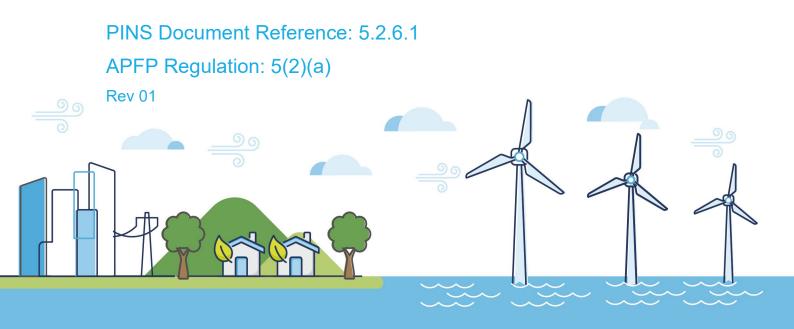


Morecambe Offshore Windfarm: Generation Assets Environmental Statement

Volume 5 Appendix 6.1 CEA Project Long List





Document History

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Glossary of Acronyms

CCSA	Carbon Capture Storage Area
CEA	Cumulative Effect Assessment
CMAR	Civil and Military Aviation and Radar
DCO	Development Consent Order
GHG	Greenhouse Gases
MAC	Maritime Area Consent
MACH	Marine Archaeology and Cultural Heritage
MGOPP	Marine Geology, Oceanography and Cultural Heritage
MSWQ	Marine Sediment and Water Quality
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
ORESS	Offshore Renewable Electricity Support Scheme
OSP	Offshore substation platform
PINS	Planning Inspectorate
SETR	Socio-Economics, Tourism and Radar
SLVIA	Seascape, Landscape and Visual Impact Assessment
UKHO	UK Hydrographic Office
WTG	Wind turbine generator
Zol	Zone of Influence



Glossary of Unit Terms

km

Kilometres



Glossary of Terminology

Applicant	Morecambe Offshore Windfarm Ltd
Generation Assets (the Project)	Generation assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).



6 1 The future of renewable energy A leading developer in Offshore Wind Projects



1 Introduction

- 1. This Appendix outlines the plans and projects screened as part of the cumulative effects assessment (CEA) for the Morecambe Offshore Windfarm Generation Assets (the Project) and supports **Chapter 6 EIA Methodology** (Document Reference 5.1.6).
- 2. A CEA is undertaken for each technical topic, for those impacts that have the potential for cumulative effects. The technical chapters considered in the CEA are listed in **Table 2.2**.
- 3. Chapter 21 Climate Change (Document Reference 5.1.21) and Chapter 22 Traffic and Transport (Document Reference 5.1.22) are not considered in the CEA and therefore are not presented in Table 2.3. In line with the Institute of Environmental Management & Assessment (IEMA) guidance (IEMA, 2022), for climate change no CEA is undertaken because cumulative effects in relation to greenhouse gases (GHGs) do not require assessment, given the receptor is the global climate and there is no basis for selection of projects to include at this scale. There is also no basis for the selection of projects for traffic and transport as the location of the construction and operation and maintenance port(s) has not been decided and there is no onshore infrastructure associated with the Project.
- 4. Due to the size of the study area and range of activities that can result in cumulative effects, additional plans and projects have been screened in for **Chapter 11 Marine Mammals** (Document Reference 5.1.11) and are further detailed in **Appendix 11.4 Marine Mammal CEA Project Screening** (Document Reference 5.2.11.4).
- The Zone of Influence (ZoI) of impacts is established in each chapter and used to establish CEA screening ranges, as provided in **Table 2.2**. The screening ranges are the basis of the long list of CEA projects and plans, shown in **Table 2.3**.
- 6. Each plan or project in the long list is categorised and assigned a Tier (in line with the Planning Inspectorate (PINS) Advice Note Seventeen), depending on the certainty that can be applied. This is further discussed in **Chapter 6 EIA Methodology** and shown per plan and project in **Table 2.3**.
- 7. The list of plans and projects was established using a number of sources, such as geographic data (for example for the identification of existing offshore windfarms, oil and gas infrastructure, disposal sites, aggregate areas), UK Hydrographic Office (UKHO) data, the PINS website (inducing searches for projects in the planning system for Wales and the North West England), Offshore Petroleum Regulator for Environment and Decommissioning, (OPRED) website, and individual project websites.



