Awel y Môr Offshore Wind Farm

Category 5: Reports

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Report to Inform Appropriate Assessment,
Annex 1: HRA Screening Update (Non-Ornithology

Awel y Môr Offshore Wind Farm

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List of abbreviations

Abbreviation	Definition
AyM	Awel y Môr Offshore Wind Farm
ES	Environmental Statement
GyM	Gwynt y Môr Offshore Wind Farm
HRA	Habitats Regulations Assessment
INNS	Invasive and Non-Native Species
LSE	Likely Significant Effect
NRW	Natural Resources Wales
O&M	Operation and Maintenance
OWF	Offshore Wind Farm
PEIR	Preliminary Environmental Information Report
RIAA	Report to Inform Appropriate Assessment

1 Purpose of the report

1 Habitat Regulation Assessment (HRA) Screening for the Awel y Môr Offshore Wind Farm (AyM) was formally issued for consultation on 12 June 2020, with comments received from Natural Resources Wales (NRW) on 4 September 2020. Following receipt of the comments, an Evidence Plan meeting was held on 10 November 2020, to enable discussion on the HRA Screening undertaken and the comments received – with respect to non-ornithological features. A separate meeting for ornithological features was held on 13 November 2020, with separate reporting to follow.

2 One of the actions from the 10 November meeting was for GoBe Consultants Ltd to draft and update the non-ornithological screening, in tabular format, to provide the following:

- Confirmation of sites and features included for screening;
- Confirmation of the effects considered for screening (during construction, operation & maintenance (O&M) and decommissioning); and
- Confirmation of the conclusion of screening in each case (taking account of NRW comments).

3 Confirmation of effects considered for screening, per receptor group, is provided below in Section 3 and Table 6. Where effects were noted by NRW, how these are included in the screening process is noted. Confirmation of screening, including conclusions on potential Likely Significant Effect (LSE) is provided in Section 3 and takes into account the comments received from NRW and the discussion held on 10 November.

2 Potential for effects considered in screening

4 Clarity is provided below as regards the effects identified per receptor group and how those link to the effects highlighted by NRW in their screening response (the latter specifically in relation to benthic ecology). The effect groups follow those presented within the Screening Report and reflect those expected to be identified and addressed for Offshore Wind Farm (OWF) construction, O&M and decommissioning (D). The effect groups are by necessity very high level, to ensure screening is conducted as a coarse filter. In addition, and as would be expected at this stage, the project description currently available is similarly high level; however, it will be much more detailed when the Report to Inform Appropriate Assessment (RIAA) is drafted. At that stage, it will be possible to identify how the project may cause the various effects (including quantification), but for screening the effect categories are applied as a very coarse filter.

5 For the purposes of the key project phases and when the effect category may apply: construction is referred to by 'C', O&M by 'O&M' and decommissioning by 'D'.

Table 1 – Effect groups considered for onshore habitats

Effect	Detail	NRW Equivalent
Physical habitat loss /disturbance	Direct interaction with designated (and/or supporting) habitat could occur during C, O&M and D. Potential linked to various activities, including movement of plant, or installation/maintenance of structures. Specifics to be determined in draft RIAA at Preliminary Environmental Information Report (PEIR) once project design is confirmed.	No specific comment on effect categories
Pollution	Potential for accidental spillage, run off from site could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
INNS	Potential for Invasive and Non-Native Species (INNS) to be introduced/spread as a consequence of movement on and off site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	

Effect	Detail	NRW Equivalent
Changes to onshore hydrology	Potential for works to result in a change to the existing hydrology. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	

Table 2 – Effect groups considered for onshore species (natterjack toad)

Effect	Detail	NRW Equivalent
Physical habitat loss /disturbance	Direct interaction with designated (and/or supporting) habitat could occur during C, O&M and D. Potential linked to various activities, including movement of plant, or installation/maintenance of structures. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	No specific comment on effect categories
Suspended sediment/deposition	Potential for sediment to be released in suspension, followed by deposition, during or as a consequence of works on site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Pollution	Potential for accidental spillage, run off from site could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
INNS	Potential for INNS to be introduced/spread as a consequence of movement on and off site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
Hydrology onshore	Potential for works to result in a change to the existing hydrology. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	

Table 3 – Effect groups considered for benthic habitats

Effect	Detail	NRW equivalent	Response
Physical habitat loss/ disturbance	Direct interaction with designated (and/or supporting) habitat could occur during C, O&M and D. Potential linked to various activities, including movement of plant, or installation/maintenance of structures. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	Construction: NRW note habitat loss as occurring during construction. The effect has been considered at all phases. NRW note a number of potential causes (under infrastructure footprint – foundations, scour protection, cable laying). Habitat disturbance. NRW note that adjacent habitats are likely to recover after a certain amount of time e.g. impact jack up rigs and consider that this should be included in the construction phase. O&M: Habitat loss. NRW note that habitat loss in O&M could result from additional secondary cable protection e.g. mattressing. Habitat alteration. NRW note that adjacent habitats could be altered, for example as a result of additional ongoing scour, change in hydrodynamics and that this should be included in the O&M phase. Habitat disturbance. NRW note that planned maintenance, cable failure and excavation should be included in the O&M phase.	It can be confirmed that all potential causes of each effect category will be identified for the draft RIAA. It can be confirmed that potential for habitat disturbance considered at all phases (however that may be caused), with potential for a change in physical processes addressed separately.
Suspended sediment/ deposition	Potential for sediment to be released in suspension, followed by deposition, during or as a consequence of works on site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	Habitat alteration. NRW note that- adjacent habitats could be indirectly affected by infrastructure e.g. increased sedimentation/ smothering and that this should be included in the construction phase. Suspended sediment and deposition. NRW advise the applicant the effect to consider here is “Temporary suspended sediment and deposition”.	It can be confirmed that suspended sediment and associated deposition are considered at all phases. Specifics such as duration and frequency will be

Effect	Detail	NRW equivalent	Response
		NRW note that the applicant says "As the spatial range of effects has yet to be defined (modelled) a precautionary Screening distance of 11 km is proposed, based on the evidence from the physical processes chapter of the Environmental Statement (ES) for the Gwynt y Môr (GyM) OWF (Gwynt y Môr Offshore Wind Limited, 2005)." We refer the applicant to the comment made by the NRW Coastal Process Specialist.	confirmed for the draft RIAA. As regards the spatial range of effects, as discussed the range currently draws on modelled data for GyM – however once project specific modelling is available the range will be revisited and either confirmed or updated (including screening conclusions). The assessment in the draft RIAA will draw on the project specific technical report.
Pollution	Potential for accidental spillage, run off from site could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	No specific comment on effect category.	N/A
Marine INNS	Potential for marine INNS to be introduced/ spread as a consequence	Habitat alteration. NRW noted that adjacent habitats could be indirectly affected by infrastructure e.g.	Potential for marine INNS considered at all phases.

Effect	Detail	NRW equivalent	Response
	of movement on and off site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	introduction of marine INNS. This should be included in the construction phase. Further, NRW agree with the applicant that a screening distance here is not applicable and INNS should be assessed on a case by case basis and with reference to potential vectors and control measures. The applicant should also indicate the intention to undertake a biosecurity risk assessment for all stages of marine development.	It can be confirmed that although mitigation is not taken into account at screening, mitigation will be taken into account within the draft RIAA.
EMF	Potential for EMF to result from installed cables. Could occur during O&M. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	Need to consider for relevant benthic habitats in the operational phase.	Noted and screening updated to reflect this.
Hydrology onshore	Potential for works to result in a change to the existing hydrology. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	No specific comment on effect category.	N/A
Changes to physical processes	Installation of structures and potential for change in bed levels may result in a change in existing physical processes. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	Construction Habitat alteration. NRW noted that adjacent habitats could be indirectly affected by infrastructure e.g. scour, change hydrodynamics, increased. This should be included in the construction phase. Physical Processes. NRW advise the applicant to include the impact on physical processes during the	Can be confirm that potential for a change in physical processes is considered at all phases.

Effect	Detail	NRW equivalent	Response
		construction phase caused by cable laying activities which could affect the subtidal and benthic habitat receptors and annex 1 habitat features. Please refer to NRW Physical Process Specialist comment for full details. O&M Habitat alteration and adjacent habitats. NRW note that additional ongoing scour, change in hydrodynamics This should be included in the operation and maintenance phase.	

Table 4 – Effect groups considered for migratory fish

Effect	Detail	NRW equivalent
Underwater noise	A number of project related activities could introduce noise into the marine environment. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	No specific comment on effect category.
Suspended sediment and deposition	Potential for sediment to be released in suspension, followed by deposition, during or as a consequence of works on site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Pollution	Potential for accidental spillage, run off from site could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
INNS	Potential for INNS to be introduced/spread as a consequence of movement on and off site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
EMF	Potential for EMF to result from installed cables. Could occur during O&M. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
Hydrology onshore	Potential for works to result in a change to the existing hydrology. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Effects on prey	Indirect effect on prey resource could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Physical habitat loss/ disturbance	Direct interaction with designated (and/or supporting) habitat could occur during C, O&M and D. Potential linked to various activities, including movement of plant, or installation/maintenance of structures. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	

Table 5 – Effect groups considered for marine mammals

Effect	Detail	NRW equivalent
Underwater noise	A number of project related activities could introduce noise into the marine environment. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	No specific comment on effect category.
Vessel disturbance	Physical presence of vessels could result in a response in marine mammals (linked to underwater noise above). Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Non-physical disturbance (pinnipeds only)	Potential for seals when hauled out to be disturbed by works onshore or offshore. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Physical habitat loss/ disturbance	Direct interaction with supporting habitat could occur during C, O&M and D. Potential linked to various activities, including movement of plant, or installation/maintenance of structures. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Suspended sediment/ deposition	Potential for sediment to be released in suspension, followed by deposition, during or as a consequence of works on site. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Collision risk	Potential for collision to occur between a marine mammal and a vessel. Could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
Pollution	Potential for accidental spillage, run off from site could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	
Effects on prey	Indirect effect on prey resource could occur during C, O&M and D. Specifics to be determined in draft RIAA at PEIR once project design is confirmed.	
EMF	Potential for EMF to result from installed cables. Could occur during O&M. Specifics to be determined in draft RIAA at PEIR once project design is confirmed. Anticipated that project mitigation will address the risk, however mitigation is not taken into account for screening.	

3 Conclusion of HRA screening (excluding ornithology)

6 Table 6 presents the conclusions on HRA screening for AyM. The table takes the conclusions drawn in the original Screening Report, and updates these to take account of the comments received from NRW. The table includes the following:

- All sites identified for screening within the Screening Report, for all receptors excluding ornithology;
- Includes all relevant effects for each feature (according to the receptor group it relates to) to present a conclusion of potential for LSE or no LSE;
- Includes consideration of decommissioning (D) as well as construction (C) and operation and maintenance (O&M) – which is essentially considered to be analogous to potential for LSE in construction (with the expectation that any significance of effect at decommissioning is expected to be within and less than that during construction); and
- Notes key changes to the screening conclusions following receipt of NRW comments.

7 For screening in-combination, it is assumed that where potential for LSE applies alone – that potential applies in-combination. No examples of potential for LSE in-combination where none applies alone have been identified to date; however should the consultation process or subsequent technical reporting indicate a concern, screening will be updated to reflect that.

Table 6 - Summary of the screening conclusions for all receptors excluding ornithology

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
Coedwigoedd Penrhyn Creuddyn/ Creuddyn Peninsula Woods SAC	Tilio-*Acerion* forests of slopes, screes and ravines * Priority feature *Taxus baccata* woods of the British Isles * Priority feature	Physical habitat loss /disturbance Pollution INNS Changes to onshore hydrology	Physical habitat loss /disturbance Pollution INNS Changes to onshore hydrology	Potential for LSE			The addition of decommissioning	×	×	✓ 0.05 km
	Semi-natural dry grasslands and scrubland facies on calcareous substrates (* important orchid sites)	Pollution INNS Changes to onshore hydrology	Pollution INNS Changes to onshore hydrology	Potential for LSE						
		Physical habitat loss /disturbance	Physical habitat loss /disturbance	No potential for LSE						
Coedwigoedd Dyffryn Elwy/ Elwy Valley Woods SAC	*Tilio-Acerion* forests of slopes, screes and ravines * Priority feature	Physical habitat loss /disturbance Pollution INNS Changes to onshore hydrology	Physical habitat loss /disturbance Pollution INNS Changes to onshore hydrology	Potential for LSE			The addition of decommissioning	×	×	✓ 0.0 km
Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay (UK) SAC	Sandbanks which are slightly covered by sea water all the time Reefs Large shallow inlets and bays Submerged or partially	Physical habitat loss/ disturbance Suspended sediment and deposition Pollution Marine INNS Changes to physical processes	Physical habitat loss/ disturbance Suspended sediment and deposition Pollution Marine INNS EMF	Potential for LSE			The addition of decommissioning Adding additional features to the 'potential for LSE' category	✓ 6 km	✓ 0.00 km	✓ 0.18 km

Designated site	Feature(s)	Effect pathway C and D	 O&M	Screening conclusion C	 O&M	 D	Significant changes to screening conclusions	Overlap and/or range Array	 ECR search area	 Onshore search area
	submerged sea caves		Changes to physical processes							
		Hydrology (onshore)	Hydrology (onshore)	No potential for LSE						
	Mudflats and sandflats not covered by seawater at low tide	Suspended sediment and deposition Pollution Marine INNS Hydrology (onshore) Changes to physical processes	Suspended sediment and deposition Pollution Marine INNS Changes to physical processes Hydrology (onshore)	Potential for LSE			The addition of decommissioning Amended effects screened out following NRW comments			
		Physical habitat loss/ disturbance	Physical habitat loss/ disturbance EMF	No potential for LSE						
Liverpool Bay/ Bae Lerpwl (UK) SPA	Supporting habitat only (designated features addressed separately under the ornithological note). The potential for effect is considered in the context of the designated features, taking account of the role of supporting habitat. For example the effect 'direct disturbance and displacement' is effectively consideration of potential habitat loss, with the prey related effects also linked to the role of the supporting habitat. Single effect screened in for potential LSE (C, O&M and D) being direct disturbance and displacement.									
The Dee Estuary (UK) SPA	Supporting habitat only (designated features addressed separately under the ornithological note). The potential for effect is considered in the context of the designated features, taking account of the role of supporting habitat.									
Dee Estuary Ramsar[1]	Criterion 1: Extensive intertidal mud and sand flats with large expanses of saltmarsh	Physical habitat loss/ disturbance Suspended sediment and deposition Pollution Marine INNS Hydrology (onshore)	Physical habitat loss/ disturbance Suspended sediment and deposition Pollution Marine INNS EMF Hydrology (onshore)	Potential for LSE			The addition of decommissioning Standardised screening with Dee Estuary SAC	NA	0.08 km to offshore search area	0.05 km to onshore search area

1 Note – remaining Ramsar criteria (criterion 5 and 6) relate to birds and are addressed separately in the ornithological note

Designated site	Feature(s)	Effect pathway C and D	 O&M	Screening conclusion C	 O&M	 D	Significant changes to screening conclusions	Overlap and/or range Array	 ECR search area	 Onshore search area
		Changes to physical processes	Changes to physical processes							
	Criteria 2: Natterjack Toad	Physical habitat loss and disturbance Suspended sediment and deposition Pollution INNS Changes to onshore hydrology	Physical habitat loss and disturbance Suspended sediment and deposition Pollution INNS Changes to onshore hydrology	Potential for LSE			The addition of decommissioning			
Dee Estuary/ Aber Dyfrdwy (UK) SAC (England/ Wales)	Mudflats and sandflats not covered by seawater at low tide *Salicornia* and other annuals colonizing mud and sand Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Estuaries	Physical habitat loss/ disturbance Suspended sediment/ deposition Pollution Marine INNS Hydrology (onshore)	Physical habitat loss/ disturbance Suspended sediment/ deposition Pollution Marine INNS EMF Hydrology (onshore) Changes to physical processes	Potential for LSE			The addition of decommissioning Additional effects screened in Standardised with Dee Estuary Ramsar Criterion 1	21 km Not screened in for habitats, to be confirmed when technical reports available Screened in for migratory fish	✓ 0.08 km	✓ 0.05 km
	Annual vegetation drift lines Vegetated sea cliffs Embryonic shifting dunes Shifting dunes with Ammophilia	No pathway – no effect		No potential for LSE			No change			

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
	arenaria (white dunes) Fixed coastal dunes Humid dune slacks Petalwort									
	Sea lamprey River lamprey	Underwater noise Suspended sediment and deposition Pollution	Pollution EMF	Potential for LSE			The addition of decommissioning Effects standardised with Dee Estuary and Bala Lake SAC Additional effect screened in			
		INNS Hydrology onshore Effects on prey Physical habitat loss/ disturbance	Underwater noise Suspended sediment and deposition INNS Hydrology onshore Effects on prey Physical habitat loss/ disturbance	No potential for LSE			The addition of decommissioning UWN moved to no LSE for O&M for consistency and to reflect evidence base			
River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC	Atlantic salmon Sea lamprey River lamprey	Underwater noise Suspended sediment and deposition Pollution	Pollution EMF	Potential for LSE			The addition of decommissioning Effects standardised with Dee Estuary SAC All project phases screened in - noting the importance of the Dee Estuary for the species on migration.	21 km ✓	0.08 km ✓	23 km ✓

Designated site	Feature(s)	Effect pathway C and D	Effect pathway O&M	Screening conclusion C	Screening conclusion O&M	Screening conclusion D	Significant changes to screening conclusions	Overlap and/or range Array	Overlap and/or range ECR search area	Overlap and/or range Onshore search area
							Additional effect screened in			
		INNS Hydrology onshore Effects on prey Physical habitat loss/ disturbance	Underwater noise Suspended sediment and deposition INNS Hydrology onshore Effects on prey Physical habitat loss/ disturbance	No potential for LSE			The addition of decommissioning UWN moved to no LSE for O&M for consistency and to reflect evidence base			
	Otter Bullhead Brook lamprey Water courses of plain to montane levels Floating water plantain	No pathway identified and therefore no effects are relevant		No potential for LSE			No change	46 km	25 km	23 km
Afon Gwyrfai a Llyn Cwellyn SAC	Atlantic salmon	Underwater noise Suspended sediment & deposition Pollution INNS Hydrology onshore Effects on prey Physical loss/ disturbance	Pollution EMF Underwater noise Suspended sediment and deposition INNS Hydrology onshore Effects on prey	No LSE for all stages – confirmed by NRW			The addition of decommissioning No change to conclusions	42 km	32 km	32 km

Designated site	Feature(s)	Effect pathway C and D	Effect pathway O&M	Screening conclusion C	Screening conclusion O&M	Screening conclusion D	Significant changes to screening conclusions	Overlap and/or range Array	Overlap and/or range ECR search area	Overlap and/or range Onshore search area
			Physical habitat loss/ disturbance							
	Otter Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Floating water-plantain	No pathway identified and therefore no effects applied within the matrices					No change	-	-	32 km
Afon Eden - Cors Goch Trawsfynydd SAC	Atlantic salmon Freshwater pearl mussel	Underwater noise Suspended sediment/ deposition Pollution INNS Hydrology onshore Effects on prey Physical habitat loss/ disturbance	Pollution EMF Underwater noise Suspended sediment/ deposition INNS Hydrology onshore Effects on prey Physical habitat loss/ disturbance	No LSE for all stages – confirmed by NRW			The addition of decommissioning Addition of FWPM No change to conclusions	59 km	46 km	43 km

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
	Otter Active raised bogs Floating water-plantain	No pathway identified and therefore no effects applied within the matrices								
North Anglesey Marine/ Gogledd Môn Forol (UK) SAC	Harbour porpoise	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	The addition of decommissioning No change to conclusions	12 km	13.8 km	NA
		Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF	No potential for LSE						
Bristol Channel Approaches/ Dynesfeydd Môr Hafren (UK) SAC	Harbour porpoise	Underwater noise	N/A	Potential LSE	No LSE (agreed with NRW)	Potential LSE	The addition of decommissioning No change to conclusions	195 km	182.5 km	NA
		Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution	No LSE		No LSE				

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
			Effects on prey EMF							
Cardigan Bay/ Bae Ceredigion (UK) SAC	Grey seal	Underwater noise	N/A	Potential LSE	No LSE (agreed with NRW)	Potential LSE	The addition of decommissioning No change to the conclusions	119 km	133 km	135 km
		Vessel disturbance Non physical disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Non physical disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF	No LSE		No LSE				
	Bottlenose dolphin	Underwater noise	N/A	Potential LSE	No LSE (agreed with NRW)	Potential LSE				
		Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	No LSE		No LSE				

Designated site	Feature(s)	Effect pathway C and D	Effect pathway O&M	Screening conclusion C	Screening conclusion O&M	Screening conclusion D	Significant changes to screening conclusions	Overlap and/or range Array	Overlap and/or range ECR search area	Overlap and/or range Onshore search area
			EMF							
	Sandbanks which are slightly covered by sea water all the time Reefs Submerged or partially submerged sea caves Sea lamprey River lamprey	No pathway identified and therefore no effects applied within the matrices			No LSE					
North Channel (UK) SAC	Harbour porpoise	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	The addition of decommissioning No change to the conclusions	106 km	107.2 km	NA
		Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF	No potential for LSE						
Pen Llŷn a`r Sarnau/ Lleyn Peninsula and the Sarnau (UK) SAC	Bottlenose dolphin	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	The addition of decommissioning No change to the conclusions	55 km	43 km	39 km
		Vessel disturbance	Underwater noise	No potential for LSE						

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
		Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF							
	Grey seal	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE				
		Vessel disturbance Non physical disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Non physical disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF	No potential for LSE						
	Otter Subtidal sandbanks which are slightly	No pathway identified therefore no effects		No potential for effect						

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
	covered by sea water all the time Estuaries Coastal Lagoons Large shallow inlets and bays Reefs Mudflats and sandflats not covered by seawater at low tide *Salicornia* and other annuals colonising mud and sand Atlantic saltmeadows (*Glauco-Puccinellietalia maritimae*) Submerged or partially submerged sea caves									
Rockabill to Dalkey Island SAC (IE) SAC	Harbour porpoise	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	The addition of decommissioning No change to the conclusions	130 km	130.5 km	NA
		Vessel disturbance Physical habitat loss/ disturbance	Underwater noise Vessel disturbance	No potential for LSE						

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
		Suspended sediment/ deposition Collision risk Pollution Effects on prey	Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF							
	Reefs	No pathway identified therefore no effects								
West Wales Marine/ Gorllewin Cymru Forol (UK) SAC	Harbour porpoise	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	The addition of decommissioning No change to the conclusions	69 km	59.5 km	NA
		Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF	No potential for LSE						
Pembrokeshire Marine SAC	Grey seals	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	Additional site/feature screened in, for effect in a manner consistent with other marine mammal sites at distance	TBC	TBC	NA
		Vessel disturbance	Underwater noise Vessel disturbance	No potential for LSE						

Designated site	Feature(s)	Effect pathway C and D	Effect pathway O&M	Screening conclusion C	Screening conclusion O&M	Screening conclusion D	Significant changes to screening conclusions	Overlap and/or range Array	Overlap and/or range ECR search area	Overlap and/or range Onshore search area
		Non physical disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Non physical disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF							
	Estuaries Large shallow inlets and bays Reefs Sandbanks which are slightly covered by sea water all the time Mudflats and sandflats not covered by seawater at low tide Coastal lagoons Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Submerged or partially	No pathway identified therefore no effects		No potential for LSE						

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
	submerged sea caves Shore dock Sea lamprey River lamprey Allis shad Twaite shad Otter									
Nord Bretagne DH (FR) SAC Roaringwater Bay and Islands SAC (IE) SAC Récifs et landes de la Hague (FR) SAC Anse de Vauville (FR) SAC Banc et récifs de Surtainville (FR) SAC Blasket Islands SAC (IE) SAC Tregor Goëlo (FR) SAC Côte de Granit rose-Sept-Iles (FR) SAC Mers Celtiques - Talus du golfe de Gascogne (FR) SAC Chausey (FR) SAC Cap d'Erquy-Cap Fréhel (FR) SAC Baie de Morlaix (FR) SAC	Harbour porpoise (no other features screened in for these sites due to lack of pathway)	Underwater noise	N/A	Potential for LSE	No potential for LSE	Potential for LSE	Addition of decommissioning	Variable		

Designated site	Feature(s)	Effect pathway		Screening conclusion			Significant changes to screening conclusions	Overlap and/or range		
		C and D	O&M	C	O&M	D		Array	ECR search area	Onshore search area
Abers - Côtes des legends (FR) SAC Baie du Mont Saint-Michel (FR) SAC Baie de Saint-Brieuc – Est (FR) SAC Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard (FR) SAC Estuaire de la Rance (FR) SAC Ouessant-Molène (FR) SAC Côtes de Crozon (FR) SACI Chaussée de Sein (FR) SAC		Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey	Underwater noise Vessel disturbance Physical habitat loss/ disturbance Suspended sediment/ deposition Collision risk Pollution Effects on prey EMF	No potential for LSE						

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