Morecambe Offshore Windfarm: Generation Assets

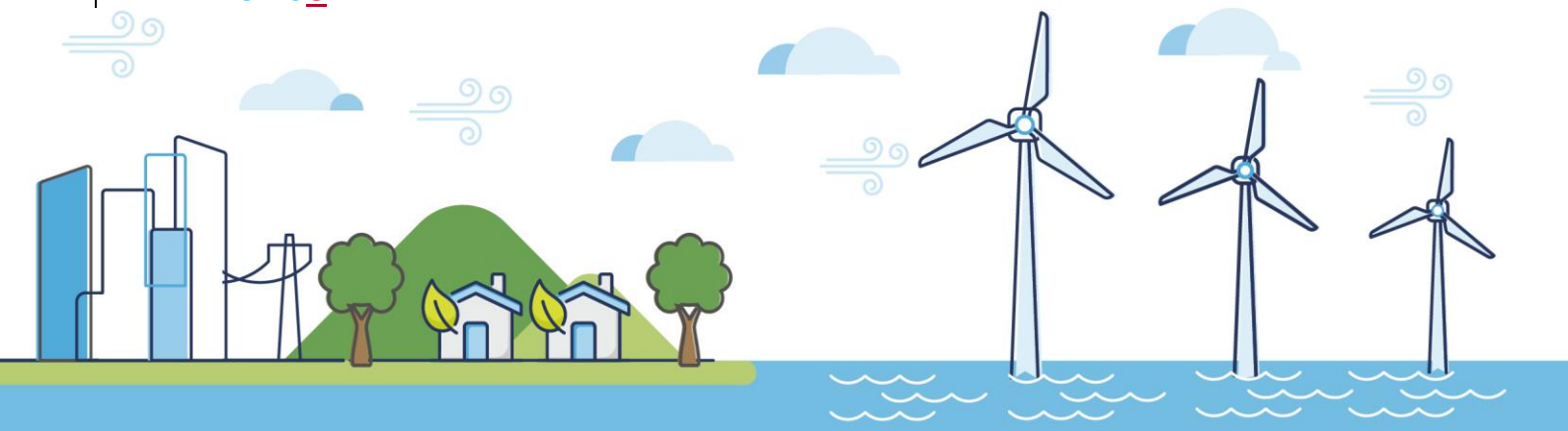
Examination Documents

Volume 9

Report on Interrelationships with Other Infrastructure Projects (Tracked)

Document Reference: 9.20.1

Rev 032



Document History

Doc No	MOR001-FLO-CON-ENV-RPT-0157	**Rev**	03~~2~~
Alt Doc No	PC1165-RHD-EX-XX-RP-Z-0001		
Document Status	Approved for Use	**Doc Date**	~~18 February 2025~~15 April 2025
PINS Doc Ref	9.20.1	**APFP Ref**	n/a

Rev	Date	Doc Status	Originator	Reviewer	Approver	Modifications
01	26 November 2024	Approved for Use	Royal HaskoningDHV	Infrastructure Matters / Morecambe Offshore Windfarm Ltd	Morecambe Offshore Windfarm Ltd	n/a
02	18 February 2025	Approved for Use	Royal HaskoningDHV	Infrastructure Matters / Morecambe Offshore Windfarm Ltd	Morecambe Offshore Windfarm Ltd	Updates for Deadline 4 as requested in the Rule 6 letter
03	15 April 2025	Approved for Use	Royal HaskoningDHV	Infrastructure Matters / Morecambe Offshore Windfarm Ltd	Morecambe Offshore Windfarm Ltd	Final version submitted at Deadline 6

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Glossary of Acronyms

CEA	Cumulative Effects Assessment
CRNRA	Cumulative Regional Navigational Risk Assessment
DCO	Development Consent Order
DDV	Drop Down Video
EIA	Environmental Impact Assessment
EPP	Evidence Plan Process
ES	Environmental Statement
ESO	Electricity System Operator
ETG	Expert Topic Group
EWG	Expert Working Group
ExA	Examining Authority
GVA	Gross Value Added
HNDR	Holistic Network Design Review
HRA	Habitats Regulations Assessment
IoM	Isle of Man
ISAA	Information to Support Appropriate Assessment
MGN	Marine Guidance Note
MIC	Maritime Infrastructure Consent
MNEF	Marine Navigation Engagement Forum
NPS	National Policy Statements
OSPs	Offshore Substation Platform
OTNR	Offshore Transmission Network Review
PEIR	Preliminary Environmental Information Report
PSA	Particle Size Analysis
RIAA	Report to Inform Appropriate Assessment
RR	Relevant Representation
SNCBs	Statutory Nature Conservation Bodies'
SoCC	Statement of Community Consultation
TBC	To Be Confirmed
UK	United Kingdom
UWSMS	Underwater Sound Management Strategy
WTGs	Wind Turbine Generator

Glossary of Units

GW	Gigawatt
km^2	square kilometre
MW	Megawatt

Glossary of Terminology

Applicant	Morecambe Offshore Windfarm Ltd
Agreement for Lease (AfL)	Agreements under which seabed rights are awarded following the completion of The Crown Estate tender process.
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA) for certain topics. The EPP provides a mechanism to agree the information required to be submitted to the Planning Inspectorate as part of the Development Consent Order (DCO) application. This function of the EPP helps Applicants to provide sufficient information in their application, so that the Examining Authority (ExA) can recommend to the Secretary of State whether or not to accept the application for examination and whether an appropriate assessment is required.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
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).
Other infrastructure projects	The offshore windfarm projects detailed in Appendix D of the Rule 6 Letter (PD-007).
Inter-array cables	Cables which link the WTGs to each other and the OSP(s).
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The Transmission Assets for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. Also referred to in this report as the Transmission Assets, for ease of reading.
Offshore substation platform(s)	A fixed structure located within the windfarm site, containing electrical equipment to aggregate the power from the WTGs and convert it into a more suitable form for export to shore.
Platform link cable	An electrical cable which links one or more OSP(s).
Steering Group	The Applicant and key stakeholders responsible for overseeing the EPP.
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables will be present.

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1 Introduction

1.1 Background

1. On 23 September 2024, the Examining Authority (ExA) published the Rule 6 (PD-007) letter regarding the Examination of the Morecambe Offshore Windfarm Generation Assets ('the Project').

2. The Rule 6 letter sets out a requirement for Morecambe Offshore Windfarm Ltd ('the Applicant') to prepare a report on the interrelationships with other infrastructure projects. This requirement is in recognition of the number of other infrastructure projects within and around the Irish Sea and in England, Wales and the Isle of Man (IoM) waters, which ~~are~~ were either consented, in examination ~~or~~, pre-examination~~,~~ or pre-application (at the time of the Project Application submission). The other infrastructure projects listed in the Rule 6 letter are detailed in **Table 1.1**, along with their status, ownership and consenting regime.

Table 1.1 Other infrastructure projects listed in Rule 6 letter

Project name	Status (at Deadline ~~1~~6)	Ownership	Consenting regime
Awel y Môr Offshore Wind Farm	Consented	RWE Renewables UK	Development Consent Order (DCO) (UK Secretary of State for Business, Energy and Industrial Strategy)
Mona Offshore Wind Project	~~Examination~~Recommendation	bp Alternative Energy Investments and Energie Baden-Württemberg AG	
Morgan Offshore Wind Project: Generation Assets	Recommendation~~Examination~~		
Morgan and Morecambe Offshore Wind Farms: Transmission Assets (hereafter referred to as the 'Transmission Assets')	Pre-Examination~~Accepted for Examination~~	bp Alternative Energy Investments and Energie Baden-Württemberg AG and Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company), and Flotation Energy Ltd. (Flotation Energy)	
Mooir Vannin Offshore Wind Farm	Pre-~~submission~~acceptance - Application submitted (not yet known if it is accepted)	Orsted A/S	Maritime Infrastructure Consent (MIC)

3. The order limits of the Project, together with those for the other infrastructure projects, including the array areas, cables routes and onshore grid connections are shown in **Figure 1.1**.

4. The ExA has noted that there are a number of overlapping issues associated with these projects, and the importance of considering effects of the Project with other offshore windfarms and associated grid connection projects. The ExA has also recognised the potential for the information available on these other infrastructure projects to change during Examination.

5. In preparing this report, the Applicant defines 'interrelationship' as the 'way in which two or more things or people are connected and can affect each other'.

6. The approach to coordination between the Project and the other infrastructure projects listed above is set out and evidenced in this report where appropriate. The Applicant is delivering a coordinated grid connection with Morgan Offshore Wind Limited, in line with National Policy Statements (NPS) EN-1, EN-3 and EN-5, with coordination carried out with other relevant projects as far as reasonably practicable and appropriate given the varying project timelines. A coordinated approach to stakeholder consultation was undertaken with the Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets, and the Transmission Assets projects at the outset and continued throughout the pre-application phase. Where appropriate, key survey data has been shared between the relevant projects to strengthen the individual environmental baselines, and where site-specific surveys have been carried out, these have followed standard practice and ensure that the evidence base upon which to carry out the assessments is similar. Alignment calls have also been undertaken with technical experts as required with these projects.

7. Since the Application submission date of the Project on 31 May 2024, and the associated cut off date for Cumulative Effects Assessment (CEA) (Q4 2023), the following interrelated projects have changed in status (e.g. progressed from pre-submission to Examination) and/or additional information has been made available (status at the Project Deadline 6 ~~1~~):

   - Mona Offshore Wind Project – PEIR information used within the Project CEA. The Mona DCO Application and ES are now available, as well as material submitted into examination
   - Morgan Offshore Wind Project: Generation Assets – PEIR information used within the Project CEA. The Morgan DCO Application and ES are now submitted and available, as well as material submitted into examination.

- Transmission Assets – PEIR information used within the Project CEA. The Transmission Assets DCO Application and ES are now submitted and available
- Mooir Vannin Offshore Wind Farm – Scoping information used within the Project CEA. Mooir Vannin consultation and initial environmental information are now available. The project is now in the pre-acceptance phase, however no ES information is within the public domain. This is expected to remain so until Mooir Vannin is accepted for examination.

8. To address the change in status since the submission of the Application, the Applicant has undertaken a sensitivity review of its CEA and in-combination assessment to establish whether the conclusions of the CEA in the Environmental Statement (ES) and in-combination assessments in the Report to Inform Appropriate Assessment (RIAA) remain current and robust. The outputs of the sensitivity review have been fed into this consideration of interrelationships with other infrastructure projects report where relevant (**Section 1**).

9. The Applicant is satisfied that the coordination carried out as detailed in this report is sufficient to ensure a robust evidence base upon which to establish and determine each application, and goes beyond that typically undertaken for proximate offshore wind projects.

