

MONA OFFSHORE WIND PROJECT

Review of Offshore ornithology CEA and In-Combination Assessment

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Image of an offshore wind farm

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Glossary

Term	Meaning
Applicant	Mona Offshore Wind Limited.
Mona Offshore Wind Project	The Mona Offshore Wind Project is comprised of both the generation assets, offshore and onshore transmission assets, and associated activities.

Acronyms

Acronym	Description
BDMPS	Biologically defined minimum population scale
SPA	Special Protection Area

1 REVIEW OF OFFSHORE ORNITHOLOGY CEA AND IN-COMBINATION ASSESSMENT

1.1 Background

1.1.1.1 Mona Offshore Wind Limited (hereafter referred to as ‘the Applicant’) submitted a Development Consent Order (DCO) application for the Mona Offshore Wind Project on 22 February 2024. The DCO application included an Environmental Statement, which presented results of the Environmental Impact Assessment (EIA), encompassing a Cumulative Effects Assessment (CEA) (as presented within Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)). The DCO application also included an Information to Support Appropriate Assessment (ISAA) which encompassed an in-combination assessment for offshore ornithology (REP2-010).

1.1.1.2 The CEA identified those projects, plans or activities with which the Mona Offshore Wind Project may interact to produce a cumulative effect. Information on other projects, plans or activities which was publicly available in November 2023 (up to three months before the application) was considered in the CEA and in-combination assessment. Several projects considered in this CEA and in-combination review were included in the CEA and in-combination assessment at application in Volume 2, Chapter 5: Offshore ornithology (F2.5 F03) as Tier 2 projects however there was insufficient project information in the public domain to allow the effects to be reasonably understood and a cumulative assessment undertaken.

1.1.1.3 Since November 2023, new or amended assessment material has been published on projects that had been considered in the CEA at application. This document presents a review of information published up to 23 September 2024 and considers if the new information would alter the conclusions of the CEA and in-combination assessment.

1.1.1.4 A Review of Cumulative Effects Assessment and In-Combination Assessment was submitted at Deadline 3 (REP3-058), covering the other offshore and onshore topics within the Environmental Statement. For offshore ornithology, additional work was required to understand the potential cumulative effects of additional projects and information. This document presents the review of offshore ornithology CEA and In-Combination Assessment.

1.2 Methodology

1.2.1.1 This document has been prepared to supplement, but not replace, the CEA undertaken in the Mona Offshore Wind Project Volume 2, Chapter 5: Offshore ornithology (F2.5 F03) and the in-combination assessment undertaken in the Information to Support an Appropriate Assessment Part Three: Special Protection Areas and Ramsar sites Assessments) (REP2-010).

1.2.1.2 Each project that has been identified as having published additional assessment material since the Mona CEA was undertaken have been taken forward to the screening stage presented in the Review of Cumulative Effects Assessment and In-Combination Assessment (REP3-058). The offshore projects that have been screened in for consideration in this document are listed in Table 1.3 of the Review of Cumulative Effects Assessment and In-Combination Assessment (REP3-058).

1.2.1.3 The conclusions of the CEA assessments for each impact and species considered for each of the projects have been reviewed. The conclusions presented for each of the cumulative project’s CEA is shown within Table 1.3 and Table 1.5, for displacement

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impacts and collision impacts, respectively. The conclusions of the assessment of significance are copied directly from the application documents of each project. Therefore, the EIA methodology and terms used are relevant for that specific project and jurisdiction. The Applicant makes note of the significance or non-significance of the conclusions but has not altered the text used. For example, 'slight magnitude' has been used for Irish projects, but this term is not used for UK projects.

