

# MORGAN OFFSHORE WIND PROJECT: GENERATION ASSETS

## Review of Cumulative Effects Assessment and In-Combination Assessment: Morgan and Morecambe Offshore Wind Farms: Transmission Assets

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Image of an offshore wind farm

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## Glossary

Term	Meaning
Applicant	Morgan Offshore Wind Limited.
Cumulative effects assessment	Assessment of the likely effects arising from the Morgan Generation Assets Project alongside the likely effects of other development activities in the vicinity of the Morgan Generation Assets Project.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Effect	The consequence of an impact.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment (EIA) process for the Morgan Generation Assets Project.
Impact	A change that is caused by an action.
In-combination effect	The combined effect of the Morgan Offshore Wind Project in-combination with the effects from a number of different projects on the same feature/receptor.
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects.

## Acronyms

Acronym	Description
CEA	Cumulative Effects Assessment
CRNRA	Cumulative Regional Navigational Risk Assessment
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ISAA	Information to Support an Appropriate Assessment
MU	Management Unit
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report

# 1 REVIEW OF CUMULATIVE EFFECTS ASSESSMENT AND IN-COMBINATION ASSESSMENT: MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

## 1.1 Introduction

1.1.1.1 This document forms an addendum to the Review of Cumulative Effects Assessment and In-Combination Assessment (REP2-023) submitted at Deadline 2, in order to consider the Morgan and Morecambe Offshore Wind Farms: Transmission Assets application, which was submitted to the Planning Inspectorate (21 October 2024) and accepted for Examination (18 November 2024).

1.1.1.2 To address the change in status of the Morgan and Morecambe Offshore Wind Farms: Transmission Assets, where the final application accompanied by a full Environmental Statement is now available, the Applicant has undertaken a screening review of its CEA and in-combination assessment to determine whether the updated information could change the conclusions of the assessments presented in the application.

## 1.2 Methodology

1.2.1.1 The full methodology for the CEA and in-combination assessment review is provided within REP2-023. This includes the screening process to identify projects to be taken forward in the CEA and in-combination assessment review.

1.2.1.2 A summary of the projects that updated information has become available for since Deadline 2 and that have the potential to result in a change to the Morgan Generation Assets CEA is presented in Table 1.1.

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**Table 1.1: Projects reviewed for potential cumulative effects, with status at application and Deadline 4 (D4), and programme details.**

Project	Capacity/ scale/ description	Status at application	Status at Deadline 4	Tier at D4	Construction period	Operation period	Distance to Morgan Array Area (km)
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	Transmission assets to connect the Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets to the National Grid. Key update in the final application: no sea-surface piercing infrastructure is proposed, and for the offshore infrastructure, consent is only sought for the offshore export cables.	Pre-application, Preliminary Environmental Information Report (PEIR) available.	Submitted to and accepted for Examination by the Planning Inspectorate. Application accompanied by full Environmental Statement submitted October 2024.	N/A – included in the assessment for Scenarios 1-3 (see REP2-023).	2027-2030	From 2030	0

### 1.3 Screening for the Morgan Generation Assets cumulative effects review

1.3.1.1 Table 1.3 provides the results of the screening exercise carried out to determine if the Morgan and Morecambe Offshore Wind Farms: Transmission Assets is taken forwards into the CEA review.

1.3.1.2 This screening exercise was carried out based on the level of detail available as well as the potential for interactions with the Morgan Generation Assets on a conceptual, physical and temporal basis, following the methodology set out in Volume 3, Annex 5.1 Cumulative effects screening matrix (APP-031), adapted for the CEA review, and the criteria in Table 1.2 below.

**Table 1.2: Screening criteria (based on Volume 3, Annex 5.1 Cumulative effects screening matrix (APP-031)).**

Code	Screening criteria
a	Included as part of the topic baseline with no anticipated impacts <b>Not relevant to CEA review</b>
b	Part of the baseline but has an ongoing impact <b>Not relevant to CEA review</b>
c	Potential cumulative effect exists, or change to cumulative effect previous assessed <b>Screened into the CEA review</b>
d	No conceptual or physical effect-receptor pathway <b>Screened out of the CEA review</b>
e	Low data availability <b>Screened out of the CEA review</b>
f	No temporal overlap <b>Screened out of the CEA review</b>
g	Project has been withdrawn from development or operation <b>Screened out of the CEA review</b>
h	Updated project information does not result in the potential for a change to cumulative effect previously assessed, or additional cumulative effects <b>Screened out of the CEA review</b>

1.3.1.3 Justification for projects screened out of the CEA review in accordance with these criteria is provided in Table 1.3.