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480000 482000 444000 426000 408000 390000

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Mooir Vannin Offshore Wind Farm

Morgan Offshore Wind Project Generation Assets

Mona Offshore Wind Project

Awel y Môr

RAMSEY DOUGLAS KENDAL MILLOM ULVERSTON GRANGE-OVER-SANDS DALTON-IN-FURNESS BARROW-IN-FURNESS CARNFORTH MORECAMBE HEYSHAM LANCASTER FLEETWOOD THORNTON POULTON-LE-FYLDE BLACKPOOL KIRKHAM FULWOOD PRESTON LYTHAM ST ANNE'S BAMBER BRIDGE LEYLAND SOUTHPORT STANDISH ORMSKIRK FORMBY SKELMERSDALE ORRELL MAGHULL RAINFORD BILLINGE KIRKBY LITHERLAND HAYDOCK BOOTLE ST HELENS WALLASEY PRESCOT LIVERPOOL HOYLAKE BIRKENHEAD WIDNES RUNCORN BEBINGTON Garston Speke HESWALL NESTON ELLESMERE PORT FRODSHAM PRESTATYN RHYL ABERGELE COLWYN BAY CONWY LLANDUDNO AMLWCH BEAUMARIS PENMAENMAWR HOLYWELL

MORECAMBE BAY LIVERPOOL BAY

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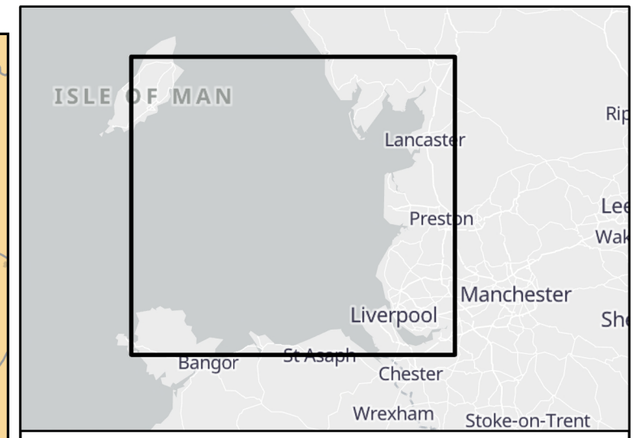

Legend:

- Morecambe Offshore Windfarm Site
- Morgan and Morecambe Offshore Wind Farms: Transmission Assets (In Planning)

Windfarm status

- In Planning
- Concept / Early planning
- Consented

Report:
Morecambe Offshore Windfarm: Generation Assets

Title:
Interrelationship with Other Infrastructure Projects

Figure: 1.1 | Drawing No: PC1165-RHD-EX-OF-DG-Z-0172

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
P01	17/10/2024	SM	GLD	A3	1:450,000
P02	15/11/2024	SM	SR	A3	1:450,000

Co-ordinate system: WGS 1984 UTM Zone 30N

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1.2 Structure of this report

10. The content of this report includes the matters set out within Appendix G of the Rule 6 letter (PD-007), and is structured as follows:

- Introduction (including a figure showing the order limits for the Project and the other infrastructure projects and the locations of the main features of each)
- An overview of the Project and the other infrastructure projects, including the timings for:
  - Submission (or current Examination)
  - Construction phasing
  - Grid connection
  - Expected start of operation
- The approach taken by the Applicant to coordinate the Project with the other infrastructure projects, including during Examination
- Any provisions in the DCO required for the Project to be implemented satisfactorily in relation to other infrastructure projects
- Key survey data shared with other infrastructure projects
- Mitigation measures shared with other infrastructure projects, and how they are to be secured
- An overview of the relationship between the Project and the Transmission Assets
- A summary of direct, indirect, secondary and cumulative impacts with the Transmission Assets project, and any potential conditions or requirements (with reference to Annex 1 of Natural England's Relevant Representation (RR) (RR-061))
- A summary of any other information on the other infrastructure projects relied on for the CEA, the level of detail, and any changes since the application was prepared for submission, including a summary of any changes
- A summary of progress of coordination with the other infrastructure projects, setting out the matters that have been agreed, any inconsistencies or outstanding matters, and the next steps

1.3 Report revisions

11. The initial version of this report was submitted for Deadline 1 (26 November 2024) (REP1-077), with further updates of the report submitted at Deadline 4 (18 February 2025) and the final report at ~~due for submission at~~ Deadline 6 (15 April 2025).

2 Overview of the Project timeframes in relation to other infrastructure projects

12. This section provides an overview of the development timeframes for the Project and the other infrastructure projects as follows:

- **Table 2.1** provides the timeframes for consenting, including dates for submission and Examination (where relevant)
- **Table 2.2** provides the timeframes for construction, grid connection and expected start of operation

13. The projects are listed in ascending date order in terms of the consenting process. Further information relating to operational offshore windfarm projects within 50km of the Project is provided within Response to Actions arising from Preliminary Meeting and Issue Specific Hearing 1 (Document Reference 9.28).

14. The Awel y Môr Offshore Wind Farm project was leased under The Crown Estate extension projects and is an extension to Gwynt y Môr Offshore Wind Farm. The Awel y Môr Offshore Wind Farm project DCO application was consented in September 2023 and their full ES and RIAA were available at the time the CEA for the Project was undertaken. There has since been a correction order issued by the SoS for the Awel y Môr Wind Farm Order 2023, however, these were minor typographical and formatting changes with no significant changes to the project design or DCO.

15. The Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets, and the Transmission Assets are all leased under The Crown Estate Round 4 Offshore Windfarm leasing round. All three were accepted for Examination~~,~~. The Transmission Assets project is in pre-Examination and the Examination process is complete for ~~T~~the Mona Offshore Wind Project and Morgan Offshore Wind Project Generation Assets which are both in the recommendation phase. ~~applications have been submitted to the Planning Inspectorate and accepted for Examination, with the Examination in progress for Morgan Generation and the Examination process complete for the Mona project. The Transmission Assets application was submitted on 21 October 2024 and accepted for Examination on the 18 November 2024, with the project in the pre-examination phase.~~

~~16.~~ Mooir Vannin Offshore Wind Farm is located in IoM Territorial Waters and is being taken forward as the first application in IoM Territorial Waters. Mooir Vannin Offshore Wind Farm is currently in the pre-application stage (see detail below), with only the Scoping Report and early stage environmental information (pre-Environmental Impact Assessment (EIA)) publicly available. The developer of the Mooir Vannin Offshore Wind Farm will be required to

apply to the Isle of Man Government in due course for a Marine Infrastructure Consent (MIC). The Isle of Man Government (Territorial Sea Committee) has stated through the Morgan Generation examination (see Morgan Generation examination reference REP3-033) that it is continuing to prepare the necessary legislation and requirements to support the consideration of an application in respect of offshore renewable energy generation. It is understood that Mooir Vannin Offshore Wind Farm Limited ~~has stated its aspiration to~~ submitted their planning application on ~~in~~ 12 March 2025 (https://orsted.im/mooirvannin) with a target of receiving consent approximately 18 months after submission (see Morgan Generation examination library REP3-041). At the time of Deadline 6, the application does not appear to have been accepted by the Isle of Man Government (or, if it has, application documents are not yet in the public domain). ~~-~~ The Applicant also understands that a separate consent for the Mooir Vannin transmission infrastructure (the 'East Irish Sea Transmission Project'), located within English waters, is in early-stage development. It is noted that there is no information in the public domain for this project except for a Section 35 Direction application that was granted on 24 October 2024. It is considered given the timescale of Mooir Vannin, and associated Transmission infrastructure, these projects would consider the Project in their cumulative assessments.

~~17.~~16. ~~The status of these other infrastructure projects identified by the ExA will be kept under review during the Examination and a final update provided in revisions to this document at Deadline 6 (15 April 2025).~~

Table 2.1 Project status and consenting timeframes

Project	Status (Deadline 6)	Date Preliminary Environmental Report (PEIR) issued	Application submitted	Application accepted for Examination	Date of commencement of Examination	Date of Examination close	Consent decision
Awel y Môr Offshore Wind Farm	Consented	August 2021	20 April 2022	18 May 2024	20 September 2022	20 March 2023	Consent granted on 20 September 2023
Mona Offshore Wind Project	Examination closed and in Recommendation phase	19 April 2023	22 February 2024	27 March 2024	16 July 2024	16 January 2025	Expected July 2025**
Morgan Offshore Wind Project: Generation Assets	Examination closed and in Recommendation phaseExamination	19 April 2023	24 April 2024	17 May 2024	10 September 2024	10 March 2025	Expected September 2025**
The Project	Examination	19 April 2023	31 May 2024	27 June 2024	23 October 2024	23 April 2025	Expected October 2025**
Transmission Assets	Accepted for Pre-Examination	12 October 2023	21 October 2024	18 November 2024	TBC29 April 2025	29 October 2025TBC	TBC
Mooir Vannin Offshore Wind Farm and Mooir Vannin East Irish Sea	Pre-submissionacceptance	N/A - but pre EIA consultation materials made available in August 2024*	12 March 2025***TBC*	N/A *	N/A *	N/A *	TBC*

Project	Status (Deadline 6)	Date Preliminary Environmental Report (PEIR) issued	Application submitted	Application accepted for Examination	Date of commencement of Examination	Date of Examination close	Consent decision
Transmission Project							

**Note that Mooir Vannin Offshore Wind Farm is being consented under the IoM jurisdiction via a different process Marine Infrastructure Consent (MIC)*

*** Assuming the statutory 6 month timescale from the close of examination*

**** Stated on Orsted's Mooir Vannin website: https://orsted.im/mooirvannin*

Table 2.2 Indicative project construction and operation programmes

Project	Status (Deadline 6)	Indicative construction phase	Grid connection date	Expected start date of operation	Data source
Awel y Môr Offshore Wind Farm	Consented	2026 to 2029	2027 2028*	2030	6.2.1 ES Volume 2 - Chapter 1 - Offshore Project Description (APP-047) https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010112/EN010112-000187-6.2.1_AyM_ES_Volume2_Chapter1_OffshorePD_vFinal.pdf National Grid, 2024
Mona Offshore Wind Project	~~Examination~~Recommendation	2026 to 2030	2029	2030	F1.3 Environmental Statement - Volume 1, Chapter 3: Project Description (APP-050) https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010137/EN010137-000496-F1.3_Mona_ES_Project%20Description.pdf National Grid, 2024
Morgan Offshore Wind Project:	Recommendation ~~Examination~~	2026 to 2030	2029	2030	F1.3 Environmental Statement - Volume 1, Chapter 3 Project Description (APP-010)

Project	Status (Deadline 6)	Indicative construction phase	Grid connection date	Expected start date of operation	Data source
Generation Assets					https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010136/EN010136-000145-F1.3_Morgan_Gen_ES_Project%20description.pdf National Grid, 2024
The Project	Examination	2026 to 2029	2029	2030	5.1.5 Volume 5 - Chapter 5 - Project Description (APP-042) https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010121/EN010121-000235-5.1.5%20Chapter%205%20Project%20Description.pdf National Grid, 2024
Transmission Assets	Pre-eExamination	Construction commencement in 2026	2029	2030	Morgan and Morecambe Offshore Wind Farms: Transmission Assets – Preliminary Environmental Information Report. Volume 1, Chapter 3: Project Description https://bp-mmt.s3.eu-west-2.amazonaws.com/transmission/PEIR/Volume+1/Transmission+Assets+PEIR+Vol+1+Chapter+3.pdf National Grid, 2024
Mooir Vannin Offshore Wind Farm	Pre-submissionacceptance	2030 to 2032	TBC	2033	Mooir Vannin Offshore Wind Farm Project Description https://orstedcdn.azureedge.net/-/media/www/docs/corp/uk/im/consultation-documents-150724/environmental-materials/mvw01-project-descriptionpei-materials-08782828a-1.pdf?rev=f2ba19e6edc44ba39a9ac6e0fbfe05fd&hash=557AC872FE4B5A298D7EC8895A38B0AD Ørsted (2024)

**Grid connection in two phases*

3 Approach taken by the Applicant to coordinate the Project with other infrastructure projects

~~18.~~17. This section details the coordination approach taken by the Applicant to coordinate the Project with projects that were expected to progress at the same stage (Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets, and the Transmission Assets), including:

- Alignment meetings
- Coordinated consultation
- Coordinated approach to offshore ornithology gap-filling of historical projects and technical specialists meetings

~~19.~~18. The coordination approach is summarised in **Table 3.1**.