- 8. This Appendix collates the information gathered to present the plans and projects considered in the CEA, noting that details of plans and projects represents information as of Q4 2023 at the time of the assessment. It is noted that the ZoI ranges significantly between chapters, as does the type of plan or project that could contribute to a cumulative effect. Consideration is also given to whether cumulative effects could arise from ongoing, activities (including maintenance activities from operational projects), or if these activities form part of the baseline. The screening also considers the pathways (spatially and temporally) and magnitude of effect, in order for the CEA to remain proportional.
- 9. For some plans and projects within screening ranges there may not be sufficient information to undertake an assessment (the level of information required depends on the technical topic and type of assessment involved). Accordingly, projects which do not have sufficient publicly available information have not been cumulatively assessed in detail (noting if there are any limitations to the assessment as a result).
- 10. Each technical chapter presents a topic specific short list, following analysis of the potential impact pathways, so only other plans and projects which are likely to result in a significant cumulative effect are taken forward to the CEA assessment stage.

2 Screening categories

11. **Table 2.1** outlines the screening categories for each project and plan.

Colour	Screening categories
	Included as part of the baseline and is therefore not considered within the CEA.
	No pathway for effect and therefore not considered within the CEA.
	Insufficient information available. Acknowledged in the CEA at a high level.
	No temporal overlap in activities and therefore not considered within the CEA.
	Potential for cumulative effect and therefore screened into the CEA.

Table 2.1 Colour coding and screening categories

12. **Table 2.2** outlines the screening ranges adopted for each chapter.



Table 2.2 Chapters and screening ranges

Chapter	Screening range
Chapter 7 Marine Geology, Oceanography and Physical Processes (MGOPP)	30km – based on the tidal excursion, the ZoI, for all relevant seabed impacts as well
Chapter 8 Marine Sediment and Water Quality (MSWQ)	as incremental changes over the wider area
Chapter 9 Benthic Ecology	
Chapter 10 Fish and Shellfish Ecology	50km – based on the ZoI for suspended sediment impacts and underwater noise range
Chapter 11 Marine Mammals	Based on the management unit of the reference populations
Chapter 12 Offshore Ornithology	Focused on offshore windfarms located on the western seaboard of the UK, i.e. located within the Celtic and Irish Seas and the North West Shelf, to the west of Scotland which have the potential to contribute to cumulative operational displacement and collision risk
Chapter 13 Commercial Fisheries	Based on the study area (relevant fishing grounds)
Chapter 14 Shipping and Navigation	Based on interactions with surrounding plans and projects (e.g. shipping lanes and searoom)
Chapter 15 Marine Archaeology and Cultural Heritage (MACH)	30km distance is used to identify possible projects as this distance encompasses the ZoI for all relevant seabed impacts as well as incremental changes over the wider area
Chapter 16 Civil and Military Aviation and Radar (CMAR)	Projects that could impact radar receptors out to 100km (maximum range at which radar cumulative effects are considered to occur)
Chapter 17 Infrastructure and Other Users	50km – encompassing the ZoI of impacts and likely interactions over the region
Chapter 18 Seascape, Landscape and Visual Impact Assessment (SLVIA)	Based on the study area (60km) derived from the extent of the zone of theoretical visibility
Chapter 19 Human Health	Considers similar developments that are located off the coast of the North West of
Chapter 20 Socio-economics, Tourism and Recreation (SETR)	England and North Wales as having the potential for cumulative effects on the Local Economic Area



