

Morecambe Offshore Windfarm: Generation Assets Examination Documents

Volume 9

Commitments Register (Tracked)

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Glossary of Acronyms

AEZ	Archaeological Exclusion Zone
AIS	Aeronautical Information Service
AtoN	Aids To Navigation
AIP	Aeronautical Information Publication
ATN	Aids to navigation
CAA	Civil Aviation Authority
CBRA	Cable Burial Risk Assessment
COLREGS	Convention for the Prevention of Collision at Sea
DCO	Development Consent Order
DGC	Defence Geographic Centre
DML	Deemed Marine Licence
EMF	Electromagnetic fields
ERCoP	Emergency Response Cooperation Plan
ES	Environmental Statement
FLCP	Fisheries Liaison Co-existence Plan
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
HAT	Highest Astronomical Tide
GHG	Greenhouse Gas
IEC	International Electrotechnical Commission
INNS	Invasive Non-Native Species
IMO	International Maritime Organisation
IPMP	In Principle Monitoring Plan
IFP	Instrument Flight Procedures
LAT	Lowest Astronomical Tide
MGN	Marine Guidance Note
MMMP	Marine Mammal Mitigation Plan
MMO	Marine Management Organisation
MOD	Ministry of Defence
MCA	Maritime and Coastguard Agency
MPCP	Marine Pollution Contingency Plan
NOTAM	Notice to Airmen
NtMS	Notice to Mariners
PAD	Protocol for archaeological discoveries
PEIR	Preliminary Environmental Information Report

PEMP	Project Environmental Management Plan
PATP	Port Access and Transport Plan
PSR	Primary Surveillance Radar
SAR	Search and Rescue
TCE	The Crown Estate
TEZ	Temporary Exclusion Zone
TH	Trinity House
UKHO	United Kingdom Hydrographic Office
UWSMS	Underwater Sound Management Strategy
UXO	Unexploded Ordnance
VTMP	Vessel Traffic Management Plan
WSI	Written Scheme of Investigation
WTG	Wind Turbine Generator

Glossary of Unit Terms

km ²	square kilometre
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Glossary of Terminology

Applicant	Morecambe Offshore Windfarm Ltd
Generation Assets (the Project)	Generation assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).
Inter-array cables	Cables which link the WTGs to each other and the OSP(s).
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The Transmission Assets for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. Also referred to in this report as the Transmission Assets, for ease of reading.
Offshore substation platform(s)	A fixed structure located within the windfarm site, containing electrical equipment to aggregate the power from the WTGs and convert it into a more suitable form for export to shore.
Platform link cable	An electrical cable which links one or more OSP(s).
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables will be present.



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Table 1 Commitments register for the Morecambe Offshore Windfarm Generation Assets (the Project)

Ref	Relevant Project phase				Commitment title	Commitment detail	Relevant Environmental Statement (ES) topic																								How is commitment secured / implemented type				Commitment				Decision maker / relevant authority	Relevant Application documents
	Pre-construction	Construction	Operation and Maintenance	Decommissioning			Site Selection and Assessment of Alternatives	Project Description	EIA Methodology	Marine Geology, Oceanography & Physical Processes	Marine Sediment and Water Quality	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Commercial Fisheries	Shipping and Navigation	Marine Archaeology and Cultural Heritage	Civil and Military Aviation and Radar	Infrastructure and Other Users	SLVIA	Human Health	Socio-economics, Tourism and Recreation	Climate Change	Traffic and Transport	Embedded mitigation	Additional mitigation	Monitoring	Compensation											
C001	*	*	*		Monitoring	Offshore monitoring requirements are described in the In Principle Monitoring Plan (IPMP) (REP3-045) submitted alongside the Development Consent Order (DCO) application. The IPMP includes measures committed to, as well as options that will form the basis of discussion post-consent. The monitoring requirements will be further developed and agreed with stakeholders prior to construction based on the IPMP and taking account of the final detailed design of the Project.				*		*	*	*	*	*									Development Consent Order (DCO)), Schedule 6, Part 2 - Condition 9(1)(c) & 14 (1)			*		Marine Management Organisation (MMO)	In-Principle Monitoring Plan (Document Reference 6.4)									
C002	*	*			Cable burial	<p>The cable burial range would be between 0.5m and 3.0m below the seabed (with a target depth of 1.5m where ground conditions allow (recognised industry good practice which would reduce effects of electromagnetic fields (EMF))). <u>Seabed disturbance would be minimised as far as possible, i.e. cables would not be buried to unnecessary excess depths.</u></p> <p>A Cable Burial Risk Assessment (CBRA) would also be required to confirm the extent to which cable burial can be achieved. Where it is not reasonably practicable to achieve cable burial, additional cable protection would be required. Following industry best-practice the Applicant would seek to minimise the use of cable protection. No more than 5% reduction in water depth (referenced to Chart Datum) would occur at any point on the cable route without prior written approval from the Licensing Authority.</p>		*		*		*	*	*		*	*		*							DCO Schedule 6 Part 2 Condition 9(1)(d)(i) - Cable specification, installation and monitoring and 9(1)(d)(ii) - scour protection management and cable protection management	*				MMO Maritime and Coastguard Agency (MCA) Trinity House (TH)	Chapter 5 Project Description (Document Reference 5.1.5) Cable Statement (Document Reference 4.2) Outline Scour Protection and Cable Protection Plan (Document Reference 6.8) Outline Construction Method Statement (CMS) (Document Reference 9.49)								
C003	*	*			Electromagnetic fields (EMF)	Cables would be specified to reduce EMF and thermal emissions as per industry standards and best practice, such as the relevant International Electrotechnical Commission (IEC) specifications.		*				*	*	*											DCO Schedule 6 Part 2 Condition 9(1)(d)(i) - Cable specification, installation and monitoring and 9(1)(d)(ii) - scour protection management and cable protection management	*				MMO MCA TH	Chapter 5 Project Description (Document Reference 5.1.5) Cable Statement (Document Reference 4.2) Outline Scour Protection and Cable Protection Plan (Document Reference 6.8) Outline CMS (Document Reference 9.49)									

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C004		*			Cable burial	To minimise the extent of any unnecessary habitat disturbance, material displaced as a result of cable burial activities would be back-filled, where practicable, in order to promote recovery.				*		*													DCO Schedule 6 Part 2 Condition 9(1)(d)(i) - Cable specification, installation and monitoring	*				MMO MCA TH	Chapter 5 Project Description (Document Reference 5.1.5) Cable Statement (Document Reference 4.2) Outline Scour Protection and Cable Protection Plan (Document Reference 6.8) Outline CMS (Document Reference 9.49)			
C005		*	*		Monitoring of cable exposure	During the lifetime of the Project, periodic geophysical surveys would be required to ensure the cables remain buried and if they do become exposed, reburial works would be undertaken.		*		*		*	*	*		*	*								DCO Schedule 6 Part 2 Condition 9(1)(d)(i) - Cable specification, installation and monitoring DCO Schedule 6 Part 2 Condition 16 – Post-construction monitoring DCO Schedule 6 Part 2 Condition 14 - Pre-construction monitoring and survey	*				MMO TH MCA	Outline Offshore Operation and Maintenance Plan (Document Reference 6.6) Outline CMS (Document Reference 9.49)			
C006		*	*		Sediment disposal	Excavated sediments would be disposed within the order limits so there is no net loss of material from the physical processes system.				*															DCO Schedule 1 – Authorised Development DCO Schedule 6, Part 1, Condition 2(c) – 2(e) (Details of licensed marine activities) DCO Schedule 6, Part 2, Condition 7(5) (Chemicals, debris and drilling)	*				MMO	Chapter 7 Marine Geology, Oceanography and Physical Processes (Document Reference 5.1.7) Sediment Disposal Site Characterisation Report (Document Reference 4.6)			
C007	*	*			Marine Mammal Mitigation Protocol (MMMP) for piling and unexploded ordnance (UXO) clearance (noting the MMMP for UXO clearance would be secured via a separate Marine Licence Application for UXO clearance).	The MMMP, produced in accordance with the content of the Draft MMMP (Document Reference 6.5), will be developed in the pre-construction period and based upon best available information, methodologies, industry best practice, latest scientific understanding. The MMMP will detail how the Applicant would reduce the risk of underwater noise from piling from causing auditory injury to the marine mammals that could be present in and around the Project.								*											DCO Schedule 6, Part 2 Condition 9(1)(i) (MMMP)	*	*			MMO	Outline MMMP (Document Reference 6.5)			

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C008		*			Monitoring of piled foundations	In the event that driven or part-driven pile foundations are proposed, monitoring must include measurements of underwater sound generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.						*	*											DCO Schedule 6, Part 2 Condition 15 (2) (construction monitoring)			*		MMO	In-Principle Monitoring Plan (Document Reference 6.4)				
C009	*	*			Underwater Sound Management Strategy (UWSMS)	The UWSMS will detail how the Applicant would reduce the risk of underwater noise from piling from causing auditory injury and disturbance to marine mammals and fish that could be present in and around the Project.						*	*											DCO Schedule 6, Part 2 Condition 20 (Underwater Sound Management Strategy)		*			MMO	Outline Underwater Sound Management Strategy (Document Reference 9.32)				
C010	*	*	*	*	Air gap	The Project design has an air gap (minimum rotor clearance above sea level) of 25m above Highest Astronomical Tide (HAT).		*						*		*								DCO Schedule 2 – Requirement 2 (Design Parameters)	*				MMO	Chapter 12 Offshore Ornithology (Document Reference 5.1.12) Chapter 14 Shipping and Navigation (Document Reference 5.1.14)				
C011	*				Site selection	Site selection by the Applicant ensured the order limits are located outside of any site designated for nature conservation.	*				*	*	*	*	*	*							Incorporated into DCO order limits (see Offshore Statutory and Non-Statutory Nature Conservation Sites Plan (Document Reference 2.6))	*				MMO	Chapter 4 Site Selection and Assessment of Alternatives (Document Reference 5.1.4)					
C012	*				Project design	The spatial extent of the windfarm site has been reduced eastward between the Preliminary Environmental Information Report (PEIR) and Environmental Statement (ES), such that the windfarm site now occupies 87km ² , compared to the 125km ² (area awarded through the TCE leasing) assessed in the PEIR.	*	*						*		*		*	*			Incorporated into DCO order limits (see Offshore Location Plan (Document Reference 2.1))	*				MMO	Chapter 5 Project Description (Document Reference 5.1.5)						
C013	*	*	*	*	Compliance with International, UK and Flag State Regulations including International Maritime Organisation (IMO) conventions	Compliance from all Project vessels with international maritime regulations as adopted by the relevant flag state (e.g. International Convention for the Prevention of Collision at Sea (COLREGS) (IMO, 1972) and International Convention for the Safety of Life at Sea (SOLAS) (IMO, 1974).										*		*				DCO Schedule 6, Part 2 Condition 9(1)(j) (VTMP) / under statutory obligations	*				MMO MCA TH	Outline VTMP (Document Reference6.9)						
C014	*	*	*	*	Aviation safety	Aviation stakeholders would be made aware of the Project via Notice to Airmen (NOTAM)s and obstacle details would be passed to the Civil Aviation Authority (CAA) at least eight weeks before construction commences. CAA would forward the information to Ministry of Defence (MOD), Defence Geographic Centre (DGC) and National Air Traffic Service (NATS) Aeronautical Information Service (AIS) for inclusion in the Aeronautical Information Publication (AIP) and on relevant civil and military aeronautical charts.												*				DCO Schedule 2, Requirement 3 (Aviation safety)	*				CAA	Chapter 16 Civil and Military Aviation and Radar (Document Reference 5.1.16)						

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C015	*	*	*	*	Archaeological Exclusion Zones (AEZs)	AEZs would be employed around known archaeological significant anomalies and Temporary Exclusion Zones (TEZs) would be employed around areas where an anomaly is not visible in the survey data, but it is likely to exist.												*								DCO Schedule 6, Part 2 Condition 9(1)(f) (WSI)	*				MMO Historic England	Outline Written Scheme of Investigation (Document Reference 6.10)						
C016	*	*	*	*	Protocol for archaeological discoveries (PAD)	In order to account for unexpected discoveries of archaeological material during construction, operation and decommissioning, a PAD would be used. This would be produced in line with the relevant principles laid out in the Written Scheme of Investigation (WSI).												*								DCO Schedule 6, Part 2 Condition 9(1)(f) (WSI)		*			MMO Historic England	Outline Written Scheme of Investigation (Document Reference 6.10)						
C017			*		Piling foundation types	For piled foundation types, such as monopiles and jackets with pin piles, pile-driving would be used in preference to drilling, where it is practicable to do so (i.e. where ground conditions allow).				*	*															DCO Schedule 2 (para 2) - Design Parameters DCO Schedule 6, Part 2 Condition 9(1)(d)(iii) (foundation installation methodology)	*				MMO	Chapter 5 Project Description (Document Reference 5.1.5) Outline CMS (Document Reference 9.49)						
C018		*	*		Use of scour protection	Scour protection is built into the design for each foundation type in consideration and where installed after the foundation, it would be installed as early as practicable (typically within the same season after the foundation installation).		*		*	*	*														DCO Schedule 1– Authorised Development DCO Schedule 6, Part 2, Condition 9(1)(d)(ii) (scour protection management and cable protection management)	*				MMO	Chapter 5 Project Description (Document Reference 5.1.5) Outline Scour Protection and Cable Protection Plan (Document Reference 6.8)						
C019	*	*			Seabed preparation	Micro-siting (for foundations and cable installation) would be used where possible to minimise the requirements for seabed preparation prior to foundation and cable installation.				*	*	*						*								DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement. DCO Schedule 2 – Requirement 2 (Design Parameters) DCO Schedule 6, Part 2 Condition 9(1)(a) (Design Plan) and Condition 10(3)	*				MMO	Chapter 5 Project Description (Document Reference 5.1.5) Outline CMS (Document Reference 9.49)						
C020	*				Pre-construction surveys	Pre-construction surveys would be implemented by the Applicant in order to identify any potential hazards within the windfarm site. These would include geophysical surveys to identify seabed hazards such as discarded fishing gear, wrecks or unidentified objects and magnetometer surveys to identify for the presence of UXO devices. Any identified UXO devices would be avoided through micro-siting or require a subsequent UXO clearance campaign which would be subject to separate consent. The pre-construction surveys also include the need to undertake a swath bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works.				*	*	*	*	*		*	*	*		*						DCO Schedule 6, Condition 9(1)(c) (monitoring plan) DCO Schedule 6, Part 2 Condition 14 (Pre-construction monitoring and surveys) DCO Schedule 6, Part 2 Condition 9(2) (Pre-commencement surveys)	*				MMO	IPMP (Document Reference 6.4)						

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C021			*		Post-construction surveys	<p>The post-construction surveys will include a full sea floor coverage swath-bathymetry survey that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out. The purpose of the surveys are to assess any changes in bedform topography and inform if further monitoring or assessment may be required to ensure that cables (including fibre optic cables) have been buried or protected.</p> <p>During operation, other surveys that would be implemented by the Applicant are as follows:</p> <ul style="list-style-type: none">Asset protection studies/surveys and need for any remedial measuresDrop down video surveys to ensure the safe placement of equipment during maintenanceInvasive Non-Native Species (INNS) monitoring in-line with asset inspection surveys	*			*		*	*	*		*	*								DCO Schedule 6, Condition 9(1)(c) (monitoring plan) DCO Schedule 6, Condition 16 (post-construction monitoring)	*				MMO	IPMP (Document Reference 6.4) Outline OOMP (Document Reference6.6)						
C022		*	*		Minimise use of scour and cable protection	Following industry best-practice the Applicant would seek to minimise the use of cable protection.				*	*		*	*		*	*							DCO Schedule 6, Part 2 Condition 17 (Reporting of scour and cable protection) DCO Schedule 6 Part 2 Condition 9(1)(d)(i) and 9(1)(d)(ii) - Construction Method Statement, including: cable specification and installation plan and scour protection management and cable protection management	*				MMO	Outline Scour Protection and Cable Protection Plan (Document Reference 6.8)							
C023			*		Underwater noise	A soft start and ramp up protocol for pile driving (if piled foundations are selected) may also allow mobile species to move away from the area before the maximum hammer energy with the greatest noise impact area is reached.					*	*											DCO Schedule 6, Part 2 Condition 9(1)(d) (offshore construction method statement) DCO Schedule 6 Part 2 Condition 9(1)(i) – Marine Mammal Mitigation Protocol (MMMP) (for piling procedures) DCO Schedule 6, Part 2 Condition 15 (construction monitoring) DCO Schedule 6, Part 2 Condition 19 (Marine Noise Registry)	*				MMO	Outline CMS (Document Reference 9.49) Draft MMMP (Document Reference 6.5)								

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C024		*			Concurrent piling	No Project concurrent piling is to be undertaken (for foundations requiring piling (monopiles or jackets with pin-piles)).						*	*											DCO Schedule 6, Part 2 Condition 9(1)(d) (Construction Method Statement) Condition 9(1)(i) (MMMP)	*				MMO	Chapter 5 Project Description (Document Reference 5.1.5) Chapter 10 Fish and Shellfish Ecology (Document Reference 5.1.10) Chapter 11 Marine Mammals (Document Reference 5.1.11) Outline CMS (Document Reference 9.49)							
C025		*	*		Vessel traffic monitoring	Continuous vessel monitoring during construction and immediate period post construction to MCA approval.								*	*			*						DCO Schedule 6, Part 2 Condition 15 (Construction monitoring) DCO Schedule 6, Part 2 Condition 16 (Post construction monitoring)	*				MCA TH UKHO	IPMP (Document Reference 6.4)							
C026		*	*		Guard vessels	Provision of a guard vessel in the vicinity of the windfarm site during construction or major maintenance to monitor third party vessel traffic and intervene with warnings as necessary.								*	*			*						DCO Schedule 6, Part 2 Condition 9(1)(j) (VTMP)	*				MCA TH UKHO	Outline VTMP (Document Reference 6.9) Outline FLCP (Document Reference 6.3)							
C027	*	*	*	*	Maritime Navigation Engagement Forum	Maintain the MNEF in collaboration with the Morgan Offshore Wind Project: Generation Assets and Mona Offshore Wind Project to facilitate information sharing and management/identification of additional risk controls: <ul style="list-style-type: none">Identify near misses and investigate incidents, disseminating learnings.Coordinate construction activities.								*	*			*						Commitment made in the CRNA and would be implemented via collaboration with the Mona and Morgan projects					N/A	Appendix 14.2 CRNRA (Document Reference 5.2.14.2)							
C028				*	Decommissioning programme	An Offshore Decommissioning Programme would be developed post-consent and implemented at the time of decommissioning. The initial decommissioning programme and all updated programmes would be submitted to the MMO for review prior to submission to the SoS		*		*	*	*	*	*	*	*	*	*	*	*	*	*		DCO Schedule 2 Requirement 10 (Decommissioning)	*				MMO SoS	Chapter 5 Project Description (Document Reference 5.1.5)							

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C029	*	*	*	*	Pollution prevention	The Applicant is committed to the use of best practice techniques and due diligence regarding the potential for pollution throughout all construction, operation and maintenance, and decommissioning activities through the preparation of a Project Environmental Management Plan (PEMP) including Marine Pollution Contingency Plan (MPCP) and chemical risk assessment in line with international and national regulations and guidance.					*	*	*	*		*	*								DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement DCO Schedule 6, Part 2 Condition 9(1)(e) (PEMP including MPCP and chemical risk assessment) DCO Schedule 6 Part 2 Condition 7 (Chemicals, drilling and debris) DCO Schedule 2 Requirement 10 (Decommissioning)	*					MMO	Outline CMS (Document Reference 9.49) Outline PEMP (Document Reference6.2)						
C030	*	*	*	*	Biosecurity measures	The Applicant would implement biosecurity measures in line with international and national regulations and guidance, namely: <ul style="list-style-type: none">International Convention for the Prevention of Pollution from Ships (MARPOL), which sets out requirements, including appropriate vessel maintenanceThe Environmental Damage (Prevention and Remediation) (England) Regulations 2015, which set out a ‘polluter pays’ principle whereby operators who cause a risk of significant damage to water and biodiversity receptors are responsible for i) preventing damage from occurring; and ii) bearing the costs for full reinstatement of the environment (to original condition) in the event of damage occurringThe International Convention for the Control and Management of Ships’ Ballast Water and Sediments (BWM Convention), which provides an international framework for the control of transfer of potentially invasive species from ballast water					*	*	*	*											DCO Schedule 6 Part 2 Condition 9(1)(e) (PEMP, including MPCP and measures to minimise Invasive Non-Native Species (INNS)) DCO Schedule 6, Part 2, Condition 7 (Chemicals, drilling and debris)	*					MMO	Outline PEMP (Document Reference 6.2)						
C031	*	*	*	*	Safety zones	The following Safety Zones would be applied for by the Project following consultation: <ul style="list-style-type: none">500m safety zones around any structure where construction or decommissioning work is underwater, as indicated by the presence of large construction vessel(s)50m safety zones around any partially completed structure during the construction phase where work is not underway500m safety zones around any structures undergoing major maintenance during the operational phase, defined as work requiring a large or Restricted in the Ability to Manoeuvre vessel										*	*			*					DCO Schedule 6 Part 2 Condition 11 (Safety zones)	*					SoS	Safety Zone Statement (Document Reference 4.5)						

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C032	*	*	*	*	Best practice to reduce vessel disturbance and collision risk	Vessel movements, as outlined in the Outline PEMP and Outline VTMP, will follow set vessel routes and hence areas where marine mammals and birds are accustomed to vessels, in order to reduce any increased collision risk and disturbance. All vessel movements will be kept to the minimum number that is required. Additionally, vessel operators will use good practice to reduce any risk of collisions with marine mammals and disturbance to rafting birds.							*	*											DCO Schedule 6 Part 2 Condition 9(1)(d) (Construction Method Statement), DCO Schedule 6 Part 2 Condition 9(1)(e) (PEMP) DCO Schedule 6 Part 2 Condition 9(1)(i) (MMMP)	*				MMO MCA TH	Outline PEMP (Document Reference 6.2) Draft MMMP (Document Reference 6.5) Outline CMS (Document Reference 9.49)						
C033	*	*	*	*	Aids to navigation management plan	An Aids To Navigation (AtoN) Management Plan (including marking and lighting) for the Project would be agreed with the MMO following consultation with MCA, UKHO and TH post-consent.									*	*									DCO Schedule 6, Part 2, Condition 5 AtoN)	*				MCA TH MMO	Chapter 14 Shipping and Navigation (Document Reference 5.1.14) Outline VTMP (Document Reference 6.9)						
C034	*	*	*	*	Fisheries liaison	The Applicant is committed to ongoing liaison with the fishing industry throughout all stages of the Project, based upon Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) (2014, 2015) guidance.									*										DCO Schedule 6, Part 2, Condition 9(1)(k) (FLCP including Fisheries Liaison Officer (FLO))	*				MCA TH MMO	Outline FLCP (Document Reference 6.3)						
C035	*	*	*		Fisheries Liaison and Co-existence Plan (FLCP)	An FLCP, produced in accordance with the content of the Outline FLCP (Document Reference 6.3), will set out the Applicant's strategy to facilitate coexistence between the Project and the commercial fishing industry. It provides an outline of the approach to fisheries liaison and preliminary mitigation measures throughout the lifetime of the Project. Fisheries monitoring is also secured in the IPMP.									*										DCO Schedule 6, Part 2 Condition 9(1)(k) (FLCP)	*	*			MCA TH MMO	Outline FLCP (Document Reference 6.3) IPMP (Document Reference 6.4)						
C036	*	*	*	*	Lighting and marking	Lighting the Project in accordance with relevant industry guidance and as advised by relevant stakeholders, including the MCA, CAA and Trinity House (TH). The Applicant would also ensure the Project is adequately marked on nautical charts.									*	*		*	*	*					DCO Requirement 3 (Aviation safety) DCO Schedule 6, Part 2 Condition 4 (Notifications and inspections) DCO Schedule 6, Part 2 Condition 5 (AtoN) DCO Schedule 6, Part 2 Condition 9 (Pre-construction plans and documents)	*				MCA TH CAA	Outline VTMP (Document Reference 6.9)						
C037	*	*	*	*	Colouring of structures	Except as otherwise required by TH, the undertaker must paint all structures forming part of the authorised project yellow (colour code RAL 1023) from at least HAT to a height as directed by TH. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures grey (colour code RAL 7035).									*	*		*	*	*					DCO Schedule 6, Condition 6 (Colouring of Structures)	*				TH	n/a						

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C038	*	*	*	*	Compliance with Marine Guidance Note (MGN) 654	Alignment of WTGs as required under MGN 654 (MCA, 2021) to provide obstruction free Search and Rescue (SAR) access, including two lines of orientation unless otherwise agreed.										*		*	*						DCO Schedule 6, Part 2 Condition 9(1)(a) (Design Plan) DCO Schedule 6, Part 2, Condition 5 (Aids to navigation)	*				MCA TH UKHO	Outline VTMP (Document Reference 6.9) Appendix 14.1 Navigation Risk Assessment (Document Reference 5.2.14.1) Appendix 14.2 Cumulative Regional Navigation Risk Assessment (Document Reference 5.2.14.2)			
C039	*	*	*	*	Promulgation of information	Advance warning and accurate location details of construction, maintenance and decommissioning operations, associated safety zones and advisory passing distances would be given via Notice to Mariners (NtMs) and Kingfisher Bulletins and other appropriate media, including charting. Construction, operation and maintenance, and decommissioning activity would be communicated using NtM and via ongoing engagement, as appropriate.											*		*	*					DCO Schedule 2 Requirement 3 (Aviation Safety) DCO Schedule 6, Part 2, Condition 5 (Aids to navigation) DCO Schedule 6, Part 2 Condition 4 (Notifications and inspections)	*				MCA TH UKHO	Outline VTMP (Document Reference 6.9) Appendix 14.1 Navigation Risk Assessment (Document Reference 5.2.14.1) Appendix 14.2 Cumulative Regional Navigation Risk Assessment (Document Reference 5.2.14.2)			
C040	*	*	*	*	Surveillance radar	Technical mitigation solutions applied to impacted radars to be agreed as required with operators (NATS (En Route) plc (NERL) (Great Dun Fell, Lowther Hill and St Annes Primary Surveillance Radar (PSRs))).													*						DCO Schedule 2, Requirement 4 (Great Dun Fell, Lowther Hill and St Annes Primary Surveillance Radars)		*			Secretary of State (SoS) NATS	Chapter 16 Civil and Military Aviation and Radar (Document Reference 5.1.16)			
C041	*	*	*	*	Flight procedures	Consultation and revisions to Instrument Flight Procedures (IFPs) as required (Blackpool Airport, Walney Aerodrome and Warton Aerodrome). Consultation has commenced and would continue to reach agreement on the best detailed solution to mitigate the impact created by the final design of the Project.													*						DCO Schedule 2, Requirement 5 (Blackpool Airport IFPs) DCO Schedule 2, Requirement 6 (Walney Aerodrome IFPs) DCO Schedule 2, Requirement 7 (Warton Aerodrome IFPs)		*			SoS BAE Systems or any successor as holder of a licence under the Commission Regulation from the CAA	Chapter 16 Civil and Military Aviation and Radar (Document Reference 5.1.16)			
C042	*	*	*	*	Marine coordination for project vessels	An ERCoP would be agreed and implemented for all phases of the Project. The SAR requirements would be agreed with the MMO in consultation with the MCA post-consent in line with regulatory requirements.											*		*						DCO Schedule 6, Part 2 Condition 12 (Offshore safety management)	*				MCA TH UKHO	Outline VTMP (Document Reference 6.9)			

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C043	*	*	*	*	Traffic and transport	The Applicant has committed to developing a Port Access and Transport Plan (PATP), if agreed to be required, post-consent in line with the Outline PATP (submitted with the DCO submission application) in the event that the chosen port(s) does not have sufficient extant permissions to supply the Project.																	*	DCO Schedule 2, Requirement 11 (PATP)	*				The planning or highway authority or authorities in whose area the relevant port is located.	Outline PATP (Document Reference 6.7) Chapter 22 Traffic and Transport (Document Reference 5.1.22)				
C044	*	*	*	*	Skills and employment	The Applicant has developed an Outline Skills and Employment Plan (with the final plan secured in the DCO) to explore where benefits can be maximised through its procurement process.															*	*			DCO Schedule 2 Requirement 12 (Skills and Employment Plan)	*				Local Planning Authority in whose area a marshalling port or operation and maintenance base used in connection with the authorised development is located.	Outline Skills and Employment Plan (Document Reference 6.11)			
C045	*	*	*	*	Climate change resilience measures	Modern windfarm design consistent with best practice engineering codes and standards will be adopted, which will require resilience to extreme weather events at sea and longer term changes to the climate baseline.																*		DCO Schedule 6, Part 2 Condition 9(1)(d) (offshore construction method statement) DCO Schedule 6, Part 2 Condition 9(1)(e) (PEMP)	*				MMO	Outline PEMP (Document Reference 6.2) Chapter 21 Climate Change (Document Reference 5.1.21) Outline CMS (Document Reference 9.49)				
C044	*	*	*	*	Overarching Greenhouse Gas (GHG) measures	Project-level GHG mitigation is being incorporated into the design development process for the Project wherever it is practicable to do so.																*		DCO Schedule 1 – Authorised Development DCO Schedule 6, Part 2 Condition 9(1)(d) (offshore construction method statement)	*				N/A	Chapter 21 Climate Change (Document Reference 5.1.21) Design Statement (Document Reference 4.3) Outline CMS (Document Reference 9.49)				
C045				*	Climate change resilience measures	Prior to the commencement of decommissioning activities, as part of health and safety protocols, a review of recent climate hazards and up-to date climate projection data would be undertaken to develop suitable mitigation and management measures, which would be secured in management plans for this stage of works.																*		DCO Schedule 1 – Authorised Development DCO Schedule 2, Requirement 10 (Decommissioning)	*				SoS	Chapter 21 Climate Change (Document Reference 5.1.21)				

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C046	*	*	*		WTG spacing	A minimum separation distance of 1,060m has been defined between adjacent WTGs within the same row and 1,410m between each row (inter-row spacing, which is the distance between the main rows)		*		*		*													DCO Schedule 2 (para 2) - Design Parameters DCO Schedule 6 Part 2 Condition 1 - Design Parameters DCO Schedule 6 Part 2 Condition 9(1)(a) - Design Plan	*					MMO MCA TH	Chapter 5 Project Description (Document Reference 5.1.5)					
C047	*	*	*	*	Foundation choice	The selection of appropriate foundation designs and sizes at each WTG and OSP location would be made following preconstruction surveys within the windfarm site.		*		*		*													Schedule 1 Part 1 Authorised Project DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement.	*					MMO MCA TH	Outline CMS (Document Reference 9.49)					
C048			*		Construction hours	During construction, overnight working practices would be employed offshore so that construction activities could continue 24/7, thereby reducing the overall programme for offshore works and the period in which potential construction related impacts may occur.		*				*	*	*	*									DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement	*					MMO MCA TH	Outline CMS (Document Reference 9.49)						
C049	*			*	Construction Method Statement	Preparation of Construction Method Statements (CMS), post-consent and pre-construction, setting out detailed WTG/OSP foundation and cable installation methods and techniques (based on final Project design).						*												DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement	*					MMO MCA TH	Outline CMS (Document Reference 9.49)						
C050			*		Foundation installation method	Application of foundation installation techniques using methods and equipment most suitable for seabed conditions and where possible to minimise sediment suspension.				*	*	*	*	*		*								DCO Schedule 1 Part 1 Authorised Project DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement	*					MMO MCA TH	Outline CMS (Document Reference 9.49)						
C051			*		Cable installation method	Selection of cable installation methods and equipment most suitable for seabed conditions and where possible to minimise sediment suspension.				*	*	*												DCO Schedule 1 Part 1 Authorised Project DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement.	*					MMO MCA TH	Outline CMS (Document Reference 9.49)						
C052	*	*	*		Scour protection	The selection of scour protection methods, where required, will be evaluated and further considered post-consent in the CMS, focusing on both engineering and suitability and environmental recoverability. Non-plastic alternatives, if available at the time, will be considered once the requirements are better understood.		*			*													DCO Schedule 1 Part 1 Authorised Project DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement.	*					MMO MCA TH	Outline CMS (Document Reference 9.49)						

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C053	*	*			Micro-siting	Micro-siting would be undertaken around benthic habitats of conservation, ecological or economic importance constituting reef habitats of principal importance as listed under Section 41 of the Natural Environmental and Rural Communities Act 2006.					*														DCO Schedule 6, Part 2, Condition 9(1)(a)(v)	*				MMO MCA TH	Outline CMS (Document Reference 9.49)		
C054	*		*		Scour protection installation	Consideration will be given to scour and cable protection that would be more readily removable at the time of decommissioning.		*		*	*	*	*	*	*	*		*	*						Schedule 1 Part 1 Authorised Project DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement.	*				MMO MCA TH	Outline CMS (Document Reference 9.49)		
C055		*			Underwater noise	Management of underwater noise could include the limiting of piling on the same day as Project high order clearance of unexploded ordnance (UXO) without mitigation (if required).						*	*		*									DCO Schedule 6, Part 2 Condition 20 (Underwater Sound Management Strategy)	*				MMO	Outline Underwater Sound Management Strategy (Document Reference 9.32)			
C056	*	*	*		Cable burial	A Cable Specification, Installation and Monitoring Plan (CSIP) would be prepared. This would include the technical specification of offshore electrical circuits, and a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice		*			*	*	*	*	*	*		*						DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement including: cable specification and installation plan and scour protection management and cable protection management DCO Schedule 6 Part 2 Condition 16 - Post construction monitoring DCO Schedule 6 Part 2 Condition 17 - Reporting of scour and cable protection	*				MMO MCA TH	Chapter 5 Project Description (Document Reference 5.1.5) Cable Statement (Document Reference 6.9) Outline Scour Protection and Cable Protection Plan (Document Reference 6.8) Outline CMS (Document Reference 9.49)			
C057	*	*			Seabed preparation	Boulder clearance would take place within the 25m disturbance corridor and their relocation would be randomised to avoid creating any artificial linear seabed features.				*	*													DCO Schedule 1 Part 1 Authorised Project DCO Schedule 6 Part 2 Condition 9(1)(d) - Construction Method Statement.	*				MMO MCA TH	Outline CMS (Document Reference 9.49)			

