21: Population and Human Health	N/A	-	-	-	No population and human heath monitoring was found necessary to test the predictions made within the impact assessment is considered necessary.	N/A

25.2.17 Major Accidents and Natural Disasters

25.2.17.1 No factored-in measures, mitigation or monitoring commitments have been identified in Chapter 22: Major Accidents and Natural Disasters.

25.3 References

International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) Guidance G1162 (IALA, 2022).

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

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