Table 2.3 CEA long list of projects and plans

Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Offshore Windf	arms																		
Morgan and Morecambe Offshore Windfarms: Transmission Assets	2	PINS	Pre-application stage. PEIR submitted in 2023.	2026 – 2029	0 (adjacent)														
Mona Offshore Wind Project	2	PINS	Pre-application stage. PEIR submitted in 2023.	2026 – 2029	10														
West of Duddon Sands Offshore Windfarm	1	PINS	Operational	NA	13														
Morgan Offshore Wind Project Generation Assets	2	PINS	Pre-application stage. PEIR submitted in 2023.	2026 – 2029	17														
Walney Extension IV Offshore Windfarm	1	PINS	Operational	NA	19														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Walney I Offshore Windfarm	1	PINS	Operational	NA	20														
Barrow Offshore Windfarm	1	PINS	Operational	NA	21														
Walney II Offshore Windfarm	1	PINS	Operational	NA	23														
Ormonde Offshore Windfarm	1	PINS	Operational	NA	27														
Awel y Môr Offshore Windfarm	1	PINS	Consented	2027 - 2030	29														
Burbo Bank Extension Offshore Windfarm	1	PINS	Operational	NA	29														
Gwynt y Môr Offshore Windfarm	1	PINS	Operational	NA	29														
Walney Extension 3 Offshore Windfarm	1	PINS	Operational	NA	31														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Burbo Bank Offshore Windfarm	1	PINS	Operational	NA	33														
North Hoyle Offshore Windfarm	1	PINS	Operational	NA	36														
Rhyl Flats Offshore Windfarm	1	PINS	Operational	NA	40														
Mooir Vannin Offshore Wind Farm	2	Project website (https://orst ed.im/mooir vannin)	Pre-application stage. Scoping submitted in October 2023	Q2 2030	44														
Robin Rigg Offshore Windfarm	1	PINS	Operational	NA	101														
North Irish Sea Array Offshore Windfarm	2	Project website (https://nort hirishseaarr ay.ie/)	Submitted application for Maritime Area Consent (MAC) in 2022 and successful in Offshore Renewable Electricity Support Scheme (ORESS)-1.	Expected to be operational by 2028/2029	138														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	00	ာ	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Braymore (Setanta Wind Park) Point Offshore Windfarm	3	SSE Renewable s website (https://ww w.sserene wables.co m/braymor ewindpark/)	Pre-planning/ concept	Unknown	139														
Clogherhead (Cooley Point) Offshore Windfarm	3	Project website (https://ww w.clogherh eadwind.ie/ project- information. html)	Pre-planning/ concept	Unknown	146														
Codling Wind Park Offshore Windfarm	2	Project website (https://codli ngwindpark.i e/)	Application for MAC submitted 27 th June 2022, and successful in ORESS-1.	Construction planned to start in 2026	154														
Oriel Offshore Windfarm	2	Project website (https://ww w.orielwindf arm.ie/faq)	Pre-application stage – MAC, however not successful in ORESS-1	Unknown	155														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Dublin Array Offshore Windfarm	2	Project website (https://dubl inarray.com /)	Successful in ORESS-1.	Construction planned to start in 2026	156														
Arklow Bank Phase 2 Offshore Windfarm	1	Project website (https://ww w.sserene wables.co m/offshore- wind/projec ts/arklow- bank-wind- park/)	MAC granted in 2022 but not successful in ORESS-1.	Unknown	176														
South Irish Sea Array (Energia) Offshore Windfarm	3	Project website (https://ww w.southiris hseawind.i e/)	Pre-planning/ concept	Unknown	177														
Kilmichael Point Offshore Windfarm	3	Foreshore application s (https://ww w.gov.ie/en /collection/f 2196- foreshore-	Pre-planning/ concept	Unknown	182														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		application s-and- determinati ons/)																	
Arklow Bank Phase 1 Offshore Windfarm	1	4C Offshore	Operational	NA	186														
Shelmalere Offshore Wind Farm	2	Project website (https://shel malereoffsh orewindfar m.com/)	Early-planning – Scoping submitted in 2022	Unknown	194														
Sceirde Rocks Windfarm	2	Project website (https://ww w.sceirdero ckswindfar m.ie/)	Successful in ORESS-1.	Expected to start construction in 2026	245														
Erebus Floating Offshore Windfarm	1	Blue Gem Wind website (https://ww w.bluegem wind.com/o ur-	Application submitted in December 2021, consent granted in 2023	Construction anticipated 2025 - 2027	285														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP		Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		projects/ere bus/)																
Pembrokeshire Demonstrator Zone (Floating)	2	Developer website (https://celti cseapower. co.uk/pemb rokeshire- demonstrati on-zone/)	Scoping report submitted	Unknown	286													
Llŷr 1 and 2 (Floating OWF)	2	National Resource Wales and Project website (https://ww w.llyrwind.c om/)	Early-planning – Scoping submitted in 2022	Installation expected 2025- 2027	287													
White Cross Offshore Windfarm (demonstrator site)	1	Project website (whitecross offshorewin d.com)	Section 36 and marine licence application submitted 2023	Anticipated operational in 2027	306													
Inis Ealga Marine Energy Park	2	Project website (https://inis ealgamarin	Early-planning – Scoping submitted	Unknown	318													