1.2.1.4 Within the Review of Cumulative Effects Assessment and In-Combination Assessment (REP3-058) submitted at Deadline 3, the new project information that may affect cumulative effects assessment and in-combination assessment for offshore ornithology in the Mona Offshore Wind Project Environmental Statement is as follows (ordered chronologically by submission date):

- Hynet carbon dioxide transportation and storage project (Application submitted in March 2024);
- Morgan Offshore Wind Project Generation Assets (application submitted in April 2024);
- Arklow Bank Wind Park 2 (application submitted in April 2024) situated in Irish waters;
- Oriel Offshore Wind Farm (application submitted in April 2024) situated in Irish waters;
- North Irish Sea Array (NISA) (application submitted in June 2024) situated in Irish waters;
- Morecambe Offshore Windfarm Generation Assets (application submitted in May 2024);
- Llŷr floating offshore wind project (application submitted in August 2024) situated within Welsh waters; and
- Codling Offshore Wind Farm (application submitted in September 2024) situated in Irish waters.

1.2.1.5 As the above projects succeed the Mona Offshore Wind Project, their application materials have already accounted for the Mona Offshore Wind Project within the respective CEAs. The above projects were considered as Tier 2 in Volume 2, Chapter 5: Offshore ornithology (F2.5 F03). There was however insufficient project information in the public domain (with the exception of the Morgan Offshore Wind Project Generation Assets and the Morecambe Offshore Windfarm Generation Assets) to allow the effects to be reasonably understood and a cumulative assessment undertaken. Furthermore, the CEAs for these projects which included the Mona Offshore Wind Project all concluded that there would be no potential for significant effects as a result of these projects when considered cumulatively with the Mona Offshore Wind Project. Whilst the Applicant acknowledges that there have been updates to the Mona application documents through the Mona examination, the conclusions of the CEA assessments presented in the Mona Offshore Wind Project Volume 2, Chapter 5: Offshore ornithology (REP2-016) and the in-combination assessment presented in the Information to Support an Appropriate Assessment Part Three: Special Protection Areas and Ramsar sites Assessments F02) (REP2-010) have not changed following any of the updates of these documents.

1.2.1.6 Impacts to offshore ornithological receptors considered in the Mona CEA and in-combination assessment included disturbance and displacement from infrastructure (and barrier effects), collision risk and combined displacement and collision risk. Only

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impacts and species assessed in the Mona Offshore Wind Project application have been reviewed against the project's application documents and considered in Table 1.2 and Table 1.3.

1.3 Overview

- 1.3.1.1 Eight projects (Morgan Generation Assets, Morecambe Generation Assets, Hynet, Arklow Bank Wind Part 2, Oriel Offshore Wind Farm, North Irish Sea Array, Llŷr and Codling) were considered in the CEA at application in Volume 2, Chapter 5: Offshore ornithology (F2.5 F03) and in-combination assessment in HRA Stage 2 Information to Support an Appropriate Assessment Part Three: Special Protection Areas and Ramsar sites Assessments (REP2-010). However, they were in early stages (i.e. Tier 2) and therefore for all projects (except for Morgan Generation Assets and Morecambe Generation Assets) insufficient project information in the public domain to allow the effects to be reasonably understood and a cumulative assessment undertaken (Table 1.1).
- 1.3.1.2 All projects that have been updated to Tier 1 (Morgan Generation Assets, Morecambe Generation Assets, Hynet, Arklow Bank Wind Park 2, Oriel Offshore Wind Farm, North Irish Sea Array Llŷr and Codling) are located within the Cumulative Mona Offshore Ornithology study area. They have temporal overlap with the Mona Offshore Wind Project construction and operations and maintenance phases and may, therefore, lead to changes in cumulative effects on offshore ornithology species.
- 1.3.1.3 The Mona CEA considered Morgan Generation Assets and Morecambe Generation Assets in detail as information was available from PEIR, but these projects have moved from Tier 2 to Tier 1 with updated information in the respective Environmental Statements. Limited information was available for the other projects that were considered as tier 2 projects in the Mona CEA and in-combination assessments (Table 1.1).

Table 1.1: Projects considered within the CEA and in-combination assessment review.

Project	Documents (PEIR or Environmental Statement) considered within Mona CEA at Application (F2.5 F03)	Tier assigned to each project within Mona CEA at application (F2.5 F03)
Morgan Generation Assets	PEIR	Tier 2
Morecambe Generation Assets	PEIR	Tier 2
Hynet	No information available	Tier 2
Arklow Bank Wind Park 2	No information available	Tier 2
Oriel Offshore Wind Farm	No information available	Tier 2
North Irish Sea Array	No information available	Tier 2
Llŷr	No information available	Tier 2
Codling	No information available	Tier 2

1.4 Review of potential for cumulative effects

1.4.1 Disturbance and displacement from airborne noise, underwater sound, and presence of vessels and infrastructure

- 1.4.1.1 The submitted application documents for Morgan Generation Assets, Morecambe Generation Assets, Hynet, Arklow Bank Wind Part 2, Oriel Offshore Wind Farm, North Irish Sea Array LIÿr and Codling all considered the Mona Offshore Wind Project within their respective CEAs of disturbance and displacement.
- 1.4.1.2 With the exception of the Morgan Offshore Wind Project Generation Assets which used population estimates (used to assess displacement effect) from the Mona Offshore Wind Project Environmental Statement, the rest of the projects have used the population estimates from the Mona PEIR (Mona Offshore Wind Limited, 2023). It must be noted that the Mona Offshore Wind Project alone assessment presented in the PEIR (Mona Offshore Wind Limited, 2023) and in the Environmental Statement (Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)) is based on two years of Digital Aerial Survey (DAS) data to assess displacement effects, and therefore no additional data was published in Environment Statement. There was a however a boundary change to Mona Array Area following PEIR (Mona Offshore Wind Limited, 2023) with a reduction in the size of the Mona Array Area from approximately 450 km² to 300 km² for the application. As a result, the predicted numbers of displaced birds for the Mona Offshore Wind Project Alone are overall lower in the Environmental Statement (Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)) compared to the PEIR (Mona Offshore Wind Limited, 2023) (Tale 1.2). The CEAs for Morecambe Generation Assets, Hynet, Arklow Bank Wind Part 2, Oriel Offshore Wind Farm, North Irish Sea Array LIÿr and Codling are therefore expected to be precautionary with regard to the Mona Offshore Wind Project contribution to any cumulative effects.
- 1.4.1.3 As presented in Table 1.3, the CEAs for these projects, which included the Mona Offshore Wind Project, all concluded that there would be no potential for significant effects as a result of these projects when considered cumulatively.
- 1.4.1.4 Therefore, it is considered that the significance of effect for disturbance and displacement considering the additional information and cumulative projects would be unchanged from that presented in Volume 2, Chapter 5: Offshore ornithology (F2.5 F03) and would remain as negligible to minor adverse which is not significant in EIA terms.

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Table 1.2: Mona (project alone) PEIR and Environmental Statement comparison of the predicted mean seasonal mortality resulting from disturbance and displacement from airborne noise, underwater sound and presence of vessels and infrastructure during the operation and maintenance phase for common guillemot, razorbill, Atlantic puffin, northern gannet and black-legged kittiwake.

Common guillemot (1% mortality, 50% displacement)	Razorbill (1% mortality, 50% displacement)	Atlantic puffin (1% mortality, 50% displacement)	Northern gannet (1% mortality, 70% displacement)	Black-legged kittiwake (1% mortality, 50% displacement)
PEIR predicted mortality				
32 (breeding)	11 (spring)	0 (breeding)	1 (spring)	2 (breeding)
27 (non-breeding)	1 (breeding) 1 (autumn) 1 (non-breeding)	0 (non-breeding)	2 (breeding) 2 (autumn)	4 (autumn)
Environmental Statement predicted mortality				
21 (breeding)	10 (spring)	0 (breeding)	0 (spring)	4 (breeding)
19 (non-breeding)	0 (breeding) 0 (autumn) 2 (non-breeding)	0 (non-breeding)	2 (breeding) 0 (autumn)	3 (autumn)

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Table 1.3: Conclusions of the CEA assessments for the impact from displacement and the species considered in the projects reviewed.

Projects	Mona document used in assessment (PEIR or Environmental Statement)	Species considered in the CEA	Conclusion of the significance of effects / impact significance levels at EIA scale	Reference
Morecambe Offshore Windfarm Generation Assets	PEIR	Northern gannet	Minor adverse which is not significant in EIA terms	Volume 5 Chapter 12 Offshore Ornithology (Morecambe Offshore Windfarm Ltd, 2024a).
		Common guillemot	Minor adverse which is not significant in EIA terms	
		Manx shearwater	Negligible which is not significant in EIA terms	
Arklow 2	PEIR	Northern gannet	For all seasons, slight adverse significance which is not significant in EIA terms	Volume II, Chapter 12: Offshore Ornithology (SSE Renewables, 2024a).
		Common guillemot	For all seasons, slight to moderate adverse significance which is not significant in EIA terms.	
		Razorbill	For all seasons, slight to moderate adverse significance which is not significant in EIA terms.	
Oriel	PEIR	Common guillemot	Slight adverse significance which is not significant in EIA terms.	Chapter 11: Offshore Ornithology (Oriel WindFarm Offshore Renewable Energy, 2024a).
		Razorbill	Slight adverse significance which is not significant in EIA terms.	
North Irish Sea Array	PEIR	Common guillemot	Slight significance of effect which is not significant in EIA terms.	Chapter 15 Offshore and Intertidal Ornithology (North Irish Sea Array, 2024a).
		Razorbill	Slight significance of effect which is not significant in EIA terms.	
		Atlantic puffin	Imperceptible significance of effect which is not significant in EIA terms.	
		Manx shearwater	Imperceptible significance of effect which is not significant in EIA terms.	
		Northern gannet	Imperceptible significance of effect which is not significant in EIA terms.	

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Projects	Mona document used in assessment (PEIR or Environmental Statement)	Species considered in the CEA	Conclusion of the significance of effects / impact significance levels at EIA scale	Reference
Morgan Offshore Wind Project Generation Assets	ES	Black-legged kittiwake	Negligible adverse significance, which is not significant in EIA terms.	Volume 2, Chapter 5: Offshore ornithology (Morgan Offshore Wind Ltd, 2024a).
		Common guillemot	Negligible adverse significance, which is not significant in EIA terms.	
		Razorbill	Negligible adverse significance, which is not significant in EIA terms.	
		Manx shearwater	Negligible adverse significance, which is not significant in EIA terms.	
		Northern gannet	Negligible adverse significance, which is not significant in EIA terms.	
Codling	PEIR	Common guillemot	Slight impact significance level which not significant in EIA terms.	Volume 3, Chapter 10: Ornithology (Codling Wind Park, 2024a).
		Razorbill	Slight impact significance level which is not significant in EIA terms.	
		Red-throated diver	Slight impact significance level which is not significant in EIA terms.	Chapter 10, Appendix 10.1: Ornithology Cumulative Effects Assessment (Codling Wind Park, 2024b).
		Northern gannet	Not significant in EIA terms.	