Table 3.1 Summary of approach taken to coordinate with other infrastructure projects

Coordination activity	The Project	Mona Offshore Wind Project	Morgan Offshore Wind Project: Generation Assets	Transmission Assets
Alignment meetings (and Environmental Impact Information (EIA) and Habitats Regulations Assessment (HRA) technical specialists meetings)	✓	✓	✓	✓
Coordinated consultation	✓	✓	✓	✓
Cumulative Regional Navigational Risk Assessment (CRNRA)	✓	✓	✓	✓
Offshore ornithology CEA and in-combination	✓	✓	✓	N/A

Coordination activity	The Project	Mona Offshore Wind Project	Morgan Offshore Wind Project: Generation Assets	Transmission Assets
gap filling of historical projects				

~~20.~~19. The Awel y Môr Offshore Wind Farm was included in the CEA for the Project where relevant (where a pathway of effects was identified). A Cumulative Regional Navigational Risk Assessment (CRNRA) was undertaken by the Round 4 Irish Sea Projects and this was extended well beyond the typical 10 nautical mile study area and included the Awel y Môr Offshore Wind Farm. Specific coordination with the Awel y Môr Offshore Wind Farm was not required as Awel y Môr Offshore Wind Farm was consented in September 2023 and was therefore considered in line with the methodology for the CEA (as outlined in Chapter 6 EIA Methodology (APP-043)).

~~21.~~20. Ørsted (in regards to the Mooir Vannin Offshore Wind Farm as well as other operational projects in the Irish Sea) were consulted during the pre-application process for the Project, including through the Section 42 statutory consultation process and through the Marine Navigation Engagement Forum (MNEF) (see **Section 3.2.4**). Mooir Vannin Offshore Wind Farm was also included in the CRNRA. Specific coordination with the Mooir Vannin Offshore Wind Farm was not carried out due to the different project timescales associated with the project (Mooir Vannin Offshore Wind Farm has submitted their planning application on 12 March 2025, but it has not yet been accepted and no materials are available online at the time of writing at Deadline 6)~~is currently in the early stages of the pre-application process)~~. The Mooir Vannin Wind Farm was considered in line with the methodology for the CEA (as outlined in Chapter 6 EIA Methodology (APP-043)). The Applicant relies on information avilable on the public domain, but has ~~continues to~~ engaged with Ørsted through the Examination process, including through responding to Relevant Representations and Interested Party submissions.

3.1 Alignment meetings

~~22.~~21. As noted in Chapter 1 Introduction of the ES (APP-038), Morecambe Offshore Windfarm has been scoped into the Pathways to 2030 workstream, under the Offshore Transmission Network Review (OTNR). Under the OTNR, the National Grid Electricity System Operator (ESO) was responsible for conducting a Holistic Network Design Review (HNDR) to assess options to improve the coordination of offshore wind generation connections and

transmission networks. In July 2022, the United Kingdom (UK) Government published the Pathway to 2030 Holistic Network Design documents, which set out the approach to connecting 50 Gigawatts (GW) of offshore wind to the UK electricity network (National Grid ESO, 2022). The output of this process concluded that the Morecambe Offshore Windfarm and the Morgan Offshore Wind Project should work collaboratively in connecting the windfarms to the National Grid at Penwortham in Lancashire. The Applicant was involved in this process and supports this decision and is collaborating on the Morgan and Morecambe Offshore Windfarms: Transmission Assets project which is a separate DCO application.

~~23.~~22. Outside of the direct collaboration on the Transmission Assets project, due to the coordinated grid connection, collaboration between the Project team and the Transmission project team has been undertaken as required. The Transmission team were involved in the production of Chapter 23 of the ES where the effects of the Morecambe Offshore Windfarm as a whole (generation and transmission) were summarised. The Applicant has held regular alignment meetings with Morgan Offshore Wind Limited throughout the pre-application phase, and this has continued into the Examination phase. The alignment meetings ensure exchange of key information including project timelines and alignment of approach where required.

~~24.~~23. In addition, the Applicant has held regular alignment meetings collectively with the Morgan Offshore Wind Project: Generation Assets, Mona Offshore Wind Project, and the Morgan and Morecambe Transmission Assets teams throughout the pre-application phase, and this ~~has~~ continued into the Examination phase. Fortnightly alignment meetings ~~have~~ included dicussion on key themes as well as the establishment of technical topic meetings where required. This approach ~~has~~ facilitated discussion on approach in terms of assessment methodologies and mitigation, feedback from consultation as well as key issues raised during the Examination phase for each project.

3.2 Coordinated consultation and engagement

3.2.1 Non-statutory consultations

~~25.~~24. Non-statutory consultation was carried out simultaneously between the Project, Morgan Offshore Wind Project: Generation Assets, and Morgan and Morecambe Offshore Windfarms: Transmission Assets to introduce the projects to stakeholders along the coast of northwest England, north Wales and the IoM. Non-statutory consultation commenced with a written communication to stakeholders on 2 November 2022 and ended on 13 December 2022. This early communication was positioned as a broad introduction, establishing the Applicants for the first time and opening a line of communication (Consultation Report (~~APP-015~~REP1-002)). This was

followed up with project updates to planning officers and lead members of local authorities across northwest England.

~~26.~~25. To ensure early engagement with communities, the Applicant carried out non-statutory consultation alongside the Morgan Offshore Wind Project: Generation Assets and Transmission Assets, where search areas for the offshore transmission infrastructure, the onshore cable routes and substations were presented for the projects (Consultation Report (~~APP-015~~REP1-002)).

~~27.~~26. Whilst the Project and Morgan Offshore Wind Project (bp/EnBW) had their own project websites (www.morecambeoffshorewind.com and www.enbwbp.com/morgan-and-mona, respectively), for ease of access, the projects created a joint website (www.morecambeandmorgan.com) to support this non-statutory consultation and host consultation materials. The new website was launched on 2 November 2022 at the launch of non-statutory consultation (see Consultation Report (~~APP-015~~REP1-002) for further information).

3.2.2 Statutory consultations

~~28.~~27. The Applicant chose to hold their statutory consultations concurrently and collaboratively from 19 April to 4 June 2023 with the Morgan Offshore Wind Project: Generation Assets and the Mona Offshore Wind Project to reduce consultation fatigue and minimise potential confusion among stakeholders and communities. This also allowed stakeholders and communities to provide feedback to all projects at the same time. As a result, the decision was made to carry out specific combined activities and create specific combined materials (see Consultation Report (~~APP-015~~REP1-002) for more information), where appropriate. Additionally, the second non-statutory consultation for the Transmission Assets also took place at the same time.

~~29.~~28. The Project, Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets and the Transmission Assets projects combined certain promotional materials and activities for publicising their consultations on the IoM. Specifically, the projects decided to create postcards promoting the consultation and joint consultation events, a single poster that was distributed to display locations and also to share online, print and Google advertising space.

~~30.~~29. In addition, joint consultation events were also held as appropraite in the IoM, as well as North Wales and the North West of England to help increase participation in the consultations. This approach enabled visitors to the joint events to find out about, and provide feedback in relation to all projects during a single visit.

~~31.~~30. Each project published its own Statement of Community Consultation (SoCC) (for the statutory consultations), consultation brochure, feedback forms and exhibition displays. A summary of consultation methods, locations, joint exhibitions and projects represented is provided within the Consultation Report Appendices (Part 1 – 4 (APP-016 - APP-019)).

~~32.~~31. Despite this joint consultation, the three offshore windfarms remain separate projects, which are each the subject of their own DCO applications.

3.2.3 Evidence Plan Process

~~33.~~32. The Evidence Plan Process (EPP) is a voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the EIA and HRA for certain topics.

~~34.~~33. As part of the EPP, Expert Topic Groups (ETGs) were established to discuss topic-specific issues with relevant stakeholders. ETG meetings have been held regularly throughout the process since 20 May 2022 to provide the opportunity for stakeholders to give feedback and advice to inform the EIAs and HRA processes, as well as site selection, and Project development and refinement. The process has been iterative, and each group has worked through the discussion points and to reach agreement, as far as possible, during the pre-application phase.

~~35.~~34. As noted in **Section 1.1**, the Applicant intends to deliver a coordinated grid connection with the Morgan Offshore Wind Project and is, together with the Applicant for the Morgan Offshore Wind Project, submitting a separate DCO application for the Transmission Assets for both projects. As such, a separate EPP process was established for the Transmission Assets. Participants, as relevant, have been involved in both processes, or only relevant EPPs.

~~36.~~35. Separate EPP processes were also undertaken for the Morgan Offshore Wind Project: Generation Assets and Mona Offshore Wind Project, however key outputs of the EPP formed discussions in the alignment meetings, as highlighted above, with these projects.

3.2.4 Marine Navigation Engagement Forum (MNEF)

~~37.~~36. The Applicant has also participated in the MNEF which was established in 2021 to enable the Irish Sea Round 4 offshore windfarm developers to regularly update stakeholders on development plans and progress of the Project, the Mona Offshore Wind Project, the Morgan Offshore Wind Project: Generation Assets, and the Transmission Assets. The MNEF also provided stakeholders with a forum to express views or concern on the impacts of the projects for discussion.

~~38.~~37. The Project, alongside the Mona Offshore Wind Project and the Morgan Offshore Wind Project: Generation Assets have each secured the continuation of the MNEF for a minimum of 5 years in the operational phase (as per the Outline Vessel Traffic Management Plan (~~REP3-047~~REP5a-031).

3.3 Coordinated assessments

3.3.1 Cumulative Regional Navigational Risk Assessment

~~39.~~38. A CRNRA was produced in collaboration between the developers of the Project, the Morgan Offshore Wind Project: Generation Assets, the Mona Offshore Wind Project and the Transmission Assets. The objective of the CRNRA was to enable stakeholders to engage with and understand the potential cumulative effects of the four proposed projects. A regional (collaborative) approach to the assessment (with the same CRNRA submitted by each project) was adopted to enable individual projects to quantify and manage the cumulative impacts in a coordinated, consistent and efficient manner. This assessment dovetails with the individual NRAs undertaken for each of the four offshore windfarm projects. The NRA for the Project is available in ~~APP-073~~REP3-028 and the CRNRA is available in APP-074.

3.3.2 Offshore ornithology CEA and in-combination gap-filling of historical projects

~~40.~~39. A key aspect of the CEA for the Project was the approach to assess impacts from historic offshore wind projects for which quantitative analyses were not undertaken at the time of the assessment and/or consent of those historic projects. During the Section 42 consultation, Natural England and NRW(A) did not consider it appropriate to base the cumulative (and hence also in-combination) assessments on many 'unknowns' for impacts from many of the historical offshore wind projects (see Table 12.1 of Chapter 12 Offshore Ornithology Rev 04 (~~APP-049~~~~REF~~Document Reference 5.1.12)). Specifically, Natural England stated that "*the cumulative (and in-combination) assessments do not factor in impacts from a number of other projects due to a lack of data. Unknown impacts have been treated as zero, which will inevitably underestimate impacts, potentially significantly. A qualitative assessment is mentioned for consideration of some projects, but this process is not detailed, or the results fully presented. Natural England consider this approach to be unacceptable, and hence consider it inappropriate to comment on the potential significance of cumulative (or in-combination) presented in the PEIR submission*". This request was made in order to further facilitate the Statutory Nature Conservation Bodies' (SNCBs) understanding of the total quantitative cumulative and in-combination impact for offshore ornithology.

~~41.~~40. The Applicant, Morgan Offshore Wind Limited and Mona Offshore Wind Limited worked collaboratively on the development of the methodology for this exercise. The methodology used to generate indicative numbers for currently unquantified impacts from historical projects accords with that recommended by the SNCBs.

~~42.~~41. Two technical notes (~~one for the EIA~~Offshore Ornithology Technical Note 1 (EIA) Rev 02 (REP3-056) ~~and one for the RIAA, (~~Offshore Ornithology Technical Note 2 (HRA) Rev 02 (REP3-058~~Document References 9.22 and 9.23, respectively~~) quantifying the impacts from historical offshore windfarm projects for the Project were submitted into Examination at Deadline 1 on 26 November 2024 (and updated at Deadline 3). This was undertaken following a review of the similar information provided by both the Morgan and Mona projects (the technical note quantifying the impacts from historical offshore wind projects for the Mona Offshore Wind Project was submitted into the Mona Offshore Wind Project Examination at Deadline 3 on 30 September 2024 (REP3-044), with the technical note for the Morgan Offshore Wind Project: Generation Assets following on 3 October 2024 at Deadline 1 (REP1-010)). Given progression and discussion on the technical detail with Natural England and Natural Resources Wales and updates made during the Mona and Morgan examinations, further updates were~~are~~ made and ~~will be~~ incorporated by the Project in the RIAA at Deadline 4 (~~Document Reference 4.9~~REP4-009) (with final submission at Deadline 5A, REP5a-009), and the Ornithology ES chapter at Deadline 5 (REP5-014~~Document Reference 5.1.12~~), with final version submitted at Deadline 6 (Document Reference 5.1.12.1).

3.3.3 Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA)

~~43.~~42. Assessments were undertaken by technical leads at RoyalHaskoningDHV and their specalist sub-contractors. As discussed above, alignment sessions as required were held with the equivalent specialists leading the Morgan Offshore Wind Project: Generation Assets, Mona Offshore Wind Project, and the Transmission Assets. This included discussing methodologies, assessment findings and consultation feedback. Assessments for each project are unique due to the specific receptors and pathways of impacts, however alignment calls were undertaken to allow appreciation of the assessments for each project and in particular the findings of the cumulative and in-combination assessments. Key topics that required technical dicussions included ornithology, marine mammals, physical processes, fish and shellfish ecology and climate change. Meetings were held as required at key junctures including-Preliminary Environmental Impact Report (PEIR), post-statutory consultation and pre-application submission.

4 Any provisions in the DCO requirement for the Project to be implemented satisfactorily in relation to other infrastructure projects

~~44.~~43. The draft DCO for the Project does not include any specific provisions that link it to other infrastructure projects within the Irish Sea. The Applicant considers that to do so could cause an impediment to delivery of each infrastructure project. An example of a potential impendiment is that one project may be successful in a Contract for Difference auction and another not. Having legal obligations within the DCO for coordination of the projects would then impede delivery of the project that had been successful in the auction. There may be opportunities for coordination between the Project and the other infrastructure projects during construction and in the delivery of mitigation measures. It is in the interest of the Applicant to explore such coordination for efficiency reasons, but ultimately the timescales for delivery of the different projects could vary.

~~45.~~44. Whilst there are no specific provisions within the draft DCO that link the other infrastructure projects within the Irish Sea to one another, there are mitigation measures proposed by the Applicant as part of the Project that will ensure that it is implemented satisfactorily in relation to the other infrastructure projects (see **Section 6**).

4.1 Morgan and Morecambe Offshore Wind Farms: Transmission Assets

~~46.~~45. The scope of the DCO applications and draft DCOs for the Project and the Transmission Assets do not contain any shared infrastructure. There is therefore no ‘overlap’ in the infrastructure that would be authorised by each consent that needs to be regulated between the two DCOs. The Applicant notes that this is a change from the position within the PEIR and the statutory consultation for the Transmission Assets, where the OSPs and platform link cables were included as proposed development in the PEIR materials for both projects. The OSPs and platform link cables are now solely proposed in the Project’s (Morecambe Offshore Windfarm Generation Assets) application, as set out in draft DCO Schedule 1, Works No. 2 (~~PD1-002, PD1-003~~ REP5a-003). This change from the PEIR was communicated via the Transmission Assets project to relevant technical stakeholders during Expert Working Groups (EWGs) and other engagement. There were no changes to the EIA or RIAA conclusions as a result of this change.

5 Key survey data shared with other infrastructure projects

~~47.~~46. The Order Limits for the Project overlap those for the Transmission Assets. **Table 5.1** summarises the key survey data shared between the Project and the Transmission Assets.

~~48.~~47. The Applicant notes that the Project and each of the other infrastructure projects are separate projects subject to their own independent EIA, HRA and application process. Each application is expected to adhere to the guidance issued by the relevant statutory authorities in terms of site-specific surveys required to inform the assessment. As such, survey data will necessarily be site-specific, due to the need to carry out surveys within a defined area and over a defined time period in order to meet guidance.

~~49.~~48. The survey data collected for each of the Round 4 projects in the Irish Sea is summarised in **Appendix A**, based on detail presented within in the respective applications. This demonstrates that each project has been informed by a similar level of site-specific survey data.

Table 5.1 Survey data shared between the Project and the Transmission Assets

Title	Extent of survey	Overview of survey	Survey contractor	Date	Reference
Geophysical survey	Morecambe Offshore Windfarm: Generation Assets	Geophysical survey to establish bathymetry, seabed sediment and identify seabed features	MMT	2021	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 1: Physical Processes. Morecambe Offshore Windfarm Ltd (2024) ES Volume 5 - Chapter 7 - Marine Geology, Oceanography and Physical Processes.
Grab sample survey		Grab sampling to determine sediment type and particle size	Ocean Ecology Ltd	2022	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 1: Physical Processes. Morecambe Offshore Windfarm Ltd (2024) ES Volume 5 - Chapter 7 - Marine Geology, Oceanography and Physical Processes.
Benthic characterisation survey		Particle Size Analysis (PSA), macrofaunal sampling, Drop Down Video (DDV), contaminant sampling			Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 2: Benthic subtidal and intertidal ecology. Morecambe Offshore Windfarm Ltd (2024) ES Volume 5 - Chapter 9 - Benthic Ecology.
Aerial surveys	Morecambe Offshore Windfarm: Generation Assets	High resolution aerial digital still imagery for marine megafauna	HiDef Aerial Surveying Limited	Surveys were conducted over 24 months	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 4: Marine Mammals.

Title	Extent of survey	Overview of survey	Survey contractor	Date	Reference
	plus 4-10 km buffer			between March 2021 and February 2023.	Morecambe Offshore Windfarm Ltd (2024) ES - Volume 5 - Chapter 11 - Marine Mammals.
	Morecambe Offshore Windfarm: Generation Assets plus 4-10 km buffer	High resolution aerial video imagery for ornithology			Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 5: Offshore Ornithology. Morecambe Offshore Windfarm Ltd (2024) ES - Volume 5 - Chapter 12 - Offshore Ornithology.
Vessel Traffic Surveys	Morecambe Offshore Windfarm: Generation Assets, plus a 10 nm buffer.	A summary of fishing vessels identified during vessel traffic surveys (winter and summer).	NASH Maritime	09 to 26 February 2022 and 30 July to 13 August 2022 (a 14-day period each).	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 6: Commercial Fisheries. Morecambe Offshore Windfarm Ltd (2024) ES - Volume 5 - Chapter 13 - Commercial Fisheries.
	Morecambe Offshore Windfarm: Generation Assets, plus a 10 nm buffer	Vessel traffic surveys undertaken in line with Marine Guidance Note (MGN) 654 requirements.			Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) PEIR, Volume 2, Chapter 7: Shipping and Navigation. Morecambe Offshore Windfarm Ltd (2024) ES - Volume 5 - Chapter 14 - Shipping and Navigation.

6 Mitigation measures shared with other infrastructure projects and how they are to be secured

~~50.~~49. Whilst it is expected that broadly similar mitigation measures will be in place for the Project and the other infrastructure projects relevant to this report, as is standard for offshore wind developments, there is no specific mitigation that is shared with the other infrastructure projects and secured across the consents. Mitigation measures will be secured and delivered for each separate other infrastructure project under their respective consents. There may be opportunity to collaborate on the delivery of mitigation measures post consent.

