NISA

North Irish Sea Array

Request for Further Information Response Report

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1. Introduction

North Irish Sea Array Windfarm Limited (Ltd) (hereafter referred to as 'the Developer') is proposing to develop the North Irish Sea Array (NISA) Offshore Wind Farm (hereafter referred to as the 'proposed development'). The proposed development is an offshore wind farm located off the east coast of Ireland, off Counties Dublin, Meath, and Louth.

The Developer submitted a planning application for the proposed development to An Bord Pleanála on 7 June 2024.

By letter dated 10 April 2025, An Bord Pleanála (now 'An Coimisiún Pleanála' following the Commencement Order for Part 17 of the Planning and Development Act 2024) sought further information (hereafter referred to as the 'Request for Further Information' or 'RFI') on specified matters in relation to the proposed development. The letter required the additional information (and responses to the submissions and observations received by An Bord Pleanála from members of the public and prescribed bodies, and the reports received from the coastal planning authorities and transboundary consultees)[1] to be submitted within 9 months (January 2026) of the date of the letter. In its letter, An Bord Pleanála acknowledged that, given the nature and extent of the information sought and in particular the time sensitive nature of any survey work that may arise in the marine environment, an extension of time may be required.

In a letter to An Coimisiún Pleanála dated 6 October 2025, the Developer sought an extension to the period of time specified to provide the further information. An Coimisiún Pleanála responded on 16 October 2025, granting an extension and setting a revised due date for the response of 14 August 2026.

As indicated above, since June 2025, An Bord Pleanála has become 'An Coimisiún Pleanála'. However, references herein to activities and correspondence prior to June 2025 will continue to reference An Bord Pleanála. Any correspondence or reference to An Bord Pleanála post June 2025 shall hereafter be referred to as 'An Coimisiún Pleanála'.

Most of the further information, which is the subject of the RFI, is provided in the addenda detailed below. This RFI Report indicates which document provides the information specified and, in the case of each matter raised in the RFI, the table in Section 3 below directs the reader to the location of the further information.

2. Methodology in Preparing a Response to the RFI

2.1 RFI Approach

This section describes the methodology used in responding to the RFI.

In response to the matters raised in the RFI, the Developer has prepared an addendum to the original planning application. The addendum comprises:

- An Addendum to the Environmental Impact Assessment Report (EIAR);
- An Addendum to the Supporting Information: Screening for Appropriate Assessment (SISAA);
- An Addendum to the Natura Impact Statement (NIS);
- An Addendum to the Planning Report; and
- Updates to a number of 2024 planning application drawings.

[1] Responses to all submission are provided in the North Irish Sea Array Offshore Wind Farm, Response to Submissions on the Proposed Development Report.

Furthermore, and specifically to address An Coimisiún Pleanála's request, as per Record of Meeting (reference: ABP-319866-24) "*to be clear what changes are proposed with regard to the layout options as set out in the EIAR and to consider layout and construction methodology changes in the context of the issued Design Flexibility Opinion",* a Design Refinements document (Appendix A5.1) was created which outlines the specific design refinements made in response to the RFI, including detail of the environmental benefits as a result of these refinements.

2.2 Approach to Preparing the Addenda

Each addendum document is designed to be read together with the corresponding document that supported the application submitted in June 2024. For ease of reference, any cross reference to a chapter, section, table, image, figure or appendix within this document is to another location within the Addendum to the EIAR unless explicitly stated otherwise. Any cross reference to anything included in the 2024 EIAR is clearly labelled as such.

The guiding principle in preparing the addenda to the 2024 documents is to ensure compliance with RFI Section 1 (a) which states:

"In providing its response to the matters raised in this request for Further Information, the applicant is requested to clearly annotate any proposed amendments to the EIAR, NIS and other documentation submitted and cross reference clearly revised/new information across the submitted documentation as appropriate. It is requested that all changes are clearly identified."

The same approach and formatting are used in each addendum. At the beginning of each chapter in each addendum the main reasons for the update to that chapter are outlined. A table is provided, which indicates the specific matter(s) of the RFI addressed in the chapter, why the update(s) is required, and where in the chapter the change is made.

Then each section and subsection of the chapter in the 2024 document is reviewed. Where no update is required to a section or subsection, this is stated. If an update or replacement is necessary, this and the reasons for it, with reference to the RFI, are indicated. Text in bold is used throughout to indicate where changes are required, what the change is and the reason(s). Text in italics is text, which is deleted, or quotations from other documents (as explicitly stated). Replacement text is in normal font.

Tables, figures, images or graphs which have been updated from the 2024 document, or entirely new tables, figures, images or graphs, are included in the addendum. These are identified by the "A" prefix in the caption or title. For the updated tables, changes from the table in the 2024 document, are indicated by grey shading in the relevant cell, column or row, as necessary. The exception to this is when a table has changed in its entirety. In this case no grey shading is used.

Appendices to the 2024 documents have been updated where necessary. Appendix A of this RFI report provides a list of the appendices to each 2024 document and indicates if the appendix remains unchanged, if it has been updated or if it has been deleted. Where an appendix has been updated, the updated version is provided with the relevant addendum.

2.3 Addendum to the Planning Report

The RFI did not refer to the 2024 Planning Report. However, the amendments to the EIAR require amendments to be made to the 2024 Planning Report. In addition, the timeframes associated with the RFI have necessitated a review of the data on which the 2024 Planning Report was based to ensure that any updates to the planning and policy environment, relevant to the proposed development, are addressed.

2.4 Changes to the 2024 Planning Application Drawings

The response to the RFI has resulted in changes to several of the 2024 planning application drawings. Two drawings have been removed entirely (depicted monopile foundations for the wind turbine generators which will no longer be used). Sixteen drawings have been revised. Appendix B lists the 2024 drawings and indicates which remain unchanged, and which have been replaced or revised. Where a drawing has been revised, the new information is clearly indicated on the drawing.

3. Request for Further Information and Developer's Response

No.	Request for Further Information Details	Developer Response	Location of Response
1. General Matters			
a)	In providing its response to the matters raised in this request for Further Information, the applicant is requested to clearly annotate any proposed amendments to the EIAR, NIS and other documentation submitted and cross reference clearly revised/new information across the submitted documentation as appropriate. It is requested that all changes are clearly identified.	In the addenda to the 2024 EIAR, SISAA, NIS, Planning Report and Planning Drawings, all changes are clearly identified. The revised and new information is crossed referenced to the documents which supported the 2024 planning application. In updating the drawings, all changes are clearly identified. Changes to drawings are referenced in the text of the relevant addendum.	N/A
b)	The scientific information provided as part of the planning application documentation should be based on up-to-date survey reports and data. Accordingly, the applicant is requested to confirm/provide justification/verification that the information submitted in support of the planning application remains relevant and appropriate at the point of submitting further information or to update same as required.	The Developer has reviewed the documents which supported the 2024 planning application and has prepared addenda to the EIAR, SISAA, NIS and Planning Report. The updates were provided to these reports to ensure the data, on which the reports rely, is up to date, represents the best available scientific evidence and is, relevant and appropriate at the point of submitting this response. This includes both survey data and updates to the relevant plans, policy and guidance.	N/A
c)	The applicant is requested to confirm whether any on-going or additional surveying has been carried out since the application was lodged and, if so, the applicant is invited to submit any further survey data results and analysis and update the planning application documentation, as appropriate.	Additional surveys have been carried out since the application was lodged. A list of the additional surveys, when they were completed and the associated EIAR chapter or planning document reference are provided in Appendix C to this document.	Appendix C of this RFI Response.
d)	The applicant is requested to provide details of an operational monitoring programme for the proposed development. In this regard, the applicant is advised that the proposed operational monitoring programme should fully inform the requirements of any future decommissioning plan(s) and justify any adaptive mitigation measures required. The proposed operational monitoring should be provided at appropriate intervals, for appropriate periods, and provide for adequate reporting to the relevant compliance authorities.	In response to this RFI the Developer has prepared an Operational Monitoring Programme which contains the requested information on planned operational monitoring, including timeframes and reporting.	Volume 8, Appendix A6.3 Operational Monitoring Programme.
e)	Having regard to Sections 5.3 and 5.4 of the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, August 2018, and the volume of documentation comprising the planning application, the applicant is requested insofar as possible to make all text in the soft/digital copy documentation fully searchable.	All text in the addenda documents is fully searchable.	N/A

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f)	In relation to the MAC boundary, the applicant is requested to confirm the following having regard to the provisions of section 286(3) and (4) of the Planning and Development Act 2000 (as amended) (2000 Act): the temporary construction activities (including, inter alia, turbine installation) required to undertake the proposed development in the maritime area are to be undertaken within the spatial representation (map) of the MAC consent area, that all permanent development (including blade sweep) can be accommodated within the spatial representation (map) of the MAC consent area, how the design flexibility approved by the Board with respect to the siting of turbines will interact with the MAC consent area.	The Developer confirms that: The temporary construction activities (including, inter alia, turbine installation) required to undertake the proposed development in the maritime area will all be undertaken within the spatial representation (map) of the maritime area consent (MAC) consent area, All permanent development (including blade sweep) can be accommodated within the spatial representation (map) of the MAC consent area, Notwithstanding the design flexibility approved by An Bord Pleanála with respect to the siting of turbines, all turbines will be sited within the MAC consent area.	Offshore proposed development boundary and maritime area consent boundary are presented in Drawing Reference 281240-ARP-OFS-OA-DR-PL-1010 (Option 1) and 281240-ARP-OFS-OA-DR-PL-1011 (Option 2).
g)	The applicant is requested to provide the location of the following proposed infrastructure used in the coastal processes models for each design option applied for: All offshore wind turbines and offshore substations including scour protection, All cables including scour and cable protection. Please see Appendix A attached to this report	The Developer has provided a package of digital information that accompanies this RFI response report. This package includes GIS files that present the locations of the wind turbines, offshore substation, and cables in the coastal processes modelling. Scour protection and cable protection locations and extents are not included in this dataset (as they are not primary inputs into the coastal processes model) but have been assessed and documented in Section 4.3.3 and Section 4.3.5 of Appendix A10.1: Marine Processes Review of Project Options. Note: these locations have been derived based on engineering and constraint analysis workstreams and subsequently provided to the relevant EIAR specialists such that the potential impact of the proposed infrastructure can be assessed, inter alia Chapter 10 of the EIAR, Marine Geology, Oceanography and Physical Processes (and further supported by Appendix 10.2 Marine Process Modelling Report) The data files submitted comply with the requirements of Appendix A.	N/A. Note: the data files submitted comply with the requirements of Appendix A.
2. Search and Rescue Requirements & Navigation – Site Layout			
a)	The Irish Coast Guard (IRCG), through the Department of Transport, has raised concerns in relation to the layout of the proposed development with respect to search-and-rescue (SAR) access. The applicant is requested to consult with the IRCG, in addressing these concerns, and provide further information and clarification on such matters.	The Developer has undertaken continued consultation with the IRCG since the submission of the 2024 EIAR and the layouts have been revised in liaison with the IRCG in response to RFI Section 2 (a). These layouts include a single line of orientation (SLoO) with a linear configuration which is accompanied by a safety justification ((Appendix A17.4: North Irish Sea Array Offshore Wind Farm - Safety Justification for Single Line of Orientation Layout) in line with the requirements of Marine Guidance Note (MGN) 654 (MCA, 2021).	Volume 9, Appendix A17.5 IRCG Response to Safety Justification for SLoO. Volume 9, Appendix A17.4 North Irish Sea Array Safety Justification for Single Line of Orientation Layout.

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		IRCG have confirmed they are content with these revisions and approach as evidenced in Appendix A17.5. Further details associated with the refined layouts are included in Appendix A5.1: Design Refinements in the Addendum to the 2024 EIAR. The Safety Justification prepared by the Developer demonstrates that in the case of the proposed development, hazards associated with a SLoO layout are as low as reasonably practicable (ALARP).	
b)	The EIAR under Chapter 17, Shipping and Navigation, states that as part of embedded mitigation, the fixed layouts for Project Option 1 and Project Option 2 comply with MGN 654 requirements (UK guidance, Maritime and Coastguard Agency, 2021). The applicant is advised that the Department of Transport Marine Survey Office (MSO) states that the proposed layout does not comply with guidance provided in MGN 654 and the MSO strongly disagrees with the summarisation of the risk to the safety of navigation posed to commercial shipping, fishing vessels, and recreational craft transiting in proximity to the southeastern corner and the Rockabill GAP. The applicant is requested to consult with the Department of Transport MSO in addressing these concerns and provide further information and clarification on such matters.	At the time of the 2024 EIAR, comprehensive Irish guidance was not in place and therefore use of the UK MGN 654 (MCA, 2021) was agreed for use by relevant stakeholders. Since then, the guidance had been published by Department of Transport and in line with its requirements; the Navigational Risk Assessment (NRA), which informs Chapter 17 of the EIAR, is still informed by MGN 654. The refined layouts for Project Option 1 and Project Option 2 have a SLoO with a linear configuration which is accompanied by a safety justification (Appendix A17.4) in line with the requirements of MGN 654 (MCA, 2021). The wind turbine (WTG) layouts for both Project Options 1 and 2 have also been set back from the south eastern corner which was central to the MSO's concerns. Continued consultation has occurred with the MSO since the submission of the 2024 EIAR in response to RFI Section 2 (b). The MSO has since confirmed (during a meeting in March 2026 as outlined in Section 4 of the NRA Addendum (Appendix A17.1)) their contentment and acceptance of the new proposed layouts noting that the PIANC guidance (PIANC, 2018) was also applied to the Rockabill Gap and resulted in an increased Structure Exclusion Zone, which the MSO have deemed suitable for safe navigation.	Volume 9, Appendix A17.1 Navigational Risk Assessment, Section 4. Volume 9, Appendix A17.4 North Irish Sea Array Offshore Wind Farm - Safety Justification for Single Line of Orientation Layout.
3. National Marine Planning Framework Policies: Habitats and Noise			
n/a	The Board notes the information contained in Appendix 3.1 of Volume 8 of the EIAR, titled 'National Marine Planning Framework Compliance Report', which sets out how the project meets the requirements of the NMPF. The Board also notes the March 2024 *Commission Notice on the threshold values set under the Marine Strategy Framework Directive 2008/56/EC* and *Commission Decision (EU) 2017/848*, in particular the four thresholds established for habitat loss (D6C4), adverse effects on habitats (D6C5), impulsive noise (D11C1) and continuous noise (D11C2) listed in the Annex to this Commission Notice.	In response to this section of the RFI, the Developer provides a Marine Strategy Framework Directive (MSFD) Assessment to assist in achieving consistency across the Irish Sea Phase 1 ORE projects (Volume 2, Appendix A3.2 MSFD Assessment). The MSFD Assessment presents the Developer's assessment of the potential impacts of the proposed development on the MSFD criteria D6C4, and D6C5, D11C1 and D11C2 (further detailed below). The risk to achieving and or maintaining Good Environmental Status (GES) is assessed considering existing environmental targets associated with each descriptor feature and the current status of the descriptor feature in Irish waters.	Volume 8, Appendix A3.2 Marine Strategy Framework Directive Assessment, Sections 4.2 & 4.3.

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	The Board considers the use of these thresholds would assist in achieving consistency in the presentation of the results across Irish Sea Phase 1 ORE projects and would facilitate the assessment of the relevant NMPF policies based on EU agreed indicators and thresholds. The applicant is therefore requested to:	The conclusion of the assessment determined that the proposed development will not result in a deterioration of the current overall status of the Celtic Sea North Inner MRU or broad habitat types therein or jeopardise the attainment of GES.	
a)	Model, map and present the areal and temporal extent of the potential impact of the proposed development (accounting where appropriate for each design option), for the full construction and operation campaign, on the following indicators: • the potential spatial extent of habitat lost (D6C4) • the potential spatial extent of habitat adversely effected (D6C5) • the modelled impulsive noise (D11C1) with and without abatement; and • the modelled continuous noise (D11C2).	The Developer can confirm that the potential impact of the proposed development on the MSFD criteria D6C4, and D6C5, D11C1 and D11C2 is considered within Volume 2 Appendix A3.2 MSFD Assessment. This draws on assessments presented within the wider EIAR and a summary of the conclusions from the MSFD assessment against indicators i. – iv. is provided in the RFI responses 3 b-d below.	Volume 8, Appendix A3.2 Marine Strategy Framework Directive Assessment, Sections 4.2 & 4.3
b)	Assess the results obtained for potential habitat loss and habitat adversely affected in a) above, to be assessed against the 2% thresholds established for habitat loss (D6C4) and the 25% threshold for adverse effects on habitats (D6C5) for the MSFD Celtic Seas North Inner Marine Reporting Unit, see Ireland's Draft Marine Strategy Part 1 Article 8, 9 and 10 report 2024 including its annexes, published in July 2024.	The Developer confirms that the results obtained for potential habitat loss (D6C4) and habitat adversely affected (D6C5), have been assessed with respect to the 2% threshold in Chapter 12, Benthic Subtidal and Intertidal Ecology of the Addendum to the EIAR. A summary from Appendix A3.2 MSFD Assessment is presented below: • D6C4 – The Developer has assessed the loss of the different habitat types found within the footprint of the proposed development including offshore circalittoral mud; offshore circalittoral sand; circalittoral mud, circalittoral sand, infralittoral sand; and infralittoral rock/biogenic reef. The minor loss of these habitats will not alter the current status of GES. • D6C5 – The Developer has assessed effects of the proposed development on the condition of the habitat types (listed in the point above). The percentage of offshore circalittoral mud already adversely affected is above the 25% GES target and as such does not achieve GES. The proposed development contributes a negligible increase to this area (0.18%). For all other habitats, the proposed development will not change the achievement of GES targets for both loss and adversely affected.	Volume 8, Appendix A3.2 Marine Strategy Framework Directive Assessment, Section 4.2.
c)	Assess the results obtained from modelled impulsive (with and without abatement) and continuous noise in a) to be assessed against the relevant thresholds values for impulsive and continuous noise set out in the above referenced Commission Notice.	Following receipt of the RFI and subsequent stakeholder meetings with the IRCG, MSO, Irish Lights and NPWS, careful consideration was given to understanding how a refined design could address specific requests contained within the RFI, whilst also further mitigating potential environmental effects from the proposed development.	Volume 8, Appendix A3.2 Marine Strategy Framework Directive Assessment, Section 4.3.

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		This includes (but is not limited to): • Removal of both driven and drilled monopile and jackets with pin piles as options for the WTG foundations from Project Option 1 and Project Option 2 and a refinement to the WTG foundation installation methodology to jackets with suction buckets (hereafter referred to as 'SBJs') for Project Option 1 and Project Option 2 to address key stakeholder concerns in the RFI around underwater noise. Suction buckets are a low underwater noise solution2 for WTG installation and a proven technology on other wind farms. • Removal of monopile foundations for the Offshore Substation Platform (OSP), and refinement of the OSP foundation installation to jackets with suction buckets or drilled pin piles which significantly reduces potential underwater noise effects during construction from piling activities and responds to key concerns on this matter within the RFI. The installation of these foundations types reduces the level of underwater noise generated by the proposed development as no piling is required (i.e. there is no impulsive noise from their construction) for their installation. Appendix A14.1 provides an updated modelling assessment of underwater noise impacts from the proposed development. Chapter 14 Marine Mammal Ecology has also been updated to reflect the design refinements and updated modelling. A summary from Appendix A3.2 MSFD Assessment is presented below: • D11C1 – There is no impulsive noise from the foundation construction and no noise abatement is required. The main source of impulsive noise is the clearance of UXOs in the pre-construction stage, which has been assessed and mitigation proposed, in the unlikely scenario high order UXO detonation is required. The assessment determined that there is no significant effect in EIAR terms and no risk in relation to GES under D11C1 Impulsive Noise.	Volume 8, Appendix A14.1 Underwater Noise Assessment, Sections 3, 4, 5 & 6.

[2] Suction bucket installation noise "barely exceeds background levels" (Weilgard 2023).

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		• D11C2 – There has been sufficient assessment undertaken to date to demonstrate a negligible impact or risk from continuous noise for operational offshore wind farms and modelling and mapping is therefore not required (refer to Appendix A3.2 for further details). The Developer has assessed the introduction of vessels during construction and operation and maintenance of the proposed development and this is not expected to significantly increase the existing continuous underwater noise levels. Using the harbour porpoise as the selected receptor for the assessment, the continuous noise impacts from vessels will have an imperceptible effect. The assessment concluded that there is no significant effect in EIAR terms and no risk in relation to GES under D11C2 modelled continuous noise.	
d)	Incorporate the output from a), b) and c) and all other relevant updates made as a result of this request for further information, into a revised assessment of the NMPF policies, particularly Biodiversity Policy 2, Seafloor Integrity Policies 1, 2 and 3, Fisheries Policy 5 and Underwater Noise Policy 1. This revised assessment should fully account for the distinction the NMPF places on 'important' species and habitats as defined on page 35 and 36 of the NMPF.	The Developer has prepared a revised Appendix A3.1: National Marine Planning Framework Compliance Report, which addresses the policies identified in 3(d) and which fully accounts for the distinction the NMPF places on important species and habitats. This is supported by Appendix A3.2: Marine Strategy Framework Directive Assessment that contains the outputs from RFI 3. The results of the assessment has not changed the proposed developments compliance with the listed policies, the NMPF and it does not exceed MSFD thresholds.	Volume 8, Appendix A3.1 NMPF Compliance Report, Table A1. Volume 8, Appendix A3.2: Marine Strategy Framework Directive Assessment
n/a	The spatial extent of the modelled potential habitat loss, habitat adversely effected and impulsive and continuous noise should be provided in GIS format, see Technical Note Appendix A.	The Developer has prepared a package of GIS data which includes the modelled potential habitat loss and habitat adversely effected. There are no impulsive noise contours as the Developer will not be undertaking piling. There are no impulsive noise contours as the Developer will not be undertaking piling. While PTS impact ranges for UXO clearance and other construction activities have been calculated (please refer to Appendix A14.1: Underwater Noise Assessment), they are not location specific and so have not been mapped. The data files submitted comply with the requirements of Appendix A of the RFI.	N/A. Note: Data files submitted comply with the requirements of Appendix A of the RFI.
4. Ecosystem Functions and Services Assessment			
n/a	The documentation submitted does not provide specific detail, assessment, or review of the range of ecosystem functions and services which could be impacted by the proposed development.	A synopsis report of ecosystem functions and services has been provided in Volume 2 Appendix A3.3 Ecosystem Functions and Services Assessment, which considers the full range of ecosystem services set out in the report 'Valuing Ireland's Blue Ecosystem Services' (SEMRU of NUI Galway, 2018).	Volume 8, Appendix A3.1 NMPF Compliance Report, Table A1. Volume 8, Appendix A3.3 Ecosystem Functions and Services Assessment, Section 5.

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	The National Marine Planning Framework (NMPF) states that proposals to protect, maintain, restore, and enhance coastal habitats for ecosystem functioning and provision of ecosystem services will be supported, subject to the outcome of statutory environmental assessment processes. Seafloor and Water Column Integrity Policy 3 of the NMPF also requires proposals to take account of the space required for coastal habitats, for ecosystem functioning and the provision of ecosystem services and to demonstrate that they will, in order of preference, avoid, minimise or mitigate for net loss of coastal habitats. The applicant is requested to update the EIAR to include an assessment of impacts (both positive and negative) on relevant ecosystem functions and services and include mitigation measures, as appropriate. The applicant is also requested to submit a synopsis report of the relevant impacts on ecosystem functions and services. In identifying the relevant ecosystem services for assessment, including those services classified as provisioning, regulation and maintenance, and cultural services, the applicant is advised to consider the full range of ecosystem services set out in the report 'Valuing Ireland's Blue Ecosystem Services' (SEMRU of NUI Galway, 2018), as referenced in the NMPF. The report should also consider the need for an adaptive management framework for ongoing assessment and should include provision for appropriate monitoring of any mitigation measures and operational management strategies, as well as provision for decommissioning.	The outcome of individual receptor assessments concluded no material impact on ecosystem services, and no impediment to the ability of normal ecosystem functions and services to function, resulting from the proposed development. The Developer has not included a separate eco-system function assessment in the respective Chapters of the Addendum to the EIAR, as the conclusions of the EIAR are already directly linked to the assessment of ecosystem functions and services. This includes assessment of decommissioning impacts, the need for adaptive management, ongoing monitoring and/or other mitigations. The Developer has updated the Seafloor and Water Column Integrity Policy 3 in the addendum to the National Marine Planning Framework Compliance Report, this relies in part on the assessment provided in Appendix A3.2: Marine Strategy Framework Directive Assessment which concludes that the proposed development will not result in a deterioration of the current overall status of the Celtic Sea North Inner MRU or broad habitat types therein or jeopardise the attainment of Good Environmental Status.	
5. Cumulative Assessment			
n/a	The Board notes that cumulative assessment was addressed under each topic specific chapter in the EIAR and addressed within Chapter 38 Cumulative and Interrelated Effects Assessment (CEA) (and associated Appendices 38.1 and 38.2). The Marine Institute in their observation raises concerns in relation to the methodology applied in the submitted cumulative effects assessment and the manner in which the information is presented, noting the lack of a standard Irish methodology in relation to CEA. The applicant is advised that guidance exists in the UK, namely Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment - GOV.UK, September 2024 (PINS, 2024). The applicant is requested to revise the submitted cumulative assessment in line with NSIP (2024) and submit a standalone document to clearly demonstrate the CEA conclusions.	A revised CEA, which considered the methodology and template provided in the Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment - GOV.UK, September 2024 (PINS, 2024), has been prepared. During the preparation of the revised CEA, the Developer consulted with the other Irish Sea Phase 1 ORE projects. The information provided in the planning applications submitted by these ORE projects was incorporated into the revised CEA and Phase 1 ORE Projects were classified under Tier 1. All other relevant projects in the International Council for the Exploration of the Sea (ICES) Celtic Sea and Greater North Sea ecoregions, regardless of project type, were also included in the CEA.	Volume 6, Chapter 38 Cumulative and Inter-Related Effects, Section 38.2. Volume 12, Appendix A38.1 Onshore Long List. Volume 12, Appendix A38.2 Offshore Long List, Sections 2, 3 & 4.

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	In the interests of consistency and transparency, the applicant is requested to complete the assessment in accordance with the templates provided in the NSIP (2024), namely "*Appendix 1: Matrix 1 – Identification of 'other development' for CEA" and "Appendix 2: Matrix 1 – Assessment matrix*" (see attached Appendix B). This assessment should include each of the Irish Sea Phase 1 ORE Projects, namely (Oriel WF (ABP-319799-24), Arklow WF (ABP-319864-24), Codling Wind Park (ABP-320768-24), and Dublin Array WF (ABP-321992-25), and all other relevant projects in the International Council for the Exploration of the Sea (ICES) Celtic Sea and Greater North Sea ecoregions, regardless of project type. It is further requested that the applicant confirm that the now published documentation pertaining to the Irish Sea Phase 1 ORE projects, which have all been submitted to the Board for planning consent since this application was submitted, have been fully incorporated into the cumulative effects assessment. In accordance with NSIP (2024) tiered approach, it is requested that the subject proposal and each of the Irish Sea Phase 1 ORE projects be classified under Tier 1 ("*Other existing and, or approved development submitted applications under the Planning Acts or other regimes but not yet determined*"). The applicant is requested to update the application documentation, where relevant. In the interests of comprehensiveness and for ease of reference, the applicant is strongly encouraged to liaise with the other Irish Sea Phase 1 ORE Project applicants in the preparation of the above assessment and drafting of the tables attached in Appendix B.		
6. Site Selection			
n/a	The Board notes that a number of observations have raised concerns in relation to the assessment of site alternatives and suitability of the site for development having regard to the location of the site within the recently designated North-west Irish Sea (NWIS) cSPA. Having regard to: the recent designation of the North-west Irish Sea cSPA, with the proposed development site located within the NWIS cSPA site area, the criteria that avoidance of designated sites is typically an important parameter in a site selection process, as highlighted in Chapter 5 of the EIAR, the proximity of Rockabill SPA (c.150m from array), in addition to 10 SPAs and 9 SACs in the wider area, which are all within the envelope of the NWIS cSPA and/or are ecologically connected.	The Developer has provided an updated Addendum to Chapter 5 Alternatives, having regard to: The recent designation of the North-west Irish Sea candidate Special Protection Areas (cSPA), with the proposed development site located within the NWIS cSPA site area. The criteria that avoidance of designated sites is typically an important parameter in a site selection process, as highlighted in Chapter 5 of the EIAR. The proximity of Rockabill SPA, in addition to 10 SPAs and 9 SACs in the wider area, which are all within the envelope of the NWIS cSPA and/or are ecologically connected. The site was selected having regard to 13 environmental and technical criteria, as described in Section 5.5 of Chapter 5 of the	Volume 2, Chapter 5 Alternatives, Sections 5.5 & 5.6. Volume 8, Appendix A5.1 Design Refinements, Section 2. NIS Section 5.4. Volume 3, Chapter 15 Offshore Ornithology of the 2024 EIAR, Section 15.2.8.

No.	Request for Further Information Details	Developer Response	Location of Response
	The applicant is requested to review Chapter 5 in relation to site selection and the rationale for choosing this site for development and provide further justification, in light of the above.	2024 planning application, including the avoidance of designated sites. While the designation of the NWIS cSPA in 2023 altered the position in respect of one of those criteria, the remaining site selection considerations were unchanged. The subsequent designation of a European site does not, in and of itself, render a site unsuitable for development or preclude the grant of consent; rather, the question for assessment is whether the proposed development can be shown, on the basis of the available scientific evidence and appropriate assessment, to avoid adverse effects on the integrity of the site. By that stage, the Developer had compiled a substantial body of ecological and environmental survey data, which informed the NIS and supported the conclusion that the proposed development would not adversely affect the integrity of the NWIS cSPA or any other European site, either alone or in combination with other plans or projects. In addition, following the RFI and engagement with NPWS, the WTG layouts for Project Option 1 and Project Option 2 were refined to reduce the spatial extent of overlap within the NWIS cSPA (Images A2.1 and A2.2). Further, the permanent footprint of infrastructure for the proposed development takes up only 0.02% of the NWIS cSPA. Accordingly, the Developer maintains that the site remains suitable for the proposed development. There is clear precedent within the Irish planning system for wind energy development co-existing with European sites, as demonstrated by the permitted Castlewaller Wind Farm (Tipperary County Council Reg. Ref. 11510251). Its extension, which remained extant until 2022, was subject to Appropriate Assessment within the mapped boundary of the Slievefelim to Silvermines SPA, confirming that interaction with SPAs does not, in itself, preclude compliance with Article 6(3) where site integrity is protected. Further rationale and justification for site selection is provided, to respond to this RFI, in the Addendum to the EIAR.	
7. Marine Geology, Oceanography and Physical Processes **Methodology**			
a)	Chapter 10 of the EIAR addresses Marine Geology, Oceanography and Physical Processes and is supported by Appendix 10.2 Marine Process Modelling Report.	The Developer confirms that the statistical and timeseries calibration plots for the wave modelling have now been provided within both Chapter 10: Marine Geology, Oceanography and Physical Processes, and Appendix A10.2: Marine Physical Process Numerical Modelling, Section 5.4 as requested.	Volume 3, Chapter 10 Marine Geology, Oceanography and Physical Processes, Section 10.5.

No.	Request for Further Information Details	Developer Response	Location of Response
	The Board notes that statistical and timeseries calibration plots for the hydrodynamic modelling (water levels and currents) undertaken has been provided in the submitted EIAR, however, this has not been provided for wave modelling. The applicant is requested to provide statistical and timeseries calibration plots for the wave modelling, in addition to the submitted statistical (scatter) plots. The applicant is requested to specify the % variance between model and recorded current speeds for spring and neap tidal cycles.	This includes a suite of timeseries plots for the wave modelling, in addition to a suite of correlations comparing the modelled and recorded current speeds for both spring and neap tidal cycles.	Volume 9, Appendix A10.2 Marine Physical Process Numerical Modelling, Section 5.4.
b)	The labels on the directional plots on Figures 4.11 and 4.13 within Chapter 10 of the EIAR are incorrect. The applicant is requested to address this issue.	The Developer confirms that the labels on the directional plots presented in Figures 4.11 and Figure 4.13 have been corrected. The updated figures are provided as Figure A4.5 and Figure A4.6 in Volume 9 Appendix A10.2 Marine Physical Process Numerical Modelling	Volume 9, Appendix A10.2 Marine Physical Process Numerical Modelling, Figure A4.5 and Figure A4.6.
c)	The applicant is requested to submit time series plots comparing simulated wave events relative to recorded wave buoy data including direction, period and wave height or water surface elevation (WSE).	The Developer confirms that time series plots, comparing simulated wave events relative to recorded wave buoy data including direction, period and wave height or water surface elevation, are now provided within Appendix A10.2: Marine Physical Process Numerical Modelling, Section 5.4 as requested.	Volume 9, Appendix A10.2 Marine Physical Process Numerical Modelling, Section 5.4.
Model Set-up and Approach			
d)	The modelling undertaken in support of Chapter 10 of the EIAR does not demonstrate spatial variation of bed friction or bed shear stress values across the model domain. The applicant is requested to address this issue in a review of the modelling undertaken.	The Developer confirms that the modelling approach now utilises a spatially-varying bed roughness across the model domain, which is detailed in Section 4.3 of Appendix 10.2 Marine Process Modelling Report. The model applies spatially-varying bed roughness values to achieve optimal calibration of water levels and currents throughout the domain. Manning's M values ranging from 35.5 to 70 $m^{1/3}/s$ have been applied to represent the spatial variance of seabed properties within the model domain.	Volume 9, Appendix A10.2 Marine Physical Process Numerical Modelling, Section 4.3.
e)	The applicant is requested to characterise the existing environment in terms of the sediment transport regime in the form of coupled wave, wind, hydrodynamic and sediment transport modelling. As indicated in Appendix 10.2, the SWAN model was utilised for the assessment of waves and the MIKE21FM (Flexible Mesh) 2D modelling package was utilised for hydrodynamic modelling. The separation of the wave, hydrodynamics and wind influences does not allow for a comprehensive assessment of the impact of the proposed development on marine processes. The applicant is requested to submit a coupled model in order to demonstrate the interaction between waves, hydrodynamics and wind influences. The applicant is also requested to undertake a greater range of sensitivity runs to examine the coupled model performance.	The Developer confirms that the matters raised are addressed in Section 4 (Morphodynamic and Coupled Modelling), Section 5 (Climate Change) and Section 6 (Interdependency Between Marine Processes) of Appendix A10.3 Supporting Assessment Sensitivity Studies, which provides the technical basis supporting the conclusions set out in Chapter 10: Marine Geology, Oceanography and Physical Processes. Of note is that the range of sensitivity tests undertaken follow the approach discussed with ACP on the 6th November 2025.	Volume 9, Appendix A10.3 Supporting Assessment Sensitivity Studies, Sections 4, 5 & 6.

No.	Request for Further Information Details	Developer Response	Location of Response
	Model scenarios should include an assessment of extreme events e.g. 10%, 5%, 2%, 1%, 0.5%, 0.2% annual exceedance probability (AEP) events and joint probability occurrences of tidal, surge and wave conditions. The applicant is requested to assess these probabilities in modelling scenarios and provide for climate change.	A one-way coupled wind wake and SWAN (Simulating WAves Nearshore) model was used in an assessment of wind influence in a series of sensitivity tests presented in Section 3 (Wind Blockage) of Appendix A10.3. The sensitivity tests included the shortest distance to the coastline with winds and waves from 068 °N, and (b) the most frequent wave direction with winds and waves from south-south-west (centred on 156 °N). The combined wind and wave events included an annual 50th percentile, and less frequent 1 year, 10 year and 50 year return period events (n.b. equivalent to 100%, 10% and 2% AEP). Whilst wind-wake blockage has a theoretical influence on leeward wave conditions, the results of the sensitivity tests show that the scale of this effect is secondary to wave-blockage related effects and not at a scale that changes the assessment presented within Chapter 10: Marine Geology, Oceanography and Physical Processes. Coupled hydrodynamic and wave modelling was undertaken for both baseline (without the proposed development proposed development) and scheme (with the proposed development) conditions across four scenarios combining 1-in-50-year wave events, two wave approach directions (068° and 156° N), and contrasting high northerly and southerly flow conditions. The modelling first evaluates the influence of (hydrodynamics) currents on waves (Section 6.1) and then the influence of waves on (hydrodynamics) currents (Section 6.2), allowing the interdependency of these processes to be assessed in full. The results indicate that the presence of the proposed development does not produce any significant changes in wave or current conditions under any scenario, whether or not a coupled model set up is used. The negligible difference indicates no sensitivity to coupled processes and the existing approach (based on independent consideration of waves and tides) and assessments presented within Chapter 10: Marine Geology, Oceanography and Physical Processes and Appendix 10.2: Marine Process Modelling Report, remains valid. See also response to 7 (j) for effects on coastal processes (sediment transport) and 7 (k).	
f)	In Appendix 10.2, Marine Processes Review of Project Options, the applicant has selected a plume height release of 3m above seabed in the trenching simulation. The applicant is requested to justify the release height of 3m based on the dredging technique/equipment proposed.	The Developer confirms that a justification for the use of a 3 m plume release height has been provided in Section 4.2.6(b) of Appendix 10.1: Marine Processes Review of Project Options. The release height of sediment is conservatively taken as equal to the excavation depth, which is 3 m above the seabed.	Volume 9, Appendix A10.1 Marine Processes Review of Project Options, Section 4.2.

No.	Request for Further Information Details	Developer Response	Location of Response
		This approach is consistent with comparable investigations for different projects, including the Empire Offshore Wind study (Deltares, 2022), which applied release heights of 1 m for a 2.44 m CAPJET trench and 2 m for MFE operations, with heights determined by near-field CFD modelling. It is worth highlighting that assuming a release height closer to the seabed would reduce the settlement period and thus limit the potential for wider advection. Accordingly, the Developer considers the use of a 3 m release height for a 3 m trench excavated using MFE appropriate and conservative for the proposed development, noting that	
g)	There are two extrusion pits proposed as part of the development. It is stated in Chapter 8 of the EIAR (construction strategy) that 'the drilling of both bores may be carried out simultaneously to accelerate the works programme'. Only one is modelled in terms of potential impacts. It is requested that the drilling of both extrusion pits be assessed and in a concurrent scenario.	The Developer confirms that the exit pits will be excavated consecutively rather than concurrently. The Developer notes that the two exit pits, including their associated transition zones, are anticipated to require approximately 24 hours to complete when carried out sequentially. The operation has an allowance of one hour included between the completion of the first exit pit and the commencement of excavation for the second pit. Consequently, Section 10.5.2.7 of Chapter 10 of the 2024 EIAR remains valid.	Volume 3, Chapter 10 Marine Geology, Oceanography and Physical Processes of the 2024 EIAR, Section 10.5.
h)	The location of the extrusion pits related to the export cables are indicated to be within the surf zone (section 6.2.1 of Appendix 10.2). The applicant is requested to include an assessment of the impact of the extrusion pits at this location within the surf zone on coastal processes and also include an assessment of the impact of the proposed temporary mounds at these locations on coastal processes.	The Developer confirms that the exit pits are within the subtidal environment, beyond the surf zone for the expected period of the excavation. The modelling required to assess the impact of the exit pits on coastal processes is included in Section 6.2.3 of Appendix A10.2: Marine Process Modelling Report. This update reflects the incorporation of both new geotechnical interpretations and sediment data (Appendix A12.1: Benthic Ecology Survey Report 2025) in addition to revised timings for sediment releases to ensure consistency across all plume-modelling scenarios. Calculations presented show that the exit pit option (northern location) in a water depth of around 2m water depth can be considered seaward of the surf zone for the majority of the time (i.e., no wave breaking), and options greater than 2m can be considered fully outside the surf zone. During the short period (order of months) when the exit pits remain open there may be some temporary, very localised, and minor modifications to nearshore waves, flows and sediment transport in the subtidal due to presence of the open exit pits and adjacent spoil mound(s). These modifications are not expected to develop any changes along the adjacent rocky coastline and intertidal areas.	Volume 9, Appendix A10.2 Marine Process Modelling Report, Section 6.2

No.	Request for Further Information Details	Developer Response	Location of Response
i)	The modelling domain appears to be of insufficient extent to address potential impacts to the hydrodynamics of the Western Irish Sea Gyre and the cumulative impact with other projects, including Irish Sea Phase 1 ORE projects. The applicant is requested to extend the modelling domain to address this issue.	The Developer confirms (in Section 4 of Appendix 10.2: Marine Process Modelling Report) the use of a European, basin-scale flexible mesh fully calibrated and validated hydrodynamic model. The spatial extent of this model encompasses the location of the Western Irish Sea Gyre, ensuring that relevant regional hydrodynamic processes are appropriately represented. Chapter 10 has also been updated to include the Western Irish Sea Gyre as a marine process receptor. There are no changes to the assessment of effects from the proposed development on receptors, all impacts result in effects which are not significant in EIA terms. The cumulative effects assessment is presented in Section 10.9 of Chapter 10 Marine Geology, Oceanography and Physical Processes. Tier 1 of the assessment includes the Irish Sea Phase 1 ORE projects and Oriel Wind Park was screened into the assessment however, the potential tidal advection pathways from the Proposed Development array area includes an initial northerly passage which subsequently moves to the north-east following the alignment of the coastline which avoids the Oriel Wind Park array area. If the construction phase of both projects overlaps then there may be limited occasions when plumes/settlement from the Proposed Development and Oriel Wind Park overlap in the far-field, although this would not be expected to occur during periods of neap tides and be limited to low values of impact. The cumulative effect of the projects to physical changes to marine processes receptors is slight, which is not significant in EIA terms.	Volume 9, Appendix 10.2 Marine Process Modelling Report of the 2024 EIAR, Section 4. Volume 3, Chapter 10 Marine Geology, Oceanography and Physical Processes, Section 10.9.
Blockage Modelling			
j)	The applicant is requested to include the impact of wind blocking on coastal processes. It is requested that this be addressed through site specific wake and wind field modelling, considering the entire windfarm layout.	The Developer confirms that this request is addressed in Section 3 of Appendix 10.3: Supporting Assessment Sensitivity Studies, where the impact of wind-blocking on coastal processes is assessed, with the inclusion of the proposed development's WTG parameters, the assumptions applied to wind-blockage, and the associated wind-wake modelling and sensitivity studies. The suite of sensitivity tests undertaken demonstrate that wind wakes do not make an appreciable difference to the modelling results, when compared against the modelling that does not include wind wakes. As such, it is not considered necessary to include wind wakes within the EIA assessment as there is no appreciable influence upon leeward waves. See also response to 7 (e) for a response to coupled modelling.	Volume 9, Appendix A10.3 Supporting Assessment Sensitivity Studies, Section 3.

No.	Request for Further Information Details	Developer Response	Location of Response
k)	The applicant is requested to use coupled modelling of the leeward environments between the proposed array and the coastal zone to assess the combined impact of tidal, wind and wave blockage.	The Developer confirms that this request is addressed in Section 4 of Appendix 10.3: Supporting Assessment Sensitivity Studies. Section 4 describes the modelling proposed development of impacts arising from the proposed development on coastal sediment transport. See also response to 7 (e) for a response to coupled modelling.	Volume 9, Appendix A10.3 Supporting Assessment Sensitivity Studies, Section 4.
Dredge Modelling Scenarios			
l)	It is unclear if the particle tracking modelling accounted for the flocculation of finer particles. The applicant is requested to address this issue.	The Developer confirms that the particle tracking model has deliberately excluded flocculation considerations from cable trenching and drilling scenarios as it is not considered an appropriate inclusion in the numerical scheme for the following reasons: • The process of flocculation is typically limited to particle sizes less than 10 microns which exhibit cohesive behaviour (i.e. not all fine particles are prone to flocculation, and this reduces for particles larger than 10 microns). • Flocculation is mainly associated with estuarine environments where there is a change from freshwater to saline conditions. This transition is a key process which triggers the aggregation of fine particles which also need to be present in sufficiently high concentrations to enable particle – particle interactions. As a consequence of this interaction a larger particle (i.e. a floc) may be formed. • Flocculation is not expected to occur in the water column local to the proposed development as salinity is considered to be relatively constant and concentrations too low under normal conditions. • Fine sediments which deposit to the seabed will experience consolidation and help develop a cohesive deposit. Where this deposition includes flocs then they will become part of the larger cohesive structure. • Particle size analysis of the seabed area, obtained from grab samples and vibrocores, provides the basis of describing the composition of seabed sediments used as part of the particle tracking model. For cable trenching, the MFE process is assumed to release surficial sediments into suspension mimicking the proportions determined from particle size analysis. Modelling considers the sediment composition in four representative fractions based on fine sand, very fine sand, coarse silt and medium silt / muds.	Volume 9, Appendix A10.1 Marine Processes Review of Project Options. Volume 3, Chapter 10 Marine Geology, Oceanography and Physical Processes, Section 10.5.2.1.

No.	Request for Further Information Details	Developer Response	Location of Response
		The smallest fraction of medium silts / muds is based on the percentage of all particles < 0.031 mm (31 microns) and assigning them an appropriate settling velocity. This approach offsets the potential for the breakdown of large flocs in the sampling and analysis or further flocculation of very small particles up 0.031 mm in size. A similar set of assumption applies to the drilling scenario for the OSP foundation. Flocculation is accounted for in the HDD punch-out scenario of drilling muds, with an appropriate settling velocity for bentonite mixing in seawater. On this basis, implementing flocculation in the particle tracking model is considered unnecessary as the issue is considered to have been sufficiently accounted for in the inputs using conservative assumptions.	
m)	The applicant is requested to expand upon the dredge modelling information submitted by providing for a range of modelled scenarios representing different timelines and configurations of dredging activity. The applicant is requested to include assessment of sediment disturbance for all activities proposed, including the pre lay grapnel runs proposed for the entire dredge campaign. This is requested to allow for a simulation of entire campaigns and not just select locations as submitted in the EIAR, and to enable an assessment of the cumulative impact on sediment transport, waves processes, and tidal currents.	The Developer confirms that dredging for seabed levelling is no longer required for the proposed development design (Appendix A5.1: Design Refinements). Following the updated bathymetry obtained during the 2024 geophysical survey campaign, it has been confirmed that the seafloor across the array area is flat and uniform. As such, this comment no longer applies to the EIAR. Proposed seabed clearance activities, including pre-lay grapnel runs, are reviewed in Volume 9 Appendix A10.1: Marine Processes Review of Project Options, Section 4.2.1 and assessed in Volume 3 Chapter 10 Marine Geology, Oceanography and Physical Processes, Section 10.5.2.1. The review and assessment of seabed clearance is based on a conceptual approach. rather than modelling. Where the conceptual approach identifies that an activity is likely to create a large disturbance which could spread elsewhere, then modelling is considered to help assess the impact on a receptor further away. Pre-lay grapnel runs scrape the surface of the seabed to help remove debris and in doing so some of the surface sediment may be displaced to the side, there is no direct force that deliberately brings large volumes of sediment into suspension which could be advected away. If sediments became dispersed into the water column, then this would only likely be a small scale disturbance. Therefore, there is no requirement to model this process. Notably, the same route is subject to jetting afterwards to develop a trench for cabling laying. This process deliberately excavates a high volume of sediment and raises fine sediments into suspension which can spread further afield. Consequently, MFE for cable laying is subject to modelling.	Volume 9, Appendix A10.1 Marine Processes Review of Project Options, Section 4.2.1. Volume 3, Chapter 10 Marine Geology, Oceanography and Physical Processes, Section 10.5.2.1.

No.	Request for Further Information Details	Developer Response	Location of Response
n)	The applicant is requested to assess the longer-term impact of the dredge dispersal modelling on the seabed morphology.	The Developer confirms that dredging is no longer required for the proposed development design. Following the updated bathymetry obtained during the 2024 geophysical survey campaign, it has been confirmed that the seafloor across the array area is flat and uniform. As a result, seabed profiling activities, such as dredging to create a level platform for WTG installation, will not be required for any offshore infrastructure.	N/A
o)	Appendix 10.3 provides an assessment of spoil mounds which are expected to develop when a trailer suction-hopper dredger (TSHD) discharges sediment at various locations across the array area. The impact of dredging with a backhoe and barge is not captured in the modelling. The applicant is requested to address this issue.	The Developer confirms that dredging is no longer required for the proposed development design (Appendix A5.1: Design Refinements). Following the updated bathymetry obtained during the 2024 geophysical survey campaign, it has been confirmed that the seafloor across the array area is flat and uniform. This updated information allowed for the refinement of the WTG foundations to SBJs. As a result, seabed levelling activities via dredging will no longer be required for any offshore infrastructure, therefore spoil mounds will no longer occur. Appendix 10.3 of the 2024 EIAR has been removed from the planning submission. Appendix 10.1 considers the excavation of exit pits and identifies that MFE will develop the largest scale of sediment disturbance compared to dredging with a backhoe. The MFE activity has been modelled and nearshore changes due to the excavation of the HDD exit pits are assessed as Impact 6. (Chapter 10, Section 10.5.2.6).	N/A
p)	In relation to all sediment disturbance modelled, the applicant is requested to provide the following: • Statistical maximum for sediment deposition depths (cm) and suspended sediment concentration (mg/l) across the model domain for the entire construction campaign presented in the form of heatmaps. This should include heatmaps of predicted percentage change relative to the baseline across the relevant key temporal periods. The applicant should confirm that the modelling used reflects the baseline conditions in terms of the modelled particle size used, i.e. the modelling should be aligned to known baseline conditions. These heatmaps and other relevant model outputs should be used to inform any further ecosystem and cumulative assessments such as smothering or impaired foraging within the relevant sections of an updated EIAR.	• The Developer has included and presented the outputs of the modelling in sediment deposition depths and suspended sediment concentrations on figures that accompany Chapter 10: Marine Geology, Oceanography and Physical Processes and are referenced where appropriate in the assessment. These outputs represent absolute values above background levels rather predicted percentage change relative to the baseline. Percentage change is not considered to be a relevant metric helpful to the interpretation of impacts. For example, smothering risk of a sensitive receptor requires an absolute value. Modelled particle sizes are identified in Appendix 10.2 with proportions that align with known baseline conditions. These outputs are interpreted across relevant sections of the EIAR and updated EIAR.	Volume 3, Chapter 10 Marine Geology, Oceanography and Physical Processes, Section 10.5.

No.	Request for Further Information Details	Developer Response	Location of Response
	• Similar to (i) above, the sediment deposition depths and suspended sediment concentration across the model domain for the entire operational campaign should be presented as heat maps of the percentage change relative to baseline and used to inform relevant EIAR ecosystem and cumulative assessments. • Results should be illustrated on appropriately scaled drawings/maps and be provided in GIS format (see Appendix A, Technical Details).	• Sediment deposition depths and suspended sediment concentrations are modelled for the construction phase rather than the operational phase. The construction phases involves definite sediment disturbance activities over a limited period. In contrast, the operational phase has a likelihood (i.e. not definite) for smaller scale and less frequent activities which might lead to sediment disturbance events with a much lesser scale of sediment deposition and temporary elevated levels of suspended sediment. • Results are presented in a GIS framework using appropriate scales in each case.	
Morphodynamic Modelling			
q)	The longer term morphodynamic impact of the development including cable armouring, scour protections and wind turbine foundations is not assessed. This requires coupled wind, wave, hydrodynamic, and sediment transport modelling. The applicant is requested to submit modelling of the morphodynamic response of the coastline to the proposed development. Morphodynamic Modelling should be extended over a series of longer time horizons, operational plus decommissioning, ie 40+ years, and compared with the non-developed scenario for the same time period.	The Developer can confirm that these issues are addressed in Section 3, 4 and 6 of Appendix A10.3 Supporting Assessment Sensitivity Studies. The assessment examines whether the wind-wake effect has a significant additional impact on wave conditions, whether this effect could modify coastal processes in a way that would influence the morphological response of the coastline, and whether coupled wave and hydrodynamic modelling produces a significantly different blockage result to single process models. The sensitivity tests are configured using the following parameters: • Coupled wind and wave modelling, representing baseline conditions and the full Project Option 1 layout (multiple WTGs and one OSP). • Coupled hydrodynamic and wave modelling, representing baseline conditions and the full Project Option 1 layout (multiple WTGs and one OSP). • Two wind and wave approach directions, with a range of combined wind and wave events considered from an annual 50th percentile, and 1 year, 10 year and 50 year return periods: – 068°N (shortest path to coastline), and – 156°N (prevailing south southeast direction). • Wave and coastal longshore sediment transport results at the same nearshore locations used in the 2024 EIAR (Figure 10.23 and Figure 10.24).	Volume 9, Appendix A10.3 Supporting Assessment Sensitivity Studies, Sections 3 & 4.

No.	Request for Further Information Details	Developer Response	Location of Response
		• Exclusion of cable protection from the model, due to its small scale, meaning it does not have a large-scale or long-term influence on seabed morphology. Scour protection is included as part of the representation of foundation structures. In order for the proposed development to create a morphodynamic response along the coastline, the development would need to significantly modify nearshore wave conditions that drive longshore drift. The sensitivity test shows that modifications to coastal longshore sediment transport are effectively nil for typical wave conditions and small or very small for less frequent extreme conditions. These outcomes are shown to be the same whether wind-blockage effects are included or not.	
r)	Any additional modelling in relation to physical processes, which increase the existing significance of effect in that chapter and in interrelated chapters, 'Chapter 10 Marine Geology, Oceanography and Physical Processes', and / or 'Chapter 11 Marine Water & Sediment Quality' to 'Significant' or greater, will also require revised consideration as part of any updates in assessments associated with 'Chapter 12 Benthic Subtidal and intertidal Ecology', 'Chapter 13 Fish and Shellfish Ecology', 'Chapter 14 Marine Mammal Ecology', 'Chapter 15 Offshore Ornithology', and also the NIS (chapters 14 and 15 should only be considered for any revised assessment in relation to "habitat supporting prey species" and "provision / maintenance of prey species").	The Developer can confirm that the outputs from the additional modelling, undertaken in response to the RFI, has been considered in the updates to the assessments in Volume 3 Chapter 12, Benthic Subtidal and intertidal Ecology; Chapter 13, Fish and Shellfish Ecology; Chapter 14, Marine Mammal Ecology; Chapter 15, Offshore Ornithology; and in the addenda to the SISAA and NIS.	Volume 3, Chapter 12 Benthic Subtidal and intertidal Ecology. Volume 3, Chapter 13 Fish and Shellfish Ecology. Volume 3, Chapter 14 Marine Mammal Ecology. Volume 3, Chapter 15 Offshore Ornithology. Addenda to the SISAA and NIS.
n/a	NOTE: The applicant is referred to Appendix A	The heat maps, referred to in Section 7(p) above, and any other drawings and maps have been provided as appropriately scaled drawings/maps, complying with the requirements for GIS Data specified Appendix A, Technical Details.	N/A
8. Offshore Ornithology			
Baseline Environment and Data			
i.	Roseate Tern: Perrow et al. (2019) studied the at-sea foraging distribution of the Rockabill colony over one breeding season (2018), showing the species uses the nearby proposed array area. The EIAR discusses tracking data from Perrow et al. (2019) in the Technical Baseline (Appendix 15.1), however, unlike the accounts of other species, the relevant section of the EIAR appendix does not provide a summary figure of the Roseate Tern tracking data. Considering the importance of the area to Roseate Tern, available data should be considered in further detail and used to inform the assessment. The applicant is requested to present the information provided by Perrow et al. (2019) in the technical baseline and to consider the tracking data when assessing potential impacts to Roseate Tern.	The Developer notes ACP's comments regarding (1) the inclusion of a figure showing the Perrow et al. (2019) roseate tern tracking data, and (2) the consideration of the data to inform assessment. (1) A figure reproducing the Perrow et al. (2019) tracking data was not included in the Technical Baseline because the underlying raw tracking dataset was not publicly available to the Developer for independent analysis or reproduction at the time of preparation of the document. Accordingly, the Developer could not generate a project figure consistent with those presented for other species.	Volume 9, Appendix 15.1 Technical Baseline, Paragraph 2.15.60; NIS.

No.	Request for Further Information Details	Developer Response	Location of Response
		In the absence of those permissions and source data, the Technical Baseline explains why a figure has not been included. (2) The Developer confirms that Perrow et al. (2019) was reviewed in detail and cited in the Technical Baseline (Appendix 15.1, Paragraph 2.15.60) due to its relevance to roseate tern use of waters within and around Rockabill Island and the proposed development. The assessment therefore took account of the published findings, including spatial distribution, insofar as these inform understanding of receptor presence and behaviour. An additional 12 months of Digital Aerial Survey (DAS) data was collected across the North West Irish Sea (NWIS) cSPA during 2024-2025. This survey recorded a higher proportion of roseate terns than the 29 months DAS collected across the MAC area. Accordingly, the assessment was updated using the full 41 months of DAS data, providing a more robust basis for the collision risk analysis. In light of this strengthened empirical dataset, further interrogation of the tracking data was not required for the quantitative assessment. Nonetheless, the Perrow et al. (2019) tracking data were used qualitatively to provide contextual understanding of movements when considering potential barrier effects for Rockabill SPA and the NWIS cSPA. In short, whilst the raw data were not available to generate a project figure consistent with those presented for other species, the assessment relied on the best available evidence base as a whole, including Perrow et al. (2019). The study's findings were reviewed and considered in the assessment of potential impacts to Roseate Tern.	
ii.	Red-throated Diver: The desktop review summarised in Table 15.3 of Chapter 15 of the EIAR does not appear to include the results generated from a series of Digital Aerial Surveys (DAS) undertaken over marine waters off Gormanstown (HiDef, 2019) that was commissioned by the Marine Institute and referenced in the National Parks and Wildlife Service (NPWS) Conservation Objective document for the NWIS cSPA. This survey data indicates a high density of Red-throated Diver *Gavia stellata* in the area of the coast west of the array and overlapping with the proposed cable route. Densities were notably larger than those densities that informed the applicant's assessment of mortality caused by displacement-disturbance effects for this proposed development (i.e. 3.26 individuals km-2 on 29/12/2018; 1.35 individuals km-2 on 16/01/19; 3.45 individuals km-2 on 04/02/19; 2.99 individuals km-2 on 23/03/19).	The Developer notes the request to include the HiDef (2019) DAS data, which covers waters off Gormanstown, within the assessment. These data have been considered alongside more recent survey datasets to assess their suitability (this is presented in Section 2.11 of the Offshore Intertidal Ornithology Baseline, Appendix A15.1 of the EIAR and Appendix A14 of the NIS). Since submission of the application, however, the Developer has undertaken an additional 12-month programme of DAS across the NWIS cSPA between September 2024 and August 2025.	Volume 9, Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline, Section 2.11. Volume 9, Appendix A14 Offshore and Intertidal Ornithology Technical Baseline, Section 2.11. Volume 3, Chapter 15 Offshore Ornithology, Sections 15.3, 15.4 & 15.5. NIS Section 5.4 and 6.6.

No.	Request for Further Information Details	Developer Response	Location of Response
	As well as being important for assessment of Red-throated Diver, the HiDef/Gormanstown 2019 surveys are also likely to be relevant for the assessment of other species that the applicant is requested to reconsider (e.g. Great Northern Diver *Gavia immer*, Common Scoter). As such, the applicant is requested to include the HiDef/Gormanstown 2019 survey data in the assessment of impacts on the marine birds of the NWIS cSPA in relation to this proposed development, including in the assessment associated with the cable route. The applicant is requested to review the EIAR and NIS accordingly.	Following consultation with NPWS during 2025 and 2026, the Developer adopted the NWIS DAS dataset as the primary baseline for assessment on the basis that it represents the most spatially comprehensive and high-resolution dataset currently available for the NWIS cSPA and is directly focused on the area most relevant to the proposed development. The programme achieved >16% spatial coverage of the SPA and >18% coverage within both the red-throated Diver (RTD) Projected Footprint of Infrastructure[1] (PFI) +10 km displacement assessment buffer and the ECC +2 km buffer. The same is true for the common scoter and great northern diver Zone of Influence (ZOI) of the PFI +4 km displacement assessment buffer and the ECC +2 km buffer. While the HiDef (2019) dataset provides contextual information, it offers limited spatial coverage of the key ZOIs used within the assessment (e.g. PFI +10km buffer and the full ECC +2km buffer) and is based on data that are now superseded by the targeted, site-specific NWIS DAS programme. The NWIS DAS recorded consistently low diver and seaduck usage within and around the proposed array area and ECC during 2024 and 2025. In light of the NWIS DAS, the assessments have been reviewed and updated for all species (including red-throated diver, common scoter and great northern diver) to ensure that the baseline characterisation and subsequent impact assessments reflect this evidence. Cross-references to these updates are provided within Chapter 15 of the EIAR and the NIS, where the NWIS DAS has informed both the quantitative analysis and the overall conclusions. [1] *The PFI represents a defined ornithology study sub-area within the overall array area, where all permanent offshore array infrastructure will be located. The PFI has been developed following design refinements to minimise spatial overlap with sensitive receptors and occupies just 57.7 km², representing 2.5% of the NWIS cSPA.*	
iii.	Red-throated Diver is a species known to be highly sensitive to offshore wind farm developments due to displacement effects. A 4km displacement buffer is applied in the application documentation. The Board note that for Red— throated Diver best available evidence as presented in the UK Joint SNCB 'Interim Advice On The Treatment Of Displacement For Red-Throated Diver' (SNCB, 2022) states that: "*For non-breeding red-throated diver, a pragmatic displacement buffer of at least 10km is recommended for use in site characterization, impact assessments and post-consent monitoring where a plan or project is within 10km of a Special Protection Area (SPA) designated for non-breeding redthroated diver.*	The Developer notes the Board's comments regarding potential displacement of RTD beyond a 4 km buffer. Since submission of the application, the Developer has completed an additional 12-month programme of DAS across the NWIS cSPA between September 2024 and August 2025, which has now been adopted as the primary baseline dataset for assessment as it fully addresses the data gaps identified within the ECC to the west of the array area. Given the extent, recency and relevance of the NWIS DAS coverage, the Developer considers this dataset sufficient to robustly characterise baseline distribution and abundance of RTD, common scoter and great- northern diver.	Volume 9, Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline, Sections 2 & 3.14. Volume 9, Appendix A15.5 Offshore Ornithology Displacement Analysis, Sections 2, 3.6 & 4.2.

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	Where a plan or project is further than 10km from a SPA designated for non-breeding red-throated diver, a standard displacement buffer of 4km should continue to be used". The DAU in their observation identifies the following papers which further indicate displacement impacts of greater than 4 km for Red-throated Diver: Heinänen *et al*. (2016); Žydelis *et al*. (2016); Webb *et al*. (2017); Mendel *et al*. (2019); Heinänen *et al*. (2020); Vilela *et al*. (2020); and APEM (2021). The Board notes that the proposed development is located entirely within the NWIS cSPA, for which Red-throated Diver is a SCI, and given the evidence sources available, the Board requests that the applicant reconsiders screening out displacement effects on Red-throated Diver associated with the array area. The information available from HiDef (2019) surveys indicates the known extent of Red-throated Diver and their densities and shows the species concentrating in shallower coastal areas. This therefore provides an evidence base for waters of 5-20m; however, the species can also use water depths up to 30m (Natural England, 2012). There appears to be a data gap between the HiDef survey boundary and the array area boundary. The applicant is requested to overlay the application survey maps with the HiDef survey maps and, where there is a data gap, the applicant is requested to undertake additional survey work to address the data gap. The survey should provide sufficient coverage to reliably characterise the distribution and abundance of Red-throated Diver from the proposed array area western boundary to a distance of 10 km towards the coast (west). The applicant is requested to assess displacement of Red-throated Diver to a distance of at least 10 km from the proposed array area due to project infrastructure, having regard to recent best available evidence as presented in the UK Joint SNCB Interim Displacement Advice Note (SNCB, 2022), and update the EIAR and NIS accordingly. Note: Due to the water depth within the array area and low numbers of Redthroated Diver observed in the existing DAS (May 2020 to October 2022), two full winter seasons may not be required to be surveyed to address any data gap, where it is detected. It is requested that the applicant considers undertaking targeted surveys covering one winter period, with two surveys per month undertaken in critical months for wintering Red-throated Diver. This would comprise one survey per month to be undertaken in November and December; two surveys per month in each of January, February, and March, and one survey to be undertaken in April.	The NWIS DAS effectively constitutes 'further targeted winter surveys' over a far larger spatial area (albeit one survey per month, instead of two, was carried out during Jan – Mar) addressing the concerns over the gaps in spatial survey coverage. Although one survey per month was undertaken in January, February and March, the Developer is confident that the surveys provide the relevant information in defining the baseline of red-throated diver in the NWIS SPA and provide data that is representative of how the site is used over the winter period. Moreover, for the area of highest potential displacement (the array area plus 4km buffer), previous annual surveys were undertaken in that area and used to define the baseline. Overall, the surveys allow for the estimation of abundance and densities estimates, as well as highlighting distribution, which have been used in the assessment of potential disturbance/displacement. In this context, the additional data provide a comprehensive and proportionate evidence base, and no further targeted surveys are considered necessary. Full details of the survey design, coverage and results are provided in Appendix A15.1: Offshore and Intertidal Ornithology Technical Baseline. The NWIS DAS recorded consistently low usage of RTD within and around the proposed array area across the full survey period. Given the extent, recency and applicability of this coverage, the Developer considers the dataset sufficient to robustly characterise baseline RTD distribution across the PFI + 10 km buffer, without the need for additional targeted winter surveys. On this basis and informed by a review of the best available displacement evidence, the assessment of potential displacement effects on RTD has been updated to consider effects extending up to 10 km from the PFI, with findings reported in the EIAR and NIS. Full details of the survey design, coverage and results are provided in the Appendix A15.1: Offshore and Intertidal Ornithology Technical Baseline. **Displacement Assumptions** The Developer has reviewed the available evidence on RTD disturbance, including that cited in the NPWS recommendation, and has adopted the following operational-phase displacement rates: • PFI+ 4 km buffer: 100% displacement. • 4 km to 10 km buffer: 52% displacement (Garthe et al., 2023). These rates are considered precautionary and represent the upper end of displacement responses reported in the literature.	

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		A number of empirical studies report lower displacement within both distance bands (e.g. Percival, 2010; Heinänen et al., 2016; Garthe et al, 2017; Webb et al., 2017; Mendel et al., 2019; Heinänen et al., 2020; Vilela et al., 2020; APEM, 2021; Garthe et al., 2023); however, the adopted values provide a conservative estimate of potential effects. The approach of using empirical studies to inform displacement rates is in line with the UK Joint SNCB Interim Displacement Advice Note, which states "*The SNCBs have previously accepted an estimate of red-throated diver displacement at 100% up to 4km, an approach that recognises that displacement may occur up to and beyond 10km but is not 100%. Where a plan or project is within 10km of a SPA designated for non-breeding red-throated diver however, it is necessary to make a more detailed assessment, considering the details of displacement up to, and potentially beyond, 10km with an appropriate gradient agreed with the relevant SNCB which must take account of any local evidence supporting a known displacement rate*" and "*Displacement will not be 100% throughout the distance over which the effect occurs but there will likely be a gradation, with decreasing effects at increased distance from an OWF. That is to say that red-throated diver densities might be expected to increase at increasing distances from an OWF. While displacement within the OWF footprint may be close to 100%, the rate of change in displacement up to and beyond 4km appears to vary, perhaps between regions and survey platforms*".	
iv.	Migratory Waterbirds: Chapter 15 of the EIAR, and NIS Appendix 19 Offshore and Intertidal Ornithology Migration Collision, address migratory waterbird species. The DAU notes that a significant number of migratory waterbirds (in terms of species and absolute numbers) migrate to and from Ireland across the Irish Sea. The DAU observation raises concerns in relation to the lack of sufficient collection of spatially relevant field data at key migration times (i.e. spring and autumn) in the EIAR, combined with the acknowledged low confidence levels applied in relation to avoidance rates in the migratory Collision Risk Modelling (mCRM) Tool. The DAU states the information submitted is insufficient to assess the migratory movements of birds through the development area. The DAU has concerns that the proposed development has the potential to have significant impacts upon migratory waterbirds and the Conservation Objectives of the SPAs for which they are listed.	The Developer acknowledges the DAU and Board observations regarding migratory waterbirds and has reviewed the assessment in light of these comments. Collision risk was assessed using the most up-to-date Marine Directorate migratory Collision Risk Modelling (mCRM) tool, applied as a cumulative, Irish Sea–specific model covering all Irish East Coast Phase One projects. The assessment considered all migratory qualifying interests of SPAs with potential migration pathways through the array area and was informed by Vantage Point (VP) surveys, published literature, telemetry data, and established species-specific parameters. The cumulative assessment identified no significant effects on any migratory waterbird species (Chapter A15), with the greatest predicted effect assessed as 'imperceptible'.	Volume 9, Appendix A15.4 Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment, Section 3. Volume 9, Appendix A15.7 Migratory Bird Survey Report 2026, Section 3.

No.	Request for Further Information Details	Developer Response	Location of Response
	The DAU recommends that the applicant develops and implements more appropriate survey methodologies to detect and robustly characterise and assess the level of bird migration through the proposed development area, working collectively with the other Irish Sea ORE applicants. The Board notes the Vantage Point survey results submitted by the applicant have spatial limitations in terms of robustness and have not been used in quantifiable assessments. There is also limited information on flux or passage of birds through the proposed array area itself during migration (east-west and north-south). The data query is only partially filled by the applicant's approach to assessing collision risk, where GIS and straight-lines have been applied to identify potential migration pathways/flight routes to assess the proportion of flights (as a proxy for population) which may pass through the proposed array area. Having reviewed all the information presented, the Board requests that further assessment is carried out regarding impacts to migratory species. The applicant is requested to address the purported data gap relating to migratory birds to enable the assessment of potential impacts of the proposed development. Radar (horizontal and vertical surveys) (or similar) at the array area during peak migration periods should be utilised to provide site-specific data, which could be used to support the applicant's current assessment and provide quantitative information on passage of birds to feed into collision modelling. Should radar not be conducted and an alternative survey methodology utilised, comprehensive justification for the alternative should be provided. Peak migration periods during which data are to be collected can be further informed through review of existing data and published literature relevant to the project area and region. Whilst the DAU makes reference to the key migration times being spring and autumn, the Board considers that migration information during the winter months would also be of assistance to the assessment (e.g. irruptive cold weather movements from the continent and UK). The applicant is invited to consider this aspect for inclusion also. The applicant should note reliance on literature to fill knowledge gaps, while useful, does not provide adequate data to ensure a comprehensive assessment of potential effects on birds.	In relation to the Board's observation on flux and passage through the array area, the assessment does not rely solely on spatially constrained VP data. Passage rates were quantified within the mCRM using spatial modelling, with VP data used to inform species presence, flight directions and behaviours where available. A GIS-based approach was applied to define potential migration pathways, combined with species-specific parameters (including flight height distributions, biometrics and avoidance rates) to estimate the proportion of migratory populations passing through the array area. This approach reflects standard offshore practice, recognising that migration across the Irish Sea is diffuse and cannot be robustly characterised through fixed-point observation alone. To address potential data gaps, additional VP surveys and passive acoustic monitoring (PAM) were undertaken on the mainland and at Rockabill Island (the closest landfall to the array area) (Appendix A15.7). These surveys did not identify any unexpected migratory movements or behaviour and were consistent with the assumptions applied in the mCRM. Observations indicated that the majority of migratory movements (e.g. geese) were coastal, with substantially lower numbers recorded offshore. Notably, the proximity of the Rockabill surveys to the array area significantly reduces any spatial limitations in survey coverage. Radar was considered but not utilised due to technical as well as logistical constraints, including licensing limitations and operational constraints due to proximity to airport-controlled airspace associated with Dublin Airport Authority. While radar can provide general movement information, they do not reliably identify birds to species level or provide the species-specific parameters required for quantitative CRM. Given the dispersed nature of migration across the Irish Sea and the modelling approach adopted, radar surveys would be unlikely to meaningfully reduce uncertainty or alter the assessment conclusions. The survey and assessment approach adopted is consistent with current best practice for offshore ornithology, combining site-specific survey data with recognised modelling techniques. This aligns with UK and Irish guidance, which recognises that radar and similar techniques are not routinely relied upon for quantitative assessment of collision risk for migratory species. The resulting evidence base is therefore robust and proportionate.	

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		The Developer confirms that the surveys and data utilised for the purposes of the assessment are comprehensive, robust, in line with best practice and constitute the best available scientific knowledge in the field. The Developer concludes beyond reasonable scientific doubt that the proposed development will not result in adverse effects on the integrity of any relevant SPAs, having regard to their conservation objectives for migratory waterbirds.	
v.	Terrestrial Bird Species: The DAU considers there to be deficiencies in the assessment of land-based avifauna, with CRM data based on general assumptions. The DAU recommends additional data and consideration of survey/monitoring options such as targeted deployment of passive acoustic devices at headlands and offshore nocturnal boat transects; review of available ringing/tracking data for migratory species and/or species which are known/likely to conduct staging/dispersal movement; and thermal imaging devices (hand-held/drone) surveys targeted at likely peak periods of passage. The Board requests that further assessment is carried out regarding impacts on terrestrial bird species. The applicant is requested, having regard to the above comments to address the purported data gap and potential impacts of the proposed development on terrestrial birds.	The Developer acknowledges the DAU and Board comments regarding the assessment of terrestrial bird species and the request for further consideration of potential data gaps. Terrestrial and migratory bird species have been assessed using a precautionary, industry-standard approach, and analysed in the context of updated PAM/VP survey data collected in 2025. The Developer considers this to provide a robust and proportionate basis for the conclusions reached. All migratory qualifying interest species from relevant SPAs within 100 km of the proposed development were considered within the SISAA screening exercise. In total, 43 migratory species were initially identified as potentially exposed to collision risk during migration. A further quantitative screening exercise was undertaken using the Marine Scotland mCRM tool to estimate the number of individuals of each species predicted to pass through the array area annually. Species were screened out where predicted passage was equivalent to less than 1% of the Irish population, resulting in a worst-case impact magnitude of negligible and an imperceptible significance (irrespective of receptor sensitivity), which is not significant in EIA terms. This approach is consistent with established UK offshore wind farm assessment practice. The full list of species screened in is provided in Table A 15-44 of Chapter 15. Species not included within the mCRM tool (e.g. sand martin, chough and grey heron) are not considered vulnerable to offshore collision risk. All screened-in species were assessed using the most up-to-date guidance and parameters, including Natural England interim advice (2022) and NatureScot Guidance Note 7 (2023). The mCRM tool represents a highly precautionary method, incorporating conservative assumptions on flight paths, array interaction and avoidance behaviour, with migration pathways generated using 10,000 bootstrapped flight lines for movements to and from Ireland and the UK.	Volume 9, Appendix A15.4 Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment, Section 2. Volume 9, Appendix A15.7 Migratory Bird Survey Report 2026, Section 3.

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		The approach assumes species may pass through the array even if not directly recorded, removing reliance on presence–absence data. Default avoidance rates embedded within the model align with current NatureScot guidance and have been reviewed by an ornithological expert (Cook, pers. comms). Baseline data collection was undertaken in line with recognised industry practice and was supplemented by additional land-based VP surveys and PAM during the autumn of 2025 to improve understanding of nocturnal and migratory movements and address potential data gaps (Appendix A15.7). These additional surveys did not identify any unexpected behaviour or levels of activity and were consistent with the assumptions applied in the collision risk modelling. In addition, available published evidence, including ringing and tracking studies for relevant migratory and staging species, was reviewed and used to inform movement patterns, flight behaviour and model parameters within the assessment. The Developer has considered the range of additional survey and monitoring approaches identified by the DAU, including targeted deployment of PAM at headlands, offshore nocturnal boat-based transects, and thermal imaging surveys (hand-held or drone-based). While these techniques can provide supplementary qualitative information on movement patterns, they do not reliably generate the species-specific flight heights, population flux estimates or behavioural parameters required to refine quantitative collision risk modelling inputs. Furthermore, in the context of a highly diffuse migratory system such as the Irish Sea, such surveys are unlikely to provide spatially representative or materially different data to that already obtained through the existing evidence base. Given the very low predicted levels of impact, further targeted surveys (e.g. thermal imaging, radar or offshore nocturnal transects) would not materially change model inputs or outcomes. Pre-construction monitoring cannot refine avoidance rates and deriving species-specific offshore avoidance parameters for terrestrial birds would require extensive monitoring that is not justified, particularly as most terrestrial species spend little time offshore and that the EIAR comprehensively concludes no significant effects for migratory receptors. As such, the existing combination of empirical survey data, literature review and precautionary modelling is considered robust, proportionate and sufficient to support the assessment conclusions. Notwithstanding this, additional species were considered to address consultation comments.	

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		Hen harrier, merlin and corncrake were included in the mCRM analysis using parameters from Woodward et al. (2023), with predicted collision mortality of 0.01, 0.17 and 0.01 birds per annum, respectively. Short-eared owl was also assessed, with minimal predicted mortality (0.16 birds per annum). Species not included in the mCRM tool were assessed through targeted literature review. Overall, terrestrial and migratory bird species have been comprehensively assessed using accepted, precautionary methods and the most up-to-date guidance, and there are no data gaps in the assessment of potential impacts. Effects have been assessed negligible to imperceptible and not significant in EIA terms. On this basis and considering the additional VP and PAM data already collected, further survey effort to assess potential impacts on terrestrial birds is not necessary.	
vi.	Baseline Data Vintage: The Board queries the age and relevance of the submitted aerial and boat-based survey data used in the application, in particular considering the 2022 Highly Pathogenic Avian Influenza (HPAI) season, which had significant negative impacts on a range of seabird species. The applicant is requested to provide justification that the original digital aerial surveys and boat-based data remains relevant and appropriate at the point of submitting additional information to support the proposed development.	The Developer notes the Board's query regarding the age and continued relevance of the submitted DAS and boat-based survey data, particularly in light of the 2022 HPAI event and its effects on seabird populations. The baseline assessment for offshore ornithology is informed by a robust and extensive evidence base, comprising 29 months of DAS within the MAC boundary +4 km buffer, which was supplemented by an additional 12 months of DAS across the NWIS cSPA in 2024/25 (see Section 15.3 of Chapter 15). Importantly, both datasets demonstrate consistent spatial and temporal patterns, notably relatively low usage of the PFI during the core breeding season and substantially higher numbers during the post-breeding dispersal period. These consistent patterns indicate that the datasets reliably characterise bird use of the site irrespective of inter-annual variability. In this context, there is no scientific justification to exclude the original 29-month dataset, as doing so would unnecessarily remove spatially and temporally relevant information. While HPAI has resulted in reduced breeding success and mortality at some colonies, it does not alter the relative spatial distribution, flight behaviour, or seasonal use of offshore areas that underpin collision risk and displacement assessments. As such, the DAS data remain appropriate for characterising offshore use, particularly when considered alongside demographic information.	NIS Section 5 & 6. Volume 3, Chapter 15 Offshore Ornithology, Section 15.3.

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		To ensure the most comprehensive and up-to-date baseline possible, the Developer has combined the data from the original 29 months of DAS (MAC DAS) and additional 12 months of DAS across the NWIS cSPA (NWIS DAS) and re-assessed baseline conditions on this expanded dataset, providing increased confidence and robustness in the assessment conclusions. In this context, the assessment has been informed by recent colony monitoring data (2024-2025) from BirdWatch Ireland (BWI), which provides up-to-date population estimates for key SPAs and ensures that reference populations reflect the most current information available. In addition, since receipt of the RFI, the Developer has undertaken additional land-based VP surveys and PAM to support the assessment of migratory movements (see Section 15.3 of Chapter 15). These data corroborate the patterns identified in the DAS datasets and did not identify any unexpected levels of activity or behaviour that would undermine the baseline conclusions. Taken together, the combined DAS datasets, recent colony monitoring information, and supplementary VP and PAM surveys demonstrate that the baseline ornithological data remain relevant, representative and appropriate at the point of resubmission. The offshore ornithology assessment (within the EIAR and NIS) continues to reflect current conditions and provides a sound and precautionary basis for evaluating the potential effects of the proposed development.	
vii.	Regional Breeding Population: The robustness of population calculations used within Chapter 15 Ornithology, and associated appendices, is important in assessing the potential effects of the proposed development. The Board notes that the EIAR (Chapter 15, Table 15.17 and Appendix 15.1, Table 2.12) presents two methods for estimating regional breeding season populations against which impacts are assessed in the EIAR. Method 1 (applied in the EIAR and used to inform assessment conclusions) involves the number of breeding adults in the breeding season plus the number of immatures in the previous non-breeding season. Method 2 (presented in the EIAR but not used to inform assessment conclusions) applies the ratio of adults to immature birds in the population to the number of breeding adults in the breeding season. The applicant is requested to provide evidence-based justification for applying its chosen method.	The Developer confirms that the concerns raised in relation to the estimation of regional breeding season populations have been addressed through adoption of Method 2 for all species assessed within Chapter 15, and that this approach has now been used to inform the updated assessment conclusions, including within the CEA. The derived adult: immature ratios were taken directly from Horswill & Robinson (2015), and the colonies and sites comprising the reference population for each species were derived from the Apportioning process. For full details see Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline. The Developer notes, however, that while Method 2 is considered more precautionary overall, it may not be appropriate in all circumstances. In particular, for some species or regions where the estimated breeding population is particularly low, using this method is likely to under-represent immature birds.	Volume 9 Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline, Section 2; Chapter 15 Offshore Ornithology, Section 15.9.

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	Method 2 is considered to be the more appropriate and precautionary method to apply for estimating regional breeding season populations and the applicant is requested to use this methodology to inform assessment conclusions. The applicant is requested to clearly present the values and equations used to derive the population estimates, including their sources (e.g. a list of colonies or sites included within the reference populations), to allow validation of the methodology. The applicant is requested to also address this issue in the Cumulative Effects Assessment (CEA) chapter.	This limitation is acknowledged in the assessment (Chapter 15) and has been considered when interpreting the magnitude and significance of effects.	
ix.	Breeding Season of Common Guillemot: The Board does not agree with the applicant's determination that the Irish east coast Common Guillemot *Uria algae* breeding season ends at the end of June. The evidence presented by the applicant is based on a study conducted at a colony in Scotland (Dunn, 2020, 2022) and suggests that the breeding season 'ends' around 10 July, although the July DAS were flown on 18 July 2020, 05 July 2021, and 04 July 2022. There are consequences to regarding the July period as non-breeding which results in the breeding mean peak count bio season for the proposed array area plus 2 km, to be 1,813 (95% Cis 1,258 – 2,385) individuals as opposed to 13,703 (95% Cis 8,940 – 18,414) individuals (see Table 3-1 of Appendix 15 of the EIAR / Appendix 17 of the NIS, Offshore and Intertidal Ornithology Displacement Analysis). This has consequences when apportioning estimated mortality figures arising from displacement impacts to Common Guillemot populations breeding at Lambay Island SPA, Ireland's Eye SPA and others. The applicant is requested to apply the UK seasons (Furness, 2015) for Common Guillemot (breeding season: March to July; non-breeding season: August to February), aligning with the approach taken for other species assessed.	Since submission of the original EIAR, the Developer has completed an additional 12-month programme of DAS covering the NWIS cSPA (September 2024 to August 2025). This data has been combined with the original 29-month MAC DAS dataset (2020–2022) to form a 41-month, site-specific dataset, which is presented in to Appendix A15.1. Further, the Developer has attended two meetings with NPWS to discuss and justify the breeding season assumptions applied to guillemot as outlined in Appendix A1.2: Consultation Report. This combined DAS dataset provides the most up-to-date and spatially comprehensive evidence base for the NWIS cSPA and its qualifying interests, including common guillemot. Analysis of the combined MAC and NWIS DAS demonstrates a consistent and marked change in guillemot abundance and spatial distribution in July, both within the proposed development area and across the wider NWIS cSPA. Specifically: • Mean and peak abundances in July increase by an order of magnitude relative to April–June, including across large areas of the NWIS cSPA. • July distributions are spatially extensive and diffuse, rather than concentrated around colonies, and are inconsistent with central-place foraging behaviour by breeding adults. • Observed July patterns are characteristic of the onset of post-breeding dispersal, involving colony mixing by adults and the presence of fledged juveniles and non-breeding immatures. These findings are consistent across years and are supported by published literature on guillemot breeding phenology and post-breeding dispersal behaviour. While generic bio-season definitions (e.g. Furness, 2015) are presented for context, the Technical Baseline (Appendix A15.1) demonstrates the strong, site-specific evidence that exists to refine bio-season boundaries for this species, consistent with established SNCB and regulatory practice where supported by empirical evidence.	Volume 9 Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline, Section 2.

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		On this basis, and as set out in Appendix A15.1, the Developer has defined the core breeding bio-season for guillemot as April–June, with July treated as post-breeding for the purposes of abundance analysis, impact assessment and apportionment. This approach: • Reflects the actual ecological behaviour of the species within the NWIS cSPA, as evidenced by the expanded DAS dataset. • Avoids double-counting post-breeding birds as breeding adults. • Prevents systematic over-attribution of July abundance to nearby SPAs, including Lambay Island SPA, Ireland's Eye SPA and the NWIS cSPA itself. The final point is particularly important, as applying the NatureScot apportioning methodology would lead to unrealistic outcomes. For example, 93.8% of birds within the PFI are predicted to be apportioned to Lambay Island. However, we know that in July, during NWIS DAS surveys, approximately 300,000 guillemots were estimated to be present within the NWIS cSPA. Apportioning such a large proportion of these birds to Lambay Island would imply a population far exceeding the size of the Lambay Island population itself, which is neither logical nor feasible, and inappropriate for assessment purposes. The Developer's alternative approach, as laid out in Appendix A15.1, is biologically realistic, evidence-led and precautionary, and grounded in the most robust dataset currently available for the NWIS cSPA. The updated bio-season definitions and their implications for apportionment and impact assessment are fully described and justified in Appendix A15.1 and have been applied consistently throughout the updated EIAR and NIS and termed the 'site-specific approach'.	
x.	The DAU notes there appear to be miscalculations or typographical errors with the display of the survey data and its analyses in relation to Common Guillemot. Table 2.40 of Appendix 12 Offshore and Intertidal Ornithology Technical Baseline presents a zero count of Common Guillemot for the November 2020 survey. This is at odds with the non-zero density Common Guillemot heat map for November 2020 (page 84), and it does not correspond to the estimate of density and abundance for Common Guillemot for November 2020. The Common Guillemot Density Heat map (dated February 2021, page 85) indicates that no Common Guillemots were present during that particular survey, which corresponds to the zero count in Table 2.40 but which appears to be at odds with the non-zero estimates of abundance and density for Common Guillemot for February 2021. The applicant is requested to address the issues raised.	The Developer acknowledges the DAU's query regarding possible miscalculations or typographical errors in the guillemot survey data and confirms that none are present. The zero values reported in Table 2.40 of Appendix A15.1 represent raw, species-level counts of guillemot recorded within the proposed development array area during each survey. In November 2020, no guillemots were identified to species level within the array area, and this is correctly shown as a zero raw count. Where birds could not be identified to species level (e.g. guillemot versus razorbill), observations were recorded as guillemot/razorbill. In November 2020, 120 such records were collected despite the absence of positive guillemot identifications.	Volume 9, Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline, Table 2.40 & Section 3.

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		In accordance with the methodology set out in paragraph 2.7.3 of Appendix 12, these records were apportioned to species using the ratio of confirmed identifications across the wider dataset. This apportionment resulted in an estimated guillemot abundance of 445 individuals, which underpins the non-zero density shown on the November 2020 guillemot heat map. In February 2021, no guillemots or guillemot/razorbill records were recorded within the array area. Accordingly, both Table 2.40 and the corresponding density map correctly show an absence of guillemots. In summary, Table 2.40 of Appendix A15.1 reports raw species-level counts only, while abundance estimates and density maps incorporate apportioned guillemot/razorbill records. This discrepancy has been amended within the Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline.	
Sensitivities and Screening			
i.	The applicant has concluded that several wader species have a low sensitivity to displacement effects citing a study which only looks at seabirds and does not mention these species (Bradbury et al., 2014, 2017). The applicant is requested to provide and cite an appropriate source providing justification for determining waders as having a low sensitivity to disturbance, which should be cited in the submitted documentation or amend the relevant documentation accordingly.	The Developer acknowledges that Bradbury et al. (2014, 2017) focus primarily on seabird species and do not provide an appropriate evidence base for assessing disturbance or displacement sensitivity in wader species. The assessment has therefore been reviewed and updated accordingly. In relation to wader species, disturbance sensitivity has now been informed by NatureScot guidance, specifically "Disturbance distances in selected Scottish bird species" (NatureScot, last updated July 2022), which summarises recommended disturbance distances derived from an updated review of empirical studies (Goodship & Furness, 2022). This guidance demonstrates that wader species typically exhibit comparatively short disturbance distances when compared to other bird groups such as divers, seaduck, raptors and some terns. Shorter recommended disturbance distances indicate greater tolerance to anthropogenic activity at closer ranges and therefore lower sensitivity to disturbance effects. Accordingly, the Developer considers the classification of relevant wader species as having low sensitivity to displacement to be appropriate and evidence-led (Section 15.3.3 of the Chapter 15). The submitted documentation has been updated to cite Goodship & Furness (2022) in place of Bradbury et al. (2014, 2017), and the assessment conclusions remain unchanged.	Volume 3, Chapter 15 Offshore Ornithology, Section 15.3.3.

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ii.	The applicant is requested to provide further justification in relation to the screening out of European Shag *Gulosus aristotelis* and Great Cormorant *Phalacrocorax carbo* for several SPAs (NWIS cSPA, Skerries Islands SPA, Ireland's Eye SPA, and Lambay Island SPA). A contradictory statement is included in Section 5.4.2 of the submitted NIS: "*all species were screened in with the exception of cormorant and shag, which are not considered at risk of offshore impacts of collision effects (based on flight height data) or displacement impacts (with evidence of birds even being attracted to OWFs and roosting on the structures) (Bradbury et al., 2014, Dierschke et al., 2016)*". The applicant is requested to review this and amend their documentation accordingly to address this issue.	The Developer does not consider the statement in Section 5.4.2 to be contradictory but acknowledges that clarification is required and has reviewed and amended the wording in Section 5.4.2 of the NIS to add clarity. European Shag (*Gulosus aristotelis*) and Great Cormorant (*Phalacrocorax carbo*) were screened out for the relevant SPAs on the basis of there being no plausible impact pathways with respect to both collision risk and displacement effects. Available evidence indicates that both species predominantly undertake low-altitude flight, below the rotor-swept zone of offshore wind turbines, such that collision risk is considered negligible (Johnston et al., 2014). In addition, both species are strong divers and benthic foragers with behaviour that is not typically associated with sustained flight at heights relevant to collision impacts. Now presented in Section 3.4.3 of the SISAA. In relation to displacement, published evidence indicates that neither species show consistent avoidance of offshore wind farms (Bradbury et al., 2014). On the contrary, observations of individuals using wind farm areas and, in some cases, roosting on turbine structures suggest a tolerance of, or neutral response to, offshore wind developments (Dierschke & Garthe, 2016). This behaviour is not interpreted as indicating impact; rather, it supports the conclusion that displacement effects are unlikely to occur at a scale relevant to the conservation objectives of the SPAs concerned. Accordingly, while both species were considered at the screening stage, they were screened out of further assessment because there is no impact pathway for either species in respect of: • Collision risk (due to low flight heights). • Displacement or barrier effects (demonstrated by the best available evidence base). The documentation has been amended to more clearly distinguish between screening-in for consideration and screening-out following impact pathway evaluation, thereby avoiding any ambiguity. The conclusion that European shag and great cormorant do not require Appropriate Assessment for the identified SPAs remains unchanged. Justification for this position is now also found in Section 3.4.3 of the SISAA.	SISAA, Section 3.4.3. NIS, Section 5.4.2.

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Impact Assessment Methodology			
i.	Displacement Methodology: The Board is satisfied that the applicant has used the industry standard Displacement Matrix approach. However, the Board notes that the applicant has based conclusions in relation to displacement on its preferred rates for displacement and mortality of auks and Northern Gannet (50% displacement and 1% mortality for auks, 70% displacement and 1% mortality for Northern Gannet *Morus bassanus*) instead of on industry recommended rates and has taken these rates forward to Population Viability Analysis (PVA). The Board queries the applicant's use of preferred rates in relation to auks, due to NISA's close proximity to the coast and to breeding Common Guillemot and Razorbill *Alca torda* colonies (NWIS cSPA, Lambay Island SPA, and Ireland's Eye SPA). The applicant is requested to review the EIAR and NIS to apply rates more appropriate to the location and scale of the development, and in line with industry recommendations (60% displacement and 1-5% mortality for auks; and 70% displacement and 1-3% mortality for Northern Gannet; NatureScot, 2023), to inform assessment and enable comprehensive conclusions. Where impacts with these rates result in a >1% increase in baseline mortality rate, the mortality estimates should be taken forward to PVA.	The Developer notes the Board's comment regarding the displacement and mortality rates applied for auks and gannet and acknowledges the request to consider the recommended rates set out in NatureScot (2023). The Developer maintains that the displacement and mortality rates originally applied (50% displacement and 1% mortality for auks; 70% displacement and 1% mortality for gannet) are appropriate and proportionate, having regard to the available empirical evidence, site-specific survey data and the characteristics of the proposed development. A full, evidence-based justification for the Developer's preferred rates is provided in Appendix A15.5 Offshore Ornithology Displacement Analysis. Notwithstanding this position, and in recognition of the Board's request, the Developer has also applied the NatureScot (2023) precautionary rates (60% displacement and 1–5% mortality for auks; 70% displacement and 1–3% mortality for gannet) alongside the Developer's preferred rates within the EIAR and NIS. N.B. Where application of the NatureScot (2023) rates results in a greater than 1% increase in baseline mortality for any species, the resulting mortality estimates have been taken forward to PVA, in line with industry practice and guidance (Parker et al., 2025c). Accordingly, the assessment provides a transparent, robust and precautionary evaluation of displacement effects, while clearly setting out and justifying why the Developer's approach represents the best available evidence.	Volume 9, Appendix A15.5 Offshore Ornithology Displacement Analysis, Section 2.
ii.	Black-legged Kittiwake Displacement: Appendices 15.7, 15.8 and 15.9 document a proposed method statement for ornithology for the Irish Sea Phase 1 ORE projects, which was responded to by the NPWS, with a further response by the applicant to the NPWS response. The issue of Black-legged Kittiwake *Rissa tridactyla* displacement has been set out in the EIAR and within the appendices referenced. The Board notes that the species is a SCI for the NWIS cSPA, as well as Lambay Island SPA and Ireland's Eye SPA within foraging range of the proposed array area. Black-legged Kittiwake has variable responses to OWFs, ranging from up to 45% displacement effects to mild attraction effects, varying at different latitudes, distances from colonies, and seasons (e.g. Peschko et al., 2020; Pollock et al., 2024). Having reviewed the information presented, the Board disagrees with the screening out of Black-legged Kittiwake for displacement for reasons related to the proximity of the proposed development to the coast and to breeding colonies.	Without prejudice to its position that the best available evidence indicates that black-legged kittiwake are not prone to displacement from operational offshore wind farms, the Developer has included an assessment of kittiwake displacement within Section 15.5 of Chapter 15: Offshore Ornithology and Section 5.4 of the NIS. The assessment follows the UK Joint SNCB Interim Displacement Advice Note prepared by MIG Birds (SNCBs, 2022), within which kittiwake are not identified as a priority species for displacement assessment. Consistent with this guidance, Chapter 15 Offshore Ornithology chapter (Table 15.22) classifies kittiwake as having low vulnerability to displacement. The NIS assessed all qualifying interests of the NWIS cSPA, including kittiwake, with consideration of spatial distribution and disturbance in line with the site conservation objectives.	Volume 3, Chapter 15 Offshore Ornithology, Section 15.5. Section 5.4 of the NIS.

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	The applicant is requested to use the displacement matrix approach, as for other species. Here, a 30% displacement rate should be applied, and mortality rates should be based on best available evidence, but with a range of rates presented, from 1% to 3%, as advised by NatureScot (2023). The applicant, based on the revised findings, is requested to re-analyse the displacement impacts on the regional population of Black-legged Kittiwake in the EIAR and against the Conservation Objectives of the relevant SPAs and cSPA in the NIS to ensure comprehensiveness of appropriate assessment conclusions.	As set out in Section 5.4.2.4 of the NIS, no adverse effect on integrity is predicted for kittiwake, reflecting the species' extensive foraging range (mean maximum + 1 SD: 300.6 km; Woodward et al., 2019) and low sensitivity to disturbance and displacement. Updated conservation objectives published in November 2024 for Ireland's Eye SPA, Howth Head SPA and Lambay Island SPA have been reviewed, and incorporated in the NIS. Both displacement and collision impacts have been assessed in the EIAR and NIS for all relevant SPAs. Overall, displacement effects were lower than collision risks. Neither impact pathway resulted in significant cumulative effects (as reported in Chapter A15), nor did they give rise to AEoI in view of the sites' conservation objectives, either alone or in combination (as concluded in the NIS Addendum). These conclusions are considered robust, as they are based on precautionary assumptions, up-to-date survey data, and established assessment methodologies applied consistently across all relevant SPAs. Whilst the assessment of kittiwake displacement has been included in response to this RFI, the developer position is that the use of the NatureScot (2023) approach is likely to overestimate effect. NatureScot (2023) advises the application of a precautionary displacement rate of 30% with 1–3% mortality for kittiwake; however, these rates are not derived from robust published empirical studies but instead reflect a highly precautionary interpretation informed by a small number of studies. The wider peer-reviewed evidence base, together with the Joint SNCB advice, is less consistent and does not demonstrate clear or systematic evidence of displacement effects for kittiwake at operational offshore wind farms; studies instead report variable responses, including negligible effects or a balance of attraction and avoidance behaviours across sites (e.g. Dierschke et al., 2016; Leopold et al., 2013; Vanermen et al., 2014; Petersen et al., 2006; Mendel et al., 2014; APEM, 2017; Percival & Ford, 2017; Trinder et al., 2024; Pollock et al., 2023; Johnston et al., 2024; Lamb et al., 2024). The joint SNCB guidance bases screening on disturbance susceptibility and habitat specialisation scores (Furness et al., 2013; Bradbury et al., 2014), with species typically taken forward where either score exceeds 2 (out of 5). Kittiwake score 2 for both metrics. The guidance further notes that gull species generally do not require routine displacement assessment, reflecting evidence of neutral responses or attraction to offshore wind farms. Post-construction monitoring provides further support for this approach.	

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		For example, studies at Westermost Rough (APEM, 2017) and Beatrice (Trinder et al., 2024) found no evidence of kittiwake displacement or turbine avoidance. Likewise, tagging data indicate continued use of operational wind farm footprints during the breeding season, including within the Buchan Ness to Collieston Coast SPA (O'Hanlon et al., 2024). One study reporting reduced kittiwake density (Peschko et al., 2020) identified a 45% reduction within an array and a 3 km buffer in the German North Sea; however, transferability of these findings to the proposed development is uncertain. Effects were limited to a narrow breeding-season window (mid-May to mid-July), confidence intervals were wide, and survey effort was uneven between impact and control areas, meaning alternative explanatory factors cannot be ruled out. Most recently, tracking data from Whinnyfold, Scotland (Pollock et al., 2024) showed macro-scale attraction of kittiwake to within 1 km of an offshore wind farm, alongside meso-scale avoidance of individual turbines. While the study notes that aggregation could theoretically reflect redistribution within the array, one offshore wind farm was visited by 95% of tagged individuals, indicating that significant displacement is unlikely. In this context, there is limited empirical support for applying standardised displacement rates, and the precautionary approach adopted by NatureScot is likely to overestimate effects.	
iii.	Red-throated Diver Displacement: The Board requests that the applicant reconsiders screening out displacement effects on Red-throated Diver associated with the array area. As noted in point a(iii) above, Red-throated Diver is highly sensitive to displacement effects associated with OWFs and vessel traffic (e.g. Furness *et al*., 2013; Bradbury *et al*., 2014a-b, Fliessbach *et al*., 2019). As described in point a(iii) and the references therein, Red-throated Diver can be displaced by OWFs up to 10 km. The species is a SCI of the NWIS cSPA and the region supports an important wintering population (HiDef, 2019). The applicant is requested to use appropriate data (as discussed in points a(ii) and (iii) above) to assess potential displacement impacts to the regional and the cSPA Red-throated Diver populations in the EIAR and the NIS. The applicant should consider displacement effects up to 10 km from the proposed array area during operation.	See Developer Response to RFI 8aiii above.	Volume 9, Appendix A15.1 Offshore and Intertidal Ornithology Technical Baseline.
iv.	Collision Risk Modelling: It is noted that Roseate Tern flight height data and its analysis were not presented in the Johnston et al. (2014a-b) paper referenced in Appendix 18.	Additional NWIS DAS data were collected in 2024 and 2025, and the CRM has been fully updated based on these surveys (Appendix A15.3).	Volume 9, Appendix A15.3 Offshore Ornithology Collision Risk Modelling Assessment, Sections 2 & 3.7.

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	The DAU in their observation recommends that clarification be sought as to the sources of the precise parameters for Roseate Tern flight behaviour used in the CRM as well as a statement regarding the robustness of such data. The applicant is requested to address this issue.	Higher numbers of terns were recorded during the late breeding season; however, as with previous surveys, the sample size and reliability of flight height estimates derived from DAS and vessel-based methods was not considered sufficient for direct use in CRM. Accordingly, the Developer has continued to use published flight height distributions from the literature, which provide the most reliable and widely accepted basis for assessment (JNCC, 2024). Common tern flight height distribution from Johnston et al. (2014) has been used as a proxy for roseate tern. This approach was adopted as common tern most closely reflects the flight ecology and behaviour of roseate tern and is the most precautionary of the small tern species considered (common and Arctic), due to its higher flight height distribution. Johnston et al. (2014) is derived from an extensive, multi-site dataset and is recognised as the most comprehensive and robust source currently available. It is widely used across England, Wales and Scotland and is recommended by both Natural England and NatureScot for CRM assessments over site-specific flight height data derived from boat-based surveys or DAS estimates. In addition, the Developer has committed to increasing the minimum lower turbine tip height to 40 m LAT, where possible (with the exception of the aviation restriction zone associated with Project Option 2, where a minimum tip height of 35 m applies to eight turbines). This substantially reduces collision risk for low-flying species such as terns. Based on Johnston et al. (2014), increasing lower tip height from 22 m to 40 m reduces the proportion of common and Arctic terns flying within the rotor-swept zone by over 90%, leaving only 0.47% (common tern) and 0.22% (Arctic tern) of flights within the risk envelope. This measure provides a significant further reduction in potential collision risk to roseate tern.	
v.	The Board notes that Natural England have accepted a 70% reduction in Northern Gannet collision mortality estimates to account for macro-avoidance for other offshore wind farm developments, such as Hornsea 4. However, given the proximity of the proposed development to the coast and to the nearest breeding colony at Ireland's Eye (c. 15km away), a more precautionary approach is recommended. The applicant is requested to revise the approach taken in relation to Northern Gannet collision estimates so they are not reduced by 70% to account for macro-avoidance.	The Developer considers this level of precaution to provide over-inflated, unrealistic results. Given the evidenced avoidance of operational wind farms by gannet (~70%), collision risk is expected to be reduced by approximately the equivalent value when assessing CRM based on pre-construction densities within the proposed development. Parameters such as distance to coast or nearest breeding colony are also variables that are not considered when conducting CRM. Nevertheless, the Developer has presented CRM outputs both with and without the application of macro-avoidance in Chapter A15 and throughout the NIS.	Volume 9, Appendix A15.3 Offshore Ornithology Collision Risk Modelling Assessment, Section 3.13. Volume 3, Chapter 15 Offshore Ornithology, Sections 15.4 & 15.5. NIS Sections 3, 4, 5, 6 & 7

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vi.	Any potential specific mitigation measures to minimise the effects of the project on birds, such as painting of turbine blades, the use of curtailment systems in particular conditions or at particular times etc, if considered appropriate, should also be included and addressed in the application documentation.	The Developer has already committed to substantial and effective mitigation measures that directly address the key risk pathways. The proposed development will not result in an AEoI of the River Boyne and River Blackwater SAC, in view of the site's COs below is an overview of the measures the Developer has committed to, using terns as an example. **Blade Tip Clearance and Flight Height Evidence** Seabirds, in general, are low-flying species spending the majority of their time on or close to the sea-surface. Modelled seabird flight heights, for 25 species, demonstrate that the majority of flights occur within 20 m of the sea surface (Johnston et al., 2014). Recognising this, the proposed development has committed to increasing the turbine air draft (minimum blade tip clearance above sea level) to 40 m LAT, where possible (see details under point 'iv' above). Based on the flight-height distributions presented in Johnston et al. (2014), increasing the air draft from 22 m to 40 m reduces the proportion of common and Arctic terns flying within the rotor swept zone by over 90%. At a 40 m air draft, the probability of a bird occurring within the rotor swept zone is just 0.22% for Arctic tern and 0.47% for common tern, with comparable reductions for roseate tern. As a result, the predicted number of collisions for all tern species is extremely small. Similar benefits can be seen for other key collision risk species (e.g. kittiwake, and other gulls). This increase in blade tip clearance represents the single most effective mitigation measure available for collision risk reduction for low-flying seabirds and far outweighs the potential benefits of secondary or experimental measures, such as painting of turbine blades and the use of curtailment systems. **Blade Painting as a Mitigation Measure** The Developer is aware of studies investigating turbine blade painting as a collision mitigation measure, including May et al. (2020), which reported a reduction in bird collisions following the painting of one blade black at the Smøla onshore wind farm in Norway. While this study demonstrated that visual contrast may influence collision rates for some species under specific conditions, it is context-specific, onshore in nature, and centred on large raptors. Its applicability to offshore wind farms and to seabird species such as terns remains unproven. More recently, Klop et al. (2023) assessed the effectiveness of blade painting across multiple sites and species groups.	Volume 9, Appendix A15.3 Offshore Ornithology Collision Risk Modelling Assessment, Section 2. Volume 3, Chapter 15 Offshore Ornithology, Sections 15.4 & 15.6. Volume 8, Appendix A5.1 Design Refinements.

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		While a reduction in collision rates was observed following blade painting, the effect was described as “fairly weak” and not statistically significant. The authors further noted substantial variability in collision rates and concluded that the current evidence base is insufficient to draw robust conclusions regarding effectiveness, particularly across different species groups and environments. Given the limited, inconclusive, and largely onshore-derived evidence, and the absence of clear offshore seabird-specific validation, the scientific evidence does not currently support the widespread implementation of blade painting as an effective mitigation measure offshore. Accordingly, the Developer does not propose to implement this measure at this time. **Empirical Evidence from Post-Construction Monitoring** Evidence from offshore post-construction monitoring further supports the effectiveness of increased blade tip clearance and inherent avoidance behaviour. Post-construction collision risk monitoring at the Aberdeen Bay Offshore Wind Farm used radar and camera systems over a two-year period to assess bird behaviour within and around the wind farm (Vattenfall, 2023). The study found that birds consistently altered flight paths to avoid turbines, and no bird collisions were recorded during the monitoring period. This provides strong empirical support that the assessment parameters, such as avoidance rates, are precautionary and that further monitoring or additional mitigation (in terms of blade colours) may have limited benefit. **Turbine Curtailment During Bird Migration** While turbine curtailment during bird migration has been considered as mitigation, current evidence indicates that broad, period-based curtailment during peak migration is unlikely to be effective or proportionate. Empirical evidence from the VolZug project, using multi-season radar and AI-assisted monitoring, shows extremely high avoidance rates by migratory birds (>99.8%) and no correlation between migration intensity and collision risk (Liedtke et al., 2025). Instead, collision risk is more strongly associated with specific weather conditions, such as reduced visibility, undermining the rationale for generic curtailment linked solely to migration peaks. This evidence is reflected in UK policy, with National Policy Statement EN-3 noting that shutdowns during estimated peak migration periods are currently unlikely to offer suitable mitigation.	

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		Accordingly, curtailment should be viewed as a potential future, highly targeted measure triggered by defined risk conditions, rather than a standard or precautionary mitigation approach at this stage. **Displacement Mitigation for the NWIS cSPA** In addition to collision risk mitigation, the Developer has undertaken pre-application design refinements to mitigate potential displacement impacts on the NWIS cSPA, particularly for species sensitive to habitat loss and disturbance. There has been a considerable reduction in the size of the array area from the original Maritime Area Consent (MAC) boundary. This process considered hotpots of auks, the most abundant species within the survey area, using species heatmaps from raw observations and a modelled approach using MRSea (MRSea Modelling Report). When displacement is considered relative to turbine spatial extent (PFI) rather than the array boundary, the affected area of the SPA reduces further. Consequently, any displacement effects on auks and other sensitive species are geographically limited and have been substantially reduced through the design and impact assessment process. **Conclusion** The Developer has implemented robust, evidence-led mitigation through turbine design, WTG layout refinement and reduction in the array area. Increasing blade tip clearance to 35/40 m LAT (see details under point 'iv' above) is demonstrably the most effective measure for reducing collision risk to terns and other low-flying species, supported by published flight-height data and offshore post-construction monitoring evidence. In contrast, blade painting remains experimental, with weak and inconclusive evidence in the offshore context, and therefore is not justified as a mitigation measure at this stage.	
vii.	Impacts to Prey Species: The DAU in their observation states that the documentation submitted does not appear to include any consideration of potential indirect effects of the proposed development on the likely prey-base (i.e. Atlantic salmon *Salmo salar*) for resident Common Kingfisher *Alcedo atthis*, an Annex I species and a SCI for the River Boyne and Blackwater SPA.	The Developer confirms that Section 3.4, of Appendix A13.1: Fish and Shellfish Ecology Baseline Characterisation has been updated to provide further detail on forage fish and other important prey species. Chapter 13 Fish and Shellfish Ecology has also been updated to include further references to potential impacts on forage species. Furthermore, Section 13.3.9 has been updated to include reference to the River Boyne and River Blackwater SAC, designated for Atlantic salmon and river lamprey. The assessments concluded no significant adverse effects on herring spawning habitat, and by extension no significant effects on seabirds through indirect impacts on prey.	Volume 9, Appendix A13.1 Fish and Shellfish Ecology Baseline Characterisation, Section 3.4. Volume 3, Chapter 13 Fish and Shellfish Ecology, Sections 13.3 & 13.3. SISSA, Section 3.6.4.

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	The DAU also state that there does not appear to be any consideration of the potential effects with respect to either the associated construction works and/or operation of the development on the Conservation Objectives of the River Boyne and River Blackwater SPA; which is connected to the River Boyne SAC, Boyne Coast and Estuary SAC, and the offshore marine waters of the Irish Sea. The applicant is requested to address the issues raised.	A 15 km ZoI is used for low mobility/sedentary terrestrial ornithological qualifying interests. This SPA is located over 15 km from the onshore and offshore development areas therefore there is no connectivity for disturbance or displacement effects for common kingfisher and other low mobility/sedentary terrestrial bird species as a result of the construction, operation and decommissioning of the onshore and offshore infrastructure. It should be noted that the qualifying bird features of the River Boyne and Blackwater SPA would not experience indirect effects via changes to prey availability caused by the proposed development through changes to water quality (e.g. through increases to suspended sediment concentrations or accidental pollution) as the ZoI of the proposed development for marine and sediment water quality has been defined using the sediment excursion distance which represents a 12km area around the array area and ECC boundaries. As the proposed development would not result in effects on fish or other prey species within the supporting habitat of the SPA due to the lack of connectivity, no indirect effects on supporting habitats or food resources are anticipated. Therefore, there is no potential for LSE in relation to all effects, either alone or in-combination. Table 3.12 in the 2024 SISAA, which provides the sites and features identified for offshore and intertidal ornithological receptors, has been updated and replaced by Table A3.5 in the SISAA. There are no updates required for the NIS.	
viii	The applicant is requested to fully assess the potential impacts on Atlantic herring *Clupea harengus* potential spawning habitat. The applicant is requested to review the application in this regard and clarify potential effects on seabird prey populations.	The potential for impact to Atlantic herring spawning habitat, and in result indirect impacts on seabirds due to impacts on prey, has been further assessed through reference to Particle Size Analysis data collected along the ECC and within the array area in 2025 (Appendix A12.1 Benthic Ecology Survey Report), and heatmapping in accordance with the Kyle-Henney, (2024) methodology. The revised baseline to include information on forage fish and other important prey species for marine mammals and seabirds is detailed in Section 13.3.3 of Chapter 13: Fish and Shellfish Ecology. The impact assessment has been reviewed in light of this additional information alongside design refinements and the potential effects updated as appropriate in Section 13.5	Volume 3, Chapter 13 Fish and Shellfish Ecology, Sections 13.3.3 & 13.5.
Cumulative and Transboundary Effects			
i.	Cumulative Effects Assessment: Impacts on birds in the CEA (Section 15.9 of Chapter 15, and Chapter 38) are presented and assessed against annual populations only.	The CEA has been updated to assess impacts on birds separately for the breeding and non-breeding seasons where the available data allow.	Volume 3, Chapter 15 Offshore Ornithology, Section 15.9.

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	Having regard to points a(vii) Regional Breeding Population and c(i) Displacement Methodology above, the applicant is requested to revise the CEA to ensure impacts are presented and assessed against the breeding and non-breeding season populations separately.	Chapter A15 (Section 15.9) has been revised accordingly, with season-specific population estimates applied to the displacement and collision risk assessments. However, data limitations for some older operational OWFs mean that a fully comprehensive seasonal breakdown is not possible for some species at some wind farm sites. In these situations, the annual total is therefore considered the most appropriate basis for assessment, as it avoids artificial precision, prevents double-counting or misallocation of effects between seasons, and ensures that the assessment population remains proportionate to spatial extent of projects considered cumulatively. This approach provides a robust representation of potential impacts at the population level and is consistent with established CEA practice, which does not explicitly recommend that the breeding and non-breeding season populations are assessed separately (Parker et al., 2025c).	
ii.	Migratory Waterbird Species: Migratory birds have not been included in the Cumulative and Inter-related Effects Assessment presented in the application documentation. As stated previously (points a(iv) Migratory Birds and a(v) Terrestrial Birds), the Board has requested further assessment of the impact on migratory birds for the project, and further data to inform the assessment. The applicant is requested to assess cumulative impacts to migratory bird populations, considering effects of the Irish Sea Phase 1 ORE projects and other existing or currently proposed plans and projects that may affect the same migratory populations. The applicant is requested to update the application documentation, as required.	In response to the Board's request for further assessment, the Developer has undertaken a joint Phase One mCRM for the Irish Sea Phase 1 ORE projects (Appendix A15.4). This assessment considered cumulative collision risk to migratory bird populations using consistent methodologies, shared assumptions, and population-level metrics across projects, including existing and proposed developments affecting the same migratory flyways. The Phase One mCRM demonstrates very low levels of predicted cumulative impact for all assessed migratory species, with mortality estimates representing a negligible proportion of relevant Irish and biogeographic populations and remaining well below accepted significance thresholds. Consequently, no adverse cumulative effects on migratory waterbird populations are predicted to arise from the proposed development alone or cumulatively with other plans and projects in the Irish Sea. The findings of the joint Phase One mCRM have been used to update the application documentation, including the cumulative assessment sections relating to migratory birds, to ensure consistency with the latest evidence base and to address points 8a(iv) and 8a(v) raised by the Board.	Volume 9, Appendix A15.4 Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment, Section 3.
Natura Impact Statement			
i.	Foraging Range Screening: Within the document 'Supporting Information for Screening for Appropriate Assessment', Section 3.4.3.1, it is stated that in Table 3.13 "*For SPAs beyond 300km, only features which have breeding season connectivity were included (based on foraging ranges in Table 1.8), for example gannet and kittiwake due to their larger foraging ranges*".	The intention of the assessment was to include SPAs beyond 300 km where species have demonstrated breeding-season connectivity based on species-specific foraging ranges (e.g. gannet and kittiwake).	SISAA, Section 3.6.4.

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	The last table in that section is numbered 3.12 and, notwithstanding the labelling, does not include any SPAs beyond 300 km. The applicant is requested to clarify this discrepancy and present screening determinations for all SPAs within the species-specific foraging ranges, including those beyond 300 km from the proposed array area.	We confirm that screening determinations for all SPAs within the relevant species-specific foraging ranges, including those beyond 300 km from the proposed array area, have now been included in the Supporting Information for Screening for Appropriate Assessment (SISAA).	
ii.	Gull Screening for Likely Significant Effect: The applicant is requested to provide further justification to screen out Black-legged Kittiwake and Lesser Black-backed Gull *Larus fuscus* for the Seas off Wexford cSPA, given that this cSPA is within the species-specific foraging ranges of the proposed development or alternatively provide further consideration of these species in the NIS.	Foraging ranges are relevant for deriving connectivity between breeding colonies (where birds act as central place foragers) and developments, with developments falling within a given foraging range from an SPA potentially impacting that SPA. The Seas of Wexford SPA, as a marine SPA, does not have any breeding seabirds (it protects seabirds breeding at other SPA colonies), and as such birds are not acting as central place foragers from this SPA. Therefore, species specific foraging ranges from this SPA are only relevant in determining which colonies may contribute to the numbers of birds within the Seas off Wexford SPA during the breeding season. However, this is not relevant as the Seas off Wexford SPA is specifically designated to protect qualifying interests breeding at three colony SPAs that abut the Seas off Wexford SPA. The qualifying interests of the Seas off Wexford SPA are contributed by four breeding colony SPAs, namely Lady's Island Lake SPA, Wexford Harbour and Slobs SPA, the Saltee Islands SPA and the Keeragh Islands SPA. All of these breeding colony SPAs about the Seas off Wexford SPA. The proposed development is located over 118 km away from the Seas of Wexford SPA and therefore would not result in any direct effect on the designated site itself through displacement or collision. For there to be an impact pathway for proposed development for the Seas off Wexford SPA, the proposed development would need to be located within the pattern of foraging movement between Seas of Wexford SPA and the abutting SPAs. However, given that the proposed development is over 118 km from the Seas off Wexford SPA and all of its abutting contributary SPA colonies, this is considered extremely unlikely. As such, it is considered that there is no impact pathway for any birds designated at the Seas off Wexford SPA. In other words, when identifying potential impact pathways from collision or displacement, the key consideration is effects on breeding populations associated with an SPA. As Seas of Wexford does not have a breeding population for any QIs.	SISAA, Section 3.6.4.

No.	Request for Further Information Details	Developer Response	Location of Response
		Instead, impacts on breeding populations of birds using the Seas of Wexford SPA colony are considered through the assessment for the SPAs from which those birds originate (their breeding colony), i.e. Lady's Island Lake SPA, the Saltee Islands SPA, Wexford Harbour and Slobs SPAand the Keeragh Islands SPA. These sites have been included in the screening, and, where appropriate, screened in with impacts assessed and apportioned to these colonies. For context, current advice by NatureScot for Marine SPAs is that "*For breeding seabirds within marine SPAs, the population level consequences will be addressed through consideration of connectivity from functionally linked seabird colony SPAs*", and that "*For all non-breeding seabird qualifying features of marine SPAs to determine LSE, impact pathways need to be considered within 15km of the marine SPA*". The proposed development is thus well beyond the Zone of Influence typically considered.	
iii.	Purple Sandpiper Disturbance: The applicant has used a 300m disturbance buffer for Purple Sandpiper *Calidris maritima*, citing a study looking at pedestrian-related disturbance (Goodship and Furness, 2022). Justification for applying this buffer, or use of an alternative source that is more appropriate, is requested, or alternatively provide further consideration of these species in the NIS.	The developer considers the proposed buffer suitable based on the best available scientific evidence. Although this study references human disturbance, the paucity of other available literature on the disturbance of purple sandpiper means this is the most relevant study for this species considering there is a lack of disturbance studies for this species. Even though the 300m is in relation to pedestrian-related disturbance, the developer still considers this impact range to be appropriate for offshore works. The risk of disturbance to purple sandpiper is considered low, particularly as no activities are proposed within at least 3.5 km of Rockabill SPA, where the species is a qualifying interest.	NIS, Section 5.1.4.11.
iv.	North-west Irish Sea cSPA Conservation Objectives: The NWIS cSPA is designated for 21 bird species. It is a Conservation Objective of the NWIS cSPA to restore the favourable conservation condition of Black-legged Kittiwake, European Herring Gull *Larus argentatus*, Atlantic Puffin *Fratercula arctica*, Northern Fulmar *Fulmarus glacialis*, Great Cormorant, and European Shag. This 'restore' objective also applies to the same SCIs within the ecologically connected SPAs in this area. It is noted that having regard to survey data related to Atlantic Puffin and the NWIS cSPA population and applying the industry standard recommended rates (60% displacement, 1-5% mortality; NatureScot, 2023) results in >1% increase in baseline mortality, thus would constitute 'Likely Significant Effect' and require Appropriate Assessment in the NIS. This species should therefore be assessed in the NIS for the NWIS cSPA, following the industry standard displacement matrix approach using the recommended displacement and mortality rates (NatureScot, 2023).	This comment is noted by the Developer. In response to the RFI, it is clarified that the majority of the species referenced were not screened out but were screened in and assessed within the NIS. A robust assessment of all relevant qualifying interests of the NWIS cSPA, including roseate tern, puffin and Manx shearwater, is provided in Section 5.4.2 of the NIS in view of the relevant conservation objectives. This assessment concluded that the proposed development, alone and in-combination, will not result in adverse effects on the integrity of the NWIS cSPA. The only species screened out from further assessment of offshore impact pathways was shag and cormorant.	NIS, Section 5.4.2.

No.	Request for Further Information Details	Developer Response	Location of Response
	The applicant is requested to review the SCIs of the aforementioned species to ensure and to clarify that they are appropriately assessed in the NIS, with regard to the objective to restore these species.	As explained in response to RFI 8(b)(ii), shag and cormorant were screened out on the basis that they are not considered vulnerable to collision risk (based on robust flight height data) and show limited evidence of displacement, with studies indicating potential attraction to offshore wind farms and use of structures for roosting (Bradbury et al., 2014; Dierschke et al., 2016). Please see response to RFI 8 b)ii) above, explaining why shag and cormorant were screened out of further assessment of potential impacts arising from the offshore elements of the proposed development in the SISAA.	
v.	North-west Irish Sea cSPA Red-throated Diver: As discussed in points a(ii), a(iii), and c(iii) above (regarding Red-throated Diver and Displacement), Red-throated Diver is a SCI for the NWIS cSPA and is highly sensitive to disturbance and displacement effects. The Board queries the applicant's approach where the species is screened out of displacement effects associated with the proposed array area. The applicant is requested to use appropriate data and to screen Red-throated Diver in for displacement effects associated with the proposed array area and vessel traffic. The NIS should be updated accordingly.	The Developer acknowledges the sensitivity of red-throated diver to noise and visual presence, and therefore the risk of disturbance. Considering this, the Developer has assessed red-throated diver for disturbance within the offshore ECC + 2km buffer and within the PFI + 10km buffer for the NWIS cSPA, following the best available evidence (Chapter 15 & the NIS). The Developer has used the recent NWIS DAS data which is the most recent and comprehensive dataset to characterise the baseline environment.	NIS, Section 5.1.2.19. Volume 3, Chapter 15 Offshore Ornithology, Section 15.4.6.
vi.	North-west Irish Sea cSPA Common Guillemot: The DAU observation states that the proposed development would reduce the habitat suitability for Common Guillemot of an area equating to 8.5% of the NWIS cSPA, which would contravene the Conservation Objective for the SPA to maintain its favourable conservation condition. The applicant is requested to justify its interpretation of the data in relation to Common Guillemot and, where appropriate, re-evaluate the data and re-interpret the consequences for the impacts on the Conservation Objectives of the NWIS cSPA, having regard to the observation from the DAU.	The DAU observation suggests that the proposed development would reduce habitat suitability for Common Guillemot within the North-west Irish Sea (NWIS) cSPA over an area equivalent to 8.5% of the site. This conclusion appears to be based on a spatial comparison between the array area plus 2km buffer and the total SPA area but fails to consider if and how said spatial overlap may lead to a consequence in terms of an AEoI to the species in view of the qualifying interest (QI). The data, which is an area-based metric, does not in itself represent a meaningful measure of impact on the Common Guillemot QI, as the assessment of potential AEoI must be in view of the Conservation Objectives of the relevant site, namely the NWIS cSPA. The Conservation Objectives of the site are framed in terms of maintaining the population size, distribution, structure and function of habitats supporting the qualifying species, rather than the absolute availability of habitat area. As such, the key consideration is whether predicted effects would lead to a measurable adverse consequence for the guillemot population of the cSPA, rather than whether a given proportion of the site spatially overlaps with the zone of influence of the development.	NIS, Section 5.4. NIS Appendix A21: Additional Guillemot Ecological Evidence Note. NIS Appendix A22: Senior Legal Counsel Opinion on NPWS Submission.

No.	Request for Further Information Details	Developer Response	Location of Response
		Several key ecological aspects are now presented in Appendix A21: Additional Guillemot Ecological Evidence Note, which covers the following topics focusing primarily on guillemot within the NWIS cSPA: • Consequences of displacement. • Effects of increased density on prey base. • Capacity of the wider cSPA to absorb displaced birds. • Existing natural variability and patchiness. • Behavioural flexibility of seabirds. • Project footprint in the context of the wider cSPA. • Non-breeding season sensitivity. Some of the key points from the assessment that address this DAU observation are discussed below. For a full assessment see the NIS (Section 5.4.2). In considering this submission from the DAU, the Developer obtained a legal opinion on the interpretation of the conservation objectives, and this is provided in Appendix A22: Senior Legal Counsel Opinion on NPWS Submission. The guillemot qualifying population of the NWIS cSPA is extensive and highly mobile, with distribution across the site varying temporally in response to prey availability and oceanographic conditions. Density surface modelling indicates that while guillemots occur within the wider offshore development area, this area does not correspond to a core area of consistently high density at the cSPA scale. Predicted effects are therefore dispersed across a large population and are not focused on a discrete sub-area of the cSPA. Furthermore, the predicted impact relates to temporary and reversible changes in habitat use associated with displacement, rather than to permanent loss or degradation of habitat. No reduction in the overall extent or ecological function of habitats supporting the guillemot population is predicted. The analysis indicates that any displacement would represent a very small proportion of the total NWIS cSPA population at any given time and would not compromise the ability of the site to support the qualifying feature in the short, medium or long term. Having regard to the DAU observation, the Developer has reviewed the data and considers that the 8.5% figure, estimated from the Planning Application, should not be interpreted as an equivalent reduction in effective habitat for the SPA population, nor as an indicator of adverse effects on population viability or site integrity.	

No.	Request for Further Information Details	Developer Response	Location of Response
		The seabed footprint of permanent infrastructure associated with the proposed offshore development Project Option 1 is estimated to be 0.53 km², or 0.02% of the cSPA. The ecological evidence demonstrates that the overlap reflects a precautionary displacement envelope rather than a functional loss of habitat, with displacement representing a behavioural response that does not inherently translate to a direct ecological impact. Its relevance to assessment arises only where redistribution leads to measurable effects on survival or productivity. When considered against the scale, variability in usage and functional capacity of the wider NWIS cSPA to support the guillemot population, including its ability to absorb redistributed birds and continue to support the qualifying population, the predicted effects are limited and not sufficient to undermine the conservation objectives or the maintenance of favourable condition of guillemot for the NWIS cSPA. Additionally, the Developer notes that since the submission of the Planning Application further design refinements have been made in response to the RFI (8(e)vi)) to provide additional mitigation, with the overlap of the PFI plus a 2 km displacement buffer now equating to 6.9%. The Developer concludes that beyond reasonable scientific doubt, in view of the site's conservation objectives, the proposed development would not result in an adverse effect on the integrity of the North-west Irish Sea cSPA, either alone or in combination with other plans or project, in relation to the Common Guillemot qualifying feature. The full assessment can be found in the NIS and Appendix A21: Additional Guillemot Ecological Evidence.	
vii.	Displacement Assessment: The Board notes that model-based assessment of displacement effects has not been included in the NIS. Such approaches are only applicable to a small number of species during the chick-rearing period, however, provide important context and can support the assessments undertaken using displacement matrices. Models such as SeabORD (Mobbs et al., 2018; Searle et al., 2018) take an individual-based approach and incorporate energetics associated with displacement into the assessment. Such approaches are standard practice. The applicant is requested to review the NIS in this regard.	Model-based displacement tools such as SeabORD (Mobbs et al., 2018; Searle et al., 2018) were developed primarily for use on the east coast of Scotland and are not routinely applied, even within that region. In practice, the model has frequently failed to converge or has produced unreliable outputs, and where it has been applied (e.g. Muir Mhòr), results have not been accepted by Scottish regulators or NatureScot (Scottish Government, 2024). Notably, in those cases modelled impacts were substantially lower than those derived using the displacement matrix approach. Given the model's novelty, lack of regulatory acceptance in Scotland, and the fact that it has never been applied in the Irish Sea, its use is not considered appropriate for this project at this time.	N/A

No.	Request for Further Information Details	Developer Response	Location of Response
		Retention of the displacement matrix approach is considered the more precautionary approach when compared to model-based displacement tools such as SeabORD. The Developer notes that an updated version of the SeabORD model is being developed but is not yet publicly available.	
9. Benthic Subtidal and Intertidal Ecology			
OSPAR Habitats			
a)	Much of the North Irish Sea Array (NISA) array area is characterised as 'Burrowing megafauna *Maxmuelleria lankesteri* in circalittoral mud' (SS.Smu.CfiMu.MegMax) (e.g. Chapter 12 Figure 12.5, Table 12.7). This biotope forms part of the OSPAR Threatened and / or Declining habitat of 'Sea-pen and Burrowing Megafauna Communities', (as evidenced in the Joint Nature Conservation Committee (JNCC) correlation tables; https://hub.jncc.gov.uk/assets/62a16757-e0d1-4a29-a98e-948745804aec#201801-MarineHabitatsCorrelations.xlsx). These tables identify evidenced relationships between habitats in the Marine Habitat Classification for Britain and Ireland, the marine section of the EUNIS classification, and those listed as being important for conservation under various legislative instruments (e.g. Annex I habitats, OSPAR habitats). While this biotope is extensive across the array area, and is of conservation and commercial value, the submitted EIAR does not include it in any Valued Ecological Receptor (VER) Group representative of this OSPAR habitat (see MC6216 in Table 12.11 of Section 12.3.5). The applicant is requested to provide confirmation of the presence of this biotope and provide a detailed map of where sampling has shown it to be present, including if available stills or video evidence associated with the sampling. Any additional evidence will support the assessment of potential impacts to this important OSPAR habitat.	The Developer identified and assessed the impacts to the biotope 'Burrowing megafauna *Maxmuelleria lankesteri* in circalittoral mud' (MC6216)' within the array area as indicated in Chapter 12 Table 12.7 and Figure 12.5 of the 2024 EIAR – however, this biotope was omitted from Chapter 12 Table 12.11 of the 2024 EIAR and is now included in Chapter 12 Table A12.5. As indicated in Chapter 12 section 12.3.2.4 this biotope was recorded throughout the array area, being identified as 10 of 11 sites samples within the array area, with the distribution indicated on Volume 7A Figure 12.5. Images of the habitat are provided in Volume 9: Appendices (Offshore) Appendix 12.1 Array Area Benthic Survey Report Appendix C (Stations 6, 8 10 and 15).	Volume 3, Chapter 12 Benthic Subtidal and Intertidal Ecology, Table A12.5. Volume 7A Figure A12.3 (see also Volume 9 Appendix 12.1 of the 2024 EIAR Array Area Benthic Survey Report Appendix C (Stations 6, 8 10 and 15)).
b)	It is noted that the applicant concludes that the 'sensitivity' of the 'Burrowing megafauna *Maxmuelleria lankesteri* in circalittoral mud' (SS.Smu.CfiMu.MegMax) biotope is 'high'. The Board agrees that this is appropriate for a biotope with this conservation importance. It would be expected, however, given the extent of the biotope across the array area, that 'magnitude' may be 'low' or 'medium' rather than 'negligible' noted in the EIAR. Given that a high sensitivity and a medium magnitude leads to a result of 'Significant' in EIA terms, the applicant is requested to review the justification provided for their magnitude of 'negligible', and either provide further evidence for this in the EIAR or provide a reconsideration of magnitude for this receptor. If any magnitude values are changed, the applicant is requested to ensure that these feed through the impact assessment process.	The Developer assumes that this comment relates to Impact 6 '*Long-term or permanent subtidal habitat loss/ change from the presence of foundations, scour protection and cable protection'.* The Developer confirms that the sensitivity of *Maxmuelleria lankesteri* found within the array area is identified as high. As stated in Chapter 12: Benthic Subtidal and Intertidal Ecology of the 2024 EIAR Section 12.5.3.1 the magnitude of the impact is assessed by quantifying the extent of habitat loss and concludes that - "*The impact will be locally significant and comprise a permanent change in seabed habitat within the footprint of the structures and scour and cable protection, the footprint of the area affected is highly localised.*	Volume 3, Chapter 12 Benthic Subtidal and Intertidal Ecology, Section 12.5.3.1.

No.	Request for Further Information Details	Developer Response	Location of Response
	Following the provision of a revised assessment, the applicant should reconsider their pre-, during and post-construction benthic monitoring requirements and plans as necessary.	*A change of subtidal sediment biotopes to rock or artificial hard substratum would alter the loss of the sedimentary community and a change in the character of the biotope leading to reclassification. However, as the habitats and characterising biotopes are common and widespread throughout the wider region the magnitude of the loss of these habitats would be negligible*". Further justification of this magnitude category is indicated by Hughes (1998 - https://ukmpa.marinebiodiversity.org/uk_sacs/pdfs/seapens.pdf) the 'Seapens and burrowing megafauna' biotope complex (of which SS.Smu.CfiMu.MegMax is a representative biotope) occurs widely around the British Isles, with examples known from the Irish Sea, North Sea and many Scottish sea lochs. The Developer notes that under the methodology for defining the significance of effect (Section 12.2.8.3. of Chapter 12) a sensitivity of high and a magnitude of impact of negligible would result in a likely significant effect of Imperceptible, which is not significant in EIA terms. Chapter 12 of the 2024 EIAR provided an incorrect conclusion (not significant) and a revision has been provided in Chapter 12 which also assesses the design refinements made by the Developer. The Developer confirms that following further design refinement in response to continued consultation and the RFI issued by An Coimisiún Pleanála (please refer to Appendix A5.1: Design Refinements for further details), WTGs are now proposed with SBJ foundations, and OSPs with jacket foundations installed with either drilled pin piles or suction buckets, and all assessments have been updated in the Addendum to the EIAR to reflect this. Chapter 12 section 12.5.3.1 presents the updated assessment of habitat loss which equates to approximately 0.58km^2 of the array area and ECC representing approximately 0.46% of the combined areas, while for Project Option 2 the figures are 0.35km^2 and 0.35%. While the impact will be locally significant and comprise a permanent change in seabed habitat within the footprint of the structures and scour and cable protection, the footprint of the area affected is highly localised. A change of subtidal sediment biotopes to rock or artificial hard substratum would alter the loss of the sedimentary community and a change in the character of the biotope leading to reclassification.	

No.	Request for Further Information Details	Developer Response	Location of Response
		However, as the habitats and characterising biotopes are common and widespread throughout the wider region (Table A12.5) the magnitude of the loss of these habitats would be low. Consequently, the overall magnitude is therefore assessed as low. The sensitivity of the receptor remains as high and consequently the likely significance of effect for Project Option 1 and Project Option 2 is assessed as moderate, which is not significant in EIA terms As part of the revision a review of the mitigation measures has been undertaken and the only change is a correction that adds the Offshore EMP to the embedded mitigation measures during the operation phase of the proposed development, as identified in RFI 9 (f).	
Sublittoral Rock Habitats			
c)	The intertidal survey data is unclear in relation to the potential presence of reef across the NISA landfall and nearshore shallow infralittoral ECC areas. The applicant is requested to clarify the extent of reef at this location. Depending on the location of the horizontal direction drill (HDD) exit points seaward of low water, and subsequent cable trenching, there may be a localised risk to shallow sublittoral rock, if it is present. The applicant is requested to consider this potential impact. The Marine Institute in their observation states circalittoral rock and biogenic reef and infralittoral rock and biogenic reef should be avoided.	The Developer can confirm that geophysical survey of the nearshore subtidal rocky habitats was undertaken in 2023 which mapped the limited extent of this habitat. The extent of this habitat is now described in Chapter 12 section 12.3.2.1 and added to Figure 12.4. According to the geophysical results the HDD exit pits will not impinge on the nearshore rocky habitats as now indicated in section 12.3.4. Potential intertidal reef habitat is discussed in the 2024 EIAR in Chapter 12 section 12.3.2.8 and Table 12.9 and the distribution is shown in Volume 7A Figure 12.6. As indicated in section 12.3.4 of the Chapter 12, potential nearshore infralittoral reef habitat has been identified which will be surveyed further during pre-construction surveys as indicated in Table A12.7 of the Chapter 12. Additionally, mitigation also includes that the proposed development infrastructure will avoid protected habitats wherever reasonably practicable to an extent not resulting in a hazard for marine traffic and Search & Rescue capability. As stated in Chapter 12 Section 12.4.5 Table 12.13 “Cable installation measures will minimise adverse impacts to potentially sensitive receptors.” This will involve micro siting where sensitive subtidal habitats occur”. This will be informed by existing baseline data and that produced by pre-construction surveys. In the same table it is stated in relation to landfall that “The installation of the offshore export cables at landfall will be undertaken by HDD beneath the intertidal zone which will prevent any direct disturbance to intertidal receptors. “	Volume 3, Chapter 12 Benthic Subtidal and Intertidal Ecology, Section 12.3.2.1 and Figure A12.2. Volume 3, Chapter 12 Benthic Subtidal and Intertidal Ecology Section 12.3.2.8, Table 12.9 and Figure A12.4 and Section 12.4.5 Table 12.13.

No.	Request for Further Information Details	Developer Response	Location of Response
		Consequently, with the adoption of the above mitigation measures, circalittoral rock and biogenic reef, and infralittoral rock and biogenic reef and any other identified sensitive features, will be avoided.	
Impact Pathways			
d)	Within Section 12.5.3.1 Chapter 12 of the EIAR, it is indicated that for Project Option 1, the '*Long-term or permanent subtidal habitat loss/change from the presence of foundations, scour protection and cable protection*' equates to approximately 276,296m² of the array area and ECC representing approximately 0.22% of the combined areas, while for Project Option 2 the figures are 297,510m² and 0.24%. While spatially the impact will be highly localised within the array and ECC areas, it will be long-term and / or permanent, dependent on decommissioning. Assessment of magnitude for this pressure pathway was 'negligible'. In comparison, 'low' (not 'negligible') magnitude is assigned for colonisation of hard substrate in the EIAR. The applicant is requested to justify or amend the assigned magnitude impact rating of 'negligible' for 'Long-term or permanent subtidal habitat loss/change from the presence of foundations, scour protection and cable protection'.	The Developer has revisited the magnitude assessment for 'Long-term or permanent subtidal habitat loss/change from the presence of foundations, scour protection and cable protection' and agrees that magnitude should be set at Low. The assessment in Chapter 12: Benthic Subtidal and Intertidal Ecology was amended accordingly with the significance changing to moderate, which is not significant in EIAR terms.	Volume 3, Chapter 12: Benthic Subtidal and Intertidal Ecology, Section 12.5.3.1.
e)	The impact pathways of accidental release of contaminated sediments through sediment disturbance, and accidental release of pollutants, have been assessed together as '*Reduction in water and sediment quality through release of contaminated sediments and / or accidental contamination*' (Chapter 12, table 12.1; table 12.14; sections 12.5.2.4, 12.5.3.6 and 12.5.4.3; table 12.21). The applicant is requested to complete separate assessments for the two impact pathways, as different considerations are required to conclude magnitude of impact(s).	Volume 8, Appendix 2.1 EIAR Scoping Report section 5.4.5 states that "Based on the expected magnitude of impacts, no potential significant effect is anticipated on benthic subtidal and intertidal ecology, and it is proposed not to include these impacts in the detailed assessment: Accidental pollution - The magnitude of an accidental spill will be limited by the size of chemical or oil inventory on construction vessels. In addition, released hydrocarbons would be subject to rapid dilution, weathering and dispersion and would be unlikely to persist in the marine environment. The likelihood of an incident will be reduced by implementation of a Construction Environmental Management Plan (CEMP) and Marine Pollution Contingency Plan (MPCP)." In Chapter 12 discussion of magnitude of release of contaminated sediments and accidental pollution are discussed separately, although the magnitude for each is negligible and does not influence the outcome of the assessment.	Volume 8, Appendix 2.1 EIAR Scoping Report, Section 5.4.5.

No.	Request for Further Information Details	Developer Response	Location of Response
Mitigation			
f)	It is noted that development of an Offshore Environmental Plan (OEMP) was not listed as a measure under the operation phase of the project, where it had only been listed under construction and decommissioning (section 12.4.5; table 12.13). The applicant is requested to clarify if an OEMP is considered a mitigation measure under the operation phase.	The Developer has added the Offshore EMP for operation phase of the project to Chapter 12: Benthic Subtidal and Intertidal Ecology Section 12.4.5, Table A12.17 Embedded Mitigation Measures.	Volume 3, Chapter 12: Benthic Subtidal and Intertidal Ecology, Section 12.4.5 Table A12.7.
g)	The Board notes that potential impacts from EMF on benthic habitats has not been assessed. The applicant is requested to provide further analysis in this regard.	The Developer has analysed this further and advises that EMFs generated by subsea cables associated with the proposed development are not anticipated to result in significant impacts on benthic species or habitats and the impact has been scoped out of the assessment. Chapter 12 Benthic Subtidal and Intertidal Ecology has been updated to reflect this.	Volume 3, Chapter 12: Benthic Subtidal and Intertidal Ecology, Section 12.4.7
Lambay Island Special Area of Conservation			
h)	The in-combination section of the NIS (Section 6.1; table 6.1) does not include Lambay Island Special Area of Conservation (SAC). The applicant is requested to include Lambay Island with regard to in-combination considerations.	The Developer can confirm that the Addendum to the NIS Section 6.1 has been corrected to include Lambay Island SAC in Table A6.1. It now includes Lambay Island SAC within the screening conclusion in-combination column against the relevant plan or project. In addition, Section 6.1.6 has been included in the in-combination section of the NIS which provides an in-combination assessment for Lambay Island SAC. Assessment of potential impacts from suspended sediment and accidental pollution are provided and both concluded beyond reasonable scientific doubt that suspended sediment and deposition from the offshore activities of the proposed development, in-combination with other plans and projects, will not result in an AEoI on the Lambay Island SAC, in view of the site's COs with respect to all QIs, for either Project Option 1 or Project Option 2 ..	NIS, Section 6.1.
10. Marine Mammals			
Underwater Noise – Noise Abatement			
a)	The details that have been submitted in relation to underwater noise arising from the proposed development acknowledges the potential for impacts to arise on marine fauna from both Permanent Threshold Shift (PTS) and Temporary Threshold Shift (TTS) over significant areas.	On foot of the submissions received in response to the Developer's planning application, continued public consultation and the RFI issued by ACP, the Developer has undertaken design refinements to the offshore infrastructure of the proposed development. As detailed in Appendix A5.1 Design Refinements, the refinement of WTG foundations installation methodology to jackets with suction buckets significantly reduces underwater noise during installation when compared to monopiles and jackets with pin piles.	Volume 8, Appendix A5.1: Design Refinements. Volume 3, Chapter 14: Marine Mammal Ecology, Section 14.2.9, Section 14.2.9.2 and Section 14.5.2.8.

No.	Request for Further Information Details	Developer Response	Location of Response
	The Wildlife Act 1976, as amended, lists marine mammals, including all dolphin, porpoise, seal and whale species as protected, (with subsequent regulations also applying protections to all species of marine turtles and basking sharks) stating that it is an offence to hunt, injure, or wilfully interfere with/destroy the resting or breeding place of such species. The January 2014 'Guidance to Manage the Risk to Marine Mammals from Man-Made Sound Sources' published by the Department of Arts, Heritage and the Gaeltacht (NPWS (2014)), notes that sound sources with the potential to induce TTS in a receiving marine mammal has the potential to cause both disturbance and injury. This guidance has a statutory basis under Regulation 71 of SI No. 477 of 2011 and refers to the "offence to injure" under the Wildlife Act, 1976, noting that TTS "may constitute such an injury". Having regard to information submitted in the EIAR, the NPWS underwater noise guidelines (NPWS, 2014), the strict protections afforded to marine mammals under the Wildlife Act 1976, as amended, in addition to observations from prescribed bodies and observers, the Board requires a comprehensive suite of noise abatement measures to be proposed and assessed in addition to the existing mitigation measures referenced in the planning application documentation. The applicant is therefore requested to submit: • A comprehensive review of relevant mitigation, in addition to what is currently contained in the submitted documentation, specifically appropriate noise abatement measures, which could be applied to the proposed development to reduce/restrict the propagation of noise through the marine environment and provide realistic values for the reduction in sound level possible from these technologies. The review must consider the range of suitable abatement measures available, including consideration of, at a minimum, bubble curtains, casings, resonators, and alternative hammer/piling technologies to reduce noise emissions, and set out in detail the suitability of such measures for the construction of the proposed development at this location, including restrictions in relation to their suitability, where relevant. • The applicant must also consider and draw on the best available technology and thresholds, including as applied in other EU jurisdictions (e.g. Germany; Belgium; Netherlands; Denmark), to identify and provide for suitable noise abatement to reduce the level and extent of potential noise impacts arising from the proposed development. Examples include the German 160 dB re 1 µPa²s SELss and 190 dB re 1 µPa SPLpeak thresholds that must not be exceeded at a distance of 750m from a piling site; or the frequency weighted SELcum PTS thresholds (e.g. harbour	Suction buckets are an established jacket installation method on windfarms, having been in use since 2015 and on wind farms such as Seagreen in Scotland (1,075 MW wind farm constructed in 2023). The use of suction buckets removes the options of driven monopile and pin pile foundations for both Project Option 1 and Project Option 2, meaning no percussive piling is required for the proposed development resulting in a significant reduction in underwater noise generated. Data collected at the Seagreen offshore wind farm during the installation of suction bucket caissons indicated that the overall increase in underwater noise levels was limited, with measured rises of approximately 3–5 dB relative to the pre-installation baseline. Comparison of noise levels during suction and non-suction periods within the same construction day showed similarly small differences (Chudzinska, et al., 2026). These findings suggest that vessel traffic, mobilisation activities and other ancillary operations are major contributors to the elevated underwater noise observed on construction days. It should be noted that drilled pin piles are being considered for the OSP jacket installation for Project Options 1 and 2 and this method of installation is also associated with lower levels of underwater noise when compared with impact piling. Non-impulsive noise-making activities such as drilling are included within Appendix A14.1: Underwater Noise Assessment and the potential impacts of drilling of the OSP pin piles are assessed in Chapter 14. Impacts relating to piling have therefore been removed from Chapter 14: Marine Mammal Ecology. In response to the point on TTS having the potential to cause both disturbance and injury, the Developer does not consider TTS to be auditory injury as stated in Section 14.2.10 Auditory Injury of Chapter 14, and further detail justifying this position is provided in Appendix A14.4: Temporary Threshold Shift Position Statement. In response to points a) i – ii on noise abatement: In proposing this design embedded mitigation measure (of WTG jackets with a suction bucket construction methodology) it negates the need for additional noise abatement or Noise Abatement Systems (NAS) as a mitigation measure for underwater noise generation in relation to WTG foundation installation. The Developer has provided further assessment and rationale for this in Chapter 14: Marine Mammal Ecology.	Volume 9, Appendix A14.4 Temporary Threshold Shift Position Statement. Volume 9, Appendix A14.1 Underwater Noise Assessment, Section 5.1.

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	porpoise 155 dB re 1µPa2s) that must not be exceeded for a fleeing animal with a starting distance of 200m in Denmark. • Revised noise modelling and mapping which provides detailed consideration of the noise abatement strategy selected in response to (i) above and include: – The modelled SPL_{peak} and SEL_{cum} PTS and TTS contours, for each functional hearing group potentially present, emanating from the existing locations proposed in the application, which are at the periphery of the proposed development, to demonstrate the full potential spatial extent of underwater noise propagation. Modelling must also show the noise level (SPL_{peak}, SEL_{ss}) at 750m from the locations of each of the piling activities selection. – The modelled SEL_{ss} contours for 120-180 dB re 1µPa2s at 5 dB increments at the locations in the point above. Mapping provided must show the relevant noise contours in the context of implementing the abatement technologies/ measures identified at (1) above and should be displayed alongside the noise contours in the absence of any such noise abatement measures being implemented. – Revised details showing the change in total impacted individuals of each species before and after consideration of noise abatement technologies. – Modelling must be performed for monopiles and pin piles, as both are under consideration within the project design envelope. – Any additional abatement and / or mitigation measures should also be considered in the context of their potential for reduction of cumulative effects with other projects in terms of underwater noise.	The Developer has committed to the use of NAS (e.g. bubble curtains or similar) in the event that low order clearance of UXO is not possible, and high order UXO clearance may be required. Further information is provided in Section 7.5 of Appendix A14.4 Marine Mammal Mitigation Protocol. Pre-clearance ADD deployment is not necessary for low-order clearance but will be used for high-order clearance (with NAS also employed). Information about the evidence base behind the effectiveness of the ADDs is provided in Appendix E to the Appendix A14.5: Marine Mammal Mitigation Protocol. In response to point iii. on noise modelling and mapping: As the Developer will not be undertaking piling, and noise abatement will not be required for the installation of foundations, there is no requirement for revised modelling and mapping.	
b)	The applicant is invited to submit any details of monitoring/reporting available from previous experience of offshore development in other EU jurisdictions which demonstrates the efficacy of mitigation measures adopted in relation to underwater noise.	The Developer has included summary outcomes of monitoring of SBJs (as provided in the response to RFI 10a above) to demonstrate low levels of underwater noise being produced during installation. These are also presented in Chapter 14 Marine Mammals and in Appendix A14.1: Underwater Noise Assessment and conclude that minimal underwater noise is produced by SBJ installation.	Volume 3, Chapter 14 Marine Mammal Ecology Section 14.5.2.8. Volume 9, Appendix A14.1: Underwater Noise Assessment, Section 5.1.1.
c)	Further to point a) above, there is a lack of clarity and certainty in the submitted documentation as to whether Acoustic Deterrent Devices and Noise Abatement Systems (NAS) will be used, with wording varying across the documentation between 'may' be used and 'will' be used.	Based on the design refinements, the Developer in proposing the design mitigation measure of WTG jackets with a suction bucket construction methodology negates the need for noise abatement as a mitigation measure for underwater noise generation in relation to WTG foundation installation and has provided further assessment and rationale for this in Chapter 14: Marine Mammal Ecology.	Volume 3, Chapter 14: Marine Mammal Ecology, Section 14.4.5 Table A14.19.

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	There is also uncertainty in terms of the efficacy of the mitigation measures that are proposed given proposed future re-modelling based on unknown factors which may or may not have an impact in terms of noise ranges and frequencies (Chapter 14, table 14.45). The applicant is requested to address these issues in the submitted documentation. Such information should also include a consideration of any in-combination effects with surrounding anthropogenic noise sources and estimation of individuals of each species that are likely to be affected. The applicant is requested to address these areas of uncertainty.	Due to the proposed development no longer using percussive piling, neither ADD nor NAS is considered for WTG or OSP installation, as the drilling of pin-piles for OSPs is considered to have minimal impact ranges (50 meters or less; see Section 14.5.2.9 - Auditory injury (PTS) from other construction activities of Chapter 14: Marine Mammal Ecology). Following the refinements to the design of the proposed development, both ADDs and NAS will be considered, however only during the use of high-order UXO clearances (if required). ADD deployment is not necessary for low-order clearance as the maximum injury range of 990m can be effectively monitored by MMO and PAM within the 1km mitigation zone. Additionally, the Developer has committed to noise reduction (e.g. bubble curtain or similar) in the unlikely event that high-order UXO clearance is required. Table 14.45 has been replaced with Table A14.19 in Chapter 14: Marine Mammal Ecology, with commitment to mitigation measures for certainty. Information about the evidence base behind the effectiveness of the ADDs is provided in Appendix E to the Appendix A14.5: Marine Mammal Mitigation Protocol.	
Surveying			
d)	With reference to the Guidance on Marine Baseline Ecological Assessments & Monitoring Activities for Offshore Renewable Energy Projects Part 2, April 2018 by the Department of Communications Climate Action and Environment (DCCAE) (DCCAE (2018) Guidance), the applicant is requested to justify: • The selection of a 4km buffer area extending around the array area. The DCCAE (2018) Guidance recommends a minimum buffer of 10km for cetaceans and seals, with monthly haul-out site surveys. • The lack of empirical acoustic data, noting the Department of Housing, Local Government and Heritage, Development Application Unit (DAU) observation which states the omission of acoustic monitoring does not allow the site to be fully characterised for all Annex IV species. • The lack of vantage point surveys at the cable landfall location.	The Developer has noted the request to justify points i. – iii. and provides the following responses: • The buffer used in the original submission is considered sufficient for establishing the marine mammal baseline. Guidance from the Statutory Nature Conservation Bodies (SNCBs) in English and Scottish waters recommends a 4 km buffer (Parker *et al.,* 2022; NatureScot, 2023). The original survey design meets this standard to the east, north, and south of the proposed development and exceeds it to the west. Offshore wind projects in English and Scottish waters routinely apply a 4 km buffer around their Array Areas for Digital Aerial Surveys (DAS), and these projects have been consented on the basis that this approach provides an adequate baseline for impact assessment. However, additional DAS were undertaken from September 2024 to August 2025. Although these data were not included in the original submission, they have been incorporated into Chapter 14: Marine Mammal Ecology and Appendix A14.2 Marine Mammal Baseline Characterisation.	Volume 3, Chapter 14 Marine Mammal Ecology Section 14.2.5, 14.2.6, and Section 14.3.2. Volume 9, Appendix A14.2 Marine Mammal Baseline Characterisation, Section 3.3. Volume 9, Appendix A14.3 Seal Vantage Point Survey Report.

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		The survey area has been extended to cover the proposed development survey site and broader North-West Irish Sea Special Protection Area. • The Developer disagrees that the lack of site-specific PAM data means the site cannot be fully characterised. In accordance with the Guidance on Marine Baseline Ecological Assessments & Monitoring Activities for Offshore Renewable Energy Projects, areas with robust existing data (such as the Irish Sea, based on publicly available evidence) require pre-construction marine mammal baseline characterisation through monthly field surveys conducted over a two-year period using an acceptable experimental design (DCCAE, 2018). The industry standard, e.g. what is usually included in the baseline EIA reports, are digital aerial surveys (project-specific across the project area plus appropriate buffer) and desktop reviews of existing datasets (e.g., SCANS surveys, SMRU data, telemetry and others). Digital aerial surveys were carried out across the Array Area plus a 4km buffer from May 2020 to October 2022, with more recent surveys (September 2024 to August 2025) covering a broader area. The relevant baseline sources are detailed in Chapter 14: Marine Mammal Ecology and Appendix A14.2 Marine Mammal Baseline Characterisation. As such, current baseline characterisation for the proposed development aligns with the relevant guidance and industry standard. It should be also noted that in order to assess whether a development could result in a significant effect on marine mammal receptors, the EIAR characterises the receiving environment with regards likely receptors present, quantify (where possible) the number of individuals impacted through specific impact pathways, and establish whether the predicted level of impact is sufficient to result in a population level effect. To quantify potential impacts in terms of the number of animals impacted, it is necessary to know the density of a given marine mammal receptor within the impacted area. Thus, the primary purpose of the marine mammal baseline characterisation report is to identify the appropriate density, and abundance estimates to take forward to the quantitative assessment in the EIAR for each marine mammal species. Baseline characterisation PAM can be useful to understand the species of vocalising marine mammals present in the area. While PAM can provide good information on species presence or absence and how this changes temporally on a fine scale (especially for odontocete species), it currently remains difficult to obtain a density estimate from PAM data for most species.	

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		This is due to issues relating to estimating the cue rate and subsequent detection probability function (e.g. the likelihood that the PAM systems will log acoustic cues from cetaceans at different distances, which is a key requirement for density estimation), and differentiating between species (especially dolphin species). Since the quantitative assessment in the EIAR is focussed on predicting the number of individuals impacted, the use of baseline characterisation PAM will not provide the necessary data to inform this assessment. The Developer would however like to highlight that PAM is a useful monitoring tool to identify changes in detection rates and assess impacts from offshore wind farm construction activities in a before-during-after or impact-gradient analysis (or a hybrid of the two). • Since November 2024, the Developer has conducted seal counts at three land-based vantage points close to the proposed development landfall area as shown in Appendix A14.3 Seal Vantage Point Survey Report 2025-2026. In response to the Submissions and RFI, the Developer has undertaken monthly haul-out surveys which has been included as Appendix A14.3. This concluded that while both grey and harbour seals were recorded in the wider area, seal activity within the Seal Survey Area itself was low, with only grey seals observed and none hauled out. Most seal observations were concentrated around Cardy Rocks, which is outside the Survey Area, indicating a clear preference for that location. No pups of either species were recorded at any time, indicating that the area is not used as a breeding or pupping site. Additionally, between September 2024 to August 2025, the proposed development carried out additional DAS across the broader North-West Irish Sea Special Protection Area. This survey information has been included in Appendix A14.2 Marine Mammal Baseline Characterisation and is summarised in section 14.3.2 Receiving Environment in Chapter 14: Marine Mammal Ecology.	
e)	The applicant is requested to confirm whether any on-going or additional surveying has been carried out on the site in relation to mobile species since the application was logged. If so, the applicant is invited to submit any further survey data results and incorporate these into the assessments within the application documentation as appropriate.	In response to the Submissions and RFI, the Developer has undertaken monthly haul-out surveys which has been included as Appendix A14.3 Seal Vantage Point Survey Report 2025-2026. This concluded that that while both grey and harbour seals were recorded in the wider area, seal activity within the Seal Survey Area itself was low, with only grey seals observed and none hauled out.	Volume 9, Appendix A14.3 Seal Vantage Point Survey Report. Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.3.2. Volume 9, Appendix A14.2 Marine Mammal Baseline Characterisation.

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		Most seal observations were concentrated around Cardy Rocks, which is outside the Survey Area, indicating a clear preference for that location. No pups of either species were recorded at any time, indicating that the area is not used as a breeding or pupping site. Additional DAS were undertaken from September 2024 to August 2025, monthly, covering the entire NWIS SPA and recording both birds and marine mammals. Additional survey information has been included in Appendix A14.2 Marine Mammal Baseline Characterisation and is summarised in section 14.3.2 14.3.2 Receiving Environment in Chapter 14: Marine Mammal Ecology.	
Modelling			
f)	The applicant is requested to more clearly define the methodology for the dose-response assessment. The studies on which the dose-response assessment is based (Graham, 2017a; 2019) are explained in detail, however the process of applying the dose-response curve to density maps to determine number of individuals disturbed is not clearly elaborated upon (e.g. description of density calculation within each isopleth and summing). The applicant is requested to address this issue.	The use of the dose-response curve is for estimating a behavioural response (disturbance) as a result of pile driving. The Developer confirms that following further design refinement in response to the RFI 10 (a) (please refer to the Developers response to 10 (a) above and Appendix A5.1: Design Refinements for further details), WTGs are now proposed with SBJ foundations, and OSPs with jacket foundations installed with either drilled pin piles or suction buckets. All impacts assessed within Chapter 14: Marine Mammal Ecology of the 2024 EIAR that relate to piling, and therefore for which the dose-response have been applied, have been removed in Chapter 14.	Volume 8, Appendix A5.1 Design Refinements. Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6.
g)	The Board notes the use of NOAA Level B Harassment Threshold (National Marine Fisheries Service, USA) for the assessment of behavioural disturbance rather than more recently defined thresholds in European jurisdictions (e.g. Danish threshold of 143 dB re 1µPa (or 103 dB re 1µPa VHF-weighted) single strike sound exposure level (SELss) (Tougaard, 2021). The Board further notes the threshold values recommended by TG Noise (Sigray et al., 2023) and thresholds used in Ireland's Draft Marine Strategy Part 1, Article 8, 9 and 10 report 2024 and its Annex III. The applicant is requested to consider these thresholds and justify why they have not been used in the assessment	The Developer confirms that following further design refinement in response to the RFI 10 (a) (please refer to the Developers response to 10 (a) above and Appendix A5.1: Design Refinements for further details), WTGs are now proposed with SBJ foundations, and OSPs with jacket foundations installed with either drilled pin piles or suction buckets. As such, all impacts assessed within Chapter 14: Marine Mammal Ecology of the 2024 EIAR that relate to piling, where the level B harassment could have been applicable, have been removed in Chapter 14. The thresholds used in Ireland's Draft Marine Strategy have been considered by the Developer in Appendix A3.2 Marine Strategy Framework Directive Assessment and a response is provided against RFI 3 (b). This assessment confirms that there is no risk of exceeding thresholds in respect of continuous noise.	Volume 8, Appendix A5.1 Design Refinements. Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6. Volume 8, Appendix A3.2 Marine Strategy Framework Directive Assessment, Section 4.3.

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h)	The applicant is requested to fully assess disturbance from operational turbines in the context of the size and the number of turbines proposed and ensure that the assessment of the combined noise effects of all turbines be examined and relevant disturbance ranges identified.	The Developer confirms that an assessment of disturbance from operational noise has been added (see section 14.5.3.5 Impact 24: Disturbance from operational noise) in the Chapter 14: Marine Mammal Ecology. A summary of the assessment is provided below: • The sensitivity of porpoise and dolphins to disturbance from operational noise has been assessed as negligible, while minke whales and seals have been assessed as having a low sensitivity. Using the data collected at operational offshore wind farms, the magnitude of disturbance from operational noise has been assessed as low for all assessed species. • As a result, the significance of effect for Project Option 1 is imperceptible for porpoise and dolphins and slight for minke whales and seals, both of which are not significant in EIA terms. For Project Option 2, both receptor sensitivity and impact magnitude are expected to be the same as, or lower than, those identified for Project Option 1.	Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6.
i)	Chapter 14 of the EIAR and Appendix 14.1 Underwater Noise Modelling Report considers underwater construction noise impacts. The applicant is requested to clarify whether Ultra-short Baseline (USBL) positioning systems will be used during pre-construction surveys. If so, the applicant is requested to include these systems in the assessment.	The Developer confirms that USBL positioning systems will be used during pre-construction surveys. In light of this, USBLs have been added to the assessment of pre-construction noise (Impacts 1 and 2) in Chapter 14: Marine Mammal Ecology. A detailed assessment of underwater noise effects is provided in Section 14.5.2.1 Impact 1 - Auditory injury (PTS) from pre-construction surveys and Section 14.5.2.2 Impact 2 - Disturbance from pre-construction surveys of Chapter 14: Marine Mammal Ecology. In summary: • For auditory injury, based on the source level of USBL and PTS-onset thresholds for different hearing groups, the sensitivity of dolphin species, minke whale and seals as assessed as negligible and sensitivity of harbour porpoise was assessed as low. The magnitude for dolphin species, minke whale and seals as assessed as negligible and sensitivity of harbour porpoise was assessed as medium. As such, the significance of the effect for minke whale, dolphin and seal species have been assessed as imperceptible and for harbour porpoise as slight, both not significant in the EIA terms. • For behavioural disturbance, based on the expected sound frequency of USBL and marine mammal hearing ranges, the sensitivity of all marine mammals was assessed as low. Similarly, the magnitude of impact was assessed as low.	Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6.

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		As such, the significance of the effect for all marine mammals have been assessed as slight, and therefore not significant in the EIA terms. For clarity, the significance of auditory injury and disturbance remains unchanged for MBES, SSS and SBP.	
j)	The EIAR includes an analysis of the likely effect of PTS on minke whale, having regard to their estimated hearing range. The applicant is requested to supplement the analysis with additional literature on the hearing range of minke whale or impact of underwater noise on this species.	The Developer acknowledges the request for additional literature on the hearing range of minke whale or impact of underwater noise on this species and has undertaken an updated review of published material. There remains little evidence on the hearing range of minke whales. Minke whale communication signals have been demonstrated to be below 2kHz (Edds-Walton, 2000, Mellinger et al., 2000, Gedamke et al., 2001, Risch et al., 2013, Risch et al., 2014). Tubelli et al. (2012) estimated the most sensitive hearing range (the region with thresholds within 40dB of best sensitivity) to extend from 30 to 100Hz up to 7.5 to 25kHz, depending on the specific model used. More recently, Houser et al. (2024) conducted hearing tests on two minke whales which showed that they were sensitive to frequencies as high as 45 to 90 kilohertz, much higher than previously believed. The latest NMFS (2024) guidance on PTS thresholds have not been updated with the 2023 data from Houser et al. (2024), which have implications for not only the generalized hearing range for low-frequency cetaceans but also on their weighting function. Mysticete hearing data has been identified in NMFS (2024) as a special circumstance that could merit re-However, the assessment provided in the EIAR is conservative and takes low frequency hearing of minke whale into account. For example, given the lower frequency components of the sound produced by UXO clearance as well as other construction activities (cable laying, trenching, rock placement, drilling), it is precautionary to assess minke whales as having a medium sensitivity to auditory injury (PTS-onset) for these noise sources (see sections 14.5.2.3 and 14.5.2.8 of the Chapter 14). Minke whale sensitivity to auditory injury (PTS) from piling is no longer relevant as pile driving has been removed.	Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6.
k)	The applicant is requested to provide supporting reference/s for the statement in Chapter 14 that minke whales can 'tolerate temporary displacement from foraging areas due to their large size and capacity for energy storage'.	The Developer notes that this statement was intended to be relative to other marine mammals in the assessment such as harbour porpoise and dolphin species. Research suggests that minke whales' energy acquisition strategy on feeding grounds is to maximise energy intake (Christiansen et al., 2013) which makes them more resilient against temporary reductions in prey availability or habitat disruption (Gardiner et al., 2025).	Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6.

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		For example, minke whales in the Gulf of Saint Lawrence maintain reproductive stability through efficient energy storage and flexible foraging behaviour, enabling them to withstand environmental variability and temporary habitat or prey disruptions without significant reproductive decline (Gardiner et al., 2025). Although it would be applicable to all impacts that could result in disturbance, this text from Chapter 14: Marine Mammal Ecology of the 2024 EIAR referred to an assessment under sensitivity to disturbance from piling. This section is no longer relevant as pile driving has been removed from the design and construction strategy, and the text has been removed in Chapter 14.	
l)	The worst-case number of piling events does not account for contingency of having to move and re-pile if substrate does not accept the pile. The applicant is requested to add in this consideration or provide justification for its exclusion from the worst-case scenario.	The Developer confirms that following further design refinement in response to the RFI 10 (a) (please refer to the Developers response to 10 (a) above and Appendix A5.1: Design Refinements for further details), percussive piling is no longer required for the construction of the offshore infrastructure. All impacts assessed within Chapter 14: Marine Mammal Ecology of the 2024 EIAR that relate to piling have been removed in the Chapter 14.	Volume 8, Appendix A5.1 Design Refinements. Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.6.
m)	The DAU state in their observation that when assessing the risk of collisions between marine mammals and vessels, the applicant must include all data relevant to Irish waters and not solely rely on reports from UK monitoring programmes, e.g. those reported in Irish Whale and Dolphin Group Cetacean Stranding Schemes and Irish Whale & Dolphin Group Deep Diving and Rare Species Investigation Programme (both supported by NPWS funding). The applicant is requested to address this issue and incorporate the findings of these data sources in the submitted documentation.	The Developer requested further strandings data from IWDG. The request was declined by IWDG as the data is not relevant to the application as it does not include any information on the cause of death given that detailed necropsies have not been consistently carried out; and as they have not previously shared data with other Phase 1 projects. It is noted that while strandings are reported to IWDG by the public, there is no “regular, standardized post-mortem examinations of suitable carcasses to establish the cause of death” (McGovern et al, 2018), and therefore there is unlikely to be sufficient data available on the risk of vessel collision mortality in Irish waters to provide any further context to the assessment”.	N/A
Mitigation and Monitoring			
n)	The DAU notes that monitoring for pinniped species at the location where the proposed development interacts with the shore was not carried out by the applicant and therefore there is no information on whether harbour and grey seals use this site. The applicant is requested to submit further information by means of specific surveys of the site for pinnipeds and that this should also be set in the context of seasonal changes in distribution of these species.	In response to the Submissions and RFI, the Developer has undertaken monthly haul-out surveys which has been included as Appendix A14.3 Seal Vantage Point Survey Report. Surveys were undertaken in accordance with DCCAE (2018) guidance at the landfall site at Balbriggan, County (Co.) Dublin in November 2024 and between June 2025 and May 2026, using VPs within the landfall site and a surrounding 500 metre (m) survey buffer.	Volume 3’ Chapter 14 Marine Mammal Ecology, Section 14.3.2. Volume 9, Appendix A14.2 Marine Mammal Baseline Characterisation. Volume 9, Appendix A14.3 Seal Vantage Point Survey Report.

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	The applicant is requested to refer to the most up-to-date NPWS seal data and Guidance on Marine Baseline Ecological Assessments & Monitoring Activities for Offshore Renewable Energy Projects Part 2, April 2018, DCCAE.	Monthly surveys are considered appropriate as they provide coverage of intra-annual variability in seal presence and captures key life history events. The site is not adjacent to any breeding or moulting sites, and therefore monthly surveys are considered sufficient and consistent with DCCAE (2018) guidance. This concluded that while both grey and harbour seals were recorded in the wider area, seal activity within the Seal Survey Area itself was low, with only grey seals observed and none hauled out. Most seal observations were concentrated around Cardy Rocks, which is outside the Survey Area, indicating a clear preference for that location. No pups of either species were recorded at any time, indicating that the area is not used as a breeding or pupping site. Additional survey information has been included in Appendix A14.2 Marine Mammal Baseline Characterisation and is summarised in section 14.3.2 Receiving Environment in Chapter 14: Marine Mammal Ecology. The most recent NPWS seal data (Morris et al., 2025) utilising aerial thermal-imaging survey of seals in Ireland during August 2024 has been included in both Appendix A14.2 Marine Mammal Baseline Characterisation as well as the Chapter 14: Marine Mammal Ecology, providing updated MU sizes based on scaled seal counts.	
o)	The applicant is requested to update the Marine Mammal Mitigation Protocol (MMMP) (Appendix 14.4 of EIAR and Appendix 10 of NIS) to include reference to TTS, as this may constitute injury under Irish legislation and guidance.	The Developer has consulted with SMRU Consulting regarding TTS and effects on marine mammals. It is noted that the DAGH 2014 Guidance suggests that TTS may constitute injury, and that injury under the Wildlife Act 1976 it is an offence to injure. The DAGH guidance is ambiguous and cautious due to the limited science available to definitively state that TTS itself is an injury at the time of publishing. Based on the available science now it was assessed that impacts at the TTS-onset level does not constitute injury and that predicted TT-onset ranges should not require mitigation. This position is fully detailed in the SMRU Consulting TTS Position Statement, 2025 (Appendix A14.4: Temporary Threshold Shift Position Statement), and summarised here: Whilst there is a lack of legal and regulatory consensus regarding the definition of 'auditory injury', most countries do not consider TTS to be auditory injury. TTS represents a short-term reduction in hearing sensitivity, typically recovering within an hour for small shifts (4–5 dB). [TTS at the currently defined onset threshold, does not lead to tissue damage and thus is not physical injury].	Volume 9, Appendix A14.4 Temporary Threshold Shift Position Statement.

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		TTS effects from pile driving have been shown to be frequency-specific (e.g. 4-8 kHz in harbour porpoises). As such, their impact on marine mammal biological functions (communication, predator/prey detection) is currently considered to be limited. Current TTS-onset thresholds (NMFS, 2024) are based on the smallest measurable changes in hearing, not on levels likely to cause functional impairment. These thresholds were originally developed to support estimations of PTS-onset, not to serve as regulatory thresholds for ecologically significant impact. What level of threshold shift might be considered biologically meaningful is currently unknown, and no biologically meaningful TTS thresholds have been established. TTS predictions based on SELcum are highly conservative as they omit: (i) the potential for TTS recovery between pile strikes or during breaks in pile driving, and (ii) distance-related effects on the impulsive characteristics of the sound. These factors likely lead to overestimations of impact ranges. Until there is sufficient scientific evidence to indicate a level and duration of TTS that may have a biologically meaningful effect on individuals, it is more appropriate to focus environmental impact assessments on PTS (as true auditory injury) and behavioural disturbance (e.g. disruption to foraging or migration). It is also noted that the NMFS (2024) guidance differentiates between "auditory injury" and "TTS". Where TTS is defined as: "*A temporary, reversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (ANSI 1995; Yost 2007). Based on data from cetacean TTS measurements (see Southall et al. 2019 for a review), a TTS of 6 dB is considered the minimum threshold shift clearly larger than any day-to-day or session-to session variation in a subject's normal hearing ability (Schlundt et al. 2000; Finneran et al. 2000; Finneran et al. 2002)"* While auditory injury is defined as: "*Damage to the inner ear that can result in destruction of tissue, such as the loss of cochlear neuron synapses or auditory neuropathy (Houser 2021; Finneran 2024). Auditory injury may or may not result in a permanent threshold shift (PTS).*"	
p)	The MMMP states the development will follow standard DAHG (2014) guidelines, however it describes the use of Passive Acoustic Monitoring (PAM) as a form of mitigation under hours of darkness.	The Developer confirms that the MMMP has been updated (Volume 9, Appendix A14.5) and is compliant with the DAHG (2014) guidance.	Volume 9, Appendix A14.5 Marine Mammal Mitigation Protocol, Sections 6 & 7.

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	The guidelines state: '*Pile driving activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible'*. The following text is also noted: '*Once an appropriate and effective Ramp-Up Procedure commences, there is no requirement to halt or discontinue the procedure at night-time, nor if weather or visibility conditions deteriorate nor if marine mammals occur within a 1,000m radial distance of the sound source, i.e., within the Monitored Zone*'. According to standard practice, there is no requirement for piling to stop once daylight fades, however if there is a break in pile driving sound output for a period greater than 10 minutes (e.g. due to equipment failure, shut-down or location change), the piling must not resume until daylight hours. Although the proposed development will be able to employ PAM to aid in identifying the presence of cetaceans, to begin before daybreak would constitute a deviation from the DAHG (2014) Guidance. As per DAHG (2014) Guidance, PAM may be used as a supplementary mitigation tool to optimise marine mammal detection, but not as a primary mitigation tool. The applicant is requested to clarify the relevant mitigation measures to be utilised. It is requested that all elements of the MMMP comply with NPWS (2014) Guidance including: soft start times, delay durations, mitigation zone sizes, and mandatory ramp-up procedures, and defined reporting requirements. Furthermore, the use of distance estimation formula should follow the same approach suggested for distance estimation by the Joint Nature Conservation Committee (JNCC) (refer to Marine Mammal Observer Association article on the subject of distance estimation using reticular binoculars for further explanation) and use standard trigonometric equations for calculation.	Following design refinements to the proposed development, impact piled monopiles are no longer included as a foundation option for either Project Option 1 or Project Option 2, meaning that impact piling is no longer required for either WTG or OSP installation. Therefore, mitigation measures for pile driving have been removed from the MMMP. However, there are still proposed activities which require mitigative measures, these include geophysical surveys and UXO clearances, with clear methodologies provided in Appendix A14.5: Marine Mammal Mitigation Protocol, which are compliant with DAHG (2014) guidance. Whilst the DAHG guidance does not cover UXO clearance mitigation measures, the updated MMMP contains UXO specific mitigation methodology, which have been informed by JNCC (2025). To remain compliant with the DAHG (2014) guidance the primary mitigation method used for geophysical surveys or UXO clearances will be through the use of MMOs, visually monitoring the mitigation zone prior to operations commencing. PAM may be used to supplement MMO observations; however, it will not be used as the primary mitigation tool. This is because PAM cannot replace an MMO during periods of low visibility conditions or at night, but it can be used alongside an MMO in good visibility conditions. Finally, as stated in the 2024 MMMP, MMOs will use reticule binoculars to estimate distances of marine mammals, which is in line within the JNCC methodology.	
q)	The applicant is requested to address the possibility for temporal mitigation, for example limiting piling to periods that do not overlap with the harbour or grey seal pupping season or the harbour porpoise calving season, to further limit effects on nearby SACs.	Following design refinements to the proposed development, impact piled monopiles are no longer included as a foundation option for either Project Option 1 or Project Option 2, meaning that impact piling is no longer required for either WTG or OSP installation. Therefore, temporal mitigation does not need to be considered for piling. Due to refinements in the design of the proposed development, the activity that now presents the greatest potential risk to SAC features is high-order UXO clearance with noise reduction. The mitigation as set out in the MMMP will reduce the risk of auditory injury (PTS) to negligible, but there is a potential for overlap of the behavioural disturbance ranges and/or 10 km Effective Deterrence Range (EDR) with the Rockabill to Dalkey Island SAC.	NIS, Section 5.3.2. Volume 9, Appendix A14.5 Marine Mammal Mitigation Protocol. Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.4.5.

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		The assessment in light of the conservation objectives provided in the NIS has identified no adverse effects on the integrity of the SAC that need to be addressed with temporal mitigation. proposed development On this basis, no additional seasonal restrictions are considered necessary.	
Cumulative			
r)	The applicant is requested to provide further information regarding the piling schedule outlined in Chapter 14 of the EIAR and Appendix 14.6 to provide a more comprehensive assessment of potential adverse effects of cumulative noise (airborne and underwater) from concurrent pile driving across the Irish Sea Phase ORE 1 projects in the Irish Sea.	The Developer confirms that following further design refinement in response to the RFI 10 (a), piling will no longer be used for Project Options 1 and 2. All impacts assessed within Chapter 14 that relate to piling have been removed within Chapter 14, including within the cumulative effects assessment.	Volume 8, Appendix A5.1 Design Refinements.
s)	The applicant is requested to map maximum masking and behaviour impacts in the cumulative noise impact assessment on marine mammals, and fish and behavioural impacts for shellfish. The cumulative assessment should model impacts based on concurrent construction with and without noise abatement with at least one other windfarm in the Irish Sea. Critical periods of breeding and spawning should be identified and if these are associated with any known vocalisations.	The Developer confirms that following further design refinement in response to the RFI 10 (a) (please refer to the Developers response to 10 (a) above and Appendix A5.1: Design Refinements for further details), WTGs are now proposed with SBJ foundations, and OSPs with jacket foundations installed with either drilled pin piles or suction buckets. As such, all impacts assessed within Chapter 13: Fish and Shellfish Ecology of the 2024 EIAR and Chapter 14: Marine Mammal Ecology of the 2024 EIAR that relate to piling have been removed, including within the cumulative effects assessment. This has been considered in responding to the RFI request for mapping masking and behaviour impacts in the cumulative noise impact assessment. For marine mammals, the Developer confirms that there are currently no industry standard marine mammal masking thresholds established in either the Ireland, the EU or the UK. The lack of established thresholds means a direct relationship between noise levels and masking is difficult to quantify, and as such, this cannot be explicitly modelled or assessed in the EIAR. Auditory masking can be defined as “the process by which the threshold of hearing for one sound is raised by the presence of another (masking) sound; and the amount by which the threshold of hearing for one sound is raised by the presence of another (masking) sound, expressed in dB” (American National Standards Institute, 1995). The extent of auditory masking caused by anthropogenic activities is dependent on the characteristic of noise emissions, the source levels of biologically important sound sources such as prey or calling conspecifics, the rate of propagation loss and the absolute hearing sensitivity of the listener as a function of sound frequency (Pine et al., 2018).	Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.9. Volume 3, Chapter 13 Fish and Shellfish Ecology, Section 13.5.2.

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		Scientific evidence available in the public domain suggest that more research is needed to better understand the mechanisms of auditory masking in marine mammals (Erbe et al., 2016, Erbe et al., 2019, Branstetter and Sills, 2022). Erbe et al. (2016) carried out a thorough review of the evidence available to masking , including various methods applied to date in an attempt to evaluate masking and highlighted that predicting masking is complex and difficult given the variety of factors that must be accounted for (including but not limited to data on audiograms, critical ratios and critical bandwidths). Branstetter and Sills (2022) also noted that predicting masking is inherently complex due to the spectral-temporal properties of signals and the spatial relationships among sound sources. Auditory masking in marine mammals has gathered attention in recent years and there are new and ongoing studies to fill these data gaps in the coming years (Jones, 2024, Burnham and Vagle, 2025, Sills et al., 2025, Dunlop et al., 2026). However, given the lack of relevant threshold criteria and/or the availability of modelling tools to enable a quantitative assessment for masking, such evaluation cannot be carried out currently. Although masking may have more far-reaching effects compared to behavioural disturbance, it is a more subtle interference of acoustic perception compared to behavioural disturbance, with studies indicating anti-masking strategies in a few species (Erbe et al., 2016). It is therefore considered that the effect concluded for masking would not be of greater magnitude and significance compared to behavioural disturbance and therefore there would be no change to the conclusions of the cumulative assessment presented in Section 14.9 of Chapter 14: Marine Mammal Ecology. For fish and shellfish, the Developer confirms that the potential for masking and behaviour impacts on all sensitive fish and shellfish receptors were assessed in Chapter 13 Fish and Shellfish Ecology (Section 13.5.2.4 Impact 4: Introduction of underwater noise and vibration leading to mortality, injury, TTS and/or behavioural effects) however, this does not include mapping or modelling. The assessment was based on the qualitative underwater noise thresholds as defined by Popper et al., (2014), and informed by a review of peer reviewed literature. Qualitative thresholds are deemed appropriate, due to the range of behavioural responses exhibited by fish, which differ between species, and can be influenced by a range of factors, including life history events, and the environment.	

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		Notwithstanding this, as a result of the design refinements no impact piling operations will be undertaken during the construction phase of the development, and subsequently the impact ranges from underwater noise have been significantly reduced for the project alone. The cumulative impact assessment has been revised in accordingly within cumulative Impact 3, Section 13.9.6 of Chapter 13 which confirms that there will be no likely cumulative significant effects.	
t)	Notwithstanding the rationale provided in relation to the assessment of impacts of operational underwater noise on marine megafauna (Chapter 14, pg. 14-42 of the EIAR), the applicant is requested to assess potential impacts from operational underwater noise on marine mammals in terms of the cumulative assessment with other Irish Sea Phase 1 ORE projects.	The Developer acknowledges this request and has included a cumulative impact assessment of the disturbance from operational noise to Chapter 14 Marine Mammal Ecology. This includes assessment with other Irish Sea Phase 1 ORE projects which are considered in Section 14.9.13 in Chapter 14 Marine Mammal Ecology. The impact of underwater noise during the operational phase of all OWFs is considered to be localised to the very immediate vicinity of the WTGs. The effect of disturbance is expected to last less than a day, though the disturbance impact could occur across many years. It is unlikely to lead to the exclusion of animals within the OWF array areas, and therefore, at most, affecting a very small proportion of receptor population and without an alteration to population trajectories The sensitivity of harbour porpoise and dolphin species to disturbance from operational noise was assessed as Negligible. As a result, the significance of the impact was assessed as Imperceptible. As for minke whales and seals the sensitivity to disturbance from operational noise was assessed as Low. The magnitude of the cumulative effects for all marine mammal species was assessed as low which resulted in an Imperceptible to Slight significance of the effects which is not significant in EIA terms.	Volume 3, Chapter 14 Marine Mammal Ecology, Section 14.9.13.
11. Fish and Shellfish Ecology			
a)	The assessments relating to Atlantic herring omit the potential spawning habitat in Dundalk Bay (MPA Advisory Group, 2023, Ecological sensitivity analysis of the western Irish Sea to inform future designation of Marine Protected Areas (MPAs, 2023), focusing instead on the known Mourne spawning ground (Dickey-Collas et al., 2001, The location of spawning of Irish Sea herring (*Clupea harengus*). *Journal of the Marine Biological Association of the United Kingdom*, 81(4): pp. 713-714) to the northeast of Dundalk Bay (including the potential spawning grounds). The two areas are defined within Chapter 13, Figure 13.5.	The Developer confirms that the Dundalk spawning ground, and the Mourne spawning ground have been addressed as separate spawning components in Appendix A13.1: Fish and Shellfish Ecology Baseline and Chapter 13 Fish and Shellfish Ecology. The Developer acknowledges that the Dundalk Bay spawning ground lies within the underwater noise ZoI but confirms that given the revision of the foundation types for Project Option 1 and Project Option 2 (refer to Appendix A5.1: Design Refinement) , whereby no piling operations will be undertaken during the construction phase of the development, there is no potential for significant effects in EIA terms from	Volume 3, Chapter 13 Fish and Shellfish Ecology, Section 13.3.3.6. Volume 9. Appendix A13.1 Fish and Shellfish Ecology Baseline.

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	The Dundalk Bay potential spawning habitat and Mourne spawning grounds are located outside of the Zone of Influence (ZoI) for seabed disturbance effects (12 km). However, Figure 13.13 and Figure 13.14 in Chapter 13 clearly show areas being located within the ZoI for underwater noise effects (70 km) and subsequently within the modelled impact ranges for Temporary Threshold Shift (TTS) effects (186 dB re 1µPa² / 186 dB SELcum). If it is the case that both spawning grounds are included in the assessment and collectively termed 'the Mourne spawning ground' as a result of their close proximity, the applicant is requested to clarify this in the text so the assessment of both spawning grounds is clear. Otherwise, the applicant is requested to review their assessment of underwater noise for Atlantic herring to include both areas.	underwater noise on spawning herring in the Dundalk spawning ground, or the Mourne spawning ground. The assessment in Chapter 13: Fish and Shellfish Ecology has been updated to reflect the design refinement.	
b)	The applicant is requested to consider the inclusion of additional data pertaining to potential spawning grounds in their assessments. Data aggregate sites including those provided by the Marine Institute (Marine Data Centre | Marine Institute) may provide further evidence to aid in increasing confidence relating to the population distribution of these species, specifically where spring spawning season data is available in addition to autumn spawning season data. These may be beneficial in developing understanding and assessment of the Mourne herring spawning grounds extent, and whether the Dundalk Bay grounds should be considered as a separate ground, or as a component of the extensive Mourne spawning grounds.	The Developer confirms that the Dundalk spawning ground, and the Mourne spawning ground have been addressed as separate spawning components in Appendix A13.1: Fish and Shellfish Ecology Baseline. Reference has been made to a study by AFBINI in 2007 (Service, (2007) as cited in BlueWise Marine, 2024), which investigated the location of the Mourne and Dundalk Bay spawning grounds, relative to a proposed aggregate extraction area on the County Down coastline (north of Carlingford Lough extending to Outer Dundrum Bay). The outputs of this study have been used to inform the baseline as defined in Appendix A13.1: Fish and Shellfish Ecology Baseline.	Volume 9, Appendix A13.1 Fish and Shellfish Ecology Baseline, Section 2.3.
c)	Within the review arising from a) above, the applicant is requested to consider the updates by Kyle-Henney et al. (2024) and Reach et al. (2024) to the Reach et al. (2013) and Latto et al. (2013) methodologies to identify potential spawning habitats for Atlantic herring and potential supporting habitats for sandeel *Ammodytidae*. The applicant is requested to update the Fish and Shellfish Ecology chapter to take account of these methodologies.	The Developer confirms that Appendix A13.1: Fish and Shellfish Ecology Baseline, and Chapter 13: Fish and Shellfish Ecology have been updated to incorporate the recent updates by Kyle-Henney et al. (2024) and Reach et al. (2024) to the Reach et al. (2013) and Latto et al. (2013) methodologies to identify potential spawning habitats for Atlantic herring and potential supporting habitats for sandeel. Heatmapping has subsequently been undertaken to identify potential areas of spawning activity for both herring and sandeel. The outputs of the heatmapping are shown in Figures A3.6 and A3.7 of Appendix A13.1: Fish and Shellfish Ecology Baseline, and A13.4 and A13.5 of Chapter 13.	Volume 3, Chapter 13 Fish and Shellfish Ecology, Figures A13.3 and A13.4. Volume 9, Appendix A13.1 Fish and Shellfish Ecology Baseline, Figures A3.6 and A3.7.
d)	Given the extensive distance of Temporary Threshold Shift (TTS) on fish with a swim bladder used in hearing (69 km), the location of sensitive Atlantic herring spawning grounds, and the limited spatial extent of potential spawning habitat available in the region, as referenced above under the heading of marine mammals, the applicant is requested to assess the possibility for the use of Noise Abatement Systems (NAS) to reduce the spatial impact of underwater noise associated with impact piling beyond soft	The Developer confirms that no significant effects were confirmed for herring spawning grounds due to the absence of spawning substrates (Volume 7A, Figure 13.10), low larval densities within the underwater noise ZoI (Volume 7A, Figure 13.6), and the intermittent nature of the proposed piling activities.	Volume 3, Chapter 13 Fish and Shellfish Ecology, Figures 13.6 and 13.10 and Section 13.4.6.

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	start procedures so that TTS extent would not overlap with the spawning grounds. Reference to NAS should contain appropriate links with and inform other relevant chapters (e.g Chapter 14 Marine Mammal Ecology), in which NAS may be applicable.	Notwithstanding this, the Developer confirms, that following changes to the Project Design, no impact piling operations will be undertaken during the construction phase of the development, instead the WTGs will be installed on suction bucket jackets, and the OSP on suction bucket jackets or drilled piles. The assessment of impacts from underwater noise on sensitive fish and shellfish receptors has been revised on account of these design changes, in Chapter 13 Fish and Shellfish Ecology. No significant effects in EIA terms have been concluded on spawning herring in the Dundalk spawning grounds, and the Mourne spawning grounds.	
Fishing			
e)	Given the concerns raised in observations regarding potential impacts to Norway lobster (*Nephrops norvegicus)* fisheries, the applicant is requested to present a figure / figures for both inshore and offshore fishing grounds relative to the development area, rather than focussing on inshore fisheries (Figure 13.11). Offshore fishing grounds and distribution boundaries are requested to be added to Figure 13.11 as an addition to inshore fisheries information and subsequently referred to in text.	The Developer confirms that the Marine Institute spatial data include polygon data indicating fishing grounds for Irish vessels operating in inshore waters, derived to support Natura 2000 risk assessments and representing discrete, spatially defined areas of inshore fishing activity for various gear types (e.g. potting, dredging). These data are shown in Figure 13.11 in Chapter: 13 Fish and Shellfish Ecology of the 2024 EIAR. These data differ from effort-based offshore datasets, which do not delineate fixed fishing grounds. It is on this basis, that offshore fishing grounds for Nephrops cannot be added to Figure 13.11. Notwithstanding this, to ensure that Nephrops offshore fishing activity is still presented, Figure 13.22 of Chapter 13 Fish and Shellfish Ecology has been updated in Chapter 13 to show Nephrops VMS data that represents landings values in offshore waters. These data are shown in Figure A13.8 of Chapter 13 Fish and Shellfish Ecology.	Volume 3, Chapter 13 Fish and Shellfish Ecology, Figure 13.11 and Figure A13.6.
f)	The applicant is requested to strengthen relevant cross references to commercial fisheries (Chapter 16) within Chapter 13 Fish and Shellfish Ecology, to support assessment conclusions as appropriate.	The Developer confirms that relevant cross references to commercial fisheries (Chapter 16) within Chapter 13: Fish and Shellfish Ecology have been reviewed and strengthened where relevant to support the assessment conclusions.	N/A
g)	The applicant is requested to consider disturbance to fish, basking shark and sea turtles from underwater noise generated by wind turbines during the operational phase of the proposed development.	The Developer confirms that the potential for impacts to fish, basking shark and sea turtles from underwater noise generated by wind turbines during the operational phase of the proposed development have been assessed under Impact 11 of Chapter 13: Fish and Shellfish Ecology. The Developer confirms that no potential for significant effects in EIA terms have been concluded for sensitive fish and shellfish receptors from operational noise.	Volume 3, Chapter 13 Fish and Shellfish Ecology, Table A13.7.

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12. Commercial Fisheries			
The NMPF provides that the proposed development should be considered in the context of co-existences with existing marine activities in the area, including fisheries and aquaculture. Having regard to the provisions of the NMPF, the submitted EIAR (including the Fisheries Management and Mitigation Strategy, Appendix 16.2), and all observations made:		The proposed development has been considered in the context of co-existence with existing marine activities through the updated Chapter 16: Commercial Fisheries and the Fisheries Management and Mitigation Strategy (FMMS; Appendix A16.2), which together set out the Developer's approach to fisheries inclusive design, fisheries liaison, coexistence, mitigation, monitoring and adaptive management in line with the NMPF. In particular, the application is supported by an updated Co-existence Strategy, and the further significant development of the Sustainable Fisheries Community (SFC) as a fisheries-led mechanism to support long-term engagement, evidence gathering and management of fisheries interactions over the lifetime of the project which includes a preliminary Technical Coexistence Assessment.	Volume 9, Appendix A16.2 Fisheries Management and Mitigation Strategy, Section 3 & 4.
a)	The applicant is requested to address observations by prescribed bodies and observers who raise concerns in relation to the potential impacts on commercial fishing arising from the proposed development within both the array and the cable route corridor areas, specifically relating to the practicality and uncertainties of co-existence with reference to Co-existence Policy 1 in the NMPF.	The Developer acknowledges the observations received in relation to the potential impacts on commercial fishing within both the array area and the ECC, including concerns regarding the practicality and uncertainty of co-existence under NMPF Co-existence Policy 1. In response, the FMMS (Appendix 16.2) has been updated to provide a detailed Co-existence Strategy, supported by a Fisheries Liaison Strategy and mitigation measures. The FMMS confirms that the Developer's approach to coexistence is the continuation of both the proposed development and fishing activity, where practicable, within and around the array area and along the ECC. Measures supporting this include continued appointment of the FLO and OFLO, advance notice procedures, ongoing liaison, advisory safety zones, guard vessels where appropriate, cable burial and protection measures, dropped object procedures, snagging and gear loss procedures, and navigation safety measures through the vessel management plan (VMP) and lighting and marking plan (LMP). The FMMS also confirms that fishing will not be prohibited within the array area and that the offshore development area has been reduced to 36% of the full MAC boundary to optimise seabed use and reduce interactions with other marine users. The array layout has been developed to maximise corridors between turbines and is orientated NNW–SSE to facilitate trawling direction in the area. The FMMS contains a preliminary Technical Coexistence Assessment which has been undertaken specifically to test the practical fisheries implications of coexistence.	Volume 9, Appendix A16.2 Fisheries Management and Mitigation Strategy, Sections 3, 4 & Appendix E.

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		This assessment concludes that coexistence is technically achievable, provided that appropriate corridor design, cable burial standards, fisheries-informed operational protocols and monitoring measures are incorporated into project design and management. It identifies that Layout Option 1 provides an effective trawlable width of approximately 850 m once buffers are applied, and that designated trawl corridors can support practical fishing access, subject to operational controls and collaboration with fishers in relation to tidal windows and seasonal conditions. Accordingly, the Developer considers that the application has addressed Co-existence Policy 1 through project design, embedded mitigation, the updated FMMS, and the additional technical assessment of practical coexistence.	
b)	The applicant is requested to address observations by prescribed bodies and observers who raise concerns in relation to the displacement of fishing effort during operational activities. In particular, the Marine Institute submit that the displacement of fishing effort would potentially increase fishing pressure and competition in neighbouring areas and have an impact on smaller vessels which cannot travel beyond their main area of activity. The applicant is requested to consider, in a holistic and integrated manner, cumulative impacts (see also point 5 above) associated with the potential effects of such displacement of fishing effort associated with other Irish Sea Phase 1 ORE projects in this area.	The Developer acknowledges the concerns raised regarding potential displacement of fishing effort during operation, including the Marine Institute's observation that displacement could increase fishing pressure and competition in neighbouring areas, with particular implications for smaller vessels with limited range. These matters have been considered in the Chapter 16 through the cumulative effects assessment and further addressed through the Cumulative Mitigation Strategy included in the FMMS (Appendix A16.2). This confirms that the Developer recognises the need to consider cumulative effects in a coordinated, evidence-led and fisheries-informed manner, and that the Sustainable Fisheries Community (SFC) will be used as the primary mechanism for long-term, collaborative fisheries impact mitigation to support long-term coexistence, mitigation and monitoring. Through the SFC, and through continued engagement with fisheries representative organisations, public bodies, the Marine Institute and other relevant Phase One developers, the Developer will continue to review cumulative effects and monitoring approaches. A key component of this approach is the Digital Effort Traceability Project (DETP), which has already been implemented through the SFC and is designed to provide a more detailed and fisheries-led evidence base for fishing activity, displacement and dependency. The FMMS further states that if evidence from DETP, fisher engagement, SFC review, gear interaction reporting or other monitoring demonstrates that significant cumulative displacement or loss of practical access is arising during operation or maintenance, the Developer will work through the SFC, and with other relevant projects and stakeholders as appropriate, to identify and develop proportionate measures.	Volume 9, Appendix A16.2 Fisheries Management and Mitigation Strategy, Cumulative Mitigation Strategy, Section 5.

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		These may include refinement of operational protocols, additional fisheries liaison and navigational coordination, review of cable burial and protection performance where relevant to fishing interaction, targeted coexistence measures, or resilience and adaptation initiatives. The Developer therefore considers that operational displacement and the potential for cumulative effects with other Irish Sea Phase 1 ORE projects have been addressed in a holistic and integrated manner through the Chapter 16 and the updated to the FMMS, combining assessment, governance, monitoring and adaptive mitigation.	
13. Seascape, Landscape and Visual			
	The Board notes the concerns raised by Fáilte Ireland in respect of the subject application. The applicant is requested to provide further detail and justification in relation to the effects on tourism, having regard to the Failte Ireland observation.	To address this item of the RFI, consultation with Fáilte Ireland was undertaken in April 2026. It provided a better understanding of Failte Ireland's observation and concerns regarding tourism. Based on this, the 2024 chapter has been updated to provide further detail on the potential operational phase effects the proposed development may have on tourism and the concept of a sense of place within the study area. Fáilte Ireland are currently drafting a report on Visitor Awareness and Perceptions of Renewable Infrastructure in the Irish Landscape, the findings of which were shared with the Developer and incorporated into the assessment. This involved discussion regarding the potential effects of the proposed development on tourism, including the experiential and perceptual qualities that contribute to destination identity and sense of place, particularly in coastal areas. Further detail and justification were requested in relation to how tourism receptors may be affected across the construction, operational and decommissioning phases. Volume 5, Chapter 33: Socioeconomic, Tourism and Recreation of the 2024 EIAR has been updated to incorporate the concept of sense of place as an experiential tourism receptor. The baseline environment has been expanded to identify places within the study area that evoke a sense of place, and the assessment has been updated to consider effects on tourism and sense of place during construction, operation and decommissioning. In addition, further information on the visual impact to tourism receptors is presented in Volume 5, Chapter 33: Socioeconomic, Tourism and Recreation. In addition, as part of the update, the Developer has expanded the cumulative Zone of Influence for the tourism cumulative effects assessment to include Arklow Bank II to assuage concerns raised by Fáilte Ireland.	Volume 5, Chapter 33 Socioeconomic, Tourism and Recreation, Sections 33.2, 33.3, 33.5 and 33.7. Volume 6, Chapter 38 Cumulative and Inter-Related Effects, Section 38.2.

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		However, the Developer notes the inclusion of Arklow Bank II within the tourism cumulative effect assessment does not change the significance of cumulative tourism effects from the 2024 EIAR. Therefore, there are no significant cumulative effects arising from the proposed development and other Phase One projects on tourism and recreation. To summarise, the operation and maintenance of the proposed development will not physically affect tourism assets, visitor facilities, recreational infrastructure or public access routes within the study area. Tourism destinations identified along the coastline of Fingal, Meath, Louth and Dublin City would continue to function as intended, and no restrictions on access or use would arise during the operational phase. In this context, the operation of the offshore wind farm is not predicted to alter the attractiveness, use or viability of tourism destinations, including those within Ireland's Ancient East, nor to affect patterns of recreational or visitor behaviour. Therefore, the significance of effect on the receptors from operation and routine maintenance operations can be classified as not significant.	
b)	Meath County Council raises concerns in relation to the submitted assessment of the visual impact of the proposal on views from historic sites within Meath, in particular from Brú na Bóinne (located circa 30km inland and west of the array area). Having regard to the sites UNESCO World Heritage designation, the applicant is requested to assess the proposed development having regard to the World Heritage Convention UNESCO Guidance Notes as they relate to visual impact assessment and wind energy projects, including the documents 'Guidance and Toolkit for Impact Assessments in a World Heritage Context' (UNESCO, 2022), 'Guidance for Wind Energy Projects in a World Heritage Context' (UNESCO, 2023), and available UNESCO case studies relating to the assessment of offshore projects on World Heritage sites.	Consultation on the UNESCO World Heritage Site (WHS) of Brú na Bóinne was completed with Meath County Council (April 2026) and National Monuments Service (May 2026). Volume 4 Chapter 25 Onshore Archaeology, Architectural and Cultural Heritage and Volume 5 Chapter 29 - Seascape, Landscape and Visual have been revised to include further detail and assessment of Brú na Bóinne. The assessment of the potential impact on the UNESCO sites, arising from the offshore infrastructure, has been carried out with the use of the World Heritage Convention UNESCO Guidance Notes, including the documents 'Guidance and Toolkit for Impact Assessments in a World Heritage Context' (UNESCO, 2022) and 'Guidance for Wind Energy Projects in a World Heritage Context (UNESCO, 2025). Updated photomontages have been produced for Chapter 29 and include new viewpoints from within the UNESCO WHS (VP18 Dowth Passage Tomb, VP18a Newgrange Passage Tomb and VP18b Knowth Passage Tomb). In relation to the core area of the Brú na Bóinne WHS, there will be overall very limited visibility of the proposed offshore infrastructure.	Volume 4, Chapter 25 Onshore Archaeology, Architectural and Cultural Heritage, Sections 25.2 and 25.5. Volume 5, Chapter 29 Seascape, Landscape and Visual, Sections 29.2, 29.3 and 29.5. The updated photomontages including VP18, VP18a and VP18b are included in Volume 7C1: 2026 SLVIA Photomontages Offshore Wind Farm.

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		This is due to the distance of the proposed infrastructure, the intervening topography and existing screening. From the principal monuments within the Brú na Bóinne WHS, there are either no visible turbines or, at most, imperceptible blade tips which will be screened by landform and vegetation. In summary there will be no magnitude of change to the Outstanding Universal Value and as such there will be no impacts on the UNESCO Brú na Bóinne WHS.	
c)	Having regard to the Regional Seascape Character Assessment for Ireland 2020 and to observer observations, the applicant is requested to provide an analysis of the proposed development's potential impact on the coastal area's sense of place and cultural identity for local communities.	Volume 5, Chapter 33: Socioeconomic, Tourism and Recreation has been updated to incorporate the experiential concept of sense of place. The baseline environment has been expanded to identify places within the study area that evoke a sense of place, and the assessment has been updated to consider effects on tourism and sense of place during construction, operation and decommissioning. Coastal sense of place is influenced by the relationship between land and sea, expansive seaward views, cultural and maritime associations, and patterns of recreation and use. The operation of the proposed development has the potential to influence these qualities through changes in distant offshore views. Operational seascape effects are assessed on seascape character and visual receptors in Chapter 29. This chapter concluded that the proposed development would not give rise to significant operational phase seascape effects, and that visual effects from the majority of assessed viewpoints range from imperceptible to slight or moderate-slight, with no significant effects identified in EIA terms. Despite the introduction of offshore wind turbines, the fundamental structure, scale and openness of the receiving seascape will be maintained, and the proposed development will not alter the seascape character in a manner inconsistent with existing conditions. As a result, the experiential qualities that underpin coastal sense of place would remain intact during the operational phase. This is further reflected in Failte Ireland' s report on Visitor Awareness and Perceptions of Renewable Infrastructure in the Irish Landscape currently being drafted (findings of which were shared with the Developer). This confirms that for those who noticed Renewable Energy Infrastructure at their location, six in ten claim it had no impact on their enjoyment, with more positivity than negativity evident, and that for two in three visitors, Renewable Energy Infrastructure did not factor into their decision making when choosing their destination. For those aware of Renewable Energy Infrastructure, 61% report no impact on enjoyment of landscape.	Volume 5, Chapter 33 Socioeconomic, Tourism and Recreation, Sections 33.2, 33.5 and 33.7.

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		Any effect on sense of place would therefore be indirect and perceptual only, arising from the presence of a distant offshore feature within seaward views. Considering that the East Coast of Ireland is an attractive destination for tourists and residents alike due to the meditative nature of the coastal spaces, the sensitivity of the receiving environment from a sense of place perspective is considered to be medium. However, as noted above, the proposed development will not alter the seascape character and the coastal sense of place will remain intact. Therefore, the magnitude of impact is considered to be low and the overall significance of effect on sense of place will be slight, negative and long term, which is not significant in EIA terms.	
d)	Meath County Council raise concerns in relation to the lack of consideration of permitted onshore windfarm and other large onshore developments in the cumulative impact assessment within Chapter 29 of the EIAR. The applicant is requested to address this issue. The cumulative impact of projects in the Irish Sea should also be considered in terms of cultural heritage and the cultural ecosystem services provided by the coastline and seascape.	Chapter 29 Seascape, Landscape and Visual provided a summary of the cumulative effects; however, this was addressed in more detail in Chapter 38 the Cumulative and Inter-related Effects of the 2024 EIAR, which presented the overall CEA of the screened in projects and the proposed development and provided a comprehensive cumulative effects assessment. The Developer notes that in Section 38.2.1.2 of Chapter 38 of the 2024 EIAR states "*Granted/permitted and pending applications older than ten years were excluded on the basis that they would likely already have been built (and so would form part of the existing baseline) or are now unlikely to be progressed. Applications which have been refused or cancelled were discounted from the list on the basis that they are unlikely to progress, unless through successful appeal*." Therefore, any permitted onshore windfarm or other large onshore developments that were not included in the 2024 cumulative effect assessment were considered as part of the baseline environment, where relevant. The Developer also notes that Chapter 38: Cumulative and Inter-Related Effects has been updated to align with the Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment Guidance in accordance with RFI Section 5. Furthermore, a review of the projects listed in the MCC submission was carried out. Those projects listed in the MCC submission which were included in the CEA long list (Table 1 of Appendix 38.1 (onshore projects) and in Table 4 of Appendix 38.2 (offshore projects)) of the 2024 EIAR. Those projects which were not included in the CEA long list are listed below, and the reasons why these projects were not included in the CEA is given.	Volume 6, Chapter 38 Cumulative and Inter-Related Effects, Sections 38.2.

No.	Request for Further Information Details	Developer Response	Location of Response
		Granted/permitted and pending applications older than ten years were excluded on the basis that they would likely already have been built (and so would form part of the existing baseline) or are now unlikely to be progressed. Applications which have been refused or cancelled were discounted from the list on the basis that they are unlikely to progress, unless through successful appeal. As part of the updated CEA project list, Kellystown wind farm (Planning reference 2460766) was included. This is a 5no. wind turbine wind farm 25km from the proposed development boundary. The permitted Kellystown turbines are contained within a discrete land-based setting relative to the offshore developments such that there is a perceptual distinction between them. The conclusion of the assessment is there are no significant residual effects arising from the overlap of the proposed development and this project. As part of the update, the Developer has expanded the cumulative Zone of Influence for the tourism cumulative effects assessment to include Arklow Bank II to assuage concerns raised by Meath County Council and Fáilte Ireland. Cumulative effects with other Phase One offshore wind projects study area was extended to 60 km in line with the Scottish Natural Heritage (SNH) 2012 Guidance Document 'Offshore Renewables – guidance on assessing the impact on coastal landscape and seascape'. Phase One developments that fall within 60 km of the proposed development were Oriel Array, Dublin Array and Codling Wind Park. However, as discussed above Arklow Bank II is also included in the assessment. The CEA considers the contribution of the proposed development to the overall cumulative effect and while it is acknowledged that there will be a significant cumulative effect in the southern extents of the cumulative study area, the contribution of the proposed development is very limited and it is not considered to materially contribute to the potential for significant cumulative effects between Dublin array and Codling Wind Park array or indeed, across the overall cumulative study area, which includes the Oriel array to the north and Arklow Bank II to the south.	
e)	The GIS substation building at Bremore is located adjoining lands zoned for residential development, which are the subject of a recently published draft Local Area Plan, 'draft Flemington LAP, September 2024'. It is stated within the submitted Planning Report (section 6.7.2.3) that at the time of lodgement of the application a consultation paper only was available which was insufficient to enable the applicant to assess the proposed development's compliance with the objectives of the Flemington LAP.	Volume 5 Chapter 29 Seascape, Landscape and Visual and Chapter 30 Noise and Vibration and Volume 6 Chapter 38 Cumulative and Inter-Related Effects have been updated to incorporate further assessment of the proposed development in respect of the (now adopted) Flemington LAP.	**Visual Impacts** Volume 5, Chapter 29 Seascape, Landscape and Visual, Sections 29.11, 29.12, 29.13, 29.14, 29.15, 29.16 and 29.19.

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	The applicant is requested to review the draft LAP (or adopted LAP, where updated at time of this observation) and update the submitted application documentation accordingly, having regard in particular to potential for visual impacts from the substation on the draft LAP lands, potential traffic implications given the proposed access to the LAP lands directly adjoins the proposed access to the substation, and potential noise implications from the substation on the adjoining residential zoned lands.	By way of background, statutory public consultation for the Draft Flemington LAP took place between 10th September and 22nd October 2024. The LAP was adopted by Council on 9th December 2024. The proposed development planning application was submitted in June 2024, before the statutory consultation for, and adoption of, the LAP. Updates to assessments as part of the RFI and submission responses have now taken account of the adopted LAP and this assessment in relation to visual impacts, noise impacts and traffic is summarised below with the full assessment included in the chapters referenced above. **Visual Impacts** Flemington LAP provides for medium density residential development within the land immediately south and southwest of the grid facility, which will introduce up to 650 new homes within the 17.2 hectare site. The Flemington LAP lands are currently contained in agricultural fields between the existing northern built edge of Balbriggan and the proposed grid facility site. *Construction Phase* Should residentially housing within the Flemington LAP lands be developed prior to the construction phase of the grid facility, given that notable treelined hedgerow screening from mature vegetation exists between the nearest of the proposed substation structures and the LAP lands, much of the ground-based construction activity would remain substantially screened from view. However, the upper sections of the emerging and unfinished substation building would rise into view above this vegetation, and this would be prior to the establishment of proposed supplementary woodland thicket planting to supplement the existing boundary vegetation. Consequently, the construction phase visual impact Magnitude is deemed to be High within the immediate vicinity of the southern substation building; noting however, that the current LAP layout does not afford close range amenity views, from the front or rear of dwellings, directly towards the substation building. Consequently, the significance of effect would be Major (significant) from the nearest portion of the LAP lands to the grid facility site but reducing quickly thereafter on account of increasing viewing distance and screening by vegetation and buildings to Moderate and lower effects (Not significant). *Operational Phase* Should residential housing within the Flemington LAP lands be developed as planned, visual impacts from the nearest of the substation structures will relate to partial views of the tall and bulky structure rising above the intervening treelined hedgerow.	Updated photomontages for the grid facility (updated finish) are included in Volume 7C2: 2026 LVIA Photomontages NISA Grid Facility. **Noise Impacts** Volume 5, Chapter 30 Noise and Vibration, Sections 30.2, 30.5 and 30.6. **Traffic Impact** Volume 6, Chapter 38 Cumulative and Inter-Related Effects, Section 38.2. Planning Drawings ref. 281240_MCR_ONS_GF_DR_YE_1010 281240_ARP_ONS_GF_DR_PL_1007 281240_ARP_ONS_GF_DR_PL_1008

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		However, based on the configuration of the LAP layout, the grid facility would not occupy key amenity views from the front or rear of dwellings and will instead be oblique to the orientation of dwellings. The substation colour scheme/finish takes into consideration the adoption of the Flemington LAP, to reflect a future scenario that is more urban edge than the current rural hinterland scenario (subject to final agreement with EirGrid and Fingal County Council). This sees a geometric use of dark, light and mid tone cement render to break of the vertical and horizontal massing of the structures and provide a high architectural quality of finish. Thus, the substation structures will appear as 'urban edge-commercial' rather than a design which is more 'rural-industrial'. Nonetheless, the proposed southern substation building could appear imposing from the nearest portions of the LAP lands. Pre-mitigation, visual impacts would be of a High magnitude from the immediate portion of the LAP lands to the gid facility site resulting in a Major effect (significant). However, from the majority of the LAP lands intervening vegetation and dwellings within the LAP lands will preclude visibility of the Grid Facility resulting in considerably reduced or no visual effects (not significant). It should be noted that as the LAP layout is still at early design stage and a planning application has yet to be lodged, therefore future LAP design layouts can be cognisant of the grid facility layout in terms of the arrangement of open space and orientation of dwellings, thereby further reducing potential residual visual effects. *Mitigation Measures* A revised Landscape Mitigation Plan (Planning Drawing ref. 281240_MCR_ONS_GF_DR_ YE_1010) has been prepared which includes a new woodland thicket along the south-eastern boundary, which will serve as a more substantial visual screen than the current hedgerow boundary. Furthermore, for the section of boundary directly between the nearest grid facility substation and the Flemington LAP lands, large, semi-mature trees (30-40cm girth / 6-7m tall when planted) will be introduced to fill gaps in the existing mature treeline to provide more substantial and consolidated screening. In addition, while cognisant of the functionality of the grid facility structures on site and subject to final agreement with EirGrid and Fingal County Council, a higher standard of architectural finish is now incorporated into the external finishes proposed to the substation buildings (Planning Drawing ref. 281240_ARP_ONS_GF_DR_PL_1007 and	

No.	Request for Further Information Details	Developer Response	Location of Response
		281240_ARP_ONS_GF_DR_PL_1008). This blends more readily with the intervening vegetation in all seasons. *Residual Effects* In relation to potential future views from the Flemington LAP lands, should they be developed as planned in the LAP layout, the newly introduced woodland thicket and semi-mature tree planting along the southern boundary of the grid facility site will serve as a more substantial visual screen and perceptual divide when viewed from the future LAP entrance avenue and the nearest dwellings to the grid facility. Residual visual effects will be reduced from Major to Major-moderate from the nearest portions of the LAP lands and reducing further with distance / screening by intervening buildings and vegetation, and also over time, as the proposed woodland thicket and semi-mature treeline continue to increase in volume and height. None of the residual visual impacts are deemed to be significant in EIA terms. **Noise Impact** The LAP is anticipated to result in new dwellings, i.e. residential receptors, closer to the grid facility than the existing residential receptors. Consequently, the Developer undertook additional baseline monitoring at the south boundary of the grid facility adjacent to the LAP, and an assessment (including noise modelling) of the potential noise impacts on potential future residential receptors in the Flemington LAP lands. The assessment determined that, with additional mitigation, the noise limits set out in the EIAR, will be met and no likely significant effects are predicted. The additional mitigation includes: • The static VAR Compensator transformer cooler bank includes a silencer; • A partial enclosure, 3 side-walls and roof on all shunt reactors and shunt reactor coolers. Alternatively, lower-noise units will be used; and • A solid noise barrier with a minimum height of 1.8 m above the top of the generator at the Bremore substation (closest to the LAP). • A 3-sided noise barrier has been included around the harmonic filter reactors to their south, east, and west sides. The barrier is solid and free from air gaps and is modelled as 1 m above the top of the harmonic filter reactors.	

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		Traffic Impact The site access to the grid facility will involve improvements to the existing field entrance including an entrance gate set back from the public road. The entrance has been designed with appropriate sightlines, to facilitate safe vehicular access and egress. In this regard, please also see response to RFI Section 19 (b) regarding query on sightlines from Fingal County Council. This confirms that a sightlines report was submitted as part of the 2024 planning application, as a standalone document titled '*8. NISA Offshore Wind Farm Report on Approach to Temporary and Permanent Access Points from the Road Network*.' In the recent consultation with FCC in respect of the RFI, FCC confirmed that the sightlines report met its requirements. The design of grid facility entrance has been prepared to ensure that it meets the requirements of the relevant standards, from a sightline perspective and as indicated above, FCC has confirmed its acceptance of same. While an outline indicative location of the proposed access road into the LAP would suggest it is located on the northern boundary of the LAP lands and as such, adjacent to the grid facility entrance, there is currently no publicly available design for this access road or entrance. It is assumed therefore, that the design of the LAP access road and entrance will be cognisant of the grid facility entrance design and the associated sight lines required for both entrances. In terms of construction traffic generation, as outlined in the 2024 EIAR Volume 4, Chapter 24 Traffic and Transport, construction works at the grid facility area are expected to take approximately 24 months. Site clearance at the contractor compound will be during the first 4 months – the majority of construction traffic will be generated during this time. Earthworks activity will be staggered to limit the impact on the capacity and operation of the R132. Following consultation with FCC, the Construction Traffic Management Plan will be further developed by the contractor, prior to the commencement of construction, to ensure construction traffic will be managed safely and efficiently. This will consider the LAP stage of development at this period in time. During construction two-way daily traffic generation at the grid facility is estimated as 105 vehicles (12 HGV and 93 LGV & staff), i.e. 5% increase on R132. The significance of the effect on traffic is considered negative, slight, and temporary.	

No.	Request for Further Information Details	Developer Response	Location of Response
		The scenario of construction of the LAP and the proposed development running concurrently has been considered in terms of the cumulative effects assessment. The significance of the effect remains unchanged. In terms of operational traffic generation, both substations at the grid facility will be largely unmanned/operated remotely. Routine checks will occur c. every 4 weeks, with one or two vehicles at a time per substation. Ad-hoc maintenance trips may also be needed. Annual maintenance will be approximately one week requiring up to 6 vehicles per day per substation. Volumes are likely to be less than 5% of the peak hour traffic. The significance of effect will be negative, not significant and temporary and the significance of the effect remains unchanged.	
14. Archaeology – Offshore and Onshore			
a)	Chapter 18 of the EIAR relates to Offshore Archaeology and Cultural Heritage. Section 18.3.2.5 states that at the time of writing of the EIAR the results of an additional intertidal and shallow water marine geophysical survey at the nearshore of the ECC was unavailable to determine the AEZ of the recorded wreck of the Belle Hill which is a national monument located c. 150m north of the EEC. The applicant is requested to submit the results of the referenced geophysical survey and update the chapter and associated analysis accordingly.	The Developer has amended the Offshore Archaeology and Cultural Heritage baseline and assessment to reflect the results of the referenced geophysical surveys (ADCO, 2024 and 2026) and this is presented in Chapter 18. The receptors within the intertidal and nearshore geophysical surveys include four receptors that have been interpreted as probable wreck debris (ADCO 03, ADCO 04, ADCO 07 and M 0142), potentially either from the Belle Hill or from one of the many Recorded Losses wrecked on the Cardy Rocks. AEZ's for Sites ADCO 03, ADCO 07 and M0142 have now been included within Table A18.6.	Volume 3, Chapter 18 Offshore Archaeology and Cultural Heritage, Table A18.6.
b)	Appendix 25.4 is titled 'Draft Cultural Heritage Mitigation Strategy'. The applicant is requested to confirm if this is the most up-to-date report available and to update said report in relation to any issues arising as a result of the observation of the DAU and other observations.	As noted in Section 25.6.1.3 of Volume Chapter 25: Onshore Archaeology, Architectural and Cultural Heritage in the 2024 EIAR "*A draft Cultural Heritage Mitigation Strategy detailing the required mitigation measures (including definitions of same) has been appended to this EIAR (Appendix 25.4). This document will remain a live document and will require updating by the relevant heritage contractors during the course of the project at pre-construction and construction stages.*" As explained in Section 25.3 of Appendix 25.4 of the 2024 EIAR, the Developer "*proposed the following cultural heritage mitigation strategy, to be updated where required at detailed design and construction stage. The draft mitigation strategy is prepared as part of the planning application, in order to provide statutory heritage consultees to submit observations on same and in order to inform An Bord Pleanála in determining conditions that may be attached to any*	N/A

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		planning approval." The draft Cultural Heritage and Mitigation Strategy was issued to all statutory heritage consultees as part of the planning application process, including the National Monuments Section of the Department of Housing, Local Government and Heritage and relevant Local Authority Heritage Departments. Should permission be granted, the conditions relating to onshore archaeology, architectural and cultural heritage attached by An Coimisiún Pleanála to the permission, will be incorporated into the cultural heritage strategy pre-construction. Section 25.3 of Appendix 25.4 of the 2024 EIAR also states that "*The Cultural Heritage Strategy is a live iterative document, and it will continue to evolve on a phased basis to ensure that it remains appropriate and effective in managing cultural heritage risk up to and including the various construction and operational phases.*" Given the above, it is considered entirely appropriate that the noted Appendix was titled 'draft' at this stage, so that any requirements of the prescribed bodies during statutory consultation and An Coimisiún Pleanála by way of conditions should it be minded to grant permission) could be included in the final strategy.	
15. Offshore Bats			
a)	The Board notes the observation from the DAU in relation to the assessment of coastal foraging bats. The DAU notes there is some evidence of Leisler's bats throughout the summer and autumn at Rockabill, which is c. 5/6km from the proposed offshore array and therefore the proposed development is within the foraging range of this species. The DAU observations notes a potential roost of pipistrelles on Rockabill needs further investigation. The applicant is requested to include the use of the data collected during vessel and headland surveys in 2024, as well as further surveys of the buildings at Rockabill Island to determine if a bat roost is present and address the potential for any interaction between foraging bats on Rockabill and the offshore development area.	The Developer confirms that Chapter 35 Offshore Bats fully incorporates the 2024 vessel, headland and Rockabill survey data, providing the updated baseline requested by the Board. As set out in Sections 35.2.4 and 35.3.5, all 2024 survey results have been analysed, including offshore detections, coastal headland activity and the updated Rockabill roost inspections. These surveys confirmed a small, temporary Leisler's day roost within Building One and found no evidence of pipistrelle roosting in 2024. Potential interaction pathways between Rockabill-associated bats and the array area were reassessed within Impacts 3, 6, 7 and 8, with Section 35.7 confirming that no significant effects arise. Offshore activity across all three years remains extremely low and episodic, and no behaviour indicative of interaction with the array area was recorded.	Volume 3, Chapter 35 Offshore Bats, Sections 35.2.4, 35.3.5 and 35.7.
b)	Whilst the applicant has stated that any risk to migrating bats has been ruled out, the DAU notes that data collected by the applicant, particularly in relation to Leisler's bats, provides the strongest indication to date that this species may migrate between the UK and Ireland. The DAU recommend that further data should be acquired or more data analysed to allow further consideration of the implications of the proposed development on offshore bat activity.	The Developer confirms that Chapter 35 provides an updated and comprehensive assessment of offshore bat activity and potential migratory movements in response to RFI 15(b). As set out in Section 35.3.5, detections of Leisler's bat and Nathusius' pipistrelle within the array area during 2024 were extremely limited, comprising isolated and short-duration passes with no pattern indicative of UK–Ireland migration.	Volume 3, Chapter 35 Offshore Bats, Sections 35.3.3.2 and 35.3.5.

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	These analyses should include use of the data collected during vessel and headland surveys in 2024 as well as further surveys of the buildings at Rockabill Island to determine if a bat roost is present and should address the potential for any interaction between bats on Rockabill and the offshore development area. The applicant is requested to respond to the observation made by the DAU and address concerns raised.	These findings are contextualised in the updated offshore bat literature review (Section 35.3.3.2), which incorporates recent UK and European tracking studies demonstrating that offshore bat occurrence is sporadic, weather-dependent and not associated with defined migratory corridors. Chapter 35 also integrates evidence from the Irish Phase 1 offshore wind applications (Oriel, Dublin Array, Codling and Arklow Bank Phase 2). Each of these projects undertook multi-season offshore monitoring and likewise recorded very low and intermittent offshore bat activity. This consistent regional pattern strongly reinforces the conclusion that offshore bat presence in the Irish Sea is rare, opportunistic and not suggestive of sustained migratory movement. The implications of these findings for the proposed development are assessed in Impact 5 and Impact 8, both of which confirm that no significant effects are predicted for migrating bats.	
c)	With regard to artificial lighting at night, the applicant is requested to provide a more comprehensive assessment for the effects due to Artificial Lighting at Night (ALAN) and the extent to which it may displace bats. The applicant is requested to provide an assessment (with reference to appropriate lux contours) having regard to the submitted Lighting and Marking Plan to determine the extent to which WTG and OSP lighting may disturb or displace bats.	The Developer confirms that Chapter 35 provides a comprehensive reassessment of Artificial Lighting at Night (ALAN) in response to RFI 15(c), incorporating the Lighting and Marking Plan (Appendix 17.2) and updated offshore bat survey data. As set out in Impacts 3 and 6, all operational and construction lighting associated with the proposed development comprises aviation and marine navigation lights designed as narrow, directional point-source signals with no downward or upward spill. These lighting characteristics do not generate measurable illuminated fields or lux-contours capable of influencing bat behaviour, and lux-based footprint modelling is therefore not applicable. The updated assessment confirms that construction- and operational-phase lighting will not alter offshore lighting conditions beyond existing navigational baselines and will not create attraction or displacement pathways for bats. This conclusion is supported by the 2024 vessel-based survey, which recorded no behavioural response to offshore lighting, and by the findings of other Irish Phase 1 offshore wind EIARs.	Volume 3, Chapter 35 Offshore Bats, Section 35.4.3. Volume 9, Appendix A17.3 Lighting and Marking Plan.
d)	The applicant is requested to clarify what specifically are the 'optimisation strategies' utilised by bats and how are they relied upon to mitigate risks from the proposed development for bats.	The Developer has clarified the meaning of “optimisation strategies” in response to RFI 15(d) in Chapter 35. As set out in Impacts 3, 4, 6, 7 and 8, the term refers to the natural behavioural adaptations used by migratory bats to minimise energetic cost during long-distance movements. These include selecting favourable wind conditions, adopting direct offshore routes, and timing flights to coincide with supportive meteorological windows.	Volume 3, Chapter 35 Offshore Bats, Table A35.3.

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		These strategies are described solely as ecological context and are not relied upon as mitigation or as measures that reduce potential effects from the proposed development. The updated assessment demonstrates that offshore bat activity remains extremely low, episodic and weather-dependent, and that no attraction or displacement pathway exists that would alter these natural movement behaviours. Chapter 35 therefore provides a clear explanation of optimisation strategies and confirms that they have not been used to justify or reduce predicted effects.	
e)	As indicated within Chapter 35 of the EIAR, some bat species, which are known to have migratory behaviours, have a foraging height of approx. 40m above ground level (as per studies relating to onshore windfarms). The applicant is requested to review the EIAR in the context of the most up-to-date literature available, which claims that certain species regularly fly above 40m. In light of this literature, the application is requested to reconsider the tidal range and its impact on the available gap between the swept area and water level and the factor which flight height plays in the risk to foraging and migratory bats.	The Developer confirms that Chapter 35 provides a full justification of the significance ratings for offshore bats in response to RFI 15(e). As set out in Impact 8 which assesses collision and barotrauma, the assessment has been comprehensively revised to account for the updated 2024 offshore dataset, the cross-year evidence from 2022–2024, and the wider Phase 1 offshore baselines. The updated evaluation concludes that offshore bat activity is extremely low, short-duration and involves very small numbers of individuals, with no evidence of sustained offshore use, offshore foraging or any behavioural pathway that would bring bats into contact with turbine infrastructure. The magnitude of impact from collision and barotrauma for all bat species is therefore assessed as low. This reflects the absence of any resident offshore breeding population, the very limited number of individuals potentially exposed, the lack of any offshore dependency and the international evidence that no offshore bat collisions have been reported despite targeted monitoring programmes. When combined with the negligible activity within the array area, all collision and barotrauma effects are assessed as not significant in EIA terms.	Volume 3, Chapter 35 Offshore Bats, Section 35.5.
f)	The applicant is requested to examine the need for mitigation measures, in addition to monitoring during the operational phase, to reduce potential impacts on bats, and is requested to provide details in relation to potential mitigation measures, for example, including, *inter alia*, measures such as curtailment or feathering of blades under certain conditions.	The Developer has re-evaluated the need for bat-specific mitigation measures in response to RFI 15(f). As detailed in Section 35.5 of Chapter 35, the updated assessment confirms that no significant effects on any bat species are predicted during the construction, operational or decommissioning phases. Offshore bat presence within the array area across the 2022–2024 monitoring period is extremely low, short-duration and involves very small numbers of individuals, with no evidence of sustained offshore use or any behavioural pathway that would result in regular interaction with turbine infrastructure.	Volume 3, Chapter 35 Offshore Bats, Section 35.5.

No.	Request for Further Information Details	Developer Response	Location of Response
		The updated ALAN and prey-mediated assessments (Impacts 3, 4, 6 and 7) confirm that no attraction mechanisms exist, and the revised collision and barotrauma assessment (Impact 8) concludes that any potential interaction would be rare and of negligible biological consequence. International monitoring evidence also shows that no confirmed bat collisions have been recorded at offshore wind farms. Given this evidence base, additional mitigation measures such as curtailment or feathering are not considered necessary or proportionate for the proposed development.	
16. Gas Interconnector			
There is an existing gas interconnector pipeline located on the seabed between Ireland and Scotland, which is stated in the EIAR to be located c. 400-500m northwest of the array area (Appendix 17.1 Navigational Risk Assessment and Chapter 20). Section 15 of Appendix 17.1 relating to cumulative impacts incorrectly states there are no subsea cables/pipeline within 2nm. The applicant is requested to address the proximity of the existing gas interconnector pipeline to the north of the array area, having regard to NMPF Transmission Policy 5.	The Developer has noted the error in Appendix 17.1: NRA of the EIAR and this is corrected in the RFI response. Post-submission consultation with Gas Networks Ireland focused on the relationship between the proposed development and existing offshore gas infrastructure, with a focus on Interconnector 2 in accordance with RFI Section 16. Following that consultation, the Developer completed a risk assessment conforming to DNV-RP-F107 Risk Assessment of Pipeline Protection (DNV, 2019) which has been shared with GNI in January 2026 and which proposes appropriate mitigation measures to conclude that the risk posed to both parties is tolerable and satisfies As Low As Reasonably Practicable (ALARP) methodology. The National Marine Planning Framework Compliance Report in Appendix 3.1 of the 2024 EIAR has been updated to reflect the above. as part of the RFI response. For Volume 5 Chapter 34 Risk of Major Accidents and/or Disasters, further information on the Interconnector 2 is provided in the baseline and within the assessment. This has been included as a new risk event. i.e. “Damage to Interconnector 2” during offshore construction, operation and decommissioning. Given the likelihood of occurrence and the consequence damage, the risk assessment completed shows this risk event to be in the green zone (low risk event) and below the threshold of significance set for the purposes of this assessment. Relevant changes are described in Chapter 34, Sections 34.3 and 34.5. In addition, the proximity of the GNI interconnector has included consideration of the NMPF Transmission Policy 5 (A3.1 NMPF Compliance Report) within Chapter 20.	Volume 8, Appendix A3.1 NMPF Compliance Report. Volume 5, Chapter 34 Risk of Major Accidents and/or Disasters, Sections 34.3 and 34.5. Volume 3, Chapter 20 Infrastructure and Other Users, Sections 20.5 & 20.9.

No.	Request for Further Information Details	Developer Response	Location of Response
17. Aviation and Radar			
a)	'EI-D1' is an area of airspace surrounding Gormanston Airfield, utilised by the Irish Defence forces. The applicant is requested to confirm, following consultation with the Irish Air Corps, and having regard to NMPF Defence and Security Policy 1, that the proposed development will not significantly impact on the operation of Gormanston Military Practice and Exercise Area.	The Developer has addressed the request to consult with the Irish Air Corps with consideration of the NMPF Defence and Security Policy 1 in May 2025 Details of this engagement and how the EIAR has been updated to reflect this engagement are provided in Section 6 of Appendix A1.2 Consultation Report. Key issues related to the relationship of the turbine layout to the Gormanston military practice and exercise area, aviation lighting requirements, and ongoing coordination with civil aviation authorities. The DoD acknowledged reductions in the offshore development area and confirmed that the proposed turbine array avoids encroachment into the designated danger area. During this consultation DOD acknowledged that the proposed development will not significantly impact on the operation of Gormanston Military Practice and Exercise Area. Gormanston Aerodrome and the E1-D1 Danger Area is considered as part of the aviation baseline environment. There has been no change to this assessment since the 2024 EIAR. Following the May 2025 meeting, DOD providing additional requirements related to night time lighting of WTGs. These are reflected in photomontages in Appendix A29.3.	Volume 9, Appendix A1.2 Consultation Report, Section 6. Volume 11, Appendix A29.3 Night-time Photomontages (illumination of the WTG with Type C medium intensity fixed red obstacle lighting).
b)	The applicant is requested to confirm through consultation with Dublin Airport Authority and Air Nav Ireland (the national Air Navigation Service Provider (ANSP)) that the layout and reduced height of 311m above LAT applied to a number of turbines for layout Option 2 is satisfactory, having regard to the location of the area within the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2.	The Developer has engaged with Dublin Airport Authority and AirNav Ireland and have incorporated the modelling of the new Dublin Airport radar to address AirNav concerns, which have now been confirmed to be addressed for both DAA and AirNav Details of the consultation undertaken and how this has informed the updated EIAR is provided in Section 6 of Appendix A1.2 Consultation Report. The modelling of the new radar to address AirNav is presented in Appendix A19.1 Airspace Analysis and Radar Modelling. The outcomes have been incorporated in updates to assessments in Chapter 19 Aviation and Radar which confirms that the impact to radars from the proposed development results in a moderate significance of effect, which is not significant in EIA terms.	Volume 8, Appendix A1.2 Consultation Report, Section 6. Volume 9, Appendix A19.1 Airspace Analysis and Radar Modelling.

No.	Request for Further Information Details	Developer Response	Location of Response
18. Transboundary Consultation			
	The Board notes that the observation received by the Territorial Sea Committee on behalf of the Isle of Man, raises, *inter alia*, concerns in relation to the lack of consideration of designated Manx sites, with potential for transboundary impacts in particular in relation to birds, fish/shellfish, and marine mammals. The applicant is requested to address the Isle of Man observation.	The Developer confirms that the potential for transboundary impacts on designated Manx sites have been assessed in the appropriate sections of the following chapters (where the study area or zone of influence extends into Isle of Man waters); Chapter 13 Fish and Shellfish Ecology; Chapter 14 Marine Mammals; and Chapter 15 Offshore Ornithology. For clarity, the Developer confirms that no potential for transboundary impacts have been concluded on designated Manx sites that have fish or shellfish marine mammal; or ornithology qualifying features The Developer has also addressed the Isle of Man observation in Section 5.9 of the Response to Submissions report.	Volume 3, Chapter 13 Fish and Shellfish Ecology, Section 13.8. Volume 3, Chapter 14 Marine Mammals, Section 14.8. Volume 3, Chapter 15 Offshore Ornithology, Section 15.8. Section 5.9 of the Response to Submissions report.
19. Onshore Traffic and Transportation			
a)	The Board acknowledges concerns raised by Fingal County Council and a number of observers in relation to the scale and duration of onshore road closures proposed to facilitate the development. Having regard to the anticipated traffic disruption, the applicant is requested to consider, in consultation with Fingal County Council, mitigation measures to address the predicted length of road closures, including consideration of lane closures with significant traffic management measures, nighttime road closures and measures to reduce road closure timelines such as increased resources. The applicant is also requested to submit, further to consultation with Fingal County Council, proposals for a phasing plan.	The Developer engaged in further consultation with Fingal County Council (FCC) in 2025 (see Volume 8 Appendix A1.2). As part of this consultation, the Developer submitted an indicative phasing plan to FCC which will be further developed and finalised by the Developer and its appointed contractor(s) in consultation with FCC and other relevant stakeholders, prior to the commencement of construction, as agreed with FCC. Through this consultation, additional mitigation measures have been identified and agreed with FCC to further reduce potential impacts arising from the proposed development. These include: • Corduff National School is located on Section 3.1 of the cable route. It is proposed to undertake work in the area surrounding the school during the school holidays. • It is proposed to undertake work on Sections 12 and 13 (Swords Road and Malahide Rd, close to Malahide Castle) outside of peak concert season (June and July) unless otherwise agreed with FCC. • The design as it has developed now envisages that, in general, the sequential single lane closures can be reduced from c. 200-300 m (2024 EIAR) to c. 150-200m. This reduction should help to alleviate the impact of the partial road closures; and • During daytime working hours, and particularly to manage peak traffic time flows and to ensure that buses are prioritised - all single lane closures which have traffic lights deployed to manage the lane closure traffic flows, will have a Traffic Management Engineer deployed on site to monitor and regulate traffic flows at	Volume 4, Chapter 24 Traffic and Transport, Sections 24.4 & 24.6.

No.	Request for Further Information Details	Developer Response	Location of Response
		each traffic light head as required, in order to mitigate and prevent unnecessary tailbacks either side of the lane closure. In addition to the above, 24-hour working may be considered an additional mitigation option in conjunction with the Local Authority and other stakeholders during the construction. As was previously noted in the 2024 EIAR, any 24-hour work will be communicated to stakeholders and agreed with local authorities in accordance with the Communication Plan provided in the Onshore Construction Environmental Management Plan (CEMP, Volume 8 Appendix A9.1). Further information on the locations considered, assessed against the Design Manual for Roads and Bridges for 24-hour working, is provided in Volume 5 Chapter 30: Noise and Vibration (Sections 30.5 and 30.6). Further details on the additional mitigation measures and the indicative phasing plan are provided in the updated Construction Traffic Management Plan (CTMP) which is included as part of the updated CEMP, in Volume 8 Appendix A9.	
b)	Chapter 8 and associated Appendix 8 of the planning application documents address access points from the road network. The applicant is requested to address the observation made by Fingal County Council, who raise concerns in relation to sightlines and the level of information provided in relation to new vehicular entrances.	The Developer notes that site entrances and access tracks are addressed in Volume 2 Chapter 9 Construction Strategy - Onshore, Section 9.5.2.2, and Appendix 9 of the 2024 EIAR. The Developer also notes that a sightlines report was submitted as part of the 2024 planning application, as a standalone document titled '*8. NISA Offshore Wind Farm Report on Approach to Temporary and Permanent Access Points from the Road Network.*' This report provides an overview of the proposed access points (Section 2 of the Report), Control of Access/Egress during the Construction Phase (Section 3) and Control of Access/Egress during the Operational Phase (Section 4). In the consultation with FCC, referred to under item 19(a) above, the Council has confirmed that the sightlines report met their requirements.	N/A
c)	The applicant is requested to review section 24.3 of Chapter 23 in relation to Baseline Environment to ensure any road network upgrade works, such as the installation of active travel measures/cycle paths at Corduff NS and along the R132 (The Five Roads to Corduff), and at any other location, are reflected accurately in the baseline and subsequent assessment.	Updated traffic count surveys were undertaken in 2025. The results of these surveys and an updated assessment of these data are included in the Addendum to the EIAR. An updated assessment of traffic noise and air quality is provided also provided. During the consultation with FCC in 2025 a number of road upgrade projects and/ active travel schemes were discussed and shared with the Developer. Where relevant, these have been considered in the updated CEA.	Volume 4, Chapter 24 Traffic and Transportation, Sections 24.2, 24.3, 24.5, 24.6, and 24.7. Volume 5, Chapter 30 Noise and Vibration, Section 30.5 Volume 5, Chapter 27 Air Quality, Section 27.5.

No.	Request for Further Information Details	Developer Response	Location of Response
			Volume 6, Chapter 38 Cumulative and Inter-Related Effects, Section 38.2.
20. Onshore Biodiversity			
a)	Chapter 23 of the EIAR and the NIS both refer to Cutts, N., Phelps, A. & Burdon, D. (2009) Construction and waterfowl: defining sensitivity, response impacts and guidance. Institute of Estuarine & Coastal Studies (IECS) The University of Hull. The Waterbird Disturbance Mitigation Toolkit (Cutts, N., Hemingway, K. & Spencer, J. (2013), Waterbird Disturbance Mitigation Toolkit. Informing Estuarine Planning & Construction Projects, Institute of Estuarine and Coastal Studies (IECS) University of Hull, Version 3.2) has been published since this paper and incorporates some newer information. Please confirm whether the conclusions drawn based on the 2009 paper are still valid in light of the more recent toolkit.	Chapter 23 of the 2024 EIAR has been reviewed against The Waterbird Disturbance Mitigation Toolkit (Cutts et al. (2013)). Updated information in Cutts et al. (2013) that differs from Cutts et al. (2009) and with relevance to the assessment in Chapter 23 of the 2024 EIAR includes disturbance distances for light-bellied Brent geese, shelduck and some wading species. Disturbance distances are not specifically set out for light-bellied Brent geese in Cutts et al. (2009). The assessment in Chapter 23 of the 2024 EIAR assumed a disturbance distance of up to 300m from noise stimuli for light-bellied Brent geese based on noise disturbance information and distances to third party disturbances contained in Cutts et al. (2009). For Brent geese, Cutts et al. (2013) identify the species as highly sensitive to noise disturbance. The study reports a disturbance distance threshold of 105m when birds are foraging, with this increasing to 205m for roosting or loafing birds due to increased vigilance at the roost. Considering the information presented in Cutts et al. (2013) the disturbance distance of 300m applied for light-bellied Brent geese during the assessment in Chapter 23 of the 2024 EIAR remains valid (i.e. the disturbance distance of 300m used in the 2024 EIAR is considerably more than the 105m - 205m). In addition, the survey area extended to within 1km of the onshore development area and included estuarine habitats, refer to Chapter 23 of the 2024 EIAR, Section 23.2.4.2, and therefore, captured and assessed birds occurring beyond the 300m distance. Similarly, updated information has been provided for shelduck in Cutts et al. (2013). The assessment in Chapter 23 of the 2024 EIAR for shelduck assumed a disturbance distance of up to 300m from noise stimuli based on information contained in Cutts et al. (2009). Cutts et al. (2013) reports that shelduck are quite sensitive to noise stimuli with a minimum approach distance of no less than 150m. It also states, “the species is subject to a high degree of habituation and further exposure to sounds of the same or greater level can lead to no response to stimuli.” Considering the information presented in Cutts et al. (2013), the disturbance distance of 300m applied for noise stimuli is sufficient and valid for shelduck. Cutts et al. (2013) has identified shelduck as highly sensitive to visual disturbance reporting they are affected by visual disturbance up to 500m away from source.	Volume 4, Chapter 23 Biodiversity of the 2024 EIAR, Sections 23.2.4.2, 23.3.3, 23.5.2.1, 23.5.2.9, 23.6.1.10 and 23.7.1.

No.	Request for Further Information Details	Developer Response	Location of Response
		Visual disturbance assessed in Chapter 23 of the 2024 EIAR, Section 23.5.2.1 and Section 23.5.2.9, does not define 300m (or any distance) as a set disturbance distance for shelduck from the visual stimuli associated with the onshore proposed development. However, the survey area extended to within 1km of the onshore development area and included estuarine habitats, refer to Chapter 23 of the 2024 EIAR, Section 23.2.4.2, and therefore captured and assessed birds occurring within and beyond the 500m distance set out in Cutts et al. (2013). Numbers of shelduck at the landfall and Malahide Estuary were very low ranging from between one and nine birds, refer to Chapter 23 of the 2024 EIAR, Section 23.3.3. Mitigation measures applied in Chapter 23 of the 2024 EIAR, remain appropriate to the disturbance distances and disturbance stimuli reported for shelduck in Cutts et al. (2013) given the survey was completed within and beyond the recommended 500m distance. As such, the assessment in Chapter 23 of the 2024 EIAR for shelduck remains valid. A review of mitigation measures included in the 2024 EIAR against the Waterbird Disturbance Mitigation Toolkit for Brent geese and shelduck as set out in Cutts et al. (2013), concludes the proposed mitigation remains appropriate and valid for minimising impacts on light-bellied Brent geese and shelduck. In an estuarine environment, Cutts et al. (2013) mitigation measures should be considered for works occurring within 400m of Brent geese. Mitigation measures to minimise disturbance on wintering waterbirds, including light-bellied Brent geese and shelduck, as detailed in Chapter 23 of the 2024 EIAR, Section 23.6.1.10 are: • At the landfall site, the HDD compounds near the shoreline will have noise barriers erected • At Malahide Estuary, works along the Estuary Road will avoid the period September to March • Where this is not practicable, noise barriers will be erected at works along the Estuary Road • Noise barriers will act as a visual barrier at the landfall and at Malahide Estuary These measures will reduce noise and visual stimuli to an acceptable level for light-bellied Brent geese and shelduck when referring to Cutts et al. (2013) and as set out in 2024 EIAR Chapter 23, Section 23.7.1.	

No.	Request for Further Information Details	Developer Response	Location of Response
		For species that will feed up to 50m (or <50m) to construction plant, a review of the Waterbird Disturbance Mitigation Toolkit as set out in Cutts et al. (2013) confirms that mitigation measures included in the 2024 EIAR remain appropriate and valid. These species include oystercatcher, ringed plover, golden plover, lapwing, knot, sanderling (not recorded during surveys for the proposed development), redshank and turnstone. For such species, the Waterbird Disturbance Mitigation Toolkit suggests mitigation should be applied at noise levels of above 55db (60dB in a highly disturbed area) to 60dB (65dB in a highly disturbed area). Chapter 23 of the 2024 EIAR, Section 23.7.1 sets out that such noise levels will be achieved post-mitigation between 20m and 60m from the source of the noise. Based on the review of the Cutts et al. (2013) and the assessment presented in Chapter 23, no updates are required in the addendum to the EIAR in response to RFI Item 20 (a).s	
b)	Fingal County Council raise a number of issues in relation to tree protection/removal, landscaping plans and the submitted Habitat and Species Management Plan. The applicant is requested to address the issues raised	The Tree Report has been updated to include reference to *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations for survey methodology, tree protection standards and calculation of the Root Protection Area* (RPA). The updated Tree Report also includes a system of working to ensure retained trees are protected at all times during construction. Where there is tree felling and hedgerow removal along the onshore cable route, the Developer will prepare and agree a felling and replacement plan with Fingal County Council, if required prior to construction. The exact location of the cable route within the red line boundary is not yet to be confirmed. However, the impact assessment has applied a precautionary approach and assumed a worst-case scenario throughout to ensure the assessment is sufficient. Any such replanting to be agreed with Fingal County Council is outside of proposed planting at the grid facility and Blakes Cross South. Updates have been made to the EIAR to capture this amendment. The Habitat and Species Management Plan has been updated in response to the RFI. This update also addresses the submission received from National Parks and Wildlife Service (NPWS), on the use of grassland seed mixes at the grid facility, Blakes Cross North and the attenuation basin at the grid facility. Updates on the methods of grassland establishment have been made to integrate recommendations received from NPWS.	Volume 10, Appendix A23.8 Arboricultural Report and Tree Impact Assessment Report, Section 6. Volume 4, Chapter 23 Biodiversity, Section 23.6.1.2. Volume 10, Appendix A23.9 Habitat and Species Management Plan.

No.	Request for Further Information Details	Developer Response	Location of Response
		Additional changes have been made to habitat areas of species rich grassland and native woodland areas at the grid facility, and riparian grassland at the attenuation basin as a result of updates to the landscape plan, to respond to RFI 13 (e).	
c)	The applicant is requested to clarify what, if anything, will be visible above ground at the landfall site when the development is complete. The applicant is requested to elaborate on proposed groundworks and landscaping works in this area, with specific reference to the areas on proposed cable route map sheet 03 and 04 of 64.	Cable route map sheets 03 of 64 (planning drawing reference 281240-ARP-ONS-CR-DR-PL-1103) and 04 of 64 (planning drawing reference 281240-ARP-ONS-CR-DR-PL-1104) show the landfall site. As explained in Chapter 7 of the 2024 EIAR, Section 7.3.2, and Chapter 9 of the 2024 EIAR, Section 9.12.1.1, the cables will be underground. Following completion of the horizontal directional drill and jointing activities, all cabling and jointing infrastructure will be below ground. The only visible structures at the landfall during the operational phase will be two manhole covers for each cable and cable marker posts, which will indicate the location of the underground cables. There will also be a permanent access track of approximately 4.5m to allow access to the TJBs. The landfall site consists of undulating agricultural fields with relatively few dwellings in the immediate vicinity. In Chapter 23 of the 2024 EIAR, Section 23.3.3.1, the habitat type at the landfall site is classified as *"BC1 Arable crops. This habitat refers to agricultural land used for the production of cereals. Here the dominant cereal is wheat Triticum aestivum. The majority of this habitat type is located at the landfall site and grid facility locations although it also occurs at several other offline sections of the onshore cable route. In total, 53.71ha of arable crops fall within the onshore development area. This typically mono-crop habitat type provides limited biodiversity value; therefore, the ecological evaluation has been assessed as local importance (lower value)."* Following completion of construction, the reinstatement of the landfall site will be as described in Chapter 9 of the 2024 EIAR, Section 9.12.1.3 for the onshore cable route. The landfall site will be fully reinstated following the completion of works. Farmland will be reinstated to its original condition. Prior to the replacement of topsoil, the subsoil will be ripped to below the depth of compaction, if possible, and levelled, and any roots, stones, shale and rock will be removed. Topsoil will be replaced, and additional topsoil provided, if required.	Planning drawing reference 281240-ARP-ONS-CR-DR-PL-1103 and 281240-ARP-ONS-CR-DR-PL-1104. Chapter 7 of the 2024 EIAR, Section 7.3.2. Chapter 9 of the 2024 EIAR, Section 9.12.1.1 and 9.12.1.3. Chapter 23 of the 2024 EIAR, Section 23.3.3.1.

No.	Request for Further Information Details	Developer Response	Location of Response
		On completion of the works all temporary buildings, fences, roadways, surplus materials debris and materials not naturally belonging on the land will be removed. Some access tracks will be retained for ongoing maintenance and emergency access purposes. Where loss of hedgerows occurs, the hedgerow will be replanted where possible. To protect the cable and to provide future access to the cable corridor, there will be restrictions on the replanting of hedgerows directly over the cable trenches. On completion of the construction works and energisation of the project, the permanent wayleave will be 8m wide in third party lands. Future access to the joint bays in third party lands for annual inspection will be maintained via the construction of approximately 4.5m wide permanent access tracks to each joint bay location.	
21. Airborne Noise			
a)	The applicant is requested to submit further details in relation to the applied scope and methodology in relation to operational airborne noise from the proposed WTGs. The applicant is also requested to further consider the issue of mitigation where relevant.	Further detail in relation to the applied scope and methodology of the operational airborne noise assessment for wind turbine generators (WTG) has been provided. Relevant changes are included in Addendum to the EIAR. In summary, further modelling in line with the methodology in BEK nr 135[3] has been undertaken to provide additional information on the operational airborne noise from the proposed WTGs. The calculated noise levels (18dBLAeq) remain below the threshold levels for potential effects set out in NG4 (45dBL_{Aeq}) and ETSU R-97 (35dBL_{A90}) and therefore the previous assessment outcome, that no likely significant effects are predicted as a result of operational WTG noise, remains unchanged.	Volume 5, Chapter 30 Noise and Vibration, Section 30.2, Table A30.1, Section 30.5.7.1 and Table A30.10.
b)	The applicant is requested to address observer concerns with regard to impact of airborne noise from WTGs, specifically in relation to verifying the source of the assumed SPL of the WTGs, details in relation to cut-in wind speed, cut-out wind speed and sound power level data.	See above. Further detail has been provided in the assessment of airborne noise during the operational phase of the proposed development in the updated chapter. The octave band sound power levels used are presented. These sound power levels are the highest (maximum) reported levels for the representative turbine, occurring at hub height wind speeds of 11m/s and above. For reference, the representative turbine has a cut-in wind speed of 3 meters per second (m/s) and a cut-out wind speed of 31 m/s.	Volume 5, Chapter 30 Noise and Vibration, Section 30.5.7.1 and Table A30.10.

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Appendix A - Addendum Appendices List

EIAR			
	2024 EIAR	2026 EIAR	
Chapter	**Appendix Name**	**Updated Appendix Name**	**Additional/New Appendix Name**
1	Appendix 1.1: Competent Experts	Appendix A1.1: Competent Experts	N/A
	Appendix 1.2: Consultation Report	Appendix A1.2: Consultation Report	
2	Appendix 2.1: EIAR Scoping Report	No change	
	Appendix 2.2: Information provided under S287 pre-application		
	Appendix 2.3: Information provided under S287A pre-application		
	Appendix 2.4: Design Flexibility Opinion		
3	Appendix 3.1: National Marine Planning Framework Compliance Report	Appendix A3.1: National Marine Planning Framework Compliance Report	N/A
	N/A	N/A	Appendix A3.2: Marine Strategy Framework Directive Assessment
	N/A	N/A	Appendix A3.3: Ecosystem Functions and Services Assessment
5	Appendix 5.1: Malahide Community Forum Offline Option	No change	
	N/A	N/A	Appendix A5.1: Design Refinements
6	Appendix 6.1: Offshore Environmental Management Plan	Appendix A6.1 Offshore Environmental Management Plan	N/A
	Appendix 6.2 Rehabilitation Schedule	Appendix A6.2 Rehabilitation Schedule	N/A
	N/A	N/A	Appendix A6.3 Operational Monitoring Plan
7	Appendix 7.1: Planning Drawings	Appendix A7.1 Planning Drawings	N/A
9	Appendix 9.1 Onshore Construction Environmental Management Plan	Appendix A9.1 Onshore Construction Environmental Management Plan	N/A
10	Appendix 10.1: Marine Processes Review of Project Options	Appendix A10.1: Marine Processes Review of Project Options	N/A
	Appendix 10.2: Marine Physical Processes Numerical Modelling	Appendix A10.2: Marine Physical Processes Numerical Modelling	N/A
	~~Appendix 10.3: Assessment of Spoil Mounds~~	N/A – no longer required due to design refinements	N/A

EIAR			
	2024 EIAR	2026 EIAR	
Chapter	**Appendix Name**	**Updated Appendix Name**	**Additional/New Appendix Name**
	N/A	N/A	Appendix A10.3: Supporting Assessment Sensitivity Studies
11	Appendix 11.1: Offshore Water Framework Directive Compliance Report	Appendix A11.1: Water Framework Directive Compliance Assessment	N/A
12	Appendix 12.1: Array Area Benthic Survey Report	No change	N/A
	Appendix 12.2: Cable Route Benthic Survey Report	No change	N/A
	N/A	N/A	Appendix A12.1: Benthic Ecology Survey Report 2025
13	Appendix 13.1: Fish and Shellfish Ecology Baseline Characterisation	Appendix A13.1: Fish and Shellfish Ecology Baseline Characterisation	N/A
14	Appendix 14.1: Underwater Noise Modelling Report	Appendix A14.1: North Irish Sea Array: Underwater Noise Assessment	N/A
	Appendix 14.2: Marine Mammal Baseline Characterisation	Appendix A14.2: Marine Mammal Baseline Characterisation	N/A
	~~Appendix 14.3: Marine Mammal Uncertainties and Limitations~~	N/A - no longer required due to design refinements	
	N/A	N/A	Appendix A14.3: Seal Vantage Point Survey Report
	N/A	N/A	Appendix A14.4: Temporary Threshold Shift Position Statement
	Appendix 14.4: Marine Mammal Mitigation Protocol	Appendix A14.5: Marine Mammal Mitigation Protocol	N/A
	Appendix 14.5: Environmental Vessel Management Plan	No change	
	~~Appendix 14.6: East Coast Phase One Irish Offshore Wind Farms: Cumulative iPCoD Modelling~~	N/A - no longer required due to design refinements	
15	Appendix 15.1: Offshore and Intertidal Ornithology Technical Baseline	Appendix A15.1: Offshore and Intertidal Ornithology Technical Baseline	N/A
	Appendix 15.2: MRSea Modelling for Offshore Ornithology	Appendix A15.2: MRSea Modelling for Offshore Ornithology	N/A
	Appendix 15.3: Offshore and Intertidal Ornithology Collision Risk Modelling Assessment	Appendix A15.3: Offshore Ornithology Collision Risk Modelling Assessment	N/A

EIAR			
	2024 EIAR	2026 EIAR	
Chapter	**Appendix Name**	**Updated Appendix Name**	**Additional/New Appendix Name**
	~~Appendix 15.4: Offshore and Intertidal Ornithology Migratory Collision Risk Modelling~~	N/A – no longer required, replaced by Appendix A15.4	Appendix A15.4: Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment
	Appendix 15.5: Offshore and Intertidal Ornithology Displacement Analysis	Appendix A15.5: Offshore Ornithology Displacement Analysis	N/A
	Appendix 15.6: Offshore and Intertidal Ornithology Population Viability Analysis	Appendix A15.6: Offshore Ornithology Population Viability Analysis	N/A
	Appendix 15.7: Method Statement – Offshore Wind Ornithology Assessment for East Coast Phase One Projects	No change	N/A
	N/A	N/A	Appendix A15.7: Migratory Bird Survey Report 2026
	Appendix 15.8: NPWS Review of Method Statement	No change	N/A
	N/A	N/A	Appendix A15.8: Offshore and Intertidal Ornithology Apportioning
	Appendix 15.9: Method Statement Review Consultation and Justification Log	No change	N/A
16	Appendix 16.1: Commercial Fisheries Technical Report	Appendix A16.1: Commercial Fisheries Technical Report	N/A
	Appendix 16.2: Fisheries Management and Mitigation Strategy	Appendix A16.2: Fisheries Management and Mitigation Strategy	N/A
17	Appendix 17.1: Navigational Risk Assessment	Appendix A17.1: Navigational Risk Assessment	N/A
	Appendix 17.2: Vessel Management Plan	Appendix A17.2: Vessel Management Plan	N/A
	Appendix 17.3: Lighting and Marking Plan	Appendix A17.3: Lighting and Marking Plan	N/A
	N/A	N/A	Appendix A17.4: North Irish Sea Array - Safety Justification for Single Line of Orientation Layout
	N/A	N/A	Appendix A17.5: Irish Coast Guard Response Letter May 2026
18	Appendix 18.1: Palaeogeographical Investigation	No change	N/A
	Appendix 18.2: Wreck Sheets	No change	N/A

EIAR			
	2024 EIAR	2026 EIAR	
Chapter	**Appendix Name**	**Updated Appendix Name**	**Additional/New Appendix Name**
	Appendix 18.3: Maritime and Aviation Archaeology Baseline	Appendix A18.1: Maritime and Aviation Archaeology Baseline	N/A
	Appendix 18.4: Intertidal Archaeology Baseline	Appendix A18.2: Intertidal Archaeology Baseline	N/A
	N/A	N/A	Appendix A18.3: Marine Archaeology Management Plan
	Appendix 18.5: Recorded Losses	No change	N/A
19	Appendix 19.1: Airspace Analysis and Radar Modelling	Appendix A19.1: Airspace Analysis and Radar Modelling	N/A
21	Appendix 21.1: Project Specific Surveys	No change	N/A
	Appendix 21.2: Conceptual Ground Model	No change	N/A
22	Appendix 22.1: Flood Risk Assessment	No change	N/A
	Appendix 22.2: Onshore Water Framework Directive Compliance Report	Appendix A22.1: Onshore Water Framework Directive Compliance Report	N/A
	N/A	N/A	Appendix A22.2: Water Quality Sampling Lab Results
23	Appendix 23.1: Breeding Birds Surveys – Survey Effort	Appendix A23.1: Breeding Bird Survey Effort 2024	N/A
	Appendix 23.2: Wintering Waterbird Surveys – Survey Effort	Appendix A23.2: Wintering Waterbird Survey Effort 2023-2024	N/A
	Appendix 23.3: Desk Study Results	Appendix A23.3: Desk Study Results	N/A
	Appendix 23.4: List of Terrestrial Non-native Invasive Species	No change	N/A
	Appendix 23.5: Annex 1 Habitat Quadrat and Assessment Sheets	Appendix A23.4: Annex 1 Habitat Quadrat and Assessment Sheets 2025	N/A
	Appendix 23.6: List of Potential Roost Features for Bats	Appendix A23.5: List of Potential Roost Features for Bats	N/A
	Appendix 23.7: Breeding Bird Survey Results 2021, 2022 and 2023	Appendix A23.6: Breeding Bird Survey Results 2024	N/A
	Appendix 23.8: Wintering Waterbird Survey Results 2021-2022	Appendix A23.7: Wintering Waterbird Survey Results 2023-2024	N/A

EIAR			
	2024 EIAR	2026 EIAR	
Chapter	**Appendix Name**	**Updated Appendix Name**	**Additional/New Appendix Name**
	Appendix 23.9: Water Quality Fisheries Assessment at Watercourse Crossings	No change	N/A
	Appendix 23.10: Habitat and Species Management Plan	Appendix A23.9: Habitat Species Management Plan	N/A
	Appendix 23.11: Baseline Tree Survey Report	Appendix A23.8: Arboricultural Report and Tree Impact Assessment Report	N/A
24	Appendix 24.1: Full and Partial Road Closure Diversion Routes	No change	N/A
25	Appendix 25.1: Detailed Field Inspection	No change	N/A
	Appendix 25.2: Geophysical Survey Report	No change	N/A
	Appendix 25.3: Archaeological Assessment at Bremore, County Dublin	No change	N/A
	Appendix 25.4: Draft Cultural Heritage and Mitigation Strategy	No change	N/A
29	Appendix 29.1: Visual Impact Assessment at Representative Viewpoint Locations	Appendix A29.1: Visual Impact Assessment at Representative Viewpoint Locations	N/A
	Appendix 29.2: Cumulative Visual Impact Assessment at Representative Viewpoint Locations	Appendix A29.2: Cumulative Impact Assessment at Representative Viewpoint Locations	N/A
	N/A	N/A	Appendix A29.3: Department of Defence Night-time Visualisations
30	N/A	N/A	Appendix A30.1: Baseline Noise Survey Results
31	Appendix 31.1: Legislation, Policy and Guidelines	Appendix A31.1: Legislation, Policy and Guidance	N/A
	Appendix 31.2: List of Waste Codes	Appendix A31.2: List of Waste Codes	N/A
32	Appendix 32.1: Electromagnetic Field (EMF) Assessment	No change	N/A
35	Appendix 35.1: Rockabill Lighthouse, Boat-based & Headland Offshore Bat Monitoring Results Report 2022	No change	N/A

EIAR			
	2024 EIAR	2026 EIAR	
Chapter	**Appendix Name**	**Updated Appendix Name**	**Additional/New Appendix Name**
	Appendix 35.2: Rockabill Island and Headland Offshore Bat Monitoring 2023	No change	N/A
	N/A	N/A	Appendix A35.1: Offshore Bat Monitoring Report 2024
38	Appendix 38.1: Stage 1 and Stage 2 CEA (Onshore and Wider Scheme)	Appendix A38.1: Stage 1 and Stage 2 CEA (Onshore and Wider Scheme)	N/A
	Appendix 38.2: Stage 1 and Stage 2 CEA (Offshore)	Appendix A38.2: Stage 1 and Stage 2 CEA (Offshore)	N/A

SISAA & NIS		
2024	**2026**	
Appendix Name	**Updated Appendix Name**	**Additional/New Appendix Name**
SISAA		
Appendix 1 Screening Matrices	Appendix A1 Screening Matrices	N/A
Appendix 2 Summary of Consultation	Appendix A2 Summary of Consultation	N/A
Appendix 3 Rehabilitation Schedule	Appendix A9 Rehabilitation Schedule	N/A
Appendix 4 Cable Route Benthic Survey Report	No change	N/A
Appendix 5 Array Area Benthic Survey Report	No change	N/A
~~Appendix 6 Offshore and Intertidal Ornithology Migratory Collision Risk Modelling~~	N/A – no longer required, replaced by Appendix A5	Appendix A5 Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment
N/A	N/A	
Appendix 7 Breeding Birds	Appendix A6 Breeding Bird Survey Effort and Results	N/A
Appendix 8 Winter Birds	Appendix A7 Wintering Waterbird Survey Effort and Results	N/A
N/A	N/A	Appendix A3 In-combination Long List
N/A	N/A	Appendix A4 Benthic Ecology Survey Report 2025
N/A	N/A	Appendix A8 Design Refinements
NIS		
Appendix 1: Key Personnel	Appendix A1: Key Personnel	N/A
Appendix 2: Integrity Matrices	Appendix A2: Integrity Matrices	N/A
Appendix 3: In-combination long list	Appendix A3: In-combination long list	N/A
Appendix 4: Cable Route Benthic Survey Report	No change	N/A
Appendix 5: Array Area Benthic Survey Report	No change	N/A
N/A	N/A	Appendix A4: Benthic Ecology Survey Report 2025
N/A	N/A	Appendix A5: Breeding Bird Survey Effort and Results
N/A	N/A	Appendix A6: Wintering Waterbird Survey Effort and Results
N/A	N/A	Appendix A7: Design Refinement

SISAA & NIS		
2024	**2026**	
Appendix Name	**Updated Appendix Name**	**Additional/New Appendix Name**
Appendix 6: Underwater Noise Modelling Report	Appendix A13: North Irish Sea Array: Underwater Noise Assessment	N/A
Appendix 7: Offshore Environmental Management Plan	Appendix A8: Offshore Environmental Management Plan	N/A
Appendix 8: Onshore Construction Environmental Management Plan	Appendix A9: Onshore Construction Environmental Management Plan	N/A
~~Appendix 9: NISA Bioenergetic Modelling~~	No longer required due to design refinements	N/A
Appendix 10: Marine Mammal Mitigation Protocol	Appendix A10: Marine Mammal Mitigation Protocol	N/A
N/A	N/A	Appendix A11: Marine Physical Processes Numerical Modelling
N/A	N/A	Appendix A12: Supporting Assessment Sensitivity Studies
Appendix 11: Environmental Vessel Management Plan	No change	N/A
Appendix 12: Offshore and Intertidal Ornithology Technical Baseline	Appendix A14: Offshore and Intertidal Ornithology Technical Baseline	N/A
Appendix 13: Offshore and Intertidal Ornithology Population Viability Analysis	Appendix A20: Offshore and Intertidal Ornithology Population Viability Analysis	N/A
Appendix 14: Method Statement - Offshore Wind Ornithology Assessment for East Coast Phase 1 Projects	No change	N/A
Appendix 15: NPWS Review of Method Statement	No change	N/A
Appendix 16: Method Statement Review Consultation and Justification Log	No change	N/A
Appendix 17: Offshore and Intertidal Ornithology Displacement Analysis	Appendix A17: Offshore and Intertidal Ornithology Displacement Analysis	N/A
Appendix 18: Offshore and Intertidal Ornithology Collision Risk Modelling Assessment	Appendix A19: Offshore Ornithology Collision Risk Modelling Assessment	N/A
~~Appendix 19: Offshore and Intertidal Ornithology Migratory Collision Risk Modelling~~	N/A – no longer required, replaced by Appendix A23	Appendix A23: Offshore Ornithology Migratory Collision Risk Modelling: Irish East Coast Phase One Offshore Wind Projects Cumulative Assessment
Appendix 20: Offshore and Intertidal Ornithology Apportioning Appendix	Appendix A18: Offshore and Intertidal Ornithology Apportioning	N/A

SISAA & NIS		
2024	**2026**	
Appendix Name	**Updated Appendix Name**	**Additional/New Appendix Name**
Appendix 21: Fish and Shellfish Ecology Baseline Characterisation	Appendix A16: Fish and Shellfish Baseline Characterisation	N/A
~~Appendix 22: NISA/Dublin Bioenergetic Modelling~~	N/A - no longer required due to design refinements	N/A
Appendix 23: MRSea Modelling for Offshore Ornithology	Appendix A15: MRSea Modelling for Offshore Ornithology	N/A
N/A	N/A	Appendix A21: Additional Guillemot Ecological Evidence Note
N/A	N/A	Appendix A22: Senior Legal Counsel Opinion on NPWS Submission
N/A	N/A	
N/A	N/A	Appendix A24: Migratory Bird Survey Report 2026
N/A	N/A	Appendix A25: Temporary Threshold Shift Position Statement

Appendix B- Updated Drawing List

Changes are highlighted in grey and drawings no longer required, due to design refinements are strikethrough.

NISA - North Irish Sea Array (Onshore Cable)

Drawing Title	Drawing Number	Scale	Comment
Proposed Development Overview and Site Location Map	281240-ARP-S0-XX-DR-PL-1098	1:100,000	No change
Proposed Onshore Cable Route Map Key Plan	281240-ARP-ONS-CR-DR-PL-1100	1: 30,000	No change
Proposed Onshore Cable Route Map - Sheet 1 of 64	281240-ARP-ONS-CR-DR-PL-1101	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 2 of 64	281240-ARP-ONS-CR-DR-PL-1102	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 3 of 64	281240-ARP-ONS-CR-DR-PL-1103	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 4 of 64	281240-ARP-ONS-CR-DR-PL-1104	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 5 of 64	281240-ARP-ONS-CR-DR-PL-1105	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 6 of 64	281240-ARP-ONS-CR-DR-PL-1106	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 7 of 64	281240-ARP-ONS-CR-DR-PL-1107	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 8 of 64	281240-ARP-ONS-CR-DR-PL-1108	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 9 of 64	281240-ARP-ONS-CR-DR-PL-1109	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 10 of 64	281240-ARP-ONS-CR-DR-PL-1110	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 11 of 64	281240-ARP-ONS-CR-DR-PL-1111	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 12 of 64	281240-ARP-ONS-CR-DR-PL-1112	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 13 of 64	281240-ARP-ONS-CR-DR-PL-1113	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 14 of 64	281240-ARP-ONS-CR-DR-PL-1114	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 15 of 64	281240-ARP-ONS-CR-DR-PL-1115	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 16 of 64	281240-ARP-ONS-CR-DR-PL-1116	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 17 of 64	281240-ARP-ONS-CR-DR-PL-1117	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 18 of 64	281240-ARP-ONS-CR-DR-PL-1118	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 19 of 64	281240-ARP-ONS-CR-DR-PL-1119	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 20 of 64	281240-ARP-ONS-CR-DR-PL-1120	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 21 of 64	281240-ARP-ONS-CR-DR-PL-1121	1: 1,000	No change

Drawing Title	Drawing Number	Scale	Comment
Proposed Onshore Cable Route Map - Sheet 22 of 64	281240-ARP-ONS-CR-DR-PL-1122	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 23 of 64	281240-ARP-ONS-CR-DR-PL-1123	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 24 of 64	281240-ARP-ONS-CR-DR-PL-1124	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 25 of 64	281240-ARP-ONS-CR-DR-PL-1125	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 26 of 64	281240-ARP-ONS-CR-DR-PL-1126	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 27 of 64	281240-ARP-ONS-CR-DR-PL-1127	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 28 of 64	281240-ARP-ONS-CR-DR-PL-1128	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 29 of 64	281240-ARP-ONS-CR-DR-PL-1129	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 30 of 64	281240-ARP-ONS-CR-DR-PL-1130	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 31 of 64	281240-ARP-ONS-CR-DR-PL-1131	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 32 of 64	281240-ARP-ONS-CR-DR-PL-1132	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 33 of 64	281240-ARP-ONS-CR-DR-PL-1133	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 34 of 64	281240-ARP-ONS-CR-DR-PL-1134	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 35 of 64	281240-ARP-ONS-CR-DR-PL-1135	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 36 of 64	281240-ARP-ONS-CR-DR-PL-1136	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 37 of 64	281240-ARP-ONS-CR-DR-PL-1137	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 38 of 64	281240-ARP-ONS-CR-DR-PL-1138	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 39 of 64	281240-ARP-ONS-CR-DR-PL-1139	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 40 of 64	281240-ARP-ONS-CR-DR-PL-1140	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 41 of 64	281240-ARP-ONS-CR-DR-PL-1141	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 42 of 64	281240-ARP-ONS-CR-DR-PL-1142	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 43 of 64	281240-ARP-ONS-CR-DR-PL-1143	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 44 of 64	281240-ARP-ONS-CR-DR-PL-1144	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 45 of 64	281240-ARP-ONS-CR-DR-PL-1145	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 46 of 64	281240-ARP-ONS-CR-DR-PL-1146	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 47 of 64	281240-ARP-ONS-CR-DR-PL-1147	1: 1,000	No change

Drawing Title	Drawing Number	Scale	Comment
Proposed Onshore Cable Route Map - Sheet 48 of 64	281240-ARP-ONS-CR-DR-PL-1148	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 49 of 64	281240-ARP-ONS-CR-DR-PL-1149	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 50 of 64	281240-ARP-ONS-CR-DR-PL-1150	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 51 of 64	281240-ARP-ONS-CR-DR-PL-1151	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 52 of 64	281240-ARP-ONS-CR-DR-PL-1152	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 53 of 64	281240-ARP-ONS-CR-DR-PL-1153	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 54 of 64	281240-ARP-ONS-CR-DR-PL-1154	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 55 of 64	281240-ARP-ONS-CR-DR-PL-1155	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 56 of 64	281240-ARP-ONS-CR-DR-PL-1156	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 57 of 64	281240-ARP-ONS-CR-DR-PL-1157	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 58 of 64	281240-ARP-ONS-CR-DR-PL-1158	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 59 of 64	281240-ARP-ONS-CR-DR-PL-1159	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 60 of 64	281240-ARP-ONS-CR-DR-PL-1160	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 61 of 64	281240-ARP-ONS-CR-DR-PL-1161	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 62 of 64	281240-ARP-ONS-CR-DR-PL-1162	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 63 of 64	281240-ARP-ONS-CR-DR-PL-1163	1: 1,000	No change
Proposed Onshore Cable Route Map - Sheet 64 of 64	281240-ARP-ONS-CR-DR-PL-1164	1: 1,000	No change
Blakes Cross North Landscape Plan	281240_MCR_ONS_GF_DR_YE_1011	1:1,000	No change

NISA - North Irish Sea Array (Onshore Grid Facility)

Drawing Title	Drawing Number	Scale	Comment
Grid Facility Site location Plan (OS Mapping)	281240_ARP_ONS_GF_DR_PL_0001	1:1,000	No change
Grid Facility Site location Plan (Aerial Photography)	281240_ARP_ONS_GF_DR_PL_0002	1:1,000	No change
Grid Facility Site location Plan and Layout (OS Mapping)	281240_ARP_ONS_GF_DR_PL_0003	1:1,000	No change
Grid Facility Existing Site Topography	281240_ARP_ONS_GF_DR_PL_1000	1:1,000	No change
Grid Facility Proposed Layout Sheet 1	281240_ARP_ONS_GF_DR_PL_1001	1:500	Updated in response to RFI Section 13 (e) to include acoustic enclosures, change in the perimeter fence from palisade to post and rail, and clearly annotate lightning arrestor masts and lighting columns
Grid Facility Proposed Layout Sheet 2	281240_ARP_ONS_GF_DR_PL_1002	1:500	Updated in response to RFI Section 13 (e) to include a change in the perimeter fence from palisade to post and rail
Grid Facility Compensation Substation GIS Building Floor Plans	281240_ARP_ONS_GF_DR_PL_1003	1:100	No change
Grid Facility Compensation Substation GIS Roof Plan & Section	281240_ARP_ONS_GF_DR_PL_1004	1:100	No change
Grid Facility Bremore Substation GIS Building Floor Plans	281240_ARP_ONS_GF_DR_PL_1005	1:100	No change
Grid Facility Bremore Substation GIS Building Roof Plan & Section	281240_ARP_ONS_GF_DR_PL_1006	1:100	No change
Grid Facility Compensation Substation GIS Building Elevations	281240_ARP_ONS_GF_DR_PL_1007	1:100	Updated in response to RFI Section 13 (e), the substation colour scheme/finish has been updated with dark, light and mid tone cement, or similar equivalent
Grid Facility Bremore Substation GIS Building Elevations	281240_ARP_ONS_GF_DR_PL_1008	1:200	See above
Grid Facility Compensation Substation SVC Building	281240_ARP_ONS_GF_DR_PL_1009	1:100	No change
Grid Facility Proposed Drainage & Water Sheet 1	281240_ARP_ONS_GF_DR_CD_1200	1:500	Updated in response to RFI Section 13 (e) to include a change in the perimeter fence from palisade to post and rail, and stormwater swales to filter drains

Drawing Title	Drawing Number	Scale	Comment
Grid Facility Proposed Drainage & Water Sheet 2	281240_ARP_ONS_GF_DR_CD_1201	1:500	See above
Grid Facility Compensation Substation Compound Elevations	281240_ARP_ONS_GF_DR_BS_2000	1:250	Updated in response to RFI Section 13 (e) to include acoustic enclosures on the shunt reactors
Grid Facility Bremore Substation Compound Elevations	281240_ARP_ONS_GF_DR_BS_2001	1:200	See above
Grid Facility Landscape Plan	281240_MCR_ONS_GF_DR_YE_1010	1:1,000	Updated in response to RFI Section 13 (e) to include a revised landscape plan

NISA - North Irish Sea Array (Typical Details)

Drawing Title	Drawing Number	Scale	Comment
Typical Cable Trench Details	281240-ARP-ONS-XX-DR-PL-3000	As indicated	No change
Utility Crossing under 3rd Party Services - Typical Details Sheet 1 of 2	281240-ARP-ONS-XX-DR-PL-3001	As indicated	No change
Utility Crossing under 3rd Party Services - Typical Details Sheet 2 of 2	281240-ARP-ONS-XX-DR-PL-3002	As indicated	No change
Watercourse Crossing - Open cut Option - Typical Details	281240-ARP-ONS-XX-DR-PL-3003	As indicated	No change
Crossing over 3rd Party Service - Reduced Cover - Typical Detail	281240-ARP-ONS-XX-DR-PL-3004	As indicated	No change
Typical Bridge Deck Crossing Detail	281240-ARP-ONS-XX-DR-PL-3005	As indicated	No change
Typical Onshore Cable Joint Bay Detail	281240-ARP-ONS-XX-DR-PL-3006	As indicated	No change
Typical C2 Comms Chamber Detail	281240-ARP-ONS-XX-DR-PL-3007	As indicated	No change
Typical Link Box Chamber Details	281240-ARP-ONS-XX-DR-PL-3008	As indicated	No change
Typical HDD Compound Layouts	281240-ARP-ONS-XX-DR-PL-3009	As indicated	No change
Typical Civil Details	281240-ARP-ONS-XX-DR-PL-3010	As indicated	No change
Palisade Fence & Gate Details	281240-ARP-ONS-XX-DR-PL-3011	As indicated	No change
Typical Fence and Field Gate Details	281240-ARP-ONS-XX-DR-PL-3012	As indicated	No change
Typical Access Road and Temporary Haul Road Details	281240-ARP-ONS-XX-DR-PL-3013	As indicated	No change

NISA - North Irish Sea Array (Offshore)

Drawing Title	Drawing Number	Scale	Comment
Proposed Offshore Infrastructure Option 1	281240-ARP-OFS-OA-DR-PL-1010	1: 100,000	Updated to reflect a refined wind turbine generator layout in response to RFI Section 2 (a)
Proposed Offshore Infrastructure Option 2	281240-ARP-OFS-OA-DR-PL-1011	1: 100,000	See above
Proposed Project Option 1 WTG and Monopile Foundation	281240-NISA-OFS-OA-DR-PL-2001	1: 1,000	Reflects refinement to the foundation types used for the wind turbine generators and offshore substation platform and correction of an administrative error (includes the J-tube in the elevation drawings for the jacket foundations) in response to RFI Section 10 (a)
~~Proposed Project Option 2 WTG and Monopile Foundation~~	~~281240-NISA-OFS-OA-DR-PL-2002~~	~~1: 1,000~~	No longer required due to design refinements
Proposed Project Option 2 WTG and Jacket Foundation	281240-NISA-OFS-OA-DR-PL-2003	1: 1,000	Reflects refinement to the foundation types used for the wind turbine generators and offshore substation platform and correction of an administrative (includes the J-tube in the elevation drawings for the jacket foundations) in response to RFI Section 10 (a)
~~Proposed Project Option 1 and Option 2 Monopile Foundations Front elevation Comparison~~	~~281240-NISA-OFS-OA-DR-PL-2004~~	~~1: 1,000~~	No longer required due to design refinements
Proposed Project Option 1 and Option 2 Front Elevation Comparison	281240-NISA-OFS-QA-DR-PL-2005	1: 1,000	Reflects refinement to the foundation types used for the wind turbine generators and offshore substation platform and correction of an administrative (includes the J-tube in the elevation drawings for the jacket foundations) in response to RFI Section 10 (a)
Proposed Project Option 1 and Option 2 Side Elevation Comparison	281240-NISA-OFS-OA-DR-PL-2006	1: 1,000	See above
Proposed Offshore Substation Platform Plans & Elevations	281240-NISA-OFS-OA-DR-PL-2007	As indicated	See above
Offshore Cable Protection Details	281240-NISA-OFS-OA-DR-PL-3001	As indicated	No change

Appendix C- Updated Surveys List

Planning Document, EIAR Chapter or Appendix	Survey Details
NIS & SISAA	The NIS has been updated to take into consideration the following updated surveys: The nearshore and intertidal geophysical environment was surveyed in September to October 2024 by Ramform Vanguard. UHR3D seismic data was acquired simultaneously with multibeam echosounder (MBES), Sub-bottom Profiler (SBP), Side Scan Sonar (SSS) and Magnetometer (MAG) data over the entire survey area. The Developer has undertaken an additional 12-month programme of DAS across the NWIS cSPA. between September 2024 and August 2025. The results of this survey are captured within Appendix A15.1: Offshore and Intertidal Ornithology and Technical Baseline. A benthic subtidal ecology survey covering the array area and ECC corridor to validate the baseline assumptions presented in the EIAR was undertaken in 2024 (AQUAFACT, 2025). A total of 23 sampling stations were selected in the vicinity of the array area and ECC, of which 13 sites were within the array area and 10 within the ECC. At each station sediment was collected for physiochemical analyses (PSA, TOC, chemistry) and a single 0.1m2 Day Grab sample was taken for faunal analysis. DDV samples were also collected from all 23 sampling stations. Fenton, A., Dunleavy, D., Paul, T., McMahon, C., Reid, A. and McCormack, E. (2025). NISA, Benthic Ecology Survey Report 2025. Aquafact report to North Irish Sea Array Windfarm Ltd. The proposed development has undertaken seal vantage point (VP) surveys at the landfall site at Balbriggan, County (Co.) Dublin in November 2024 and between June 2025 and May 2026, using VPs within the landfall site and a surrounding 500 metre (m) survey buffer, and following guidance from the following source: NPWS and Department of Communications Climate Action and Environment (NPWS, 2010; DCCAE, 2018). GoBe Consultants, 2026. Seal Vantage Point Survey Report. North Irish Sea Array. The Developer undertook a migratory bird survey programme which comprised of a combination of boat-based surveys, onshore and offshore diurnal Vantage Point surveys, as well as bioacoustics data capture from two (one onshore and one offshore) nocturnal Passive Acoustic Monitoring (PAM) units. The survey data was captured during November 2024 and between mid-September and mid-December 2025, covering the 2024 and 2025 post-breeding (autumn) migratory bird seasons. GoBe Consultants, 2026, Migratory Bird Survey Report 2026. North Irish Sea Array.
Chapter 10 Marine Geology, Oceanography and Physical Processes	The nearshore and intertidal geophysical environment was surveyed in September to October 2024 by Ramform Vanguard. UHR3D seismic data was acquired simultaneously with multibeam echosounder (MBES), Sub-bottom Profiler (SBP), Side Scan Sonar (SSS) and Magnetometer (MAG) data over the entire survey area. Chapter 10 has considered the following reports that have reported on the geophysical survey: SEP Hydrographic (2024). North Irish Sea Array (NISA). Nearshore and Intertidal Geophysical Survey. Operations & Results Report. Ref; 2023-031 Fugro (2024). The North Irish Sea Array Project – Interim Surveys. Investigation Results. Geotechnical Site Investigation. Irish Sea. F186480/01 | 05 | 01 March 2024. Final N-Sea (2024). North Irish Sea Array Windfarm Ltd. Geotechnical Site Investigation Survey. Factual Geotechnical Report. Doc No: PJ00326-NSEA-SUR-FR-22501 GDG (2024). NISA Integrated Ground Model (Iteration 2). 24041-REP-001-01 Venterra (2025). NISA Array Geotechnical Interpretative Report. 23151-REP-000- Venterra (2025). NISA Export Cable Corridor - Integrated Ground Model and Geotechnical Interpretative Report. 24203-REP-001-01.
Chapter 11 Marine Water Sediment Quality	A benthic subtidal ecology survey covering the array area and ECC corridor to validate the baseline assumptions presented in the EIAR At each station sediment was collected for physiochemical analyses (PSA, TOC, chemistry). DDV samples were also collected from all 23 sampling stations (AQUAFACT, 2025). Chapter 11 has considered the following report that has reported on the benthic survey: Fenton, A., Dunleavy, D., Paul, T., McMahon, C., Reid, A. and McCormack, E. (2025). NISA, Benthic Ecology Survey Report 2025. Aquafact report to North Irish Sea Array Windfarm Ltd.
Chapter 12 Intertidal and Subtidal Benthic Ecology	A benthic subtidal ecology survey covering the array area and ECC corridor to validate the baseline assumptions presented in the EIAR was undertaken in 2024 (AQUAFACT, 2025). A total of 23 sampling stations were selected in the vicinity of the array area and ECC, of which 13 sites were within the array area and 10 within the ECC.

Planning Document, EIAR Chapter or Appendix	Survey Details
	At each station sediment was collected for physiochemical analyses (PSA, TOC, chemistry) and a single 0.1m2 Day Grab sample was taken for faunal analysis. DDV samples were also collected from all 23 sampling stations. Chapter 12 has considered the following report that has reported on the benthic survey: Fenton, A., Dunleavy, D., Paul, T., McMahon, C., Reid, A. and McCormack, E. (2025). NISA, Benthic Ecology Survey Report 2025. Aquafact report to North Irish Sea Array Windfarm Ltd.
Chapter 14 Marine Mammals	The proposed development has undertaken seal vantage point (VP) surveys at the landfall site at Balbriggan, County (Co.) Dublin in November 2024 and between June 2025 and May 2026, using VPs within the landfall site and a surrounding 500 metre (m) survey buffer, and following guidance from the following source: NPWS and Department of Communications Climate Action and Environment (NPWS, 2010; DCCAE, 2018).Chapter 14 has considered the following report that has reported on the seal survey: GoBe Consultants, 2026. Seal Vantage Point Survey Report. North Irish Sea Array. Developer has undertaken an additional 12-month programme of DAS across the NWIS cSPA between September 2024 and August 2025. The results of this survey are captured within Appendix A14.2 Marine Mammal Baseline Characterisation.
Chapter 15 Ornithology	The Developer undertook a migratory bird survey programme which comprised of a combination of boat-based surveys, onshore and offshore diurnal Vantage Point surveys, as well as bioacoustics data capture from two (one onshore and one offshore) nocturnal Passive Acoustic Monitoring (PAM) units. The survey data was captured during November 2024 and between mid-September and mid-December 2025, covering the 2024 and 2025 post-breeding (autumn) migratory bird seasons. Chapter 15 has considered the following report that has reported on the migratory bird survey: GoBe Consultants, 2026, Migratory Bird Survey Report 2026. North Irish Sea Array. Developer has undertaken an additional 12-month programme of DAS across the NWIS cSPA between September 2024 and August 2025. The results of this survey are captured within Appendix A15:1 Offshore and Intertidal Ornithology and Technical Baseline.
Chapter 18 Offshore Archaeology	Further nearshore and intertidal geophysical surveys, which generated Magnetometer (Mag.), Side scan sonar (SSS)and multi-beam echosounder (MBES) datasets, were completed by SEP Hydrographic (2024) within the nearshore and intertidal areas of the ECC to infill the baseline within this area. Archaeological assessment of these surveys alongside known archaeological receptors was completed by ADCO Ltd (ADCO 2024). A geophysical survey which generated SSS, Mag. and MBES as well as ultra-high resolution 3D seismic datasets was completed across the array area in 2024 by TGS (TGS, 2025), with archaeological assessment by ADCO, to further assist with the engineering design of the wind farm (ADCO, 2026). Chapter 18 has considered the following reports that have reported on the geophysical surveys: ADCO (2024). North Irish Sea Array Marine Geophysical Survey Nearshore and intertidal archaeological interpretation 23D0104, 23R0459. Unpublished Client Report, Bray. ADCO (2026). North Irish Sea Array Marine Geophysical Survey 2024 Archaeological Interpretation 24D0246, 24R0392. Unpublished Client Report, Bray. SEP Hydrographic (2024). North Irish Sea Array (NISA). Nearshore and Intertidal Geophysical Survey. Operations & Results Report. Ref; 2023-031 TGS (2025) NISA UHR3D Integrated Sensor Interpretation. Unpublished Client Report, Asker.
Chapter 22 Water	The baseline water quality for six watercourses was supplemented with another round of sampling in October to November 2025.
Chapter 23 Biodiversity	Updated ecological surveys (including extended phase, Annex 1 habitat, rare plants, aquatic and fisheries assessments, otter, breeding birds, wintering birds) in relation to the onshore infrastructure of the proposed development were undertaken in 2023, 2024 and 2025.
Chapter 24 Traffic and Transport	In response to RFI Section 19 (c), Traffic count data surveys were carried out in 2025 to establish baseline conditions on the receiving road network at 42 locations between 06:00 and 20:00 on Thursday 25th September 2025.
Chapter 30 Noise and Vibration	Long-term noise measurements were undertaken between 26 March and 2 April 2026 in the vicinity of the grid facility, based on the proximity of the Flemington Local Area Plan (LAP) directly to the south of the grid facility site.

Planning Document, EIAR Chapter or Appendix	Survey Details
Chapter 35 Offshore Bats	As a continuation of the surveys conducted, further offshore bat surveys were undertaken in 2024. The surveys included roost surveys at Rockabill Island, headland monitoring at Balbriggan and Skerries, and marine vessel surveys (Woodrow APEM Group, 2024). Chapter 25 has considered the following report which has reported on the offshore bat survey: Stamp, C. & Guile, J. (2024) North Irish Sea Array Windfarm Limited Results Report. Woodrow APEM Group.