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Projects	Mona document used in assessment (PEIR or Environmental Statement)	Species considered in the CEA	Conclusion of the significance of effects / impact significance levels at EIA scale	Reference
Llŷr floating offshore wind project	PEIR (qualitative assessment of Mona undertaken in Llŷr floating offshore wind project documentation)	Common guillemot	<p>The only species in breach of EIA thresholds (i.e. exceeding the 1% threshold in increase in baseline mortality) is guillemot, and only then in relation to the more unlikely rates of displacement and mortality advised (70%/10%). However, the cumulative impact scenarios undertaken by Llŷr floating offshore wind project focussed on specific designated sites (akin to an in-combination assessment)</p> <p>Volume 6 Appendix 22E Marine Ornithology Project Alone and Cumulative Impact Scenarios sets out the cumulative displacement impacts (proposed Project, Erebus, White Cross) modelled for guillemot in relation to the population at Castlemartin SSSI, with the PVA modelling itself, and the PVA outputs. The output concludes no significant impact on this designated site.</p>	<p>Volume 3: Chapter 22 – Marine Ornithology (Llŷr Floating Wind Ltd, 2024a).</p> <p>Volume 6: Appendix 22E – Marine Ornithology Project Alone and Cumulative Impact Scenarios (Llŷr Floating Wind Ltd, 2024b).</p>
		Atlantic puffin	There is no risk of the proposed Project contributing significantly to any cumulative impact at a wider, regional EIA (BDMPS) scale.	
		Northern gannet	There is no risk of the proposed Project contributing significantly to any cumulative impact at a wider, regional EIA (BDMPS) scale.	
Hynet carbon dioxide transportation and storage project	PEIR (qualitative assessment of Mona undertaken in Hynet carbon dioxide transportation and storage project documentation)	Non-breeding waterbirds (wildfowl, waders, gulls, herons and rails) and non-breeding seabirds, grebes and cormorants	Minor adverse which is not significant in EIA terms.	Environmental Statement Volume 2, chapter 8: Offshore Ornithology (Liverpool Bay CCS Limited, 2024).

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1.4.2 Collision risk

1.4.2.1 The submitted application documents for Morgan Generation Assets, Morecambe Generation Assets, Hynet, Arklow Bank Wind Part 2, Oriel Offshore Wind Farm, North Irish Sea Array Llŷr and Codling all considered the Mona Offshore Wind Project within their respective CEAs of collision risk.

1.4.2.2 With the exception of the Morgan Offshore Wind Project Generation Assets which used predicted collision mortalities from the Mona Environmental Statement, the rest of the projects have used the predicted collision mortalities from the Mona PEIR (Mona Offshore Wind Limited, 2023). It must be noted that the Mona project alone assessment presented in PEIR (Mona Offshore Wind Limited, 2023) and in the Environment Statement (Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)) is based on two years of Digital Aerial Survey (DAS) to assess collision effects, and therefore no additional data was published in Environment Statement (Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)). There was a however a boundary change to Mona Array Area in the Environmental statement with a reduction in the size of the Mona Array Area from approximately 450 km² in PEIR (Mona Offshore Wind Limited, 2023) to 300 km² in the Environmental Statement (Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)). As the result, the predicted number of collisions for the Mona Project alone are lower in the Environmental Statement (Volume 2, Chapter 5: Offshore ornithology (F2.5 F03)) compared to the PEIR (Mona Offshore Wind Limited, 2023) (Table 1.4). The CEAs for Morecambe Generation Assets, Hynet, Arklow Bank Wind Part 2, Oriel Offshore Wind Farm, North Irish Sea Array Llŷr and Codling are therefore expected to be precautionary with regard to the Mona Offshore Wind Project contribution to any cumulative effects.

1.4.2.3 As presented in Table 1.5, the CEAs for these projects, including the Mona Offshore Wind Project, all concluded that there would be no potential for significant effects as a result of these projects when considered cumulatively.

1.4.2.4 Therefore, it is considered that the significance of effect for collision risk considering the additional information and cumulative projects would be unchanged from that presented in Volume 2, Chapter 5: Offshore ornithology (F2.5 F03) and would remain as negligible to minor adverse which is not significant in EIA terms.

Table 1.4: Mona (project alone) PEIR and ES comparison of predicted mean annual collisions for the Mona Offshore Wind project at PEIR and ES for black-legged kittiwake, great black-backed gull, lesser black-backed gull, herring gull and northern gannet.

Black-legged kittiwake	Great black-backed gull	Lesser black-backed gull	Herring gull	Northern gannet
PEIR predicted collisions				
37.05 (avoidance rate 99.39)	7.41 (avoidance rate 99.4)	1.89 (avoidance rate 99.4)	2 (avoidance rate 99.4)	2.47 (avoidance rate 99.3 and 70% abundance reduction due to displacement)
ES predicted collisions				
32.67 (avoidance rate 99.39)	4.83 (avoidance rate 99.39) 0.72 (avoidance rate 99.91)	1.92 (avoidance rate 99.39) 1.47 (avoidance rate 99.52)	1.51 (avoidance rate 99.39) 1.19 (avoidance rate 99.52)	1.70 (avoidance rate 99.28 and 70% abundance reduction due to displacement)

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Table 1.5: Conclusions of the CEA assessments for the impact from collision and the species considered in the projects reviewed.

Projects	Mona application document used in assessment (PEIR or Environmental Statement)	Review of potential for further cumulative effects	Conclusion of the significance of effects / impact significance levels at EIA scale	Reference
Morecambe Offshore Windfarm Generation Assets	PEIR	Northern gannet	Minor adverse which is not significant in EIA terms	Volume 5 Chapter 12 Offshore Ornithology (Morecambe Offshore Windfarm Ltd, 2024a).
		Black-legged kittiwake	Minor adverse which is not significant in EIA terms	
		Herring gull	Minor adverse which is not significant in EIA terms	
		Lesser black-backed gull	Minor adverse which is not significant in EIA terms	
		Great black-backed gull	Moderate adverse which is significant in EIA terms	
Arklow 2	PEIR	Northern gannet	For all seasons, slight adverse significance at worst (which is not significant in EIA terms)	Volume II, Chapter 12: Offshore Ornithology (SSE Renewables, 2024a).
		Black legged kittiwake	For all seasons, slight adverse significance at worst (which is not significant in EIA terms)	
Oriel	PEIR	Black-legged kittiwake	Slight adverse significance which is not significant in EIA terms.	Chapter 11: Offshore Ornithology (Oriel WindFarm Offshore Renewable Energy, 2024a).
		Great black-backed gull	Slight adverse significance which is not significant in EIA terms.	
		Herring gull	Slight adverse significance which is not significant in EIA terms.	
North Irish Sea Array	PEIR	Black-legged kittiwake	Moderate significance of effect which is not significant in EIA terms.	Chapter 15 Offshore and Intertidal Ornithology (North Irish Sea Array, 2024a).
		Great black-backed gull	Moderate significance of effect which is not significant in EIA terms.	

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Projects	Mona application document used in assessment (PEIR or Environmental Statement)	Review of potential for further cumulative effects	Conclusion of the significance of effects / impact significance levels at EIA scale	Reference
		Herring gull	Moderate significance of effect which is not significant in EIA terms.	
		Lesser black-backed gull	Moderate significance of effect which is not significant in EIA terms.	
		Northern gannet	Imperceptible significance of effect which is not significant in EIA terms.	
Morgan Offshore Wind Project Generation Assets	Environmental Statement	Kittiwake	Minor adverse significance, which is not significant in EIA terms.	Volume 2, Chapter 5: Offshore ornithology (Morgan Offshore Wind Ltd, 2024a).
		Great black-backed gull	Minor adverse significance, which is not significant in EIA terms.	
		Herring gull	Minor adverse significance, which is not significant in EIA terms	
		Lesser black-backed gull	Minor adverse significance, which is not significant in EIA terms.	
		Gannet	Minor adverse significance, which is not significant in EIA terms.	
Codling	PEIR	Black-legged kittiwake	Moderate impact significance level which is not significant in EIA terms for both design options.	Volume 3, Chapter 10: Ornithology (Codling Wind Park, 2024a). Chapter 10, Appendix 10.1: Ornithology Cumulative Effects Assessment (Codling Wind Park, 2024b).
		Great black-backed gull	Slight impact significance level which is not significant in EIA terms for both design options.	
		Herring gull	Slight impact significance level which is not significant in EIA terms for both design options.	
		Northern gannet	Slight impact significance level which is not significant in EIA terms for both design options.	
	PEIR (qualitative)	Black-legged kittiwake		

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Projects	Mona application document used in assessment (PEIR or Environmental Statement)	Review of potential for further cumulative effects	Conclusion of the significance of effects / impact significance levels at EIA scale	Reference
Llŷr floating offshore wind project		Lesser black-backed gull	<p>The Llŷr floating offshore wind project did not fully undertake a CEA due to the minimal impacts that the project alone predicted. Within the application the following was stated:</p> <p><i>There is no risk of the proposed Project contributing significantly to any cumulative impacts from collision risk at a wider, regional EIA (BDMPS) scale.</i></p>	Volume 3: Chapter 22 – Marine Ornithology (Llŷr Floating Wind Ltd, 2024a)
		Northern gannet		

1.5 Review of potential for in-combination effects

- 1.5.1.1 There is the potential for in-combination effects from disturbance and displacement, collision risk and combined effects of disturbance and collision from the Mona Offshore Wind Project with other plans and projects as presented in HRA Stage 2 Information to Support an Appropriate Assessment Part Three: Special Protection Areas and Ramsar sites Assessments (REP2-010).
- 1.5.1.2 The submitted application documents for Morgan Generation Assets, Morecambe Generation Assets, Hynet, Arklow Bank Wind Park 2, Oriel Offshore Wind Farm, North Irish Sea Array, Llŷr and Codling all considered the Mona Offshore Wind Project within their respective in-combination assessment of disturbance and displacement and collision risk. As presented in Table 1.6, none of these projects concluded potential for an adverse effect on any SPA with other projects and plans (including the Mona Offshore Wind Project).
- 1.5.1.3 Therefore, it is considered that the conclusion of the in-combination assessment considering the additional information and projects would be unchanged from that presented in HRA Stage 2 Information to Support an Appropriate Assessment Part Three: Special Protection Areas and Ramsar sites Assessments (REP2-010) and would remain that it can be concluded beyond reasonable scientific doubt that there is no risk of an adverse effect on the integrity of any SPA.

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Table 1.6: Conclusions of the in-combination assessments for each SPA considered in the projects reviewed for each impact and species relevant to the Mona in-combination assessment.

Projects	Impact pathway	Mona project included in the in-combination	Species and SPA considered in the in-combination assessment	Conclusion of the potential for adverse effect on integrity at the HRA scale	Reference
Morecambe Offshore Windfarm Generation Assets	In-combination combined displacement/barrier effects and collision risk	Quantitatively	Table 5.2 of Volume 4 Report to Inform Appropriate Assessment (Morecambe Offshore Windfarm Ltd, 2024b)	It is concluded that there would no potential for the Project to have an adverse effect on the integrity of SPA, when considering the Project in-combination with other plans or projects	Volume 4 Report to Inform Appropriate Assessment (Morecambe Offshore Windfarm Ltd, 2024b)
Arklow 2	Collision	Quantitatively	Wicklow Head SPA (black-legged kittiwake)	On the basis of precautionary impact predictions and PVA results it is concluded beyond reasonable doubt that there will be no AEOI on the Wicklow Head SPA from collision effects on kittiwake due to the Proposed Development in combination with other plans and projects.	Arklow Bank Wind Park 2 Natura Impact Statement: Stage 2 Appraisal To Inform An Appropriate Assessment Of Implications On European Sites (SSE Renewables. 2024b).

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Projects	Impact pathway	Mona project included in the in-combination	Species and SPA considered in the in-combination assessment	Conclusion of the potential for adverse effect on integrity at the HRA scale	Reference
Oriel	Disturbance and displacement, collision combined and separately	Quantitatively	Ireland's Eye SPA (guillemot, razorbill, herring gull, kittiwake) Lambay Island SPA (guillemot, razorbill, herring gull, kittiwake) Dundalk Bay SPA (common gull) North-west Irish Sea SPA (common gull, great black-backed gull) Howth Head Coast SPA (kittiwake) Rathlin Island SPA (kittiwake) Ailsa Craig SPA (gannet) Saltee Islands SPA (gannet)	It is concluded that there is no potential for an adverse effect on site integrity due to the proposed project in-combination with other projects or plans.	Oriel Wind Farm Project Natura Impact Statement Stage 2 Appraisal to inform an Appropriate Assessment of Implications on European Sites (Oriel Wind Farm Offshore Renewable Energy, 2024b)
North Irish Sea Array	Disturbance and displacement, collision combined and separately	Quantitatively	Table 6.3 of Natura Impact Statement Volume 1 Main Report (North Irish Sea Array, (2024b)	It was concluded for all sites considered within this assessment that there is no AEOI of the sites or their conservation objectives resulting from in-combination interactions with the proposed development.	Natura Impact Statement Volume 1 Main Report (North Irish Sea Array, (2024b)

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Projects	Impact pathway	Mona project included in the in-combination	Species and SPA considered in the in-combination assessment	Conclusion of the potential for adverse effect on integrity at the HRA scale	Reference
Morgan Offshore Wind Project Generation Assets	Disturbance and displacement, collision combined and separately	Quantitatively	Table 1.3 of HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (Mona Offshore Wind Limited, 2024b).	No adverse effect on the integrity of the site from the Morgan Generation Assets in-combination with other plans and projects.	HRA Stage 2 information to support an appropriate assessment Part Three: Special Protection Areas and Ramsar Site assessments (Mona Offshore Wind Limited, 2024b)
Codling	In-combination direct effects on habitat, disturbance and displacement, changes in prey availability, collision	Quantitatively	<p>Species and SPA presented within Natura Impact Statement Volume 6 In-combination Assessment Part 2 (Codling Wind Park, 2024c) as follows:</p> <ul style="list-style-type: none"> • High level assessment for non-overlapping SPAs sections 3.2 to 3.5 • Breeding seabird SPAs section 3.6 to section 3.37 • Marine Area SPAs section 3.38 to 3.40 • Non-breeding seabird SPAs section 3.42 	With appropriate mitigation, where required, it is concluded that there is no potential for an adverse effect on site integrity due to the proposed project in-combination with other projects or plans.	Natura Impact Statement Volume 6 In-combination Assessment Part 2 (Codling Wind Park, 2024c)

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Projects	Impact pathway	Mona project included in the in-combination	Species and SPA considered in the in-combination assessment	Conclusion of the potential for adverse effect on integrity at the HRA scale	Reference
Llŷr floating offshore wind project	In-combination combined displacement and collision risk	Not considered	Table 8-32 of Volume 6: Appendix 8E, Habitats Regulations Assessment – Report to Inform Appropriate Assessment (Llŷr floating wind Ltd, 2024c)	It is concluded that there is no potential for an adverse effect on site integrity due to the proposed project in-combination with other projects or plans.	Volume 6: Appendix 8E, Habitats Regulations Assessment – Report to Inform Appropriate Assessment (Llŷr floating wind Ltd, 2024c)

1.6 Conclusions

- 1.6.1.1 The Applicant has undertaken a review of the projects which have submitted additional information since the Mona Offshore Wind Project DCO application was submitted. This review included reviewing the application documents, to identify if these projects predict significant environmental effects greater than those considered in the Mona Offshore Wind Project Volume 2, Chapter 5: Offshore ornithology (F2.5 F03).
- 1.6.1.2 For the projects reviewed, there is no potential for additional significant effects for offshore ornithology receptors considered in Volume 2, Chapter 5: Offshore ornithology (F2.5 F03) with each project's conclusion of their own CEA (which included Mona Offshore Wind Project's impacts) being a non-significant impact for all species and impact pathways considered.

1.7 References

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