Addendum to the Environmental Impact Assessment Report

NISA

North Irish Sea Array

Volume 8: Introductory Appendices

Appendix A5.1
Design Refinements

Statkraft

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1. Introduction

North Irish Sea Array Windfarm Ltd (NISA, hereafter referred to as 'the Developer') has carefully considered the Request for Further Information (RFI) issued by An Bord Pleanála (now An Coimisiún Pleanála, or "the Commission") on 10th April 2025, as well as the third-party submissions received following public consultation. Following submission of the Developer's planning application to the Commission on 7th June 2024, at the Commission's behest, the Developer has continued to consult with various stakeholders throughout 2024-2026, including the Irish Coast Guard (IRCG), Marine Survey Office (MSO), Commissioner of Irish Lights, hereafter referred to as "Irish Lights" and the National Parks and Wildlife Service (NPWS). On foot of the submissions received in response to the Developer's planning application, this continued public consultation and the RFI issued by the Commission, the Developer considers that design refinements to the offshore infrastructure of the proposed development are required in response and to take account of matters raised in the RFI and continued public consultation undertaken. The proposed development boundary or 'red line boundary' remains the same as that submitted to the Commission in the 2024 EIAR (Figure 1.1 of Volume 7 of the 2024 EIAR) as does the maximum number and dimensions of turbines for both Project Option 1 and Project Option 2.

As a result of these design refinements, the spatial extent of Project Option 1 and Project Option 2 has reduced (Figure A2.1 and A2.2) within the North West Irish Sea (NWIS) Special Protected Area (SPA). The seabed footprint of permanent infrastructure associated with the proposed offshore development Project Option 1 is estimated to be 0.53 km^2, or 0.02% of the SPA, which is approximately 2,333km^2 in area. Further environmental benefits from these design refinements were summarised in a meeting with the Commission and the Developer on 6th November 2025[1] and this document has been prepared to address the Commission'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*".

Although the focus of the request from the Commission was in relation to the offshore infrastructure of the proposed development, a design refinement is also required at the onshore grid facility in response to the RFI. This refinement is also presented in table A2.2 below for completeness. No other design refinements are proposed for onshore infrastructure compared to the 2024 EIAR.

This document outlines the specific design refinements made in response to the RFI, including detail of the environmental benefits as a result of these refinements. This document demonstrates that the 2026 Addendum remains in

[1] Under Article 5(6)c of the Planning & Development (Maritime Development) Regulations 2023

accordance with the DF Opinion[2], though refinements to WTG and OSP foundation types are proposed in response to submissions from public bodies during examination, as outlined in Section 3.

2. Design Refinements in response to RFI

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. Following careful consideration by the Developer, there are design refinements proposed to both Project Option 1 and Project Option 2. These are detailed in Tables A2.1 and A2.2 below and are summarized as follows:

1. Refinement of WTG layouts for Project Option 1 and Project Option 2 (Images A2.1 and A2.2), to address stakeholder (IRCG and MSO) concerns around navigational safety and offshore infrastructure footprint;
2. Removal of both driven and drilled monopile foundations and jackets with pin pile foundations as options for WTG installation 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[3]to address key stakeholder (NPWS) concerns in the RFI around underwater noise. Suction buckets are a low underwater noise solution[4] for WTG installation and a proven technology on other wind farms[5] (See image A2.3 for details of suction bucket technology);
3. Removal of monopile foundations for the Offshore Substation Platform (OSP), and refinement of the OSP foundation installation to SBJs or jackets with drilled pin piles, which significantly reduces potential underwater noise effects during construction from piling activities and responds to key concerns from NPWS on this matter within the RFI; and
4. Removal of dredging which is no longer required for the proposed development design. Following the updated bathymetry from the geophysical survey campaign in 2024 , it was confirmed that the seafloor across the array area is flat and uniform, which allowed the refinement of WTG foundations to SBJs . Seabed

[2] Signed 30 January 2024 (the "DF Opinion") and issued on 02 February 2024. This DF Opinion was subsequently clarified by way of letter dated 4 April 2024 and updated by way of decision pursuant to Section 146A of the Planning Acts on 16 April 2024. The DF Opinion is provided in Appendix 2.4 of Volume 8 of the2024 EIAR.

[3] Note that although jackets were not a foundation selected for Option 1 in the 2024 EIAR it is considered that this constitutes an overall reduced impact compared to the monopiles that were assessed within the 2024 EIAR. This update has been assessed in the 2026 Addendum.

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

[5] Suction bucket foundation technology has been implemented most recently on jackets for Seagreen site in Scotland to adapt to soil conditions, whilst gaining faster installation speed and avoidance of pile driving noise. Further examples of suction caisson technology can be evidenced at the Borkum Riffgrund project in Germany.

profiling (e.g. dredging) to create a level platform for WTGs will therefore not be required for any offshore infrastructure. This reduces seabed disturbance, eliminates the need for spoil mounds to be created, and reduces potential impacts on benthic, fish and shellfish

5. Refinement of the onshore grid facility design to address visual and noise-related concerns in relation to the Flemington Local Area Plan (LAP) lands, including enhanced architectural finishes, strengthened landscape screening, and additional noise mitigation measures.

Image A2.1: Refinement of WTG Layout Options for Project Option 1

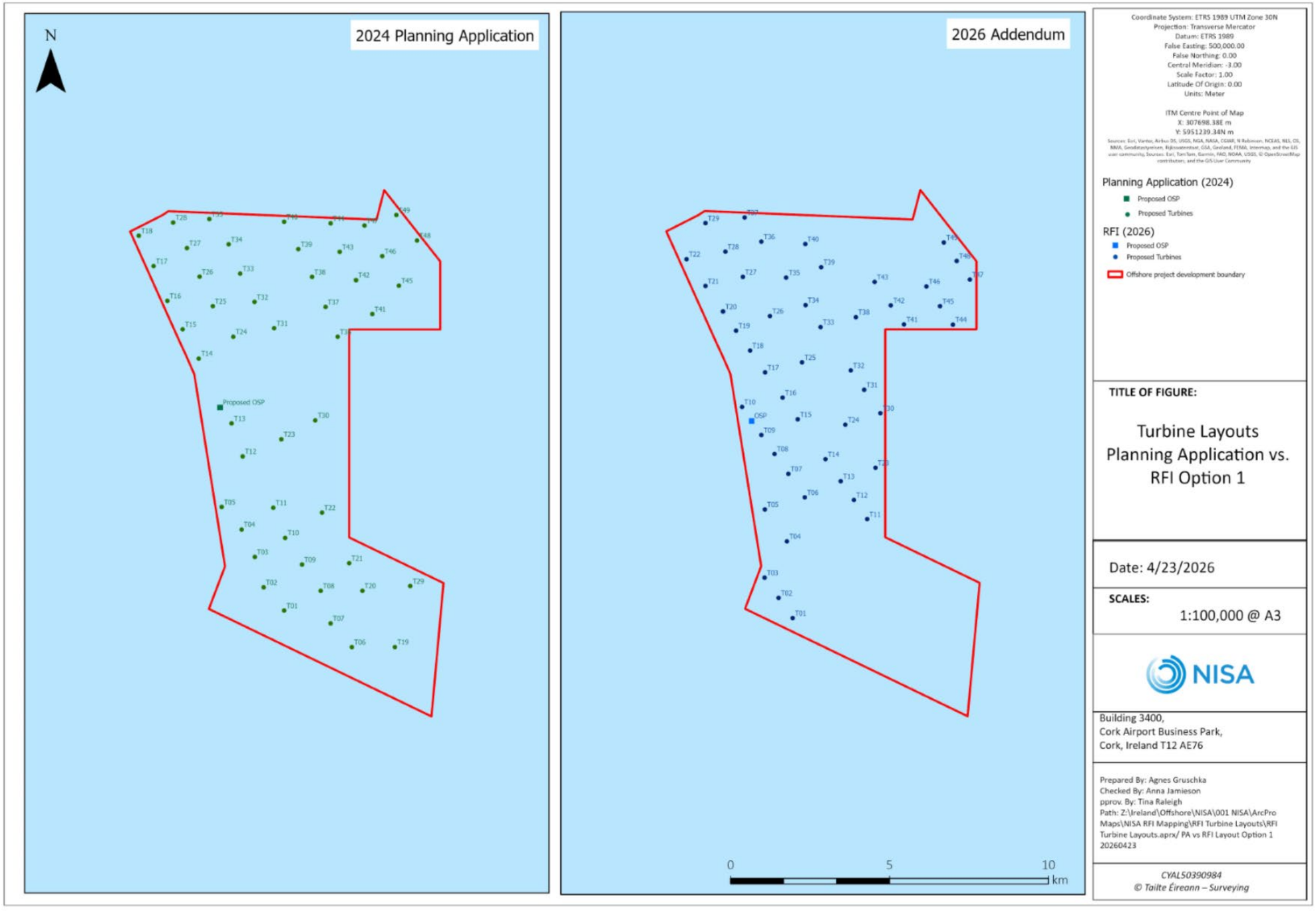
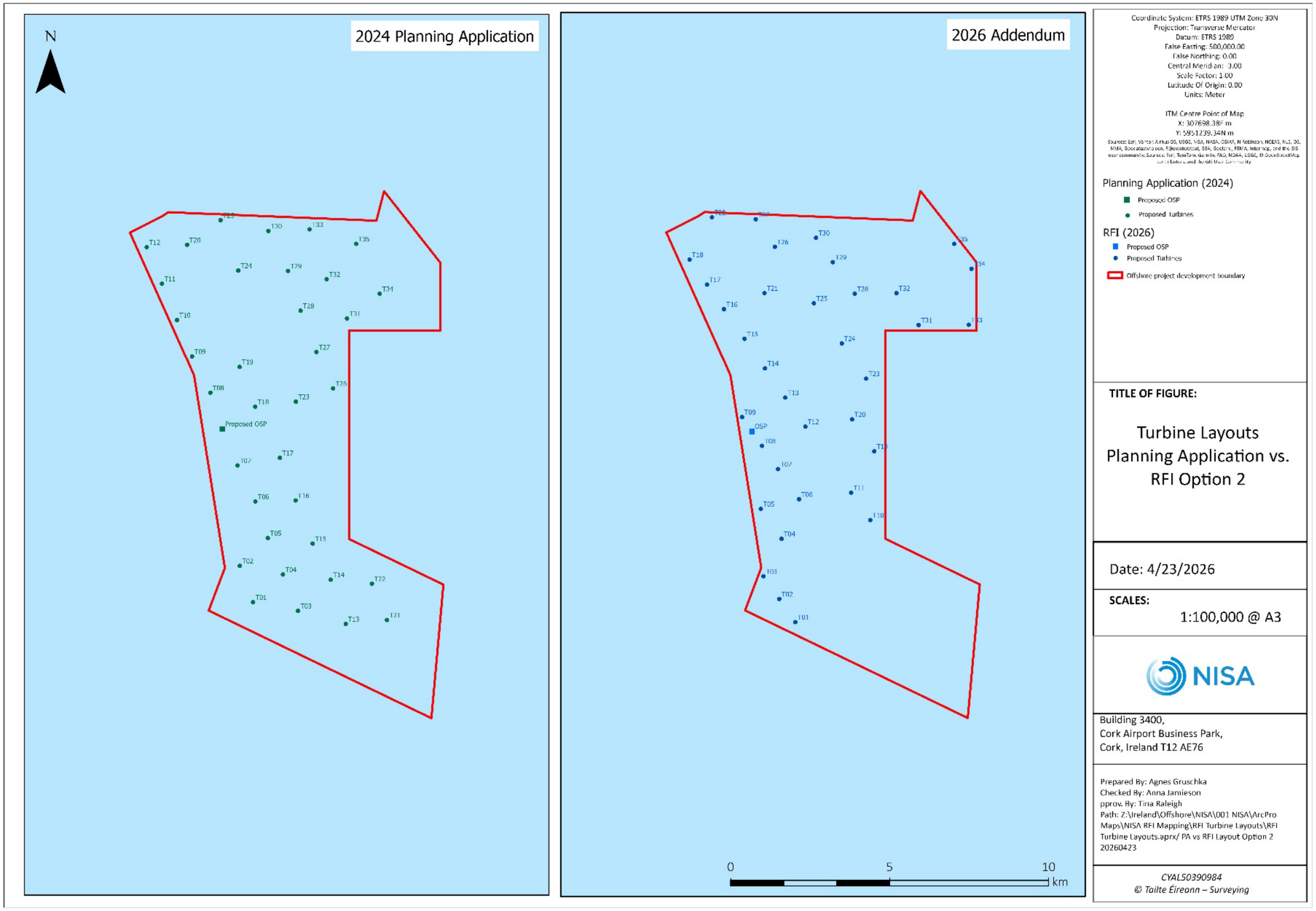


Image A2.2: Refinement of WTG Layout for Project Option 2



The following table (Table A2.1) compares the project description and offshore infrastructure parameters from Chapter 6 of the 2024 EIAR with the updated parameters from the Addendum to Chapter 6: Project Description to indicate where refinements have been made. Cells where refinements have been made are highlighted in grey.

Table A2.1 – Comparison of key offshore infrastructure parameters for Project Options 1 and Project Option 2 between the 2024 EIAR and 2026 Addendum.

Parameter	Project Option 1 (2024 EIAR)	Project Option 1 (2026 Addendum)	Project Option 2 (2024 EIAR)	Project Option 2 (2026 Addendum)	Summary of design refinements
Number of WTGs	49	49	35	35	No Refinements
WTG blade tip height (m above LAT)	290	290	316 outside aviation restricted zone, 311 inside aviation restricted zone	316 outside aviation restricted zone, 311 inside aviation restricted zone	No Refinements
Rotor Diameter (m)	250	250	276	276	No Refinements
WTG Foundation type[6]	Monopiles	Jackets with suction bucket installation	Monopiles or Jackets with pin piles	Jackets with suction bucket installation	Refinement to Project Option 1 from monopiles to Jackets with suction buckets. Refinement to Project Option 2 from monopiles and jackets with pin piles to jackets with suction buckets.
OSP foundation type	Jacket or Monopiles with pin piles	Jacket with pin piles or Jacket with suction buckets	Jacket or Monopiles with pin piles	Jacket with pin piles or Jacket suction buckets	Refinement of Jacket installation method to suction buckets or pin piles. Removal of monopiles.
Offshore export cable length (km)	18	18	18	18	No Refinements
Inter-array cable length (km)	111	111	91	91	No Refinements

[6] Note that although jackets were not a foundation selected for Option 1 in the 2024 EIAR it is considered that this constitutes an overall reduced impact compared to the monopiles that were assessed within the 2024 EIAR. This update has been assessed in the 2026 Addendum.

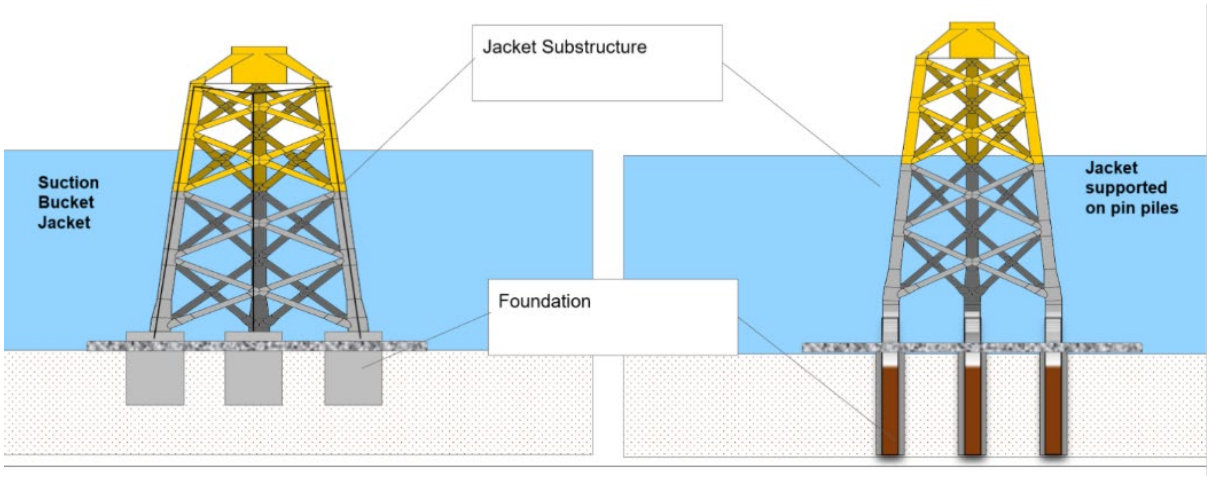


Image A2.3: Jacket foundation on suction buckets and jacket foundation on pin piles

The drivers for these offshore infrastructure design refinements were in order to address stakeholder concerns and issues raised within the RFI, as detailed in Table A2.2.

Table A2.2 – Design Refinements made in response to specific requests within the RFI.

RFI	Key Receptor	Specific Request within the RFI
RFI 2a -IRCG, through the Department of Transport, raised concerns in relation to the layout of the proposed development with respect to search-and-rescue (SAR) access: 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.	Shipping and Navigation	Following receipt of the RFI and subsequent stakeholder meetings, detailed consideration was given to understanding how refinements to the offshore design could further mitigate potential environmental effects from the proposed development and address key points in the RFI from the Commission. Since submission of the application in 2024 and additional post-submission offshore survey effort, an updated and more extensive geophysical survey was conducted in 2024 indicating an alternative foundation installation technique could be utilised which would reduce environmental impacts and address key points in the RFI. This extensive geophysical survey was used to create a 3D ground model of the sub-seabed in 2025 and to further inform foundation feasibility assessments, since the 2024 EIAR. The analysis of this additional survey data ascertained that monopiles could be removed as a foundation design concept for WTGs and OSP and that installation of jackets with suction buckets for the WTGs and OSP would be suitable (Image A5.3). Furthermore, seabed levelling is no longer required for the proposed development design. Based on the updated bathymetry from the geophysical survey campaign in 2024, it was confirmed that the seafloor across the array area is flat and uniform. Therefore, seabed levelling via dredging to create a level platform for foundation installation will not be required. Installation of jackets with suction buckets allowed the WTG layouts for Project Option 1 and Project Option 2 to be refined in order to address concerns raised by IRCG in relation to SAR access. This is due to the updated and more extensive geophysical survey confirming that the array area is predominantly flat, with suitable ground conditions at shallow depth. The revised understanding of the shallow geology and the increase in viable area for suction bucket jackets allows greater flexibility in siting WTGs compared to monopiles and jackets with drilled pin piles. Suction bucket foundations are a 'shallow' foundation type, which do not require the stronger soil or rock, typically found at greater depths

RFI	Key Receptor	Specific Request within the RFI
		below the seafloor. 'Deep' foundations, such as monopile or pin piles are predicated on requiring stronger soil or rock, in that they transfer heavy load through the shallower and weaker soil to the deeper soil or bedrock. Across the array area, ground conditions suitable for jackets with suction buckets are more prevalent than for those of monopile/pin piles. The Developer consulted on 3 separate occasions with the IRCG during 2025 and 2026 (see Appendix 1.2 Consultation Report) to discuss and agree how SAR access could be improved with respect to the WTG layout for Project Option 1 and Project Option 2 presented in the 2024 EIAR. Extensive feedback from these meetings, in addition to the updated jacket foundation installation method of suction buckets allowed the Developer to propose layout refinements to Project Option 1 and Project Option 2 within the red line boundary. These refinements further enhanced SAR access while maintaining a single line of orientation and 'straightness' of WTG rows. See Images A2.1 and A2.2 for the proposed layouts for the updated Project Option 1 and Project Option 2, which includes a comparison with Project Option 1 and Project Option 2 layouts in the 2024 EIAR. These refinements directly address RFI 2a and were discussed and agreed with IRCG during meetings in September 2025 and February 2026. A safety justification for the refined WTG layout was sent to the IRCG in 2026 which addresses those issues raised by IRCG in relation to SAR. The safety justification can be found in Appendix A17.4. In May 2026 IRCG confirmed that they are content with the provisions and mitigations outlined in the Safety Justification. Details of these design refinements have been included in the Addendums to Chapter 6: Description of the Proposed Development Offshore and Chapter 8: Construction Strategy Offshore.
RFI 2b - the Marine Survey Office (MSO) disagreed 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:	Shipping and Navigation	Updated data and foundation feasibility assessments, using the updated 3D Ground model of the seabed undertaken since submission of the application, ascertained that monopiles could be removed as a foundation design concept for WTGs and the OSP and that installation of jackets with suction buckets for the WTG and OSP would be suitable. Installation of jackets with suction buckets allowed the WTG layouts for Project Option 1 and Project Option 2 to be refined in order to address concerns raised by MSO in relation to navigational safety. This was due to the additional geophysical survey and 3D ground model confirming that the array area is predominantly flat, with suitable ground conditions at shallow depth. This revised understanding of

RFI	Key Receptor	Specific Request within the RFI
"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".		the shallow geology and the increase in viable area for suction bucket jackets allows greater flexibility in siting WTGs compared to monopiles and jackets with drilled pinpiles. Furthermore, seabed levelling is no longer required for the proposed development design. Based on the updated bathymetry from the geophysical survey campaign in 2024, it was confirmed that the seafloor across the array area is flat and uniform. Therefore, seabed levelling via dredging to create a level platform for foundation installation will not be required. Suction bucket foundations are a 'shallow' foundation type, which don't require the stronger soil or rock, typically found at greater depths below the seafloor. 'Deep' foundations, such as monopile or pin piles are predicated on stronger soil or rock, in that they transfer heavy load through the shallower and weaker soil to the deeper soil or bedrock. Across the array area, ground conditions suitable for jackets with suction buckets are more prevalent than for those of monopile/pin piles. The Developer consulted with the MSO on 2 separate occasions in 2025 and 2026 to discuss and address navigational safety concerns raised in the RFI (see Appendix 1.2, Consultation Report) and has now proposed layout refinements to Project Option 1 and Project Option 2, which extend the structure exclusion zone a further distance from Rockabill (from 3 NM to 3.06 NM) while maintaining a single line of orientation and removing WTGs in the south eastern corner. Removal of WTGs in the south eastern corner would not have been viable with monopile or jackets with pin pile foundations. These refinements directly address RFI 2b and were agreed with MSO during a meeting in March 2026. See Images A2.1 and A2.2 for the proposed layouts for Project Option 1 and Project Option 2, which includes a comparison with the Project Option 1 and Project Option 2 layouts in the 2024 EIAR. Details of these design refinements have been included in Chapter 6: Description of the Proposed Development Offshore and Chapter 8: Construction Strategy Offshore to the Addendum.
RFI 6 Site Selection. 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	North West Irish Sea (NWIS) Special Protected Area (SPA) Rockabill SPA	The site was selected having regard to 13 environmental and technical criteria, as described in Section 5.5 of Chapter 5 of the 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

RFI	Key Receptor	Specific Request within the RFI
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 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 and rationale regarding the suitability of the site for the proposed development, in light of the above.		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. In conclusion, no adverse effect on the integrity of the NWIS cSPA or any other designated site has been concluded for the project alone and in combination with other plans and projects. Accordingly, the Developer maintains that the site remains suitable for the proposed development.
RFI 8e vi - The DAU observation states that in NPWS's view 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	North West Irish Sea (NWIS) Special Protected Area (SPA)	The Developer carefully considered how the updated analysis conducted in 2025 from the 3D Ground geophysical survey campaign could address concerns raised by NPWS. It became clear that this update to the foundation installation method to jackets with suction buckets allowed for an updated WTG layout within the proposed development boundary to address this RFI. The Developer consulted with the NPWS on 4 separate occasions in 2025 and 2026 (see Appendix 1.2 Consultation Report) to discuss their comments around the overlap of the proposed development with the NWIS SPA-, in relation to potential ornithological displacement effects.

RFI	Key Receptor	Specific Request within the RFI
to maintain its favourable conservation condition: 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 Developer, on foot of the RFI and discussions with NPWS, refined the WTG layouts for Project Option 1 and Project Option 2 to reduce the spatial extent of offshore infrastructure overlap within the NWIS SPA, compared with 2024 EIAR layouts (see images A2.1 and A2.2). This reduction in spatial extent of infrastructure within the NWIS SPA was possible due to the 3D ground model developed following the updated geophysical survey. This confirmed that the array area is predominately flat with suitable soil characteristics; this allowed greater flexibility in siting jackets with suction buckets compared to monopiles and jackets with drilled pin piles. As a result of updated layouts for Project Option 1 and Project Option 2 (Images A2.1 and A2.2) the area of overlap (in terms of area of potential displacement for Common Guillemot) has reduced from 8.5% to 6.9%[7] of the NWIS SPA (the methodology and analysis for this is presented within the following ornithology assessment Appendix A21: Additional Guillemot Ecological Evidence Note). Further, the Natura Impact Statement (NIS) Addendum concludes, that in view of the NWIS SPA conservation objectives, there will be no contravention of the conservation objectives to maintain favourable conservation condition for Guillemot and no adverse effect on integrity of the NWIS SPA. Details of these design refinements and how they have resulted in an updated construction strategy have been included in Chapter 8: Offshore Construction to the Addendum.
RFI 10a - 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: .....Having regard to information submitted in the EIAR, the NPWS underwater noise guidelines (NPWS, 2014), the strict	Marine Mammals	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, since suction bucket jacket installation noise "barely exceeds background levels" (Weilgard 2023). 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). They have multiple environmental benefits when compared to monopile foundations and also to a lesser extent, pin pile construction method (noting pin piles are still being considered for the OSP jacket installation for Project Option 1 and Project Option 2). The use of suction buckets removes the option of driven monopile foundations for both Project Option 1 and Project Option 2, meaning no percussive piling is required for the proposed development resulting in a

[7] This area is the ornithology study area plus 2km buffer.

RFI	Key Receptor	Specific Request within the RFI
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.		significant reduction in underwater noise generated. Jackets with a suction bucket installation method generate underwater noise similar to background noise levels as the only noise generated is from the pump which installs the suction buckets on the seabed. This is supported by evidence during construction of other wind farms like Seagreen in Scotland, which did not require a Noise Abatement System (NAS) for WTG installation (Seaway, 2023). Based on these design refinements, the Developer in proposing this 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 Mammals of the EIAR Addendum.
RFI 13e – A review of the visual impacts of the Grid Facility on the Flemington LAP lands is requested 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. 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	Seascape, Landscape, and Visual	The Developer carefully considered this request, and considers a design refinement is required in order to address the visual impact of the grid facility on the Flemington LAP. 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 refs. 281240_ARP_ONS_DR_PL_1007 and 281240_ARP_ONS_GF_DR_PL_1008). In addition, the Developer has prepared a new landscape plan which includes a new woodland thicket along the south-eastern boundary of the grid facility, 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. Following mitigation establishment, the lower sections of the proposed development will be screened to a greater degree and this new vegetation will combine with the blocky colour scheme to break up the massing of the buildings and anchor them within both the current rural hinterland and likely future peri-urban setting. Details of these design refinements have been included in the Addendums to Chapter 29: Seascape, Landscape and Visual Impact Assessment

RFI	Key Receptor	Specific Request within the RFI
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.		In relation to the noise impact of the grid facility on the Flemington LAP. The Developer proposes the following refinements to the grid facility: • The static VAR Compensator transformer cooler bank includes a silencer; • An enclosure, 3 side-walls and roof on all shunt reactors and shunt reactor coolers. Alternatively, lower-noise units will be used; • An enclosure, 3 side-walls and roof on harmonic filters . 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). Details of these design refinements have been included in the Addendum to Chapter 30: Noise and Vibration

3. Summary of the Design Flexibility and compliance by the Developer

As referred to at Section 1 above, prior to making a planning application for maritime development, the Developer entered into pre-application consultation with the Commission pursuant to section 287A of the Planning and Development Act, 2000 (as amended) (the "Planning Acts"). In order for the Developer to submit a planning application that incorporated design options and/or design parameters, the Developer was required to obtain an opinion as to flexibility under section 287B of the Planning Acts from the Commission. This was issued to the Developer on 30 January 2024 (the "**DF Opinion**")[8]. A copy of the information provided under section 287 pre-application is at Appendix 2.3: Information provided under S287 pre-application to the 2024 EIAR, and DF Opinion at Appendix 2.4: Design Flexibility Opinion.

The Developer's planning application was subsequently submitted to the Commission on 7 June 2024, in accordance with the Developer's undertaking pursuant to section 287A of the Planning Acts, to submit its application in accordance with the DF Opinion. The planning application as submitted was in compliance with the requirements of section 287A of the Planning Acts and Regulation 4(1)(e) of the Planning and Development (Maritime Development) Regulations 2023.

The 2026 Addendum remains in accordance with the details specified in the DF Opinion, although certain refinements to WTG and OSP foundation type are proposed to the options detailed in the DF Opinion as a result of careful reflection and response to submissions received from public bodies during the examination process. The legislative requirements do not preclude the Developer from refining its application during the examination process, provided it continues to operate within the parameters of the DF Opinion. The refinements set out in the 2026 Addendum do not depart from the DF Opinion; rather, they remain within the scope of the planning application as originally submitted and are a result of careful reflection and response to submissions received from public bodies during the examination process.

Table A3.1 – Design Refinements in the context of the issued DF Opinion.

Information	Details/Circumstances	2024 Planning Application	2026 Addendum Design Refinements
a. The details, or groups of details, of the proposed development that may be confirmed after the proposed application	1. Turbines (Models, Number & Dimensions [Tip height, Rotor Diameter, Rotor Swept Area, Nacelle Height and Hub height]	Turbine parameters and dimensions for Project Option 1 and Project Option 2 are provided in Chapter 6: Offshore Project Description	No refinement

[8] *The DF Opinion was subsequently clarified by way of letter dated 4 April 2024 and updated by way of decision by the Commission pursuant to Section 146A of the Planning Acts on 16 April 2024*".

Information	Details/Circumstances	2024 Planning Application	2026 Addendum Design Refinements
has been made and decided.	2. Turbine Foundations (Type and Pile Dimensions)	Project Option 1: Monopiles Project Option 2: Monopiles or Jackets Detail of the WTG foundation options and parameters are provided in Chapter 6: Offshore Project Description	Project Option 1: Jackets with suction buckets Project Option 2: Jackets with suction buckets Monopiles no longer proposed
	3. Offshore Substation Platform (Foundation Type and Dimensions [Height above sea level, Length and Width])	Foundation Option 1: Jacket Foundation Option 2: Two Monopile Foundation Option 3: One Monopile Detail of the OSP parameters and foundation options are provided in Chapter 6: Offshore Project Description	Foundation Option 1: Jackets with pin piles Foundation Option 2: Jackets with suction buckets Monopiles no longer proposed
	4. Siting of Infrastructure – Fixed location with a limit of deviation (Turbines, Foundations, Export cable and Offshore Substation Platform location)	Project Option 1 and Project Option 2 reflect turbine layouts with fixed locations within a limit of deviation. Further details are provided in Chapter 6: Offshore Project Description	No refinement
	5. Offshore cabling (Subsea cable size & subsea cable length)	Offshore cabling parameters provided in Chapter 6: Offshore Project Description	No refinement
b. The circumstances relating to the proposed development that indicate that it is appropriate that the proposed application be made and decided before the prospective applicant has confirmed the details referred to in paragraph (a) above.	Ongoing advances in technology and recognition of the need to install the most efficient and effective project elements in relation to Item 1 to 5 above	Ongoing advances in technology and recognition of the need to install the most efficient and effective project elements in relation to Item 1 to 5 above	No refinement

4. Conclusion

The Developer has proposed foundation installation methodology refinements for WTGs and the OSP, refined layout designs for Project Option 1 and Project Option 2 including reducing the spatial extent of infrastructure within the array area, and

removed dredging to address requests within the RFI and further mitigate potential environmental effects to key receptors, including shipping and navigation, marine mammals and birds associated with the NWIS SPA. These specific design refinements were made in response to issues raised by stakeholders for the following RFIs:

- 2a - IRCG raised concerns in relation to the layout of the proposed development with respect to search-and-rescue (SAR) access. This has been addressed and accepted by IRCG by updating WTG layouts for Project Option 1 and Project Option 2.

- 2b - the Marine Survey Office (MSO) disagreed 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. This has been addressed and accepted by MSO by updating the WTG layouts for Project Option 1 and Project Option 2, to increase the Rockabill GAP and to reduce the infrastructure in the south east corner.

- 6 – 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) SPA. Under planning law, designation does not automatically preclude consent. The key legal test is compliance with Articles 6(3) and, where relevant, 6(4) of the Habitats Directive. Here, survey and NIS evidence supported no adverse effect on site integrity. Avoiding designated sites is one site-selection criterion, but not determinative. The site of the proposed development was chosen after extensive surveys confirmed suitability. Although the NWIS cSPA was designated later, ecological assessments found no adverse effects on site integrity, so the site remains suitable.

- 8e vi -The DAU observation stated that the proposed development would in their opinion 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 updated WTG layouts for both Project Option1 and Project Option 2, which has been consulted upon with NPWS throughout 2026, allowed for the spatial extent of offshore infrastructure within the array area to be reduced, which reduces the overlap with the NWIS SPA.

- 10a - a comprehensive suite of noise abatement measures was requested in addition to the existing mitigation measures referenced in the planning application documentation. Removing monopiles as a foundation option and using suction buckets as an installation method for jackets removes the requirement for percussive piling for WTG installation, significantly reducing UWN impacts. These design refinements are implemented as an alternative to noise abatement for WTG installation. In addition, removing monopiles (and

percussive piling) as an option for the OSP installation significantly reduces underwater noise impacts. These design refinements to the foundations were consulted upon with NPWS throughout 2025.

In respect of the onshore infrastructure of the proposed development, a design refinement is also required to the onshore grid facility in response to RFI 13e in order to mitigate the visual impact of the grid facility on the Flemington LAP, which had not been finalised at the time in which the Developer submitted its planning application to the Commission in June 2024.

Lastly, the DF Opinion issued by the Commission provides that the circumstances relating to the offshore infrastructure of the proposed development that indicate that it is appropriate that the proposed application be made and decided before the Developer has confirmed the details referred to in Table A3.1 above are due to "*[o]ngoing advances in technology and recognition of the need to install the most efficient and effective project elements".* This document demonstrates that the 2026 Addendum remains in accordance with the DF Opinion, though refinements to WTG and OSP foundation types are proposed in response to submissions from public bodies during examination, as outlined in Section 3.

All design refinements have been assessed, and the environmental benefits been presented in the 2026 Addendum. Furthermore, it has been concluded that they will not result in any residual significant impacts , in terms of the EIA Regulations.

5. References

- ABP 2024. NISA Design Flexibility Opinion
- ABP 2024. NISA RFI (319866 NISA FI Request)
- NISA 2024. EIAR (https://www.pleanala.ie/en-ie/case/319866)
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