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		eenergypar k.com/)																	
Rampion 2 Offshore Windfarm	1	PINS	In planning	Offshore construction to begin in 2026; operational by 2030	398														
TwinHub offshore wind demonstration project (previously Wave Hub Floating Wind)	1	Project website (https://ww w.twinhub.c o.uk/about/	Marine licence application granted in January 2022 for installation of anchors, moorings and floaters.	2023 - 2025	399														
Rampion 1 Offshore Windfarm	1	PINS	Consented in 2014	NA	403														
Trivane Demonstrator (Floating)	3	Project website (https://ww w.trivaneltd .com/)	Pre-planning/ concept	Unknown	415														
Western Star (Floating)	2	Project website (https://wes ternstarfloa	Scoping report submitted	Unknown	456														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		tingwind.co m/)																	
Saint-Brieuc	1	4C Offshore	Under construction	2023	546														
West of Orkney	2	Project website (https://ww w.westofor kney.com/)	Section 36 and Marine License application September 2023	Offshore construction planned for 2027 for 4 years	553														
EOLINK Pilot Wind Farm (Floating)	3	Project website (https://eoli nk.fr/en/)	Pre-planning/ concept	2024	610														
Marine Renewal	ble Energy Pro	ojects			1														
Holyhead Deep Phase 1 0.5MW Site (Tidal)	1	Minesto website (https://min esto.com/pr ojects/holy head-deep)	Operational	NA	83														
La Rance (Tidal)	1	EDF website (https://ww w.edf.fr/usi ne-	Operational	NA	582														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		maremotric e- rance/Prod uire%20de %20l%27% C3%A9ner gie%20ren ouvelable)																	
META Dale Road	1	Developer	Operational	These testing sites are used by	250														
META East Pickard Bay	1	website (www.meta.	Operational	developers for testing, but their operation cannot	250														
META Warrior Way (Tidal)	1	wales/faciliti es/	Operational	be foreseen at this point.	250														
St. David's Head (Tidal)	1	Tethys website (https://teth ys.pnnl.gov /organizatio n/tidal- energy-ltd)	Completed test site	NA	238														
Strangford Lough Array (Tidal)	1	The Crown Estate	Operational	NA	142														
FloWatt Tidal Pilot	2	Developer website (https://ww	Early concept/ planning	Expected in 2026	464														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	00	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		w.hydroque st.fr/en/flow att-en/)																	
Holyhead Deep 80MW (extensio n) (Tidal)	2	Developer website (https://min esto.com/h olyhead- deep/)	Consented	Unknown	83														
West Anglesey Demonstratio n Zone (Morlais) (Tidal)	2	Developer website (https://ww w.morlaise nergy.com/ consenting/	Consented in 2021	Construction 2023, expected to be operational by 2027	83														
Bardsey Sound (Ynys Enlli) Tidal Energy project	3	Developer website (https://ww w.novainno vation.com/ news/news _/i/welsh- governmen t-invests-in- the-worlds- first-blue- energy- island/?osc =true)	Withdrawn	NA	132														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Blue Eden Tidal Lagoon	3	News website (https://ww w.swanseal abour.org/n ews/blue- eden- project)	Pre-planning/ concept	Unknown	239														
Colwyn Bay Tidal Lagoon	3	Tidal Lagoon Power website (http://www .tidallagoon power.com/ projects/col wyn-bay/)	Pre-planning/ concept	Unknown	50														
DeepGreen 1/10 (Tidal)	3	N/A	Pre-planning/ concept	Unknown	36														
Duddon Estuary Tidal Lagoon	3	Northern Tidal Power Gateways (https://nort herntidalpo wergatewa ys.co.uk/)	Pre-planning/ concept	Unknown	43														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	S	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Flex Marine Swimmer Turbine Demonstratio n (Tidal)	3	Marine Scotland website	Pre-planning/ concept	Marine Licence until 31st December 2025	275														
Mersey Tidal Power	3	Ocean gateway website (https://ww w.oceangat eway.co.uk /projects/m ersey-tidal- power/)	Pre-planning/ concept	Unknown	54														
Morecambe Bay Tidal Lagoon	3	Northern Tidal Power Gateways (https://nort herntidalpo wergatewa ys.co.uk/)	Pre-planning/ concept	Unknown	40														
Mull of Galloway (Tidal)	3	The Crown Estate	Pre-planning/ concept	Unknown	114														
mWave Bombora	3	Project website	Pre-planning/ concept	Anticipated by 2025	253														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
(Wave)		(https://bo mborawave .com/mwav e/)																	
North Wales Tidal Energy Project	3	Project website (https://ww w.northwal estidalener gy.com/con cept)	Pre-planning/ concept	Unknown	49														
Pembrokeshir e Demonstrator Zone (Wave)	3	Project website (https://celti cseapower. co.uk/pemb rokeshire- demonstrati on-zone/)	Scoping reports submitted	Scoping issued to NRW in February 2023.	273														
Port of Mostyn Tidal Lagoon	3	Project website (https://ww w.portofmo styn.co.uk/ 590m-tidal- lagoon-will- create-300- jobs/)	Pre-planning/ concept	Anticipated operational in 2028	48														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Ramsey Sound (Tidal)	3	https://inter regtiger.co m/expandin g-the- marine- energy- market/dev elopment- sites-and- procureme nt/ramsey- sound/	Pre-planning/ concept	Unknown	240														
Saoirse Wave Energy	3	Project website (https://saoi rsewaveen ergy.com/)	Early Development	Anticipated construction 2028/29	410														
Solway Firth- Venturi Enhanced Turbine Technology (VETT) (Tidal)	3	Solway energy Gateway website (http://www .solwayene rgygateway .co.uk/)	Pre-planning/ concept – listed as cancelled	Unknown	125														
Strumble Head Tidal Energy Project	3	Transition Bro Gwuan website (https://tran	Pre-planning/ concept	Unknown	216														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		sitionbrogw aun.org.uk/ tidal- energy- project/)																	
Tidal Lagoon Cardiff	3	PINS	Pre application. Scoping report submitted in 2015 but no timetable set for the project. Listed as cancelled on RenewableUK	Unknown	254														
Tidal Lagoon Newport	3	N/A	Project withdrawn on 20 th April 2022.	Unknown	250														
Tidal Lagoon Swansea Bay	3	N/A	DCO was approved on the 9 th June 2015 but DCO no longer valid as of December 2022	NA	239														
WaveHub	3	https://www .cornwallisl esofscillygr owthprogra mme.org.u k/wave-	Early Development	Unknown	405														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	S	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		hub-ruling- waves/																	
West Cumbrian Tidal Lagoon	3	Tidal Lagoon Power website (http://www .tidallagoon power.com/ projects/we st- cumbria/)	Pre-planning/ concept	Unknown	123														
Aggregates		· ·																	
Area 457 Liverpool Bay Aggregate Production Area	1	The Crown Estate	Open	N/A	10														
Area 1808 Liverpool Bay Aggregate Exploration and Option Area	1	The Crown Estate	Open	N/A	26														
Area 392 Hilbre Swash Production Area	1	The Crown Estate	Open	N/A	29														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
North Bristol Deep 1601	1	The Crown Estate	Open	N/A	257														
North Bristol Deep 1602	1	The Crown Estate	Open	N/A	257														
Disposal sites																			
Gateway Gas Storage Project (IS195)	1	CEFAS	Closed	N/A	4														
Liverpool outer Disposal Site Y (IS150)	1	CEFAS	Open	N/A	17														
BHP Pipeline Route (IS149)	1	CEFAS	Closed	N/A	19														
Liverpool Bay (Sludge) B (IS071)	1	CEFAS	Closed	N/A	19														
BHP Pipeline Route (IS148)	1	CEFAS	Closed	N/A	22														
Preston (IS160)	1	CEFAS	Closed	N/A	22														
Barrow D (IS205)	1	CEFAS	Open	N/A	23														
Barrow D (IS210)	1	CEFAS	Closed	N/A	23														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	െ	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
BHP Pipeline Route (IS147)	1	CEFAS	Closed	N/A	24														
Site Z (IS140)	1	CEFAS	Open	N/A	24														
Site Z (Original area) (IS145)	1	CEFAS	Closed	N/A	25														
Barrow A (IS180)	1	CEFAS	Closed	N/A	27														
Morecambe Bay: Lune Deep (IS170)	1	CEFAS	Open	N/A	30														
Formby & Taylors Point (IS132)	1	CEFAS	Closed	N/A	32														
Fleetwood Channel (IS171)	1	CEFAS	Closed	N/A	34														
Morecambe Bay B (IS200)	1	CEFAS	Open	N/A	35														
River Wyre Estuary (IS175)	1	CEFAS	Closed	N/A	35														
East Lytham (IS163)	1	CEFAS	Open	N/A	36														
Dee Estuary (IS100)	1	CEFAS	Closed	N/A	45														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWO	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Lune River (IS190)	1	CEFAS	Closed	N/A	45														
Lune River B (IS192)	1	CEFAS	Open	N/A	45														
Mostyn Deep (IS101)	1	CEFAS	Open	N/A	45														
Mostyn Deep (Maintenance) (IS102)	1	CEFAS	Open	N/A	45														
Ribble Link (IS164)	1	CEFAS	Closed	N/A	46														
Savick Brook (IS165)	1	CEFAS	Closed	N/A	46														
Wallasey (IS130)	1	CEFAS	Closed	N/A	46														
Glasson Dock (IS191)	1	CEFAS	Closed	N/A	47														
Mersey (Mid- River Site) (IS120)	1	CEFAS	Open	N/A	47														
Point Of Ayr Foreshore (IS095)	1	CEFAS	Closed	N/A	47														
Bramley Moore Dock (IS115)	1	CEFAS	Closed	N/A	49														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Mersey (Mid- River 2) (IS190)	1	CEFAS	Closed	N/A	49														
Nelson Dock (IS116)	1	CEFAS	Closed	N/A	49														
Conwy Bay (F)	1	CEFAS	Closed	N/A	50														
Oil & Gas Platfo	orms, Pipeline	s & Storage																	
South Morecambe DP3 (Platform)	1	OPRED	Decommissioned	2019 – 2023	0														
Carbon Capture Storage Area (EIS Area 1) and Morecambe Net Zero Cluster Project	3	NSTA	Area within which licences were awarded in 2023, including to Spirit Energy for the Morecambe Net Zero Cluster (Appraisal Licence CS010, 2023)	Unknown	0														
Calder CA1 platform and South Morecambe platform hub	1	The Crown Estate, North Sea Transition Authority	Operational	Decommissionin g date unknown	1														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
complex (CPP1, DP1,FL1& AP1)																			
Gateway Gas Storage Project	3	PINS	Project on hold since 2010	Unknown	4														
South Morecambe DP4 (Platform)	1	OPRED	Decommissioned	2019 – 2023	5														
EN 1 Carbon Capture Storage Area (CCSA) (CS004) (in connection with the HyNet Project)	3	NSTA	Preplanning (Appraisal Licence awarded in 2020)	Unknown	8														
Preesall Saltfield Underground Gas Storage	1	PINS	DCO approved on 17th July 2015	Construction to be started before 2027 in line with marine licence	35														
Crogga Gas Project	3	Isle of Man publication s	Pre- planning/ concept	Planned for 2026; awaiting surveys	49														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	6	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
HyNet North West Carbon Dioxide Pipeline	1	PINS	Accepted for Examination (onshore works only at this time)	2023-2025 (onshore). Details of connected offshore works aren't detailed at this time.	63 (onshore)														
Hynet North West Hydrogen Pipeline	2	PINS	Pre application (scoping submitted 2022)	Unknown	78 (onshore)														
Keuper Gas Storage Project	1	PINS	DCO approved on 15th March 2017	Unknown	92														
Moffat to Republic of Ireland	1	N/A	Operational	NA	96														
Larne Lough (Storage)	1	Developer website (https://ww w.islandma geeenergy. com/)	Undergoing Judicial Review	Unknown	148														
Subsea Cables	& Telecommu		1																
EXA Atlantic (formerly GTT Hibernia	1	UKHO	Operational	NA	0														

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Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Atlantic) telecommunic ation cable																			
Vodafone Lanis 1 telecommunic ation cable	1	UKHO	Operational	NA	0														
Havhingsten	1	UKHO	Operational	NA	1														
Rockabill telecommunic ation cable	1	UKHO	Operational	NA	2														
Sirius South telecommunic ation cable	1	UKHO	Operational	NA	2														
Hibernia 'C' Atlantic	1	UKHO	Operational	NA	3														
ESAT 2	1	UKHO	Operational	NA	5														
Isle of Man to England Interconnector (Subsea) – cable protection replacement	1	UKHO	Operational – marine licence for cable protection works	Unknown	5														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Isle of Man Interconnector (New) (Subsea)	3	Isle of Man publication	Early concept/ planning	Planned for 2028	5														
Western HVDC Link (Subsea)	1	Developer website (Iberdrolaht tps://www.i berdrola.co m/)	Operational	NA	11														
East West Interconnector EWIC (Subsea)	1	Developer website (www.eirgri d.ie/)	Operational	NA	36														
MaresConnec t (Subsea interconnector)	3	Project website	Early planning	Planned to be operational by 2029	36														
CeltixConnect -2 (CC-2) (Subsea)	1	Developer website (https://aqu acomms.co m/our- network/cel tixconnect- 2/)	Operational	NA	83														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	00	ာ	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Greenlink Interconnector (Subsea)	1	Project website (https://ww w.greenlink .ie/)	Consented	Planned for commissioning in 2024	254														
IRIS (Subsea)	1	Developer website (https://faric e.is/categor y/iris/)	Operational	NA	346														
Celtic Interconnector (Subsea)	2	Project website (https://ww w.celticinter connector.e u/ga/)	Early concept/ planning	Construction began Q4 2023; due to be live in 2026	348														
FAB Link (Subsea interconnector)	3	Project website (https://ww w.fablink.n et/)	Early planning	Construction 2026 to be operational by 2030/31	417														
Isles of Scilly Interconnector (Subsea)	1	N/A	Operational	NA	430														
Onshore Windfa	arms																		
Brechfa Forest Connection	1	PINS	Operational	NA	204														

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Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Brechfa Forest West Wind Farm	1	PINS	Operational	NA	204														
Haverigg II and III Windfarm	1	Developer website (https://ww w.thriveren ewables.co .uk/our- projects/ha verigg-ii- wind-farm/)	Operational	NA	Over 30km (onshore)														
Heysham Port Windfarm	1	Developer website (https://ww w.greencatr enewables. co.uk/case _studies/he ysham- port- medium- wind/)	Operational	NA	Over 30km (onshore)														
Kingspan Single Turbine	1	PINS	Operational	NA	Over 30km (onshore)														
Kirkby Moor Windfarm	1	Developer website (https://ww	Operational	NA	Over 30km (onshore)														

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Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
		w.ventiente nergy.com/ our- portfolio/kir kby-moor/)																	
Pen Y Bryn Windfarm	1	PINS	Operational	NA	Over 30km (onshore)														
Port of Liverpool Windfarm	1	Developer website (https://ww w.oceangat eway.co.uk /projects/)	Operational	NA	Over 30km (onshore)														
Seaforth Windfarm	1	Developer website (https://ww w.oceangat eway.co.uk /projects/)	Operational	NA	Over 30km (onshore)														
United Utilities Fazakerly Wind Turbine	1	Developer website (https://whit epeakplann ing.co.uk/pr ojects/faza kerley- wwtw-wind- turbine/)	Operational	NA	Over 30km (onshore)														



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Clocaenog Forest Wind Farm	3	PINS	Project withdrawn 19 th April 2022	NA	76														
Mynydd y Gwynt Wind Farm	3	PINS	Project refused development consent	NA	146														
Electrical/Conne	ections																		
North Wales Wind Farms Connection	1	PINS	Operational	NA	56														
Mid Wales Electricity Connection (National Grid)	2	PINS	Suspended	Unknown	128														
SP Mid Wales (Electricity) Connections Project (SP Manweb)	2	PINS	Pre-application. Expected to be submitted to PINS in 2024/2025	Unknown	116														
North West Coast Connections Project - National Grid	3	PINS	The Applicant has formally withdrawn this project 12th May 2022.	NA	37														
Highway																			



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A556 Knutsford to Bowdon Scheme	1	PINS	Operational	NA	86														
A57 Link Roads (previously known as Trans Pennine Upgrade Programme)	1	PINS	DCO approved 16th November 2022	2025 - 2030	104														
A585 Windy Harbour to Skippool Improvement Scheme	1	PINS	DCO approved on the 9th April 2020	2022 - 2023	36														
A66 Northern Trans- Pennine Project	1	PINS	In Planning	2024-2025	113														
Heysham to M6 Link Road	1	PINS	Operational	NA	53														
A5036 Port of Liverpool Access Scheme	2	PINS	Pre-application. Timetable not been set	Unknown	44														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 8 MSWQ	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
M60/M62/M66 Simister Island	2	PINS	Pre application is expected to be submitted 2023/2024	2024 – 2026	85														
Other																			
Hillhouse Enterprise Zone Power Station	3	N/A	Project has been withdrawn 14th April 2022	NA	32														
Abergelli Power	1	PINS	DCO approved on 19th September 2019	Unknown	230														
Glyn Rhonwy Pumped Storage	1	PINS	DCO approved on 8th March 2017	Unknown	78														
Hirwaun Power Station	1	PINS	DCO approved on 23rd July 2015	Planned by October 2024	22														
Internal Power Generation Enhancement for Port Talbot Steelworks	1	PINS	DCO approved on 8th December 2015	Unknown	243														
South Hook Combined Heat & Power Station	1	PINS	DCO was approved on the 23rd October 2014	Unknown	248														



Project	Tier (PINS)	Data source	Stage of development (at the time of assessment)	Construction (or decomm- issioning where relevant) period	Distance to the Project (approximate) (km)	Ch 7 MGOPP	Ch 9 Benthic Ecology	Ch 10 Fish and Shellfish	Ch 11 Marine Mammals	Ch 12 Offshore Ornithology	Ch 13 Commercial	Ch 14 Shipping &	Ch 15 MACH	Ch 16 CMAR	Ch 17 IOU	Ch 18 SLVIA	Ch 19 Human Health	Ch 20 SETR
Wrexham Energy Centre	1	PINS	DCO was approved on the 18 July 2017	Planned by 2024	88													
Moorside Project in West Cumbria	3	PINS	The Applicant has formally withdrawn this project.	NA	64													
Whitemoss Landfill Western Extension	1	PINS	DCO was approved on the 21 st May 2015.	NA	52													
Hydrodec Oil Re-Refinery Eastham	3	PINS	Unknown – in pre application stage in 2015	Unknown	61													
Hillhouse Waster Water Treatment Works Onshore Wind Cluster	1	PINS	Operational	NA	Over 30km (onshore)													
Simonswood Industrial Estate	1	PINS	Operational	NA	Over 30km (onshore)													



3 References

IEMA (2022). Institute of Environmental Management & Assessment (IEMA) Guide: Assessing Greenhouse Gas Emissions and Evaluating their Significance.

PINS (2019). Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects