Addendum to the Environmental Impact Assessment Report

NISA

North Irish Sea Array

Volume 3 - Offshore Chapters

Chapter 19
Aviation and Radar

Statkraft

CIP
Copenhagen Infrastructure Partners

GoBe
APEM Group

ARUP

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19. Aviation and Radar

North Irish Sea Array Windfarm Ltd (NISA, hereafter referred to as 'the Developer') has been considering the Request for Further Information (RFI) issued by An Bord Pleanála (now An Coimisiún Pleanála) as well as the third-party submissions received following public consultation. At An Coimisiún Pleanála's behest, the Developer has also continued to consult with stakeholders in respect of the 2024 planning application throughout 2024-2026. The Developer has refined elements of the design to respond to the third-party submissions, the continued public and stakeholder consultation and the RFI. Amendments are therefore required to Chapter 19: Aviation and Radar of the 2024 Environmental Impact Assessment Report (EIAR). Full details of consultation undertaken can be found in Appendix A1.2 in the Addendum to the EIAR.

For the purposes of clarity, this document shall be read in conjunction with Chapter 19 submitted as part of the 2024 EIAR.

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 will be clearly labelled as such.

Text in bold is only used throughout this document to indicate where changes are required, and what is subsequently driving them. Text in italics is text from a section of the 2024 EIAR which is deleted, or quotations from other documents (as explicitly stated). Replacement text is in normal font.

Tables which have been updated from the 2024 EIAR, or entirely new tables, have been included in the Addendum to the EIAR. These can be identified by the "A" prefix in the table caption. Any changes within an updated table, in comparison to tables within the 2024 EIAR, 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.

The sections relevant to Chapter 19 in the RFI are included below.

RFI Section	RFI	Relevance to Chapter
1 (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 timeframes associated with the RFI have necessitated a review of the datasets previously used in the 2024 EIAR to ensure any necessary updates to the baseline environment are captured. Therefore, a review of the baseline resources for this chapter has been undertaken to comply with RFI Section 1 (b).
1 (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.	Further intertidal/nearshore geophysical surveys undertaken in 2023 and geophysical surveys undertaken in the array in 2024 have enabled updated analysis of maritime archaeology receptors, in accordance with RFI Section 1 (c).
4	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. 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.	A synopsis report of ecosystem functions and services has been provided in 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). 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.

RFI Section	RFI	Relevance to Chapter
	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 Developer has not included a separate eco-system function assessments in the respective Chapters of 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.
5	The Board notes that cumulative assessment was addressed under each topic specific chapter in the EIAR and addressed within Chapter 38 Cumulative and Inter related 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 (NSIP, 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. 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 Cumulative Effects Assessment has been revised in line with NSIP (2024) and the relevant sections of this Chapter have been updated.

RFI Section	RFI	Relevance to Chapter
	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.	
17 (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.	Gormanston Aerodrome and the E1-D1 Danger Area is considered as part of the aviation baseline environment. Consultation with the Department of Defence (DoD) and Irish Air Corps is considered in relation to the National Marine Planning Framework (NMPF) Defence and Security Policy 1 and in addition is captured in Appendix A1.2 Consultation Report.
17 (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.	Following consultations with Dublin Airport Authority (daa) and AirNav Ireland, modelling of the new radar to address AirNav concerns have been undertaken and are now detailed in Appendix A19.1. The outcomes have been incorporated in updates to Chapter 19, in accordance with RFI Section 17 (b).

19.1 Introduction

There are no changes to this section. Refer to Section 19.1 of Chapter 19 of the 2024 EIAR.

19.2 Methodology

19.2.1 Introduction

There are no changes to this section. Refer to Section 19.2.1 of Chapter 19 of the 2024 EIAR.

19.2.2 Study Area

There are no changes to this section. Refer to Section 19.2.2 of Chapter 19 of the 2024 EIAR.

19.2.3 Relevant Guidance and Policy

Three relevant guidance and policy documents included in the 2024 EIAR have since been updated. The following documents listed in Section 19.2.3 of Chapter 19 of the 2024 EIAR shall be deleted:

- *"AirNav Ireland Aeronautical Information Publication (AIP) Ireland, 2023;*
- *Civil Aviation Authority (CAA) CAP 032: United Kingdom (UK) AIP, 2022; (Provides details of adjacent UK airspace); and*
- *CAA CAP 764: Policy and Guidelines on Wind Turbines, 2016; (UK guidance used when no equivalent Irish guidance available)".*

And be replaced with:

- AirNav Ireland Aeronautical Information Publication (AIP) Ireland, 2026;
- Civil Aviation Authority (CAA) CAP 032: United Kingdom (UK) AIP, 2026; (Provides details of adjacent UK airspace); and
- CAA CAP 764: Policy and Guidelines on Wind Turbines, 2025; (UK guidance used when no equivalent Irish guidance available).

In accordance with RFI Section 17 (a), the Developer has continued consultation with the DoD. Therefore, Table 19.1 of Chapter 19 of the 2024 EIAR requires updating; Table 19.1 of Chapter 19 of the 2024 EIAR shall be deleted and replaced by Table A19.1

Table A19.1 Key NMPF policies relevant to the assessment (replaces Table 19.1 of Chapter 19 of the 2024 EIAR)

Policy name	Policy description	Where addressed
National Marine Planning Framework (2021) Defence and Security – Policy 1	Any proposal that has the potential to interfere with the performance by the Defence Forces of their security and non-security related tasks must be subject to consultation with the Defence Organisation. This includes potential interference with: • • Safety of navigation and access to naval facilities; • • Firing, test or exercise areas; • • Communication, and surveillance systems; • • Fishery protection functions. Proposals should only be supported where, having consulted with the Defence Organisation, they are satisfied that it will not result in unacceptable interference with the performance by the Defence Forces of their security and non-security related tasks. Any proposal will be subject to the relevant Environmental Assessments, as set out in the introduction to the NMPF	Consultation with the Department of Defence (DoD) has been limited to date. Information regarding the proposed development was provided to DoD in October 2021, and DoD responded in November 2021 with concerns over the potential impact on current and future Air Corps flight operations at Gormanston and interference to air navigation infrastructure at Gormanston. DoD also stated that wind farms should not interfere with Naval Service ships freedom of navigation and sea lines of communication, and that the proposed area should be outside the range of any munitions in the adjacent firing range. Further engagement with DoD was initiated in November 2022 and a response received in January 2023 that the DoD safeguards EI-D1 as a live firing range and Gormanston Aerodrome for use as a military airfield. The DoD further confirmed that a Non-Direction Beacon and Distance Measure Equipment are both present and operational at the Gormanston Aerodrome. Following the receipt of RFI, further consultation with the Department of Defence (DoD) as undertaken in June 2025. During this consultation DoD acknowledged that the proposed development will not significantly impact on the operation of Gormanston Military Practice and Exercise Area. Recommendations were provided which the Developer has considered within their assessment where relevant. Further detail on consultation is provided in Appendix A1.2. This information is considered within the assessment in Sections 19.3 and 19.5.

There are no other changes to this section. Refer to 19.2.3 of Chapter 19 of the 2024 EIAR.

19.2.4 Data Collection and Collation

There are no changes to this section. Refer to Section 19.2.4 of Chapter 19 of the 2024 EIAR.

19.2.5 Methodology for Assessment of Effects

There are no changes to this section. Refer to Section 19.2.5 of Chapter 19 of the 2024 EIAR.

19.2.5.1 Sensitivity Criteria

There are no changes to this section. Refer to Section 19.2.5.1 of Chapter 19 of the 2024 EIAR.

19.2.5.2 Magnitude of Impact Criteria

There are no changes to this section. Refer to Section 19.2.5.2 of Chapter 19 of the 2024 EIAR.

19.2.5.3 Defining the Significance of Effect

There are no changes to this section. Refer to Section 19.2.5.3 of Chapter 19 of the 2024 EIAR.

19.3 Baseline Environment

19.3.1 Civil Aviation

19.3.1.1 Airspace

There are no changes to this section. Refer to Section 19.3.1.1 of Chapter 19 of the 2024 EIAR.

19.3.1.2 Dublin Airport

There are no changes to this section. Refer to Section 19.3.1.2 of Chapter 19 of the 2024 EIAR.

19.3.1.3 Search and Rescue

There are no changes to this section. Refer to Section 19.3.1.3 of Chapter 19 of the 2024 EIAR.

19.3.1.4 Other Major Airports

There are no changes to this section. Refer to Section 19.3.1.4 of Chapter 19 of the 2024 EIAR.

19.3.1.5 General Aviation

There are no changes to this section. Refer to Section 19.3.1.5 of Chapter 19 of the 2024 EIAR.

19.3.2 Military Aviation

19.3.2.1 Airspace

There are no changes to this section. Refer to Section 19.3.2.1 of Chapter 19 of the 2024 EIAR.

19.3.2.2 Gormanston Aerodrome

There are no changes to this section. Refer to Section 19.3.2.2 of Chapter 19 of the 2024 EIAR.

19.3.2.3 Casement Aerodrome

There are no changes to this section. Refer to Section 19.3.2.3 of Chapter 19 of the 2024 EIAR.

19.3.3 Radars

There are no changes to this section. Refer to Section 19.3.3 of Chapter 19 of the 2024 EIAR.

19.4 Characteristics of the Proposed Development

The change required in this section is the revision of the foundation types for Project Option 1 and Project Option 2. In the 2024 EIAR, Wind Turbine Generator (WTG) monopile foundations and Offshore Substation Platform (OSP) monopile and jacket foundations with pin piles were considered. Following further design refinement in response to the RFI (see Appendix A5.1 Design Refinements), WTGs are now proposed with Suction Bucket Jacket (SBJ) foundations, and OSPs with jacket foundations installed with either pin piles or suction buckets, as indicated by the grey shading in Table A19.1 below. These refinements have resulted in updates to WTG layouts for Project Option 1 and Project Option 2, but the WTG maximum tip heights remain the same. Therefore, Table 19.5 within Section 19.4 in Chapter 19 of the 2024 EIAR shall be deleted and replaced with Table A19.2:

Table A19.2: Key characteristics of Project Option 1 and Project Option 2 (replaces Table 19.5 of Chapter 19 of the 2024 EIAR)

Key Offshore Characteristics	Project Option 1	Project Option 2
Array area	88.5km^2	88.5km^2
Export Cable Corridor (ECC)	36.45km^2	36.45km^2
Landfall (Encompassing both the Horizontal Directional Drilling (HDD) entrance pit and HDD exit pit)	One landfall site, immediately south of Bremore Point, which includes two subtidal exit pits within the ECC	One landfall site, immediately south of Bremore Point, which includes two subtidal exit pits within the ECC
WTG	49 WTGs with 250m rotor diameter and 290m tip height at Lowest Astronomical Tide (LAT)	35 WTGs with 276m rotor diameter with 316m tip height at LAT outside the aviation restricted zone, 311m tip height inside the aviation restricted zone (refer to Table 19.6)
WTG Foundations	49 multi-leg suction bucket jackets requiring seabed preparation	35 multi-leg suction bucket jackets requiring seabed preparation
OSP Foundations (array area)	One OSP, supported on a multi-leg jacket foundation founded on suction buckets or pin piles	One OSP, supported on a multi-leg jacket foundation founded on suction buckets or pin piles
Cables	Installation of 111km of array cables within the array area and installation of two 18km export cables within the ECC	Installation of 91km of array cables within the array area and installation of two 18km export cables within the ECC

There are no other changes to this section. Refer to Section 19.4 of Chapter 19 of the 2024 EIAR.

19.4.1 Parameters for Assessment

There are no changes to this section. Refer to Section 19.4.1 of Chapter 19 of the 2024 EIAR.

19.4.2 Construction

There are no changes to this section. Refer to Section 19.4.2 of Chapter 19 of the 2024 EIAR.

19.4.3 Operational Phase

There are no changes to this section. Refer to Section 19.4.3 of Chapter 19 of the 2024 EIAR.

19.4.4 Decommissioning

There are no changes to this section. Refer to Section 19.4.4 of Chapter 19 of the 2024 EIAR.

19.4.5 Embedded Mitigation Measures

With the publication of the final Department of Transport (DoT) guidance in July 2025, the relevant embedded mitigation measures in Table 19.6 within Section 19.4.5 in Chapter 19 of the 2024 EIAR require updating. Therefore, Table 19.6 of Chapter 19 of the 2024 EIAR shall be deleted and replaced with Table A19.3:

Table A19.3: Embedded mitigation measures relating to aviation and radar (replaces Table 19.6 of Chapter 19 of the 2024 EIAR)

Measure	Mitigation description
Construction	
Compliance with IAA lighting and marking requirements	The offshore infrastructure would be designed and constructed in accordance with the requirements of the IAA and the Commissioners of Irish Lights (CIL) in terms of the notification, charting, marking and lighting of obstacles in order to protect air and marine navigation. Refer to Section 19.4.5.1. for further details and Appendix A17.3: Lighting and Marking Plan.
Compliance with IAA requirements for the promulgation of obstacle locations	At least three months before the erection of offshore infrastructure, the required obstacle parameters will be supplied to the IAA and the CIL. Refer to Section 19.4.5.2 for further details.
WTG design parameters within aviation restricted zone	Project Option 2 WTGs within the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2 will have a reduced air draft and corresponding reduced tip height of 311m above LAT. This is to ensure that the minimum required obstacle clearances of sectors 1 and 2 are not infringed.
Compliance with relevant regulator guidance	The proposed development will be compliant with the relevant regulator guidance noting that the Irish Guidance published by DoT is generally aligned with UK Marine Guidance Note (MGN) 654. Refer to Chapter 17: Shipping and Navigation for further details.
Consultation with the DoD Adherence to DoD issued NOTAMs and NtMs, and DoT issued Marine Notices	Prior to installation of the offshore export cable, engagement will be undertaken with the DoD and the following of NOTAMs, NtMs and Marine Notices relating to Gormanston Danger Area EID1 will ensure that installation schedules do not conflict with IAC firing range activities.
Operation	
Compliance with IAA lighting and marking requirements	The offshore infrastructure would continue to be lit during operation in accordance with the requirements of the IAA and the CIL in terms of the notification, charting, marking and lighting of obstacles in order to protect air and marine navigation. Refer to Section 19.4.5.1. for further details and Appendix A17.3.
Compliance with IAA requirements for the promulgation of obstacle locations	Within three months of construction completion, updated obstacle information will be supplied to the IAA and the CIL. Refer to Section 19.4.5.2 for further details.
WTG design parameters within aviation restricted zone	Project Option 2 WTGs within the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2 will have a reduced air draft and corresponding reduced tip height of 311m above LAT.
Compliance with relevant regulator guidance	The fixed layouts for Project Option 1 and Project Option 2 comply with Irish Coast Guard requirements with regards to SAR emergency access to the array area.
Decommissioning	
Compliance with IAA lighting and marking requirements	The offshore infrastructure would continue to be lit through the decommissioning phase in accordance with the requirements of the IAA and the CIL in terms of the notification, charting, marking and lighting of obstacles in order to protect air and marine navigation. Refer to Section 19.4.5.1. for further details and Appendix 17.3.
Compliance with IAA requirements for the promulgation of obstacle locations	Updated relevant information will be supplied to the IAA and the CIL, as detailed in Section 19.4.5.2.
WTG design parameters within aviation restricted zone	Project Option 2 WTGs within the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2 will have a reduced air draft and corresponding reduced tip height of 311m above LAT.
Compliance with relevant regulator guidance	The fixed layouts for Project Option 1 and Project Option 2 comply with Irish Coast Guard requirements with regards to SAR emergency access to the array area.

Measure	Mitigation description
Assessment of impacts and best practice environmental management	Prior to decommissioning a study of the potential impacts to aviation and radar receptors from the proposed decommissioning activities would be undertaken, considering the baseline environment at the pre-decommissioning stage. All mitigation measures to be captured would be captured within the decommissioning strategy within Appendix 6.1: Offshore Environmental Management Plan (EMP; hereafter Offshore EMP). Any licences or authorisations that might be required would be identified and obtained prior to decommissioning, including any validation, updating or new submission of an EIAR, as required.

There are no other changes to this section. Refer to Section 19.4.5 of Chapter 19 of the 2024 EIAR.

19.4.5.1 Lighting and Marking Requirements

In Section 17 (b) of the RFI, further consultation was requested with daa and AirNav Ireland. A meeting with daa and AirNav Ireland was held in May 2025 during which details of the newly commissioned Tooman Primary Surveillance Radar/Secondary Surveillance Radar (PSR/SSR) facility were shared. Tooman PSR/SSR replaces the existing Dublin Head 2 PSR/SSR and is now the closest radar facility to the array area. As a result, the following paragraph from Section 19.4.5.1 of Chapter 19 in the 2024 EIAR shall be deleted:

"The proposed development would create an obstacle environment which will be mitigated by compliance with appropriate international and national requirements for the permanent marking and lighting of obstacles. ASAM No. 018 (IAA, 2015) states that for offshore wind farms within 32nm (59km) of Air Navigation Services Radar, the marking, lighting and radar enhancing requirements will require to be assessed on an individual basis. The offshore development area is within 16nm (30km) of Dublin 2 PSR/SSR."

And be replaced with:

The proposed development would create an obstacle environment which will be mitigated by compliance with appropriate international and national requirements for the permanent marking and lighting of obstacles. ASAM No. 018 (IAA, 2015) states that for offshore wind farms within 32nm (59km) of Air Navigation Services Radar, the marking, lighting and radar enhancing requirements will require to be assessed on an individual basis. The offshore development area is within 12nm (22km) of the newly commissioned Tooman PSR/SSR.

There are no other changes to this section. Refer to Section 19.4.5.1 of Chapter 19 of the 2024 EIAR.

19.4.5.2 Promulgation of Obstacle Locations

There are no changes to this section. Refer to Section 19.4.5.2 of Chapter 19 in the 2024 EIAR.

19.4.6 Potential Impacts

As a result of design refinements (refer Appendix A5.1), the maximum number of helicopter return trips during WTG installation for Project Option 1 remains at ten while for Project Option 2 it has been reduced from ten to seven. As a result, Project Option 1 now represents the greatest magnitude of impact in relation to Impact 3 Increased Air Traffic in the Array Area Related to Construction and Installation Activities, and Impact 8 Increased Air Traffic in the Area Related to Decommissioning Activities. Therefore, Table 19.7 in Section 19.4.6 of Chapter 19 in the 2024 EIAR shall be deleted and replaced with Table A19.4

Table A19.4: Potential impacts and magnitude of impact per project option. The project option that has the greatest magnitude of impact is identified in blue (replaces Table 19.7 of Chapter 19 of the 2024 EIAR).

Potential impact	Project Option 1 (49 WTG)	Project Option 2 (35 WTG)	Rationale for the project option with the greatest magnitude of impact
Construction			
1. Impacts on civil and military PSR and weather radar due to tall construction vessels/cranes and partially complete structures.	49 WTGs with a blade tip height of 290m above LAT. Tall crane installation vessels.	35 WTGs with a blade tip height of 316m above LAT outside the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2, and 311m above LAT within the 3nm buffer areas of ATCSMAC sectors 1 and 2. Tall crane installation vessels.	**Project Option 2 represents the greatest magnitude of impact in relation to this impact** ATC may be unable to provide an effective surveillance service due to interference on radar displays. Ability of Met Éireann to detect impending severe weather may be impaired. The taller the obstacle the more likely it is to be in RLoS; therefore, Project Option 2 is considered to have the greatest magnitude of impact.
2. Creation of an aviation obstacle environment.	49 WTGs with a blade tip height of 290m above LAT. Offshore Substation Platform highest point 67m above LAT. Tall crane installation vessels.	35 WTGs with a blade tip height of 316m above LAT outside the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2, and 311m above LAT within the 3nm buffer areas of ATCSMAC sectors 1 and 2. Offshore Substation Platform highest point 67m above LAT. Tall crane installation vessels.	**Project Option 2 represents the greatest magnitude of impact in relation to this impact** Physical obstruction to aviation operations due to above sea level infrastructure within the offshore development area. Impact starting from a point of zero infrastructure to full presence over the construction period. The tallest obstacles are more likely to impact low flying aircraft; therefore, Project Option 2 is considered to have the greatest magnitude of impact.
3. Increased air traffic in the array area related to construction and installation activities.	WTG installation: Up to ten helicopter return trips.	WTG installation: Up to seven helicopter return trips.	**Project Option 1 represents the greatest magnitude of impact in relation to this impact** Helicopter trips as a result of being engaged in works on the proposed development causing increased likelihood of aircraft-to-aircraft collision. The number of helicopter trips is greater for Project Option 1; therefore, Project Option 1 is considered to have the greatest magnitude of impact.

Potential impact	Project Option 1 (49 WTG)	Project Option 2 (35 WTG)	Rationale for the project option with the greatest magnitude of impact
Operation			
4. WTGs causing long term interference on civil and military PSR and weather radar.	49 WTGs with a blade tip height of 290m above LAT.	35 WTGs with a blade tip height of 316m above LAT outside the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2, and 311m above LAT within the 3nm buffer areas of ATCSMAC sectors 1 and 2.	**Project Option 2 represents the greatest magnitude of impact in relation to this impact** ATC may be unable to provide an effective surveillance service due to interference on radar displays. Ability of Met Éireann to detect impending severe weather may be impaired. Impact present for operational lifespan of up to 35 years. The taller the obstacle the more likely it is to be in RLoS; therefore, Project Option 2 is considered to have the greatest magnitude of impact.
5. Creation of an aviation obstacle environment.	49 WTGs with a blade tip height of 290m above LAT. Offshore Substation Platform highest point 67m above LAT.	35 WTGs with a blade tip height of 316m above LAT outside the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2, and 311m above LAT within the 3nm buffer areas of ATCSMAC sectors 1 and 2. Offshore Substation Platform highest point 67m above LAT.	**Project Option 2 represents the greatest magnitude of impact in relation to this impact** Physical obstruction to aviation operations due to above sea level infrastructure within the offshore development area. Impact present for operational lifespan of up to 35 years. The tallest obstacles are more likely to impact low flying aircraft; therefore, Project Option 2 is considered to have the greatest magnitude of impact.
Decommissioning			
6. Impacts on civil and military PSR and weather radar due to tall decommissioning vessels/cranes and partially dismantled structures.	49 WTGs with a blade tip height of 290m above LAT. Tall crane decommissioning vessels.	35 WTGs with a blade tip height of 316m above LAT outside the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2, and 311m above LAT within the 3nm buffer areas of ATCSMAC sectors 1 and 2. Tall crane decommissioning vessels.	**Project Option 2 represents the greatest magnitude of impact in relation to this impact** ATC may be unable to provide an effective surveillance service due to interference on radar displays. Ability of Met Éireann to detect impending severe weather may be impaired. The taller the obstacle the more likely it is to be in RLoS; therefore, Project Option 2 is considered to have the greatest magnitude of impact.

Potential impact	Project Option 1 (49 WTG)	Project Option 2 (35 WTG)	Rationale for the project option with the greatest magnitude of impact
7. Removal of aviation obstacle environment.	49 WTGs with a blade tip height of 290m above LAT. Offshore Substation Platform highest point 67m above LAT. Tall crane decommissioning vessels.	35 WTGs with a blade tip height of 316m above LAT outside the 3nm buffer areas of Dublin Airport's ATCSMAC sectors 1 and 2, and 311m above LAT within the 3nm buffer areas of ATCSMAC sectors 1 and 2. Offshore Substation Platform highest point 67m above LAT. Tall crane decommissioning vessels.	**Project Option 2 represents the greatest magnitude of impact in relation to this impact** Physical obstruction to aviation operations due to above sea level infrastructure within the offshore development area. Impact starting from a point of full presence of infrastructure to zero presence over the decommissioning period. The tallest obstacles are more likely to impact low flying aircraft; therefore, Project Option 2 is considered to have the greatest magnitude of impact.
8. Increased air traffic in the area related to decommissioning activities.	Assumed as per the construction phase, however a decommissioning strategy has been produced in the Offshore EMP. The Offshore EMP is a live document that will continue to be developed throughout the lifecycle of the proposed development. More details will be included closer to the time of decommissioning. Maximum number of return trips per helicopter during decommissioning: 10	Assumed as per the construction phase, however a decommissioning strategy has been produced in the Offshore EMP. The Offshore EMP is a live document that will continue to be developed throughout the lifecycle of the proposed development. More details will be included closer to the time of decommissioning. Maximum number of return trips per helicopter during decommissioning: 7	**Project Option 1 represents the greatest magnitude of impact in relation to this impact** Helicopter trips as a result of being engaged in works on the proposed development causing increased likelihood of aircraft-to-aircraft collision. The number of helicopter trips is greater for Project Option 1; therefore, Project Option 1 is considered to have the greatest magnitude of impact.

There are no other changes to this section. