



Awel y Môr Offshore Wind Farm

Marine Licence Principles (Clean)

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www.awelymor.cymru

RWE Renewables UK Swindon Limited

Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire SN5 6PB
T +44 (0)8456 720 090
www.rwe.com

Registered office:
RWE Renewables UK Swindon Limited
Windmill Hill Business Park
Whitehill Way
Swindon

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1 Marine Licence Principles

- 1 The following document provides a tabulation of the proposed principles which are anticipated to inform the marine licences for the Awel y Môr (AyM) project, subject to those marine licences being granted by Natural Resources Wales (NRW), as the relevant authority for marine licencing.
- 2 This document marks a point of progress that has been reached with NRW Marine Licencing Team (NRW-MLT) but should not be considered prejudicial to the marine licencing process. Table 1 presents a summary of the information anticipated to be contained within the AyM marine licences, with accompanying notes describing the information to be provided, and the specific marine licences (ML) to which the information relates.
- 3 Following submission of the marine licence applications to NRW in May 2022 and NRW's confirmation these were duly made on 20 June, the Applicant has identified that a further marine licence is required in relation to the proposed trenchless cable crossing of the River Clwyd west of Rhuddlan. As a result, it is now anticipated that four marine licences will be required to construct and operate the Generation assets (ML1), Transmission assets (ML2), the assets associated with connecting to the existing Gwynt y Môr project (ML3), and the River Clwyd crossing (ML4). These can be determined under one application. Additional information in relation to ML4 was submitted to NRW on 25 November 2022 to supplement the application made in May 2022. This document has been updated to reflect the need for ML4.
- 4 There is intentional spatial overlap between the proposed ML1, ML2 and ML3 marine licence areas. There is also intentional duplication of the two offshore substation platforms (OSPs) in the generation (ML1) and transmission (ML2) marine licences.

- 5 The need for separate marine licences for the generation and transmission assets and the AyM/ GyM interlink cables is driven by the offshore transmission operator (OFTO) regime. The transmission assets will be consented and constructed by AyM and must then be transferred to a separate OFTO. Having separate licences for these works avoids the complexity of splitting the marine licence post-construction and any uncertainty over enforcement. A separate marine licence for the trenchless River Clwyd cable crossing is also proposed as these works are discrete from the remainder of the offshore transmission works and are within the onshore environment.
- 6 As the detailed design of the offshore wind farm will only be done after consent is secured, it is not possible at this stage to determine where the OSPs will be located within the generation area and hence the location of the transmission works. The precise location of the AyM/ GyM interlink cable is also not known. This means that the transmission marine licence area includes the generation licence area where the wind turbines will be located, and the AyM/ GyM interlink marine licence also covers part of this area.
- 7 In addition, it has not been determined whether the OSPs will be transferred to the OFTO. This is why the OSPs are included in both the generation and the transmission marine licences and it will be a condition of both the development consent order (DCO) and the generation and transmission marine licences that the total number of OSPs to be constructed for the AyM project may not exceed two.
- 8 The Applicant also notes comments made by the Maritime & Coastguard Agency (MCA) in a letter to NRW-MLT dated 9 August 2022. This includes recommended conditions that would need to be included in the marine licences in order for the MCA to be able to support the marine licence application. Amendments have been made and comments added to the conditions in Table 1 to reflect the MCA's recommended conditions.

- 9 This revision of the Marine Licence Principles document (as of Rev D) includes an additional column and information in Table 1 which summarises the information anticipated to be contained within ML4. As ML4 relates to works in the onshore environment, comments are included in Table 1 to clarify plan names relating to ML4. This is to ensure that the plans are consistent with the onshore plans to be approved by Denbighshire County Council (DCC) as the discharging authority for the requirements of the DCO. Some of these plans will need to be approved by DCC in consultation with NRW. This will ensure that discharging requirements of the DCO and approval of plans under conditions of ML4 are aligned.

Table 1: Marine Licence principles.

CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
Licence Details	Marine licence	Introductory text granting the licence with reference to Pt 4 of the MCAA 2009.	✓	✓	✓	✓	
Licence Details	Licence holder	Details of licence holder – Awel y Môr Offshore Wind Farm Limited	✓	✓	✓	✓	<p>AyM is seeking four separate licences:</p> <ul style="list-style-type: none"> ▲ ML1: Generation assets ▲ ML2: Transmission assets ▲ ML3: AyM/GyM interlink ▲ ML4: Clwyd River crossing
Licence Details	Licence validity	Details of start date, end date and issue date	✓	✓	✓	✓	Licence would include construction, operation and maintenance, and decommissioning.
Licensed Activities	Project	Description of the project	✓	✓	✓	✓	<p>ML1 to include:</p> <ul style="list-style-type: none"> ▲ up to 50 wind turbine generators fixed to the seabed by a foundation; ▲ up to two offshore substation platforms each fixed to the seabed by a foundation (if not installed under ML2) ▲ one meteorological mast fixed to the seabed by a foundation; ▲ floating buoys; ▲ a network of subsea inter-array cables including cable crossings and cable protection; ▲ and in connection with the above such other works as may be necessary or expedient for the purposes of the Licenced Activities and which fall within the scope of the work assessed by the environmental statement including: ▲ scour protection around the foundations of the offshore structures;

CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
							<ul style="list-style-type: none"> ▲ cable protection measures such as rock placement and the placement of rock and/or concrete mattresses, with or without frond devices; ▲ dredging; ▲ the removal of material from the seabed required for the construction of the Licenced Activities and the disposal of inert material of natural origin and/or dredged material within the Order limits produced during construction drilling, and seabed preparation for the installation of the foundations of the offshore structures or during seabed preparation for cable laying; ▲ creation and use of temporary vessel laydown areas; ▲ removal of static fishing equipment; and ▲ lighting. <p>ML2 to include:</p> <ul style="list-style-type: none"> ▲ installation of up to two subsea cable circuits including cable ducts (if required) and cable crossings; ▲ up to two offshore substation platforms each fixed to the seabed by a foundation (if not installed under ML1); ▲ cofferdam works including piling and creation of pits for trenchless installation techniques; and ▲ in the intertidal area: <ul style="list-style-type: none"> ▲ installation of up to two buried cable circuits including cable crossings, cable protection, cable ducts (if required), cofferdam works including piling, creation of pits for trenchless installation techniques, cable trenching works and removal and remediation of groynes ▲ and in connection with the above such other works as may be necessary or expedient for the purposes of the Licenced Activities and which fall within the scope of the work assessed by the environmental statement including:

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							<ul style="list-style-type: none"> ▲ scour protection around the foundations of the offshore structures; ▲ cable protection measures such as rock placement and the placement of rock and/or concrete mattresses, with or without frond devices; ▲ dredging; ▲ the removal of material from the seabed required for the construction of the Licenced Activities and the disposal of inert material of natural origin and/or dredged material within the Order limits produced during construction drilling, and seabed preparation for cable laying; ▲ creation and use of temporary vessel laydown areas; ▲ removal of static fishing equipment; ▲ lighting; and ▲ erection of temporary cofferdams during construction <p>ML3 to include:</p> <ul style="list-style-type: none"> ▲ installation of subsea cables to the Gwynt y Môr offshore wind farm including alteration of existing scour protection and cable protection and cable crossings ▲ and in connection with the above such other works as may be necessary or expedient for the purposes of the Licenced Activities and which fall within the scope of the work assessed by the environmental statement including: ▲ cable protection measures such as rock placement and the placement of rock and/or concrete mattresses, with or without frond devices; ▲ dredging; ▲ the removal of material from the seabed required for the construction of the Licenced Activities and the disposal of inert material of natural origin and/or dredged material within the Order limits produced during construction drilling, and seabed preparation for cable laying;

CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
							<p> ▲ creation and use of temporary vessel laydown areas; ▲ removal of static fishing equipment; and ▲ Lighting. </p> <p>ML4 to include:</p> <p> ▲ Installation of up to 2 cable circuits and associated ducting via trenchless techniques beneath a tidal section of the River Clwyd. </p> <p>There is intentional overlap between proposed ML1, ML2 and ML3 marine licence areas. There is also intentional duplication of the two offshore substation platforms (OSPs) in the generation (ML1) and transmission (ML2) marine licences. The need for separate marine licences for the generation and transmission assets and the AyM/GyM interlink cables is driven by the offshore transmission operator (OFTO) regime. The transmission assets will be consented and constructed by AyM and must then be transferred to a separate OFTO. Having separate licences for these works avoids the complexity of splitting the marine licence post-construction and any uncertainty over enforcement. As the detailed design of the offshore wind farm will only be done after consent is secured, it is not possible at this stage to determine where the OSPs will be located within the generation area and hence the location of the transmission works. The precise location of the AyM/GyM interlink cable is also not known. This means that the transmission marine licence area includes the generation licence area where the wind turbines will be located, and the AyM/GyM interlink marine licence also covers part of this area.</p>

CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
							In addition, it has not been determined whether the OSPs will be transferred to the OFTO. This is why the OSPs are included in both the generation and the transmission marine licence and it will be a condition of both the development consent order (DCO) and the generation and transmission marine licences that the total number of OSPs to be constructed for the AyM project may not exceed two.
	Licensed activities	<div><div>Details of the type of licensed activities, description of the works and information on quantities / dimensions, i.e.:</div><div><div><div><div>ML1 – Generation Marine Licence</div><div>Activity 1 Construction, operation, maintenance, and decommissioning of wind turbine generators, substation platforms, and meteorological mast.</div></div><div><div>Type of Licensed Activity</div><div>Deposit/ Removal/ Construction</div></div><div><div>Description</div><div>Construction, operation, maintenance and subsequent decommissioning of wind turbine generators, offshore substation platforms</div></div></div></div></div> <div>✓</div> <div>✓</div> <div>✓</div> <div>✓</div> <div><div>Possible split in the activities in each of the four MLs:</div><div>ML1:</div><div><div>📌 Activity 1: WTGs and met mast</div><div>📌 Activity 2: Offshore substation platforms (if not constructed under ML2)</div><div>📌 Activity 3: Inter-array cables</div></div><div>ML2:</div><div><div>📌 Activity 1: Offshore substation platforms (if not constructed under ML1)</div><div>📌 Activity 2: Export cables</div></div><div>ML3: AyM/GyM interlink</div><div>ML4: Clwyd River crossing</div><div>The description of the design parameters should be as set out in the ES and replicate those set out in the DCO requirements, noting that some will not be included as not relevant to ML:</div></div>					

CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
		<div> <div>(if not installed under ML2) and meteorological mast. These must fall within the parameters set out within ES Offshore Project Description Chapter (APP-047) as detailed in Appendix [x].</div> <div>Deposit of scour protection around the foundations of the offshore structures.</div> </div> <div> Quantities / Dimensions <div>The wind turbine generators, substation platforms and meteorological mast must fall within the parameters set out in Appendix [x].</div> </div> <div> ML1 – Generation Marine Licence Activity 2 Deposit, maintenance, and decommissioning of inter-array cables </div>					<div>Maximum number of wind turbine generators – 50</div> <div>Total maximum number of OSPs – 2</div> <div>Maximum total rotor swept area (m²) – 2,500,412</div> <div>Maximum height of turbines when measured from MHWS to the tip of the vertical blade (m) – 332</div> <div>Maximum rotor diameter of each turbine (m) – 306</div> <div>Minimum distance from MHWS to the lowest point of the rotating blade for each turbine (m) – 22</div> <div>Maximum pile diameter of single pile structures (m) – 15</div> <div>Maximum pile diameter of two or more pile structures (m) – 8</div> <div>Maximum total seabed footprint for wind turbine generators (excluding scour protection) (m²) – 98,175</div> <div>Maximum total seabed footprint for wind turbine generators (including scour protection) (m²) – 570,209</div> <div>Maximum number of offshore substations – 2</div>

CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY		ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
		Type of Licensed Activity	Deposit/ Removal/ Construction					Maximum total seabed footprint area for offshore electrical installation foundations (excluding scour protection) (m²) – 14,000
		Description	Installation of inter- array cables. Deposit of cable protection measures including rock placement and the placement of rock and/or concrete mattresses.					Maximum total seabed footprint area for offshore electrical installation foundations (including scour protection) (m²) – 21,600
		Quantities / Dimensions	The inter-array cables must fall within the parameters set out in Appendix [x].					Maximum volume of natural material for disposal (m³) – 12,920,356 Maximum total volume of scour protection for wind turbine generators and offshore substation (m³) – 952,282
		ML2 – Transmission Marine Licence Activity 1 Deposit, maintenance, and decommissioning of export cables						Maximum number of meteorological masts – 1
								Maximum total seabed footprint area for meteorological mast foundations (excluding scour protection) (m²) – 20
								Maximum total seabed footprint area for meteorological mast foundations (including scour protection) (m²) – 855
		Type of Licensed Activity	Deposit/ Removal/ Construction					Maximum width of any supporting structure for meteorological mast (m) – 5
		Description	Installation of up to two buried cable					Maximum number of any LIDAR measurement buoys – 3

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			circuits including cable crossings. Deposit of cable protection measures including rock placement and the placement of rock and/or concrete mattresses.					Maximum number of any permanent vessel buoys – 3 Maximum total length of cables (km) – 203.4 Maximum volume of cable protection (m³) – 366,513 Maximum footprint of cable protection (m²) – 474,476 Maximum number of cable crossings – 19
		Quantities / Dimensions	The export cables must fall within the parameters set out in Appendix [x].					
		ML2 – Transmission Marine Licence Activity 2 Construction, operation, maintenance, and decommissioning of offshore substation platforms.						
		Type of Licensed Activity	Deposit/ Removal/ Construction					
		Description	Construction, operation, maintenance and subsequent					

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		<div>decommissioning of up to two offshore substation platforms (if not installed under ML1) each fixed to the seabed by a foundation. These must fall within the parameters set out within ES Offshore Project Description Chapter (APP-047) as detailed in Appendix [x].</div> <div>Deposit of scour protection around the foundations of the offshore structures.</div>					
		<div>Quantities / Dimensions</div> <div>The substation platforms must fall within the parameters set out in Appendix [x].</div>					
		ML3 AyM/GyM Interlink Marine Licence					

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		<div>Deposit, maintenance, and decommissioning of electrical connection to the Gwynt y Môr offshore wind farm</div> <div> <div>Type of Licensed Activity</div> <div>Deposit/ Removal/ Construction</div> </div> <div> <div>Description</div> <div> <p>Installation of subsea cable connection to the Gwynt y Môr offshore wind farm.</p> <p>Deposit of cable protection measures including rock placement and the placement of rock and/or concrete mattresses, cable crossings and alteration of existing scour protection.</p> </div> </div> <div> <div>Quantities / Dimensions</div> <div>The connection cabling to the Gwynt y Môr offshore wind farm must fall within the parameters set out in Appendix [x].</div> </div>					

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		<div>ML4 – Transmission Marine Licence</div> <div>Deposit, maintenance and, decommissioning of onshore export cables and ducts beneath the River Clwyd</div> <div> <div>Type of Licensed Activity</div> <div>Deposit/ Removal/ Construction</div> </div> <div> <div>Description</div> <div>Deposit, maintenance and subsequent decommissioning of up to two onshore export cable circuits and ducts. These must fall within the parameters set out within ES Onshore Project Description Chapter (APP-047) as detailed in Appendix [x].</div> </div> <div> <div>Quantities / Dimensions</div> <div>Onshore export cable circuits and ducts must fall within the parameters set out in Appendix [x].</div> </div>					

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Licensed Activities	Licensed area	Tables of co-ordinates for the licensed areas including any restricted areas – to cover all marine works to mean high water	✓	✓	✓	✓	Relevant areas for each ML to be shown including any exclusion area(s), noting the necessary overlap between the licensed areas as explained above
Licensed Activities	Approved supporting documents	Documents supporting the ML	✓	✓	✓	✓	Confirmed at the end of the ML determination process
1	Notification of Commencement	AyM to notify NRW 5 days before commencement of any phase. Other parties will need to be notified at least 14 days prior to commencement. There is also a requirement to issue a notice to mariners and regular updates should be provided to NRW and TH.	✓	✓	✓	✓	<p>Suggest weekly updates can be replaced with ‘at appropriate regular intervals’.</p> <p>Add provision for replacement body agreed with NRW if (i.e. Kingfisher) ceases to operate.</p> <p>Proposed mitigation: Notices to Mariners and Kingfisher Bulletins to be provided to give details of AyM prior to commencement of and during construction of offshore works and to provide details of any major maintenance associated with AyM (see items [22] and [23] in Schedule of Mitigation (REP2-024)).</p> <p>Proposed mitigation: Notices to Mariners and Kingfisher Bulletins to be provided to give advanced warning and accurate location details of construction Safety Zones and advisory passing distances (see item [42] in Schedule of Mitigation).</p> <p>The Kingfisher Information Service of Seafish, must be informed of details of the vessel routes, timings and locations relating to construction at least 14 days prior to</p>

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							<p>commencement of offshore works, for inclusion in the Kingfisher Bulletin and offshore hazard awareness data, and as soon as reasonably practicable and no later than 24 hours of completion of all offshore activities. Confirmation of notification must be provided to the NRW within 5 days.</p> <p>The licence holder must ensure that a local notification to mariners is issued at least 14 days prior to the commencement of any part of the offshore works advising of the start date and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to NRW, MCA and UKHO within 5 days.</p> <p>The licence holder must ensure that local notifications to mariners are updated and reissued at weekly intervals during construction activities and at least 5 days before any planned operations (or otherwise agreed) and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction and monitoring programme. Copies of all notices must be provided to NRW and UKHO within 5 days.</p> <p>The licence holder must keep Trinity House and NRW informed of progress of the authorised project including providing a notice of commencement of construction of the authorised project within 24 hours of commencement having occurred, providing a notice within 24 hours of any aids to navigation being established by the licence holder and providing a notice within 5 days of completion of construction of the authorised project.</p>

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2	Notification of Vessels and/or Vehicles	Details of vessels/ vehicles to be notified to NRW and WG at least 24 hours before commencement.	✓	✓	✓	X	
3	Notification of Agents/ Contractors/ Sub-contractors	Details of agents/ contractors/ sub-contractors to be notified to NRW and WG at least 24 hours before commencement.	✓	✓	✓	X	
4	Notification of HM Coastguard	Coastguard to be informed of works 24 hours before commencement.	✓	✓	✓	X	
5	Inspection of Licensed Activities	MCA and WG can inspect works at reasonable time.	✓	✓	✓	X	
6	Notification of Completion	AyM to notify NRW, WG Marine and Fisheries, UKHO and Kingfisher 14 days after completion of Licenced Activities or any phase of them. Copies of all notices must be provided to NRW and MCA within 5 days.	✓	✓	✓	X	A close out report should be submitted to NRW, MCA and UKHO within 3 months of the date of completion of construction.
7	Accident or Emergency	All dropped objects must be reported to NRW, UKHO and HMCG as soon as reasonably practicable and no later than 6 hours of the licence holder becoming aware of an incident.	✓	✓	✓	X	To discuss – AyM preference is for Dropped Objects Plan (DOP) to be agreed as this allows for a risk-based approach to be taken depending on nature of object and risk. Proposed mitigation: Dropped Objects Plan to ensure reporting and recovery of dropped objects where they pose a potential hazard to other marine users (see item [16] in

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		In case of damage to, or destruction or decay of, any part of the authorised project, excluding the exposure of cables, the licence holder shall no later than 24 hours of becoming aware of any such damage, destruction or decay, notify NRW, MCA, Trinity House, the Kingfisher Information Service of Seafish and the UKHO.					Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works. Immediate notification should be made to HM Coastguard via telephone where there is a perceived danger or hazard to navigation. On receipt of the notification, NRW may require relevant surveys to be carried out by the licence holder if reasonable to do so and NRW may require obstructions to be removed from the seabed at the licence holder's expense if reasonable to do so.
8	Distribution of Copies of this Licence	Copies of ML to be provided to agents/ contractors/ vessels/ transport managers	✓	✓	✓	X	
9	Inspection of Documents	ML to be available for inspection at office used by licences holder/ contractor near site and on vessels/ vehicles used for works.	✓	✓	✓	X	
10	Notified Contractors, Vessels and/or Vehicles only to Carry out Licensed Activities	Only notified agents/ contractors/ vessels/ vehicles can undertake works. Any changes to be notified to NRW.	✓	✓	✓	X	
11	Removal of Deposited Material	Deposited material to be removed within 1 month of notice being given by NRW/ WG.	✓	✓	✓	X	See above – would ordinarily be covered by DOP.

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12	Pollution Prevention	Pollution prevention best practice to be adhered to and incidents to be reported asap.	✓	✓	✓	✓	<p>AyM are proposing PEMP to cover pollution prevention.</p> <p>Proposed mitigation – pollution prevention to be included in offshore Project Environmental Management Plan (PEMP) (see item [9] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works. The PEMP will include a Marine Pollution Contingency Plan (MPCP) and will also incorporate plans to cover accidental spills, potential contaminant release and include key emergency contact details. Typical measures will include: only using chemicals approved under the Offshore Chemicals Regulations 2002; storage of all chemicals in secure designated areas with impermeable bunding (generally to 110% of the volume); and double skinning of pipes and tanks containing hazardous materials. It will also include key emergency contact details (e.g. NRW, Maritime Coastguard Agency and the project site co-ordinator).</p> <p>ML4 to include Pollution Prevention and Emergency Incident Response Plan (REP2-037) for consistency with onshore Code of Construction Practice (CoCP) (REP2-043), and associated management plans appended to the CoCP to be approved by DCC.</p>
13	Spillage of Pollutants	Bunding, storage facilities and spill kits to be used to contain and prevent spillage of pollutants.	✓	✓	✓	✓	
14	Coatings	Only suitable coatings for the marine environment are to be used.	✓	✓	✓	X	

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15	Prevention of Disposal of Man-made Debris	Precautions to be taken to prevent disposal of man-made debris to the marine area.	✓	✓	✓	X	
16	Biosecurity	Equipment to be washed thoroughly before moving locations. Invasive Non-Native Species Management Plan to be submitted for approval 4 months prior to commencement of activities. The plan must be implemented and any changes must be approved by NRW.	✓	✓	✓	✓	<p>Proposed mitigation: Project Environmental Management Plan (PEMP) to include a Biosecurity Plan to ensure relevant best practice guidelines will be followed and implemented to minimise invasive non-native species introduction / spread and ensure any vessels used for the delivery of materials to site will adhere to industry legislation, codes of conduct and/or best practice to reduce the risk of introduction or spread of invasive non-native species (see item [12] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works.</p> <p>ML4 to include Invasive Non-native Species Management Plan (REP2-047) for consistency with onshore CoCP and associated management plans to be approved by DCC.</p>
17	Equipment, Structures and Access	Equipment, temporary structures, access tracks, waste, and/ or debris to be removed on completion.	✓	✓	✓	✓	
18	Project Parameters	Project must fall within parameters set out in PD ES chapter and in the ML.	✓	✓	✓	X	<p>These details would normally also be agreed with TH and MCA.</p> <p>Also agreement of lighting of structures through Lighting and Marking Plan and ERCOP.</p>
19	Array Layout	WTGs and offshore platforms to be arrayed in accordance with the project parameters. Array layout plan to be submitted for written	✓	X	X	X	<p>TH, UKHO and MCA to agree array layout plan before commencement of offshore works.</p> <p>Lighting and Marking Plan also to be agreed with TH and MCA pre-construction.</p>

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		approval 6 months prior to commencement of offshore works.					Proposed mitigation: Lighting and Marking Plan to include marking of the array as a buoyed construction area as directed by Trinity House and for temporary marking and lighting of the array in agreement with Trinity House (see items [24] and [26] in Schedule of Mitigation) to be agreed with NRW prior to commencement of offshore works.
20	Cable Installation Methodology	Cable Installation Methodology to be submitted for written approval at least 4 months prior to commencement of any cable installation works. The plan must be implemented and any changes must be approved by NRW.	✓	✓	✓	X	Cable installation methodology to also include post-construction but pre-operational remedial works. Proposed mitigation: Cable Specification and Installation Plan (CSIP) to set out appropriate cable burial depth, appropriate design, a detailed Cable Burial Risk Assessment (CBRA) and consideration of EMF (see items [6] and [11] in Schedule of Mitigation) to be agreed by NRW prior to commencement of cable installation works.
21	Cable Management Plan	Cable Management Plan to be submitted for written approval at least 4 months prior to commencement of any cable maintenance works/ or within 6 months of completion of cable installation works. The plan must be implemented and any changes must be approved by NRW.	✓	✓	✓	X	Proposed mitigation: CSIP to set out details of implementing cable protection (e.g. mattresses, rock placement etc) where cable burial depth cannot be achieved (see item [8] in Schedule of Mitigation) to be agreed by NRW prior to commencement of cable installation works. In case of exposure of cables on or above the seabed, the licence holder must within 3 days following identification of a potential cable exposure, notify mariners and inform Kingfisher Information Service of the location and extent of exposure. Copies of all notices must be provided to NRW, MCA, Trinity House, and the UKHO within 5 days.
22	Programme of Works	Programme of Works for each phase to be submitted for approval 4 months before commencement of activities. The programme must	✓	✓	✓	X	Condition to allow AyM to construct elements separately (i.e. foundations, WTGs, landfall, cables etc.) and for conditions to be discharged as such. Will also include confirmation of whether OSPs will fall within ML1 or ML2.

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		be implemented and any changes must be approved by NRW.					ML4 works to be part of approval of stages by DCC under Requirement 5 of the DCO.
23	Installed Cable Report	Installed Cable Report to be submitted for approval	✓	✓	✓	X	AyM considers that a post-geophysical survey report would be more informative and would be possible to submit within 12 months of completing works.
24	Operations and Maintenance Plan	OMP to be submitted for written approval at least 4 months prior to commencement of construction / deployment of wind turbine generators and associated infrastructure. The plan must be implemented and any changes must be approved by NRW.	✓	✓	✓	X	<p>AyM suggest before operation would be more reasonable as should reflect as-built project.</p> <p>May also be helpful for notification of commercial operation to be given to NRW in relation to OFTO transfer and completion of works authorised under ML.</p>
25	Construction Environment Management Plan	CEMP to be submitted for written approval at least 6 months prior to commencement of activities. The plan must be implemented and any changes must be approved by NRW.	✓	✓	✓	✓	<p>AyM would prefer reference to offshore CMS rather than CEMP.</p> <p>Proposed mitigation: Offshore Construction Method Statement (CMS) to be agreed by NRW prior to commencement of offshore works. The offshore CMS will typically include construction procedures in relation to offshore infrastructure (inclusive of the commitments relating to concurrent piling for each foundation type), good working practices to be employed, the roles and responsibilities of key personnel and contractors and vessel routes for marine coordination and communication to manage project vessel movements (see item [25] in Schedule of Mitigation).</p> <p>ML4 to include onshore CMS (REP2-018) which forms part of the CoCP to be approved by DCC.</p>

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26	Unexploded Ordnance Survey	UXO survey to be carried out prior to commencement of activities.	X	X	X	X	Not required for AyM as separate ML will be sought for UXO clearance.
27	Marine Archaeology	<p>Protocol for Archaeological Discoveries to be submitted for written approval prior to commencement of activities. The protocol must be implemented and any changes must be approved by NRW.</p> <p>WSI to be submitted for written approval at least 4 months prior to commencement of activities. The WSI must be implemented and any changes must be approved by NRW.</p>	✓	✓	✓	X	<p>Reference should be made to this being in accordance with the outline offshore WSI submitted by AyM.</p> <p>Proposed mitigation: Offshore Written Scheme of Investigation (WSI) for Archaeological Exclusion Zones around known features of anthropogenic origin of archaeological interest (A1 anomalies) and historic records of archaeological material (A3 anomalies) and to outline mitigation measures that will be in place during the construction, operational, and decommissioning phases of the development (see document APP-304 and items [31] and [32] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works.</p>
28	Pre-construction Marine Archaeology Survey	<p>Archaeology Pre-construction Survey to be submitted for written approval at least 2 months prior to commencement of the survey. This must be implemented as approved and any changes must be approved by NRW.</p> <p>A report on the results of the survey must be submitted 2 months prior to commencement of construction / deployment of cables, array and associated infrastructure.</p>	✓	✓	✓	X	Suggest that could be included as part of post-construction geophysical monitoring plan rather than justifying separate survey.

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29	Fisheries Liaison	A fisheries liaison and coexistence plan to be produced and implemented.	✓	✓	✓	X	<p>Reference should be made to this being in accordance with the plan submitted with the application.</p> <p>Proposed mitigation: Fisheries Co-Existence and Liaison Plan will set out in detail the planned approach to fisheries liaison and means of delivering any other relevant mitigation measures (see document APP-306 and item [15] in Schedule of Mitigation).</p>
30	Aids to Navigation	<p>Aids to Navigation Plan to be submitted for written approval at least 6 months prior to commencement of construction/ deployment of cables, array and associated infrastructure. The plan must be implemented and any changes must be approved by NRW.</p> <p>A report on the availability of aids to navigation to be provided to NRW in accordance with timetable in the plan.</p> <p>Licence holder to follow any steps required by Trinity House in relation to aids to navigation.</p> <p>NRW and Trinity House to be notified of any failure of the aids of navigation and timescales and plans for remedying such failures no later than 24 hours after the licence</p>	✓	✓	✓	X	<p>Schedule of mitigation refers to a Lighting and Marking Plan being agreed pre-construction.</p> <p>NRW conditions need to reflect Trinity House and MCA requirements/ standard wording.</p> <p>NRW, in consultation with the MCA, to confirm that the relevant works adequately address MCA recommendations contained within MGN654 Annex 5 “Offshore Renewable Energy Installations: Requirements, Guidance and Operational Considerations for Search and Rescue (SAR) and Emergency Response” prior to commencement of the offshore works. This document includes MCA requirements for lighting of offshore wind farms.</p> <p>A requirement has also been added to the draft DCO which requires aviation lighting to be operated at the lowest permissible lighting intensity level.</p>

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		holder becomes aware of any such failure.					
31	Depth Reduction	Depth reductions from cable protection must not compromise safe navigation and must not result in a x% reduction in surrounding depth, unless otherwise agreed with NRW.	✓	✓	✓	X	
32	Emergency Response Co-operation Plan	ERCoP to be submitted for written approval at least 4 months prior to commencement of activities. The plan must be implemented and any changes must be approved by NRW.	✓	✓	✓	X	<p>Note that detailed completion of the plan to be in cooperation with the Maritime Rescue Coordination Centre (MRCC), responsible for maritime emergency response.</p> <p>Proposed mitigation: Emergency Response Co-operation Plan (ERCoP) to cover construction, operation and decommissioning phases of AyM (see items [19] and [34] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works.</p> <p>The ERCoP is completed initially in discussion between the developer and the MCA, SAR and Navigation Safety Branches. Detailed completion of the plan will then be in cooperation with the Maritime Rescue Coordination Centre (MRCC), responsible for maritime emergency response. The ERCoP must then be submitted to and approved by the MCA. The ERCoP would detail specific marking and lighting of the wind turbines. The SAR helicopter bases would be supplied with an accurate chart of the AyM wind turbine locations, helicopter access positions and spacing between wind turbines. Furthermore, the arrangements of liaison between the wind farm developer and HM Coastguard in the event of an emergency response would be detailed</p>

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							together with an explanation of procedures and processes carried out.
33	Colouring of Infrastructure	Trinity House to direct colour of infrastructure.	✓	✓	X	X	Consider whether this should sit in DCO or ML.
34	Detailed Environmental Management and Monitoring Plan	dEMMP to be submitted for written approval 6 months prior to deployment of WTG. dEMMP to be implemented and any changes must be approved by NRW.	✓	✓	✓	X	<p>Requirement for and approach to pre-, during and post-construction management and monitoring to be discussed.</p> <p>Proposed mitigation: PEMP to be agreed by NRW prior to commencement of offshore works (see conditions 12 and 16 for details of PEMP).</p> <p>Physical and ecological monitoring surveys to take place pre- and post-construction across the area in which construction takes place to be agreed by NRW prior to commencement of offshore works (see condition 38).</p> <p>PEMP to include a Vessel Traffic Management Plan to ensure routing of the vessels during construction and operational phases will minimise disruption to marine mammals and birds (see items [483] and [484] in Schedule of Mitigation). This will include restricting vessel movements to existing navigational routes, selecting routes that avoid known aggregations of birds (if another route is required), avoidance of over-revving of engines and briefing vessel crew on the purpose and implications of these vessel management practices.</p> <p>PEMP to include an Ornithological Monitoring Plan to provide information relating to the distribution of red throated diver following the installation of the wind turbine generators. The plan will reflect the potential displacement buffers</p>

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							considered within the EIA, with the precise methodology to be agreed with NRW within sufficient timeframe to factor in the potential for any pre-construction monitoring (see item [486] in Schedule of Mitigation).
35	Marine Mammal Mitigation Protocol	MMMP to be submitted for written approval at least 4 months prior to commencement of activities. The protocol must be implemented and any changes must be approved by NRW.	✓	✓	X	X	<p>Trigger should be 4 months before commencing piling activities and note draft MMMP submitted by AyM.</p> <p>Proposed mitigation – MMMP in accordance with outline MMMP (see document APP-107 and items [14], [43] and [471] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works. MMMP required to identify maximum hammer energy to be used during pile driving, the piling procedure and the necessary combination of mitigation measures to ensure PTS effects on marine mammals are negligible.</p>
36	Pre-construction Monitoring Survey	<p>Pre-construction Monitoring Survey to be submitted for written approval at least 2 months prior to commencement of the survey. This must be implemented as approved and any changes must be approved by NRW.</p> <p>A report on the results of the survey must be submitted 4 months prior to commencement of construction/ deployment of cables, array and associated infrastructure.</p>	✓	✓	✓	X	Requirement for and approach to pre-, during and post-construction management and monitoring to be discussed.
37	Pollution Prevention and	PPMP to be submitted for written approval at least 6 weeks prior to	✓	✓	✓	✓	PEMP to be produced which includes MPCP (see condition 12).

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	Management Plan	commencement of activities. The plan must be implemented, and any changes must be approved by NRW.					ML4 to include Pollution Prevention and Emergency Incident Response Plan (REP2-037) for consistency with onshore CoCP and associated management plans to be approved by DCC.
38	Environmental Monitoring	<p>Specification for construction and post-construction monitoring surveys to be submitted for written approval at least 4 months prior to commencement of activities. This must be implemented as approved, and any changes must be approved by NRW.</p> <p>Environmental monitoring reports to be submitted for approval within 8 months of the survey dates specified in the monitoring programme.</p>	✓	✓	✓	X	<p>Requirement for and approach to pre-, during and post-construction management and monitoring to be discussed.</p> <p>Proposed mitigation – Physical and ecological monitoring surveys as specified by NRW to take place pre- and post-construction across the area in which construction takes place (see item [1] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works.</p> <p>Proposed mitigation – Archaeological monitoring surveys to take place during and post-construction to ensure effectiveness of Archeological Exclusion Zones (see item [30] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works.</p> <p>Construction monitoring must include vessel traffic monitoring by automatic identification system for the duration of the construction period and an appropriate report must be submitted to NRW, Trinity House and the MCA at the end of each year of the construction period.</p> <p>The licence holder must conduct a swath bathymetric survey of the installed export cable route and provide the data and survey report(s) to the MCA and UKHO. NRW should be notified once this has been done, with a copy of the Report of Survey also sent to NRW.</p>
39	Chemical Risk Assessment	Chemical Risk Assessment report to be produced and implemented.	✓	✓	✓	X	Alternative approach would be to sign with approved chemicals.

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		Report to be available for inspection at relevant locations.					
40	Decommissioning	<p>Decommissioning Programme to be submitted for approval 4 months prior to commencement of construction/ deployment of export cable, array, associated infrastructure.</p> <p>Decommissioning Programme to be updated and submitted for approval 4 months prior to any decommissioning works taking place.</p> <p>Programme to be implemented and changes to be approved by NRW. Decommissioning must take place before licence end date.</p>	✓	✓	✓	✓	<p>Proposed mitigation – Decommissioning Programme will be required to cover the decommissioning phase of the development as required under Part 2, Chapter 3 of the Energy Act 2004 (see item [7] in Schedule of Mitigation) to be agreed by NRW prior to commencement of offshore works and updated and agreed by NRW prior to commencement of any decommissioning works.</p> <p>Post decommissioning, the licence holder must conduct a swath bathymetric survey of the cable route and the installed generating assets area and provide the data and survey report(s) to the MCA and UKHO. This will only apply to ML1, ML2 and ML3.</p> <p>ML4 to include written scheme of decommissioning for consistency with onshore plan to be approved by DCC.</p>
41	Compliance Report	Report on compliance with conditions to be submitted for approval 2 months prior to commencement of construction / deployment of export cable, array, associated infrastructure.	✓	✓	✓	X	
42	Reporting on impacts of pile driving	Information to be provided to UK Marine Noise Registry where driven or part-driven pile foundations are proposed to be used.	✓	X	X	X	<p>Proposed mitigation: Underwater noise monitoring to measure noise generated from the first four piled foundations will be undertaken (see item [13] in Schedule of Mitigation).</p>

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43	Seabed Morphology and Scour	Scour protection management plan and swath bathymetric survey on sample of turbines may be required. If required, this should be submitted for approval no later than 3 months prior to commencement of construction.	x	x	x	X	Proposed mitigation: Scour Protection Management Plan to consider the need for scour protection where there is the potential for scour to develop around wind farm infrastructure, including turbine and substation/platform foundations and cables (see item [5] in Schedule of Mitigation) to be agreed with NRW prior to commencement of offshore works.
44	Noise and vibration	Specification for noise and vibration impacts from foundation piling may be required.	✓	✓	X	X	
45	Met masts	NRW to agree any proposed met masts.	✓	X	X	X	Covered in AyM licenced activities.
46	Aviation safety	Lights, shape, colour and character of array to comply with Air Navigation Order 2016. Consultation with the Defence Infrastructure Organisation may be required.	✓	X	X	X	Proposed mitigation: Lighting and Marking Plan to ensure marking and lighting is in accordance with relevant industry guidance and as advised by relevant stakeholders including the Maritime and Coastguard Agency (MCA), Civil Aviation Authority (CAA) and Trinity House (see item [18] in Schedule of Mitigation) to be agreed with NRW prior to commencement of offshore works.
47	Notification to aviation stakeholders		✓	X	X	X	Proposed mitigation: The Defence Geographic Centre (DGC) will be informed of the locations, heights and lighting status of the wind turbines, including estimated and actual dates of construction and the maximum height of any construction equipment to be used, prior to the start of construction, to allow inclusion on Aviation Charts (see item [35] in Schedule of Mitigation).

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48	Marking on Admiralty charts		✓	✓	X	X	Proposed mitigation: Details of AyM will be provided to UKHO prior to commencement of construction which will capture buoyed construction areas and ensure associated infrastructure including cables are displayed on nautical charts (see items [20] and [24] in Schedule of Mitigation).
Contacts	Contact details	Primary point of contact and details for NRW and WG.	✓	✓	✓	✓	TBC whether Fisheries Office, CEFAS, and CADW to be included here.



RWE Renewables UK Swindon Limited

Windmill Hill Business Park

Whitehill Way

Swindon

Wiltshire SN5 6PB

T +44 (0)8456 720 090

www.rwe.com

Registered office:

RWE Renewables UK Swindon Limited

Windmill Hill Business Park

Whitehill Way

Swindon