~~51.~~50. Examples of similar mitigation are noted below, noting these are not joint mitigations and there is no requirement for mitigation or monitoring to be linked in the projects DCOs:

- The Project has made the commitment to undertake commercial fisheries monitoring, and to consider the need for a commercial fisheries working group. The Morgan Offshore Wind Project: Generation Assets and Mona Offshore Wind projects have also separately made this commitment. While these measures are secured separately for each project (as part of separate Fisheries Liaison and Co-existence Plans), there may be opportunities to collaborate on information sharing and discussion of key issues with commercial fisheries stakeholders and other developers in the region. As a result the Project, alongside the Mona and Morgan projects have each committed to monitoring for 5 years post construction.
- The CRNRA describes industry standard risk controls that would be present for the other infrastructure projects to individually manage their impacts on navigation. Where applicable, these risk controls will be secured within the respective individual other infrastructure projects' DCOs (see Section 3.2 of Appendix 14.2 CRNRA (APP-074)).

7 Transmission Assets

7.1 Overview of the relationship between Generation and Transmission Assets and approach to avoidance of stranded assets

~~52.~~51. The Applicant has submitted a standalone DCO Application to consent the construction, operations and maintenance, and decommissioning of the Generation Assets of the Morecambe Offshore Windfarm and a separate application to consent the construction, operations and maintenance and decommissioning of the Transmission Assets required to enable the export of electricity from both the Project and Morgan Offshore Wind Project: Generation Assets to the National Grid connection point at Penwortham. The Project (Generation Assets) comprise of the Wind Turbine Generators (WTGs), inter array cables, Offshore Substation Platforms (OSPs) and platform link cables. The Transmission Assets consist of the export cables, landfall, onshore cables and onshore substations for both the Morecambe project and the Morgan project.

~~53.~~52. NPS EN-1, EN-3 and EN-5 recognise this approach, with it stated in Section 4.11.3 of EN-1 that: “To support the achievement of the transition to net zero, government is accelerating the coordination of the development of the grid network to facilitate the UK’s net zero energy generation development and transmission.”, within Section 2.8.38 of EN-3 that: “As part of the transition to more co-ordinated transmission, it is anticipated that some proposals for transmission could be consented separately to those for the windfarm (array) application.” and within Section 2.12.8 of EN-5 that: “As part of the transition to a more coordinated approach, it is anticipated that some proposals for transmission may be consented separately to those for the windfarm (array) application.”

~~54.~~53. As set out in the Applicant’s response to Natural England’s RR (PD1-011) regarding stranded assets, the Applicant would not construct the offshore windfarm array without certainty that it will be able to export electricity to the UK grid. It is the Applicant’s position that Natural England’s suggestion that the Project could be constructed and become a stranded asset is unrealistic.

7.2 Summary of direct, indirect, secondary and cumulative impacts with the Transmission Assets Project

~~55.~~54. In addition to a cumulative assessment (considering the Generation and Transmission asets only) provided in each chapter of the ES, and as part of the in-combination assessment in the RIAA (which considered the effects of the Project and Transmission Assets together) the Applicant submitted a

summary of the effects with the Transmission Assets with the DCO Application. This is set out in Chapter 23 of the ES and titled “Summary: Generation and Transmission Assets Assessment” (~~APP-142~~REP1-042), and should be read in conjunction with this Report. Chapter 23 of the ES provides analysis of all impacts from the Project and Transmission Assets and includes standalone effects that do not interact with the Project (because there is no impact connectivity) to present the full list of impacts assessed for both the Project and Transmission Assets. The purpose of this assessment was to give an overview of all aspects of the Morecambe Offshore Windfarm.

~~56.~~55. As such the summary of the effects with the Transmission Assets has not been reprovided in this Report because it is already provided in the DCO Application.

8 Cumulative and in-combination impacts of the Project with other infrastructure projects

~~57.~~56. The cumulative assessment undertaken for the Project considered two scenarios:

- Scenario 1: The Project plus the Transmission Assets
- Scenario 2: The Project plus the Transmission Assets alongside all other projects, plans and activities. This assessment was allocated into ‘tiers’ in accordance with the PINS guidance on Cumulative Effects Assessment from September 2024, reflecting the current stage of the other projects, plans and activities within the planning and development process. This tiered approach was adopted to provide a clear assessment of the Project and Morgan and Morecambe Offshore Wind Farms: Transmission Assets alongside other projects, plans and activities, including (where relevant to each receptor pathway) the other infrastructure projects as noted below:
  - Awel y Môr Offshore Wind Farm
  - Mona Offshore Wind Project
  - Morgan Offshore Wind Project: Generation Assets
  - Morgan and Morecambe Offshore Wind Farms: Transmission Assets
  - Mooir Vannin Offshore Wind Farm

~~58.~~57. To allow for the required detailed assessment a cut-off date for the status of projects within the cumulative assessment was Q4 2023 (as stated in the CEA

appendix, APP-061). This approach is in accordance with the PINS guidance on Cumulative Effects Assessment from September 2024.

~~59.~~58. The sections below reviews any changes to the other infrastructure projects to ensure the validity of the CEA. This review updates the cut-off date to reflect any new information in relation to the other infrastructure projects since the cut-off.

8.1 Summary of information relied on for the cumulative effects assessment and any changes since submission, including a summary of any changes

~~60.~~59. **Table 8.1** summarises the information relied on in the Project CEA and in-combination assessment in relation to the other infrastructure projects relevant to this report, including reference to relevant documents and what level of detail was available at the time of writing the assessment. The level of detail is defined as follows for the purposes of this report:

- High: full application available with detailed ES
- Medium: detailed draft ES available (i.e PEIR)
- Low: Scoping report or initial (pre-EIA) consultation materials available

~~61.~~60. **Table 8.2** sets out any changes to this information since submission including a reference to this information.

~~62.~~61. The Applicant has subsequently undertaken a review based on updated information available (where identified in **Table 8.2**) to identify if the other infrastructure projects could result in a change to the conclusions of the CEA and in-combination assessments presented in DCO Application. **Table 8.3** sets out a screening of the Project's CEA and in-combination assessment, to establish whether the conclusions of the CEA and in-combination assessments remain current and robust and if there is the potential for a change to the outcomes of the assessments made in the DCO Application.

~~63.~~62. As shown in **Table 8.3** and **Section 7.1.1** there is no potential for new cumulative effects to arise or to material increase for each of the topics considered. The conclusions of the Project's CEA and in-combination assessments therefore remain unchanged and are considered to remain current and robust.

Table 8.1 Information relied on for the Project's CEA and in-combination assessment

Project	Status at Application (time of writing)	Reference	Level of detail
Awel y Môr Offshore Wind Farm	Consented - ES available	RWE Renewables UK (2022) Awel y Môr Offshore Wind Farm, DCO Application, April 2022.	High
Mona Offshore Wind Project	Pre-submission - PEIR and draft Information to Support Appropriate Assessment (ISAA) available	Mona Offshore Wind Limited (2023) Mona Offshore Wind Project PEIR and ISAA	Medium
Morgan Offshore Wind Project: Generation Assets	Pre-submission - PEIR and draft ISAA available	Mona Offshore Wind Limited (2023) Morgan Offshore Wind Project Generation Assets PEIR and ISAA	Medium
Mooir Vannin Offshore Wind Farm	Pre-submission - Scoping report available	Mooir Vannin Offshore Wind Farm Limited (2023) Mooir Vannin Offshore Wind Farm, Scoping Report, 2023	Low
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	Pre-submission - PEIR and draft ISAA available	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2023) Morgan and Morecambe Offshore Wind Farms: Transmission Assets, PEIR and ISAA	Medium

Table 8.2 Updated information available in the public domain at Deadline ~~1~~6

Project	Status (Deadline ~~16~~)	Reference	Level of detail	Summary of changes	Sensitivity review required?
Awel y Môr Offshore Wind Farm	Consented - ES available	N/A	N/A	N/A	No – no change in status
Mona Offshore Wind Project	Recommendation stage (examination closed) ES and final ISAA available	Mona Offshore Wind Limited. (2024) Mona Offshore Wind Project DCO Application	High (change from Medium)	CEA Tier updated from Tier 2 to Tier 1 The following key changes were made: ▪ Reduction in site area ▪ Increased the rotor diameter of the largest wind turbine from 280m to 320m ▪ Removed the option of using monopile foundations ▪ Reduced the maximum number of turbines from 107 to 96 ▪ Increased turbine spacing	Yes (see **Table 8.3**)
Morgan Offshore Wind Project: Generation Assets	Recommendation stage (examination closed) ES and final ISAA available~~Application submitted – Examination stage~~ ~~ES and final ISAA available~~	Morgan Offshore Wind Limited (2024) Morgan Offshore Wind Project Generation Assets DCO Application	High (change from Medium)	CEA Tier updated from Tier 2 to Tier 1 The following key changes were made: ▪ Reduction in site area ▪ Increased the rotor diameter of the largest wind turbine from 280m to 320m	Yes (see **Table 8.3**)

Project	Status (Deadline ~~1~~6)	Reference	Level of detail	Summary of changes	Sensitivity review required?
				▪ Removed the option of using monopile foundations ▪ Reduced the maximum number of turbines from 107 to 96 ▪ Increased turbine spacing	
Mooir Vannin Offshore Wind Farm	Consultation materials published on 15 July 2024	Mooir Vannin Offshore Wind Farm Limited (2024) Consultation materials	Low	CEA Tier 2 remains The following key changes were made: ▪ Removal of gravity based foundations ▪ Penwortham selected for UK grid connection point ▪ Refinement of some parameters	No – Level of detail available remains Low
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	Pre-e~~E~~xamination stage ES and final ISAA available	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) Morgan and Morecambe Offshore Wind Farms: Transmission Assets, DCO Application	High (change from Medium)	CEA Tier updated from Tier 2 to Tier 1 The following key changes were made: ▪ Removal of Morgan booster stations ▪ Removal of offshore substations	Yes (see **Table 8.3**)

Table 8.3 Sensitivity test for the Project

Project	Potential for material change in cumulative and in-combination assessment conclusions															
	Marine Geology, Oceanography and Physical Processes	Marine Sediment and Water Quality	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Commercial Fisheries	Shipping and Navigation	- Marine Archaeology and Cultural Heritage	Civil and Military Aviation and Radar	- Infrastructure and Other Users	- Seascape, Landscape and Visual Impact Assessment	Human Health	Socio-economics, Tourism and Recreation	Climate Change	Traffic and Transport
Mona Offshore Wind Project	No (b)	No (b)	No (b)	No (b)	Yes (a)	Yes (a)	Yes (a)	No (c)	No (b)	No (b)	No (b)	Yes (a)	No (b)	No (b)	No (b)	No (b)
Morgan Offshore Wind Project: Generation Assets	No (b)	No (b)	No (b)	No (b)	Yes (a)	Yes (a)	Yes (a)	No (c)	No (b)	No (b)	No (b)	Yes (a)	No (b)	No (b)	No (b)	No (b)

Project	Potential for material change in cumulative and in-combination assessment conclusions															
	Marine Geology, Oceanography and Physical Processes	Marine Sediment and Water Quality	Benthic Ecology	Fish and Shellfish Ecology	Marine Mammals	Offshore Ornithology	Commercial Fisheries	Shipping and Navigation	- Marine Archaeology and Cultural Heritage	Civil and Military Aviation and Radar	- Infrastructure and Other Users	- Seascape, Landscape and Visual Impact Assessment	Human Health	Socio-economics, Tourism and Recreation	Climate Change	Traffic and Transport
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)	No (d)

a) See **Section 7.1**

b) Data sources used in PEIR reflect information used in the DCO Application. Updated project information does not result in the potential for a material change to cumulative or in-combination effects previously assessed

c) A CRNRA was undertaken, which adopted a regional (co-ordinated) approach to assessment for the Project, Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets and the Transmission Assets projects, which considered the site boundaries used in the Morecambe, Morgan and Mona DCO submissions.

d) See **Table 8.4**

8.1.1 Review of the Project's CEA and in-combination assessment

~~64.~~63. As identified in **Table 8.2**, the other infrastucture projects with new information available at a greater level of detail are the Mona Offshore Wind Project and Morgan Offshore Wind Project: Generation Assets as well as the Transmission Assets. For all of these projects, the ES and final ISAA are publically available. For the majority of topics, as shown in **Table 8.3,** the updated information does not have the potential for a change to the Project's assessment conclusions. Topics identified where there is the potential for a change in the assessment outcomes are commercial fisheries, marine mammals, ornithology, and seascape, landscape and visual impact assessment, which are considered further below.

8.1.1.1 Commercial Fisheries

~~65.~~64. The CEA for the Project identified significant effects on commercial fisheries, when considering the Project with all plans and projects included in the CEA. This assessment did not include evolved mitigation measures as provided in the DCO applications for the Mona Offshore Wind Project and Morgan Offshore Wind Project: Generation Assets, however given these measures are not agreed and may be subject to ongoing discussion with stakeholders as part of the ~~examination process and~~ recommendation phases for these projects, no updates to the assessment are considered to be required, given the assessment is suitably precautionary. The conclusions of the Project's CEA therefore remain unchanged and are considered to remain current and robust.

8.1.1.2 Marine Mammals

~~66.~~65. The number of animals disturbed by the Mona Offshore Wind Project and the Morgan Offshore Wind Project: Generation Assets has changed between the PEIR and draft ISAA, and the ES and final ISAA. It is also noted that the need for a booster station for the Morgan Offshore Wind Project: Generation Assets has been removed and the offshore OSPs are also not part of the Transmission Assets infrastructure (removed from the Transmission Assets DCO application). To account for the change in disturbed animals, updated population modelling reflecting the ES values for the Mona, Morgan and Morecambe projects have been presented by the Mona and Morgan projects during Examination (Mona Examination reference: REP3-058, Morgan Examination reference: REP2-022).

~~67.~~66. The results presented in examination for Mona and Morgan (REP3-058 and REP2-022) showed that whilst more animals were disturbed, this does not give rise to increased population level impacts or change the level of significance. The results of all the population modelling for the Mona Offshore

Wind and Morgan Offshore Wind Project: Generation Assets are in alignment and as such no updates are considered to be required for the Project CEA, noting that no conclusions have been altered for the Mona Offshore Wind and Morgan Offshore Wind Project: Generation Assets projects.

~~68.~~67. It is noted that in the RR made by Natural England (RR-061), the Applicant has provided detail of the results using all assessment methods in addition to population modelling for noise effects. For some species and methods potentially significant cumulative effects were identified, which would remain considering updated disturbance values from other infrastructure projects. However, as discussed above, population modelling has been carried out across the Project (where no significant effects are identified), Morgan Offshore Wind Project: Generation Assets and Mona Offshore Wind Project which considers the long-term trajectory of the population. Following the representation made by Natural Resource Wales (REP1-100) at Deadline 1, further information was also provided at Deadline 3 by the Applicant in relation to cumulative effects (REP3-060 and REP3-062).

~~69.~~68. Furthermore, as detailed in **Section 6**, the Applicant has committed (as have Mona Offshore Wind Limited and Morgan Offshore Wind Limited) to a UWSMS which will take into account the final Project design and the final Marine Mammal Mitigation Protocol alongside more definitive piling timelines for cumulative projects at the time of construction). This will reduce the magnitude of impact from the Project-alone such that any significant effect will be reduced to a non-significant level, which consequently contributes to reducing the Project's contribution to potential cumulative impacts within the region. The commitment to providing an UWSMS is recorded within the Commitments Register (~~Document Reference 9.31~~REP5a-040).

~~70.~~69. The conclusions of the Project's CEA and in-combination assessments therefore remain unchanged and are considered to remain current and robust. It is noted that the Transmission Assets have removed from their Application the requirement for piling, and this ~~has been~~was reflected in the Marine Mammals Chapter (~~Document Reference 5.1.11~~REP4-011) and RIAA (~~Document Reference 4.9~~REP4-009) for Deadline 4 within the combined Assessment for the Project and Transmission Assets. The wider cumulative assessment remains unchanged to remain precautionary given the uncertain timelines associated with a number of plans, projects and activities across the cunulative screning area.

8.1.1.3 Ornithology

~~71.~~70. Given the updates to the CEA and in-combination assessments for the Mona Offshore Wind and Morgan Offshore Wind Project: Generation Assets projects within the respective DCO applications, and updates made through the examination process to date, the latest publicly available datasets have been

incorporated into the following Technical Notes being submitted at Deadline 1 on 26 November 2024:

- Offshore Ornithology Technical Note 1 (EIA) (Document Reference 9.22) which contains an update to the CEA
- Offshore Ornithology Technical Note 2 (HRA) (Document Reference 9.23) which contains an update to the in-combination assessment

~~72.~~71. The updated assessments do not present changes to the conclusions made by the Project. The CEA undertaken (as part of the EIA) remains significant for Great black backed gull, and no in-combination adverse effects on site integriity have been identified (as part of the RIAA).

~~73.~~72. Further updates from the Applicant were provided at Deadline 3 to the EIA and HRA techical notes (REP3-056 and REP3-058) in response to comments provided by NRW(A) at Deadline 1 (REP1-100).

~~74.~~73. The conclusions of the Project's CEA and in-combination assessments therefore remain unchanged and are considered to remain current and robust. However, given the CEA gap filling exercise was completed across the Round 4 Irish Sea projects, the Ornithology Chapter (Document Reference 5.1.12) ~~will be~~was updated at Deadline 5 (REP5-014), and the RIAA at Deadline 4 (~~Document Reference 4.9~~REP4-009) to align values across the projects as far as possible.

8.1.1.4 Seascape, Landscape and Visual Impact Assessment

~~75.~~74. Significant Project-alone effects have been identified for the Project from a limited area and number of receptors along the closest coastline (Fylde coast, between Fleetwood, Blackpool and Lytham St Anne's), but cumulative effects are not considered to be materially elevated beyond Project-alone effects. This is due to the greater distances of Mona Offshore Wind Project and Morgan Offshore Wind Project: Generation Assets projects from the coast, such that the effect would most frequently be a Project-alone effect resulting the Project at slightly closer ranger (rather than a cumulative effect with the more distance Mona and Morgan projects).

~~76.~~75. It is noted that the changes identified in **Table 8.2** include an increase in the tip height for the Mona Offshore Wind and Morgan Offshore Wind Project: Generation Assets projects. Given the distances of the Mona Offshore Wind and Morgan Offshore Wind: Generation Assets to shore, the increase in tip height does not alter the conclusions of these assessments and also does not impact the findings of the CEA for the Project. It is also noted the spatial spread of the Morgan Offshore Wind Project and Morgan Offshore Wind Project: Generation Assets have been reduced given the reduction in site boundaries between the PEIR and ES stages. It is also noted that the need

for booster stations for the Morgan Offshore Wind Project: Generation Assets, which would have been in visible range similar to that of the Projects OSPs (and would have contributed to some limited additional cumulative effects with the Project) have been removed from the Transmission Assets DCO application. These changes do not give rise to a different conclusion.

~~77.~~76. The conclusions of the Project's CEA and in-combination assessments therefore remain unchanged and are considered to remain current and robust.

8.2 Summary of any changes to impacts with the Transmission Assets

~~78.~~77. This section provides a summary of any changes to effects in relation to the Transmission Assets.

~~79.~~78. The Applicant provided a scenario as part of the CEA and in-combination assessments where the Generation and Transmission Assets were considered together. The Applicant also submitted a summary (Chapter 23, ~~APP-060~~REP1-042) of the overall effects of the Transmission Assets infrastructure as part of the DCO Application.

~~80.~~79. Since the DCO Application submission of the Project on 31 May 2024, the DCO Application for the Transmission Assets was submitted in October 2024 and was accepted into examination on 18 November 2024. Therefore, **Table 8.4** provides a summary of whether there has been any changes to the Transmission Assets assessments from PEIR to ES and from draft ISAA to final ISAA, and therefore any changes to the Projects CEA and Chapter 23 Summary: Generation and Transmission Assets Assessment (~~APP-060~~REP1-042).

~~81.~~80. As identifed in **Table 8.4,** the Project's CEA and in-combination assessments remain unchanged and are considered to remain current and robust. At Deadline 4 further detail has been added to **Table 8.4**. As shown in **Table 8.4**, the updated information presented in the Transmission Assets DCO application does not result in the potential for a change to a cumulative effect previously assessed, or additional cumulative effects. This also aligns with the information provided by the Morgan Generation project (see Morgan Generation examination library reference REP4-024).

Table 8.4 Sensitivity review for the Transmission Assets

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
Physical processes and sediment and water quality*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively (with all plans and projects) taking into account mitigation measures	Any changes between PEIR and the DCO Application are minor with no impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables) and reduced various parameters (e.g. sandwave clearance and cable protection). As a result, the magnitude of the potential cumulative impacts on physical processes will be the same as, or less than, that assessed in the Morecambe Generation Assets CEA.
Benthic subtidal and intertidal ecology*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant for Transmission Assets alone or cumulatively with Morcambe Generation. One significant cumulative effect has been identified with other plans and projects. This relates to the Morgan Offshore Wind Project, in relation to temporary habitat disturbance/loss. The significance of this cumulative effect is predicted to decrease in the long term as the sediments and associated benthic communities will	Any changes between PEIR and the DCO Application are minor with no impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables) and reduced various parameters (e.g. sandwave clearance and cable protection). As

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		recover over time. In the longer term, no significant cumulative effects are predicted upon subtidal and intertidal benthic ecology.	a result, the magnitude of the potential cumulative impacts on benthic subtidal ecology is likely to be the same as, or less than, that assessed in the Morecambe Generation Assets CEA.
Fish and shellfish ecology*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively (with all plans and projects) taking into account mitigation measures	Any changes between PEIR and the DCO Application are minor with no impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables, meaning no piling is required) and reduced various project parameters (e.g. sandwave clearance and cable protection). As a result, the magnitude of the potential cumulative impacts on fish and shellfish ecology receptors is likely to be the same as, or less than, that assessed within the Morecambe Generation Assets CEA.
Marine mammals*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	A single significant effect has been identified for harbour porpoise only for the Transmission Assets Project and cumulatively. This relates to the potential injury and disturbance from	It is noted that moderate adverse effects in relation to UXO clearence would be mitigated post consent. The updated information presents a refinement of the project design

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		elevated underwater sound during high order unexploded ordnance (UXO) clearance, where standard mitigation measures may not be sufficient to reduce the risk of injury. This is precautionary and applies only to the largest size of ordnance and where alternative clearance methods cannot be employed. The Transmission Assets' applicants will, where practically possible and safe to do so, use alternative clearance methods, such as low order techniques. Where alternative clearance methods can be employed, it is considered that there would be no significant effect on any marine mammal species.	envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables, meaning no piling is required) and reduced various parameters. As a result, the magnitude of the potential cumulative impacts on marine mammals is likely to be the same as, or less than, that assessed in the Morecambe Generation Assets CEA. It is particularly noted that piling is no longer a requirement of the Transmission Assets project, given the removal of the need for the Morgan booter stations and OSPs being removed from the project description. These changes between PEIR and the DCO Application for the Transmission Assets would not impact the overall conclusions of the CEA for the Project. The Applicant will also provide mitigation for underwater noise that will be developed post consent alongside the final design of the Project.
Offshore ornithology*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively (with all plans and	Any changes between PEIR and the DCO Application are minor with no

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		project) taking into account mitigation measures	impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables) and reduced various parameters (e.g. sandwave clearance and cable protection). Therefore, the magnitude of the potential cumulative impacts on offshore ornithology receptors is likely to be the same as, or less than, that assessed within the Morecambe Generation Assets CEA. It is noted there is no chage to collision effects which is not an impact associated with the Tansmission assets.
Commercial fisheries*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively (with all plans and projects) taking into account mitigation measures	Any changes between PEIR and the DCO Application are minor with no impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables, meaning no piling is required) and reduced

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
			various parameters. As a result, the magnitude of the potential cumulative impacts on commercial fisheries is likely to be the same as, or less than, that assessed in the Morecambe Generation Assets CEA.
Shipping and navigation*	Not significant for the Transmission Assets alone Potential significant cmulative effects were identified for: ▪ impact to commercial operators including strategic routes and lifeline ferries ▪ impact to adverse weather routeing ▪ impact on vessel to vessel collision risk ▪ impact on allision risk ▪ impact on oil and gas navigation, operations and safety	Not significant for the Transmission Assets alone or cumulatively with Morcambe Generation. Cumulative significant effects were identified with other plans and projects. For example, with Morgan Generation due to deviations to one Stena Line ferry route which would be required around the Morgan Offshore Wind Project in adverse weather.	It is noted that the booster station that were included in the Transmission Assets PEIR for the Morgan Offshore Wind Project are no longer part of the Project Description and OSPs are also not included in the Transmission Assets DCO application. Overall, no significant effects have been identified when considering the Transmission Assets and Morecambe Generation Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables, meaning no surface piercing infrastructure) and reduced various parameters. As a result, the magnitude of the potential cumulative impacts on shipping and navigation is likely to be the same as, or less than, that

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
			assessed in the Morecambe Generation Assets CEA. It is noted the removal of the booster stations also maximises the benefits made from the boundary change made by the Project etween PEIR and ES.
Marine archaeology*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively (with all plans and projects) taking into account mitigation measures	Any changes between PEIR and the DCO Application are minor with no impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables, meaning no piling is required and, meaning no surface piercing infrastructure) and reduced various parameters. As a result, the magnitude of the potential cumulative impacts on marine archaeology is likely to be the same as, or less than, that assessed in the Morecambe Generation Assets CEA.
Other sea users*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively (with all plans and	Any changes between PEIR and the DCO Application are minor with no

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		projects) taking into account mitigation measures	impact to the CEA overall conclusions for the Project. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station, OSPs and interconnector cables, meaning no surface piercing infrastructure) and reduced various parameters. As a result, the magnitude of the potential cumulative impacts on other sea users is likely to be the same as, or less than, that assessed in the Morecambe Generation Assets CEA.
Geology, hydrogeology, and ground conditions**	Not significant in EIA terms for the Transmission Assets alone or cumulatively.	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures.	There is no connectivity to the Generation Assets CEA – receptors are remote.
Hydrology and flood risk**	Not significant in EIA terms for the Transmission Assets alone or cumulatively.	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures.	There is no connectivity to the Generation Assets CEA – receptors are remote.
Onshore ecology and nature conservation**	During the construction and decommissioning phases, it is possible to have significant effects: ▪ Of temporary and permanent habitat loss on waterbirds ▪ Of disturbance on waterbirds	The only significant effect that remains is for the Transmission Assets alone and the partial loss of Mill Brook Valley Biological Heritage Site. An area has been identified as having potential for biodiversity benefit, including provision of new	There is no connectivity to the Generation Assets CEA – receptors are remote.

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		habitat and opportunities for enhancement of habitats including waterbodies, hedgerows, and grassland. This will result in some long term beneficial effects on ecology and nature conservation. No significant cumulative effects were identified for other plans and projects.	
Onshore and intertidal ornithology**	Not significant in EIA terms for the Transmission Assets alone or cumulatively.	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures.	There is no connectivity to the Generation Assets CEA – receptors are remote.
Historic environment**	Not significant in EIA terms for the Transmission Assets alone or cumulatively	There are potential significant effects on the historic environment arising from the Transmission Assets during the construction, operation and maintenance or decommissioning phases which would arise from loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest during construction. This is a precautionary assessment and further investigation will be undertaken ahead of and during construction to identify any currently unknown buried archaeology.	There is no connectivity to the Generation Assets CEA for potential direct effects to onshore receptors. In terms of terrestrial heritage assets, no cumulative effect would occur as the Transmission Assets project has not identified any terrestrial heritage assets that would also be affected by the Proposed Development, whether physically or by change to setting.

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		There are no significant effects in EIA terms cumulatively taking into account mitigation measures.	
Land use and recreation**	During the construction phase, it is possible to have Moderate Adverse effects (and significant in EIA terms). No significant effects in EIA terms have been identified for this receptor during the operation or decommissioning phases.	Taking into account the mitigation measures proposed, the following significant effects are likely to occur with respect to land use and recreation during construction: ▪ Temporary adverse effect on farm holdings during construction. ▪ Permanent adverse effect as a result of the permanent loss of best and most versatile agricultural land. Permanent adverse cumulative effect as a result of the permanent loss of Best and Most Versatile agricultural land during construction of the Transmission Assets, when the Transmission Assets is considered together with other proposed developments in the area	There is no connectivity to the Generation Assets CEA – receptors are remote.
Traffic and transport*	During the construction phase, it is possible to have significant effects: Major Adverse: ▪ On driver delays (including temporary delays to public transport services) caused by	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures.	Mitigations outlined for the Transmission Assets have reduced impacts to be not significant in EIA terms. No update to the CEA required, given the limited scope for onshore works associated with the Generation Assets.

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
	construction works or construction traffic ▪ On pedestrian amenity caused by construction works or construction traffic No changes have been identified for this receptor during the operation or decommissioning phases.		
Noise and vibration**	Not significant in EIA terms for the Transmission Assets alone or cumulatively.	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures.	There is no connectivity to the Generation Assets CEA – receptors are remote.
Air quality**	During the construction and decommissioning phases, it is possible to have potentially significant effects of vehicle emissions on human health and ecological receptors during construction and decommissioning. No changes have been identified for this receptor during the operation phase.	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures.	Mitigations outlined for the Transmission Assets have reduced impacts to be not significant in EIA terms. No update to the CEA required, given the limited scope for onshore works associated.
Seascape, landscape and visual resources*	During the construction, operation and decommissioning phases, it is possible to have significant effects for the the Transmission Assets alone.	During the construction, operation and decommissioning phases, it is possible to have significant effects for the the Transmission Assets alone and cumulatively Following mitigation, there will be no significant long term operational effects on landscape character as a result of	It is noted that the booster station that were included in the Transmission Assets PEIR for the Morgan Offshore Wind Project are no longer part of the Project Description and OSP's are also not included in the Transmission DCO application. As such effects have

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
		the Transmission Assets. The only long term significant effects on visual amenity would be sequential effects on equestrians and walkers using the linked PRoW immediately adjacent and near to the Morgan and Morecambe substation sites. It should be noted that seascape was scoped out of the Transmission Assets EIA.	reduced between ES and PEIR, however given the minor effect of these structures no changes to the Generation Assets CEA are considered to be required. No changes to the CEA required, noting the only long terms significant effects are in the immediate adjacent vicinity to the Morgan and Morecambe onshore substations
Aviation and radar*	Not significant in EIA terms for the Transmission Assets alone or cumulatively	Not significant in EIA terms for the Transmission Assets alone or cumulatively taking into account mitigation measures	No impact to the CEA, noting the separate mitigations required for Generation and Transmission Assets
Climate change*	Without mitigation there will be a significant adverse effect at the construction phase due to greenhouse gas emissions from the manufacturing and installation of the Transmission Assets. However, with the proposed Greenhouse Gas Reduction Strategy in place, there will not be a significant effect. Overall, the cumulative effect of the Transmission Assets, together with the Morgan Offshore Wind: Generation Assets Project and the Project on the global climate will be significant and beneficial as a result of the generation of renewable energy and contribution to the urgent national need for renewable energy infrastructure.		Any changes between PEIR and ES are minor with no impact to CEA overall conclusions for the Project.
Socio-economics*	During the construction phase, it is possible to have significant effects: Moderate beneficial:	Not significant in EIA terms for the Transmission Assets alone. Cumulative effects with other developments have been assessed. There will be significant beneficial	Any changes between PEIR and ES are minor with no impact to CEA overall conclusions for the Project.

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
	▪ On economic receptors including employment, GVA, and supply chain demand No significant effects in EIA terms have been identified for this receptor during the operation or decommissioning phases.	socio-economic cumulative effects during construction, operation and maintenance on economic receptors including employment and GVA.	
Human health*	No separate chapter, with human health impacts addressed in other relevant chapters above. Technical Appendix (Volume 1, Annex 5.1: Human Health).	No separate chapter, with human health impacts addressed in other relevant chapters above. Technical Appendix (Volume 1, Annex 5.1: Human Health)	The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station and OSPs). It remains the case that any potential for significant cumulative population health effects relates to influences on coastal recreation, which are likely to now be of lower magnitude than previously assessed due to the project refinements. As a result, the magnitude of the potential cumulative impacts on population health is likely to be the same as, or less than, that assessed in the Morecambe Generation Assets CEA. With regard to health determinants other than linked to coastal recreation, no cumulative effect is predicted as different population groups would be affected by the two projects.

Receptor group	Transmission Assets significance of effect PEIR	Transmission Assets significance of effect ES	Sensitivity Analysis
ISAA	No adverse effects on site integrity .	No adverse effects on site integrity.	The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station and OSPs). Any changes between draft ISAA and final ISAA are minor with no impact to overall in-combination conclusions for the Project.

**Receptors and EIA topics for Generation Assets and Transmission Assets*

*** Receptors and EIA topics for Transmission Assets only*

9 Summary of progress of coordination with other infrastructure projects

~~82.~~81. Point 5 of Appendix G of the Rule 6 letter issued to the Applicant (PD-007) requires that a summary of progress of coordination with the other infrastructure projects is set out, including the matters that have been agreed, any inconsistencies or outstanding matters, and next steps.

~~83.~~82. The approach to coordination between the Project and the other infrastructure projects is set out in **Section 3**. The Applicant is delivering a coordinated grid connection with the Morgan Offshore Wind Project: Generation Assets, in line with NPS EN-1, EN-3 and EN-5, with coordination carried out with other infrastructure projects as far as reasonably practicable and appropriate given the varying project timelines. A coordinated approach to stakeholder consultation was undertaken with the projects previously identified in this document at the outset and continued throughout the pre-application phase. Where appropriate, key survey data has been shared between the other infrastructure projects to strengthen the individual environmental baselines, and where site-specific surveys have been carried out, these have followed standard practice to ensure that the evidence base upon which to carry out the assessments is similar.

~~84.~~83. Where relevant and as detailed in this report, the EIA and HRA assessment approaches have been discussed with Mona Offshore Wind Limited and Morgan Offshore Wind Limited. This has ensured discussion on approach to baseline data, assessment methodologies, impact assessment, cumulative impact assessment, in-combination assessments and mitigation. The EIA and HRA assessments across the projects are considered to reflect the individual projects and their environments, unique consultation responces from stakeholders as well as extensive professional expertise across the projects.

~~85.~~84. To address the change in status of the Mona Offshore Wind Project, Morgan Offshore Wind Project: Generation Assets, and the Transmission Assets since the writing of the assessment and submission of the Project's Application in May 2024, a sensitivity review of the CEA and in-combination assessment has been carried out in **Section 1** to establish the conclusions of the CEA and in-combination assessments remain current and robust.

~~86.~~85. Consequently, the Applicant is satisfied that the coordination carried out is sufficient to ensure a robust evidence base upon which to establish and determine each application. The Applicant believes that the coordination evidenced goes beyond what is typically undertaken for similar offshore wind projects.

87.86. The Applicant notes that the Project and each of the other infrastructure projects are separate projects subject to an independent consenting processes and will be delivered independently. Continued coordination has been and will continued to be undertaken throughout the examination, as required, and this document presents the final versionupdated versions of this document will be provided by the Applicant at Deadline 6.

88.87. The Applicant will naturally coordinate the generation and transmission aspects of the Morecambe Offshore Windfarm, despite the separate consenting processes. Discussions with the other infrastructure projects are ongoing in regards to the longer term coordination between projects during the pre-construction and construction phases, noting that opportunities for coordination would be explored where relevant and in respect of projects timescales as these develop further.

10 References

Awel y Môr Offshore Wind Farm Limited (2022). Awel y Mor Offshore Wind Farm. Category 6: Environmental Statement. Volume 2, Chapter 1: Offshore Project Description. April 2022.

Mona Offshore Wind Ltd (2024). Mona Offshore Wind Project. Environmental Statement. Volume 1, Chapter 3: Project Description. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010137/EN010137-000496-F1.3_Mona_ES_Project%20Description.pdf

Morgan and Morecambe Offshore Wind Farms: Transmission Assets. Preliminary Environmental Information Report. Volume 1, Chapter 3: Project Description. Available at: https://bp-mmt.s3.eu-west-2.amazonaws.com/transmission/PEIR/Volume+1/Transmission+Assets+PEIR+Vol+1+Chapter+3.pdf

Morgan Offshore Wind Ltd (2024). Morgan Offshore Wind Project: Generation Assets. Environmental Statement. Volume 1, Chapter 3: Project Description. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010136/EN010136-000145-F1.3_Morgan_Gen_ES_Project%20description.pdf

National Grid ESO (2022). Pathway to 2030. A holistic network design to support offshore wind development for net zero.

National Grid (2024) TEC Register. Available: https://www.nationalgrideso.com/dataportal/transmission-entry-capacity-tec-register/tec_register. Accessed: September 2024

Ørsted (2024) Mooir Vannin Website. Available: https://orsted.im/mooirvannin. Accessed: September 2024

Appendix A: Survey Data Collected

~~89.~~88. **Table A1** to **Table A6** present the site-specific survey data collected for the Project, Mona Offshore Wind Project, Morgan Generation Assets and the Transmission Assets.

Table A1 Site-specific survey data collected for the Project and other relevant projects (Physical processes)

Project	Environmental Baseline Surveys and Habitat Assessments/ Grab Sample Survey	Geophysical survey	Metocean survey	Reference
The Project	✓	✓	Publicly available information used	ES Volume 5 - Chapter 7 - Marine Geology, Oceanography and Physical Processes (APP-044).
Mona Offshore Wind Project	✓	✓	✓	Mona Offshore Wind Ltd. (2024) Volume 2, Chapter 1: Physical Processes.
Morgan Offshore Wind Project: Generation Assets	✓	✓	✓	Morgan Offshore Wind Ltd. (2024) Volume 2, Chapter 1: Physical processes
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	✓	✓	✓	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) ES, Volume 2, Chapter 1: Physical Processes.

Table A2 Site-specific survey data collected for the Project and other relevant projects (Benthic ecology and fish and shellfish ecology)

Project	Geophysical survey	Benthic subtidal survey: Grab sample survey	Benthic subtidal survey: Drop down video	Benthic intertidal survey	Reference
Morecambe Offshore Windfarm: Generation Assets	✓	✓	✓	N/A	ES Volume 5 - Chapter 9 – Benthic ecology (APP-046). ES Volume 5 - Chapter 10 – Fish and Shellfish Ecology (APP-047).
Mona Offshore Wind Project	✓	✓	✓	✓	Mona Offshore Wind Ltd. (2024) Volume 2, Chapter 2: Benthic subtidal and intertidal ecology and Volume 2, Chapter 3: Fish and shellfish ecology.
Morgan Offshore Wind Project: Generation Assets	✓	✓	✓	N/A	Morgan Offshore Wind Ltd. (2024) Volume 2, Chapter 2: Benthic subtidal ecology and Volume 2, Chapter 3: Fish and shellfish ecology.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	✓	✓	✓	✓	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) ES, Volume 2, Chapter 2: Benthic subtidal and intertidal ecology and Volume 2, Chapter 3: Fish and shellfish ecology.

Table A3 Site-specific survey data collected for the Project and other relevant projects (Marine Mammals and offshore ornithology)

Project	Aerial Digital Surveys	Reference
The Project	✓	ES Volume 5 - Chapter 11 - Marine Mammals (APP-048). ES Volume 5 - Chapter 12 - Ornithology (APP-049).
Mona Offshore Wind Project	✓	Mona Offshore Wind Ltd. (2024) Volume 2, Chapter 4: Marine Mammals and Volume 2, Chapter 5: Offshore Ornithology.
Morgan Offshore Wind Project: Generation Assets	✓	Morgan Offshore Wind Ltd. (2024) Volume 2, Chapter 4: Marine Mammals and Volume 2, Chapter 5: Offshore Ornithology.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	Data used from Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) ES, Volume 2, Chapter 4: Marine Mammals and Volume 2, Chapter 5: Offshore Ornithology.

Table A4 Site-specific survey data collected for the Project and other relevant projects (Shipping and Navigation and Commercial Fisheries)

Project	Vessel traffic survey	Scouting survey / Offshore Fisheries Liaison Officer (OFLO) observations	Fishing season Vessel Traffic Survey	Navigation simulations	Reference
The Project	✓	✓		✓	ES Volume 5 - Chapter 13 - Commercial Fisheries (APP-050). ES Volume 5 - Chapter 14 - Shipping and navigation (APP-051).
Mona Offshore Wind Project	✓	✓		✓	Mona Offshore Wind Ltd. (2024) Volume 2, Chapter 6: Commercial Fisheries. and Volume 2, Chapter 7: Shipping and navigation.
Morgan Offshore Wind Project: Generation Assets	✓	✓	✓	✓	Morgan Offshore Wind Ltd. (2024) Volume 2, Chapter 6: Commercial Fisheries. and Volume 2, Chapter 7: Shipping and navigation.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	Data used from Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets	✓			Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) ES, Volume 2, Chapter 6: Commercial Fisheries. and Volume 2, Chapter 7: Shipping and navigation.

Table A5 Site-specific survey data collected for the Project and other relevant projects (Seascape, landscape and visual resources)

Project	SLVIA Photography	Reference
The Project	✓	ES Volume 5 - Chapter 18 - Marine Mammals (APP-055).
Mona Offshore Wind Project	✓	Mona Offshore Wind Ltd. (2024) Volume 2, Chapter 8: Seascape, Landscape and Visual Impact Assessment.
Morgan Offshore Wind Project: Generation Assets	✓	Morgan Offshore Wind Ltd. (2024) Volume 2, Chapter 8: Seascape and visual resources.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	✓	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) ES, Volume 4, Chapter 1: Seascape, landscape and visual resources.

Table A6 Site-specific survey data collected for the Project and other relevant projects (Marine archaeology)

Project	Geophysical (side scan sonar, multibeam bathymetry and sub bottom profiler)	Magnetometry	Geotechnical	Setting assessment site visits	Reference
The Project	✓	✓	✓	✓	ES Volume 5 - Chapter 15 - Marine Archaeology and Cultural Heritage (APP-052). Volume 5 - Appendix 15.3 - Settings Assessment (APP-077)
Mona Offshore Wind Project	✓	✓	✓	✓	Mona Offshore Wind Ltd. (2024) Volume 2, Chapter 8: Marine archaeology and cultural heritage. Volume 7, Annex 5.6: Settings assessment (onshore infrastructure) and Volume 7, Annex 5.7: Settings assessment (offshore infrastructure).
Morgan Offshore Wind Project: Generation Assets	✓	✓	✓	✓	Morgan Offshore Wind Ltd. (2024) Volume 2, Chapter 8: Marine archaeology and cultural heritage
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	✓	✓	✓	✓	Morgan Offshore Wind Limited and Morecambe Offshore Windfarm Limited (2024) ES, Volume 2, Chapter 8: Marine Archaeology and Volume 3, Chapter 5: Historic environment.