# RWE



# Awel y Môr Offshore Wind Farm

# Marine Licence Principles (Tracked)

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#### RWE Renewables UK Swindon Limited

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

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



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### 1 Marine Licence Principles

- 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.
- 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.
- 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.
- 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.



- 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.
- 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.
- 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.
- This revision of the Marine Licence Principles document (as of Rev F) includes further changes and clarifications in Table 1 to reflect comments made by the Maritime & Coastguard Agency (MCA) and Trinity House Rev H) includes amendments agreed with NRW(A) in respect of Policy ENV-01 (Resilient Marine Ecosystems) of the Welsh National Marine Plan (WNMP). These capture how AyM can contribute to the protection, restoration and/or enhancement of marine ecosystems, in accordance with this policy. These additions have been made in relation to physical and ecological monitoring and the specific consideration that will be given to environmentally sensitive cable protection material to maximise environmental benefits.



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.	<b>√</b>	✓	<b>√</b>	<b>√</b>	
Licence Details	Licence holder	Details of licence holder – Awel y Môr Offshore Wind Farm Limited	✓	✓	✓	✓	AyM is seeking four separate licences:  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	<b>√</b>	<b>√</b>	✓	<b>√</b>	Licence would include construction, operation and maintenance, and decommissioning.
Licensed Activities	Project	Description of the project	✓	✓	✓	✓	<ul> <li>ML1 to include:</li> <li>up to 50 wind turbine generators fixed to the seabed by a foundation;</li> <li>up to two offshore substation platforms each fixed to the seabed by a foundation (if not installed under ML2)</li> <li>one meteorological mast fixed to the seabed by a foundation;</li> <li>floating buoys;</li> <li>a network of subsea inter-array cables including cable crossings and cable protection;</li> <li>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:</li> <li>scour protection around the foundations of the offshore structures;</li> </ul>



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
							<ul> <li>cable protection measures such as rock placement and the placement of rock and/or concrete mattresses, with or without frond devices;</li> <li>dredging;</li> <li>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;</li> <li>creation and use of temporary vessel laydown areas;</li> <li>removal of static fishing equipment; and</li> <li>lighting.</li> <li>ML2 to include:</li> <li>installation of up to two subsea cable circuits including cable ducts (if required) and cable crossings;</li> <li>up to two offshore substation platforms each fixed to the seabed by a foundation (if not installed under ML1);</li> <li>cofferdam works including piling and creation of pits for trenchless installation techniques; and</li> <li>in the intertidal area:</li> <li>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</li> <li>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:</li> </ul>



CONDITION HEADING NUMBER (IF APPLICABLE)	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
						<ul> <li>scour protection around the foundations of the offshore structures;</li> <li>cable protection measures such as rock placement and the placement of rock and/or concrete mattresses, with or without frond devices;</li> <li>dredging;</li> <li>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;</li> <li>creation and use of temporary vessel laydown areas;</li> <li>removal of static fishing equipment;</li> <li>lighting; and</li> <li>erection of temporary cofferdams during construction</li> <li>ML3 to include:</li> <li>installation of subsea cables to the Gwynt y Môr offshore wind farm including alteration of existing scour protection and cable protection and cable crossings</li> <li>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:</li> <li>cable protection measures such as rock placement and the placement of rock and/or concrete mattresses, with or without frond devices;</li> <li>dredging;</li> <li>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,</li> </ul>



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
							<ul> <li>♣ creation and use of temporary vessel laydown areas;</li> <li>♣ removal of static fishing equipment; and</li> <li>♣ Lighting.</li> <li>ML4 to include:</li> <li>♣ Installation of up to 2 cable circuits and associated ducting via trenchless techniques beneath a tidal section of the River Clwyd.</li> <li>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.</li> <li>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.</li> <li>The transmission assets will be consented and constructed by AyM and must then be transferred to a separate OFTO.</li> <li>Having separate licences for these works avoids the complexity of splitting the marine licence post-construction and any uncertainty over enforcement.</li> <li>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.</li> </ul>



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.
	activities activities		e type of licensed escription of the works tion on quantities / i.e.:	✓	✓	✓	<b>√</b>	Possible split in the activities in each of the four MLs:  ML1:  Activity 1: WTGs and met mast
		ML1 – General Activity 1 Community 1 Commu			<ul> <li>Activity 2: Offshore substation platforms (if not constructed under ML2)</li> <li>Activity 3: Inter-array cables</li> <li>ML2:</li> <li>Activity 1: Offshore substation platforms (if not constructed under ML1)</li> </ul>			
	Licensed Activity  Description  Construction operation, maintenar subsequer decommis wind turbin generators	Deposit/ Removal/ Construction					Activity 2: Export cables  ML3: AyM/GyM interlink	
		Description	Construction, operation, maintenance and subsequent decommissioning of wind turbine generators, offshore substation platforms					ML4: Clwyd River crossing  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:



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
		ML2) and meteorole These must he parar out within Project De Chapter (detailed in [x].  Deposition the found the offshorts structures  Quantities / The wind generate substation and meteorole mast must the parar	talled under description (APP-047) as in Appendix of scour on around dations of ore sc.  turbine ors, an platforms deorological st fall within meters set pendix [x].				Maximum number of wind turbine generators – 50  Total maximum number of OSPs – 2  Maximum total rotor swept area (m²) – 2,500,412  Maximum height of turbines when measured from MHWS to the tip of the vertical blade (m) – 332  Maximum rotor diameter of each turbine (m) – 306  Minimum distance from MHWS to the lowest point of the rotating blade for each turbine (m) – 22  Maximum pile diameter of single pile structures (m) – 15  Maximum pile diameter of two or more pile structures (m) – 8  Maximum total seabed footprint for wind turbine generators (excluding scour protection) (m²) – 98,175  Maximum total seabed footprint for wind turbine generators (including scour protection) (m²) – 570,209
							Maximum number of offshore substations – 2



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) (m <sup>2</sup> ) – 14,000
		Description	Installation of interarray 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  Maximum volume of natural material for disposal (m³) – 12,920,356  Maximum total volume of scour protection for wind turbine
			The inter-array cables must fall within the parameters set out in Appendix [x].					generators and offshore substation (m³) – 952,282  Maximum number of meteorological masts – 1
		Activity 1 De	mission Marine Licence eposit, maintenance, missioning of export					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



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY		ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
			circuits including cable crossings.  Deposit of cable protection measures including rock placement and the					Maximum number of any permanent vessel buoys – 3  Maximum total length of cables (km) – 203.4
			placement of rock and/or concrete mattresses.					Maximum volume of cable protection (m³) – 366,513  Maximum footprint of cable protection (m²) – 474,476
			The export cables must fall within the parameters set out in Appendix [x].					Maximum number of cable crossings – 19
		Activity 2 Co	ioning of offshore					
		Type of Licensed Activity	Deposit/ Removal/ Construction					
		Description	Construction, operation, maintenance and subsequent					



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		up to substitute the substitute four must part with Project Character [x].  Deposition of the the substitute four must part with project for the substitute for the s	commissioning of to two offshore station platforms not installed under 1) each fixed to seabed by a ndation. These st fall within the tameters set out nin ES Offshore ject Description apter (APP-047) as tailed in Appendix cosit of scour tection around foundations of offshore actures.					
			tforms must fall nin the parameters out in Appendix					
		ML3 AyM/GyM In Licence	nterlink Marine					



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY		ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
		decommissi	intenance, and foning of electrical to the Gwynt y Môr d farm					
		Type of Licensed Activity	Deposit/ Removal/ Construction					
		Description	Installation of subsea cable connection to the Gwynt y Môr offshore wind farm.					
			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.					
			The connection cabling to the Gwynt y Môr offshore wind farm must fall within the parameters set out in Appendix [x].					



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		Deposit, ma	mission Marine Licence intenance and, ioning of onshore es and ducts beneath wyd					
		Type of Licensed Activity	Deposit/ Removal/ Construction					
		Description	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].					
			Onshore export cable circuits and ducts must fall within the parameters set out in Appendix [x].					



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
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	✓	<b>√</b>	✓	<b>√</b>	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	✓	<b>√</b>	<b>√</b>	<b>√</b>	Confirmed at the end of the ML determination process
1	Notification of Commencement	AyM to notify NRW 5 days before commencement of any phase. Kingfisher Bulletins and Notice to Mariners to be provided 14 days prior to commencement (with copies of notices provided to NRW, MCA and UKHO within 5 days). There is also a requirement during construction activities to issue notifications to mariners and provide regular updates to NRW and TH.	✓	✓	✓	✓	Suggest weekly updates can be replaced with 'at appropriate regular intervals'.  Add provision for replacement body agreed with NRW if (i.e. Kingfisher) ceases to operate.  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 and Monitoring (Document 7.19 of the Applicant's Deadline 7 submission)).  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 and Monitoring).  The Kingfisher Information Service of Seafish, must be informed of details of the vessel routes, timings and locations



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							relating to construction at least 14 days prior to 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.  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.  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.  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 5 days of completion of construction of the authorised project within 5 days of completion of construction of the authorised project within 5 days of completion of construction of the authorised project.



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
2	Notification of Vessels and/or Vehicles	Details of vessels/ vehicles to be notified to NRW and WG at least 24 hours before commencement.	<b>√</b>	✓	✓	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 Trinity House, NRW, MCA and UKHO within 3 months of the date of completion of construction. The report must contain the latitude and longitude coordinates of the final as-built generating and transmission assets as a GIS layer in WGS84 datum.
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 and Monitoring) 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	<b>√</b>	<b>√</b>	✓	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.	√	✓	<b>√</b>	X	
11	Removal of Deposited Material	Deposited material to be removed within 1 month of notice being given by NRW/WG.	<b>√</b>	<b>√</b>	✓	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.					AyM are proposing PEMP to cover pollution prevention.  Proposed mitigation – pollution prevention to be included in offshore Project Environmental Management Plan (PEMP) (see item [9] in Schedule of Mitigation and Monitoring) 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).  ML4 to include Pollution Prevention and Emergency Incident Response Plan (REP2-037) for consistency with onshore Code of Construction Practice (CoCP) (Document 7.11 of the Applicant's Deadline 7 submission), and associated management plans appended to the CoCP to be approved by DCC.
13	Spillage of Pollutants	Bunding, storage facilities and spill kits to be used to contain and prevent spillage of pollutants.	✓	✓	<b>√</b>	✓	
14	Coatings	Only suitable coatings for the marine environment are to be used.	<b>√</b>	✓	✓	Х	



CONDITION NUMBER (IF APPLICABLE)	HEADING	SUMMARY	ML1 (GENERATION)	ML2 (TRANSMISSION)	ML3 (AYM/GYM INTERLINK)	ML4 (CLWYD CROSSING)	NOTES / QUERIES
15	Prevention of Disposal of Man- made Debris	Precautions to be taken to prevent disposal of man-made debris to the marine area.	<b>√</b>	<b>√</b>	<b>√</b>	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.	✓	✓	✓	✓	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 and Monitoring) to be agreed by NRW prior to commencement of offshore works.  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.
17	Equipment, Structures and Access	Equipment, temporary structures, access tracks, waste, and/ or debris to be removed on completion.	✓	<b>√</b>	<b>√</b>	<b>√</b>	
18	Project Parameters	Project must fall within parameters set out in PD ES chapter and in the ML.	✓	✓	✓	X	These details would normally also be agreed with TH and MCA.  Also agreement of lighting of structures through Lighting and Marking Plan and ERCOP.
19	Array Layout Plan	WTGs and offshore platforms to be arrayed in accordance with the project parameters. Array layout plan agreed with Trinity House,	✓	X	X	X	TH and MCA to agree array layout plan before commencement of offshore works.  Lighting and Marking Plan also to be agreed with TH and MCA pre-construction.



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		UKHO and MCA to be submitted for written approval 6 months prior to commencement of offshore works.					<b>Proposed mitigation</b> : 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 and Monitoring) 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.	√	<b>√</b>	✓	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 and Monitoring) to be agreed by
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. mattressing, rock placement etc) where cable burial depth cannot be achieved (see item [8] in Schedule of Mitigation and Monitoring) to be agreed by NRW prior to commencement of cable installation works.  Specific consideration to be given to the choice of cable protection material that can be demonstrated to maximise environmental biodiversity benefits, whilst meeting technical need (see Conditions 34 and 38).  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



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							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 be implemented and any changes must be approved by NRW.	✓	<b>√</b>	✓	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.  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	✓	1	<b>√</b>	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	AyM suggest before operation would be more reasonable as should reflect as-built project.  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.
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.	✓	✓	✓	✓	AyM would prefer reference to offshore CMS rather than CEMP.  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



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							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 and Monitoring).  ML4 to include onshore CMS (Document 7.12 of the Applicant's Deadline 7 submission) which forms part of the CoCP to be approved by DCC.
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	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. 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.	✓	✓	✓	X	Reference should be made to this being in accordance with the outline offshore WSI submitted by AyM.  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 and Monitoring) to be agreed by NRW prior to commencement of offshore works.
28	Pre-construction Marine Archaeology Survey	Archaeology Pre-construction Survey to be submitted for written approval at least 2 months prior to commencement of the survey. This	✓	✓	✓	X	Suggest that could be included as part of post-construction geophysical monitoring plan rather than justifying separate survey.



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		must be implemented as approved and any changes must be approved by NRW.					
		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.					
29	Fisheries Liaison	A fisheries liaison and coexistence plan to be produced and implemented.	✓	✓	✓	X	Reference should be made to this being in accordance with the plan submitted with the application.  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 REP1-033 and item [15] in Schedule of Mitigation and Monitoring).
30	Aids to Navigation	Aids to Navigation Plan in accordance with the MCA recommendations contained within MGN654 Annex 5 "Offshore Renewable Energy Installations: Requirements, Guidance and Operational Considerations for Search and Rescue (SAR) and Emergency Response" to be submitted for written approval by NRW in consultation with Trinity House at least 6 months prior to commencement of construction/deployment of cables, array and	✓	✓	✓	X	Schedule of mitigation and monitoring refers to a Lighting and Marking Plan being agreed pre-construction.  NRW conditions need to reflect Trinity House requirements/ standard wording.  The licence holder must ensure that the licensed activities exhibit such lights, marks, sounds, signals and other aids to navigation and to take such steps for the prevention of danger to navigation as directed by Trinity House.  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)



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		associated infrastructure. The plan must be implemented and any changes must be approved by NRW.  A report on the availability of aids to navigation to be provided to NRW in accordance with timetable in the plan.  Licence holder to follow any steps required by Trinity House in relation to aids to navigation.  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 holder becomes aware of any such failure.					and Emergency Response" prior to commencement of the offshore works. This document includes MCA requirements for lighting of offshore wind farms.  A requirement has also been added to the draft DCO which requires aviation lighting to be operated at the lowest permissible lighting intensity level. This will not be below MCA aviation lighting requirements.
31	Depth Reduction	Depth reductions from cable protection must not compromise safe navigation and must not result in a 5% reduction in surrounding depth, unless otherwise agreed with NRW.	✓	✓	✓	X	
32	Emergency Response	NRW, in consultation with the MCA, to confirm in writing that the licence holder has taken into account and, so far as is applicable to the stage of the project, adequately	✓	✓	✓	X	Note that detailed completion of an Emergency Response Co-operation Plan is to be drafted in cooperation with theHM Coastguard - Offshore Energy Liaison Team.  Proposed mitigation: Emergency Response Co-operation Plan (ERCoP) to cover construction, operation and



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		addressed all MCA recommendations as appropriate to the licensed activities contained within MGN654 "Offshore Renewable Energy Installations: Guidance on UK Navigational Practice, Safety and Emergency Response Issues" and its annexes prior to commencement of activities.					decommissioning phases of AyM (see items [19] and [34] in Schedule of Mitigation and Monitoring) to be agreed by NRW prior to commencement of offshore works.
33	Colouring of Infrastructure	Trinity House to direct colour of infrastructure.	<b>✓</b>	<b>√</b>	X	Х	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	Requirement for and approach to pre-, during and post-construction management and monitoring to be discussed.  Proposed mitigation: PEMP to be agreed by NRW prior to commencement of offshore works (see conditions 12 and 16 for details of PEMP).  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).  The physical and ecological monitoring surveys are designed to ensure minimal disturbance to and loss of key benthic habitats and species during construction through micro-siting (where possible).  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



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							(see items [483] and [484] in Schedule of Mitigation and Monitoring). 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.
							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 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 and Monitoring).
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	Trigger should be 4 months before commencing piling activities and note draft MMMP submitted by AyM.  Proposed mitigation – MMMP in accordance with outline MMMP (see document APP-107 and items [14], [43] and [471] in Schedule of Mitigation and Monitoring) 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.
36	Pre-construction Monitoring Survey	Pre-construction Monitoring Survey to be submitted for written approval at least 2 months prior to	✓	<b>√</b>	1	X	Requirement for and approach to pre-, during and post-construction management and monitoring to be discussed.



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		commencement of the survey. This must be implemented as approved and any changes must be approved by NRW.  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.					
37	Pollution Prevention and Management Plan	PPMP to be submitted for written approval at least 6 weeks prior to commencement of activities. The plan must be implemented, and any changes must be approved by NRW.	✓	✓	✓	✓	PEMP to be produced which includes MPCP (see condition 12).  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	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.  Environmental monitoring reports to be submitted for approval within 8 months of the survey dates specified in the monitoring programme.	✓	✓	✓	X	Requirement for and approach to pre-, during and post-construction management and monitoring to be discussed.  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 and Monitoring) to be agreed by NRW prior to commencement of offshore works.  The physical and ecological monitoring surveys are designed to ensure minimal disturbance to and loss of key benthic habitats and species during construction through micro-siting (where possible).



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		Construction and post-construction monitoring (including vessel traffic monitoring) to be submitted to NRW, Trinity House and MCA at the end of each year of the construction period and for three consecutive years following completion of construction.  A swath bathymetric survey of the installed export cable should be undertaken with survey data provided to MCA and UKHO and report provided to NRW, MCA and UKHO.					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 and Monitoring) to be agreed by NRW prior to commencement of offshore works.  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.  Post construction monitoring must include vessel traffic monitoring by automatic identification system for a duration of three consecutive years following the completion of construction, unless otherwise agreed in writing by NRW. An appropriate report must be submitted to NRW, Trinity House and the MCA at the end of each year of the three year period.  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.
39	Chemical Risk Assessment	Chemical Risk Assessment report to be produced and implemented. Report to be available for inspection at relevant locations.	✓	✓	✓	X	Alternative approach would be to sign with approved chemicals.
40	Decommissioning	Decommissioning Programme to be submitted for approval 4 months prior to commencement of	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>Proposed mitigation</b> – Decommissioning Programme will be required to cover the decommissioning phase of the development as required under Part 2, Chapter 3 of the



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		construction/ deployment of export cable, array, associated infrastructure.  Decommissioning Programme to be updated and submitted for					Energy Act 2004 (see item [7] in Schedule of Mitigation and Monitoring) to be agreed by NRW prior to commencement of offshore works and updated and agreed by NRW prior to commencement of any decommissioning works.  Post decommissioning, the licence holder must conduct a
		approval 4 months prior to any decommissioning works taking place.  Programme to be implemented					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.
		and changes to be approved by NRW. Decommissioning must take place before licence end date.					ML4 to include written scheme of decommissioning for consistency with onshore plan to be approved by DCC.
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.	✓	✓	<b>√</b>	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	<b>Proposed mitigation</b> : Underwater noise monitoring to measure noise generated from the first four piled foundations will be undertaken (see item [13] in Schedule of Mitigation and Monitoring).
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	X	Х	Х	X	<b>Proposed mitigation</b> : 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



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		than 3 months prior to commencement of construction.					Mitigation and Monitoring) 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.	<b>√</b>	<b>√</b>	X	X	
45	Met masts	NRW to agree any proposed met masts.	<b>√</b>	X	Х	Х	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	<b>Proposed mitigation</b> : 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 and Monitoring) 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 and Monitoring).
48	Marking on Admiralty charts		✓	<b>√</b>	X	X	<b>Proposed mitigation</b> : 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



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							charts (see items [20] and [24] in Schedule of Mitigation and Monitoring).
Contacts	Contact details	Primary point of contact and details for NRW and WG.	<b>√</b>	✓	✓	<b>√</b>	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

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

Swindon