1.3.1.4 As shown in Table 1.3, the updated information presented in the Morgan and Morecambe Offshore Wind Farms: Transmission Assets application does not result in the potential for a change to a cumulative effect previously assessed, or additional cumulative effects. As such, the Morgan and Morecambe Offshore Wind Farms: Transmission Assets project was not carried forward to the CEA or in-combination assessment review.



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**Table 1.3: Screening of Morgan and Morecambe Offshore Wind Farms: Transmission Assets updated project information that may affect cumulative effects assessment for the Morgan Generation Assets Environmental Statement.**

Topic	Summary of Morgan Generation Assets CEA assessment conclusions for Scenario 3 as presented within the Environmental Statement	Screening conclusion	Screening justification for Morgan and Morecambe Offshore Wind Farms: Transmission Assets
Physical processes (Volume 2, Chapter 1 (APP-013))	There will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the quantitative assessment with full consideration of the potential impacts of the scheme applying information available from the PEIR. This project has been accepted for Examination therefore updated information is available in the Environmental Statement. 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 Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Benthic subtidal ecology (Volume 2, Chapter 2 (APP-020))	There will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the quantitative assessment using information from the PEIR. 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 benthic subtidal ecology is likely to be the same as, or less than, that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Fish and shellfish ecology (Volume 2, Chapter 3 (APP-021))	There will be potentially significant cumulative effects from the Morgan Generation Assets alongside other projects and plans to herring and cod during their respective spawning seasons through the impact of underwater sound from piling	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the quantitative assessment using information from the PEIR. 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



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Topic	Summary of Morgan Generation Assets CEA assessment conclusions for Scenario 3 as presented within the Environmental Statement	Screening conclusion	Screening justification for Morgan and Morecambe Offshore Wind Farms: Transmission Assets
	(moderate adverse significance). No residual significant cumulative effects are expected to occur.		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 Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Marine mammals (Volume 2, Chapter 4 (AS-010))	Overall, it is concluded that for most impacts there will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans, except as a result of behavioural disturbance during piling for bottlenose dolphin within the Irish Sea Management Unit (MU) and potential injury from Unexploded Ordnance (UXO) clearance for harbour porpoise, which have a potential significant cumulative effect.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the quantitative assessment using information available from PEIR. 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 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 Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Offshore ornithology (Volume 2, Chapter 5 (APP-023))	There will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment using information available from the PEIR. 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 Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Commercial fisheries (Volume 2, Chapter 6 (APP-024))	There will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment using information available from the PEIR. 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,

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Topic	Summary of Morgan Generation Assets CEA assessment conclusions for Scenario 3 as presented within the Environmental Statement	Screening conclusion	Screening justification for Morgan and Morecambe Offshore Wind Farms: Transmission Assets
			the magnitude of the potential cumulative impacts on commercial fisheries is likely to be the same as, or less than, that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Shipping and navigation (Volume 2, Chapter 7 (APP-025))	A cumulative regional navigational risk assessment (CRNRA) was undertaken, which adopted a regional (co-ordinated) approach to assessment for the Mona Offshore Wind Project, Morgan Generation Assets and Morecambe Offshore Windfarm: Generation Assets projects, as well as known Tier 1 projects, and measures put in place to mitigate for significant effects.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the NRA and shipping and navigation assessment using information available from the PEIR. 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 shipping and navigation is likely to be the same as, or less than, that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Marine archaeology and cultural heritage (Volume 2, Chapter 8 (APP-026))	There will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the quantitative assessment using information available from the PEIR. 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 marine archaeology is likely to be the same as, or less than, that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Other sea users (Volume 2, Chapter 9 (APP-027))	There will be no significant cumulative effects from the Morgan Generation Assets alongside other projects/plans.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment using information available from the PEIR. 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,

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Topic	Summary of Morgan Generation Assets CEA assessment conclusions for Scenario 3 as presented within the Environmental Statement	Screening conclusion	Screening justification for Morgan and Morecambe Offshore Wind Farms: Transmission Assets
			the magnitude of the potential cumulative impacts on other sea users receptors is likely to be the same as, or less than, that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Seascape, landscape and visual resources (Volume 2, Chapter 10 (APP-014)) as clarified in Annex 4.4 to the Applicant's response to EXQ1: SLVIA Clarification note (REP3-010)	Significant cumulative effects are assessed to arise to Marine Character Area 38 Irish Sea South, Isle of Man Landscape Character at the coast, and for individuals on the Raad ny Foillan coastal path at the coast and people at the settlements of Douglas and Laxey at the coast.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment using information available from the PEIR. The updated information presents a refinement of the project design envelope which has removed surface infrastructure (e.g. the Morgan offshore booster station and OSPs). As a result, the magnitude of the potential cumulative impacts on seascape, landscape and visual resources is likely to be the same as, or less than, that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.
Aviation and radar (Volume 2, Chapter 11 (APP-015))	No significant cumulative effects from the Morgan Generation Assets alongside other projects/plans in relation to the potential impact: creation of obstacle to aircraft operations.  Significant cumulative effects arising from the Morgan Generation Assets alongside other projects/plans due to wind turbines causing interference on aviation Primary Surveillance Radar (PSR) systems.	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment using information available from the PEIR. The updated information presents a refinement of the project design envelope which has removed surface infrastructure (e.g. the Morgan offshore booster station and OSPs). As a result, the magnitude of the potential cumulative impacts on aviation and radar is not likely to be greater than that assessed in the Morgan Generation Assets CEA. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets, and therefore this project is screened out of the CEA review.
Socio-economics (Volume 2, Chapter 13 (APP-017))	There will be no significant adverse cumulative effects from the Morgan Generation Assets alongside other projects/plans. Significant beneficial cumulative effects (moderate beneficial) identified for potential impact on economic	No (h)	The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment based on information available from the PEIR. The updated information presents a refinement of the project design envelope which has removed infrastructure (e.g. the Morgan offshore booster station and OSPs), to avoid double counting. As such, the updated information presented in the final application does not result in the

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Topic	Summary of Morgan Generation Assets CEA assessment conclusions for Scenario 3 as presented within the Environmental Statement	Screening conclusion	Screening justification for Morgan and Morecambe Offshore Wind Farms: Transmission Assets
	receptors including employment and gross value added.		potential for additional (or reduced) cumulative effects with the Morgan Generation Assets, and therefore this project is screened out of the CEA review.
Human health (Volume 2, Chapter 14 (APP-018))	<p>In relation to collision and allision risk when including the effects of the Moor Vannin Offshore Wind Farm within the assessment, there would be a cumulative moderate adverse effect for human health.</p> <p>There will be a minor adverse and minor beneficial cumulative effect relating to community identity influences on population health and employment and income. Minor beneficial cumulative effect to climate change and public health and moderate beneficial effect on wider societal infrastructure and resources.</p>	No (h)	<p>The Morgan Generation Assets CEA considered the Morgan and Morecambe Offshore Windfarms: Transmission Assets as part of the assessment, based on information available from the PEIR. 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 Morgan Generation Assets CEA. With regards to health determinants other than linked to coastal recreation, no cumulative effect is predicted as different population groups are affected by the two projects. The updated information presented in the final application does not result in the potential for additional cumulative effects with the Morgan Generation Assets and therefore this project was screened out of the CEA review.</p>

## **1.4 Conclusions**

- 1.4.1.1 This addendum has presented an additional screening review of the CEA presented in the Morgan Generation Assets application documents, in order to consider the updated information available for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets.
- 1.4.1.2 The Applicant has undertaken screening of the updated information, including reviewing applicable application documents, to identify if the Morgan and Morecambe Offshore Wind Farms: Transmission Assets could result in a change to the conclusions of the CEA presented in the Morgan Generation Assets application.
- 1.4.1.3 Key updates made between the Morgan and Morecambe Offshore Wind Farms: Transmission Assets PEIR and final application include the removal of all sea-surface piercing infrastructure, resulting in a reduction of the design envelope. As such, the screening review presented in this document has concluded that the magnitude of the potential cumulative impacts is likely to be either the same as, or less than, that assessed in the Morgan Generation Assets CEA, with the Morgan Generation Assets CEA carrying additional precaution. There is no potential for new cumulative effects to arise or an increase in cumulative effects for each of the topics considered and the conclusions of the Morgan Generation Assets CEA (and in-combination assessments) therefore remain unchanged.
- 1.4.1.4 As no changes to the assessment conclusions have been identified for Scenario 3, which considers the Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets plus other projects and plans, the same conclusion automatically applies to Scenario 2, which considers the Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets and the Morecambe Offshore Windfarm: Generation Assets, and Scenario 1 which considers the Morgan Generation Assets plus Morgan and Morecambe Offshore Wind Farms: Transmission Assets.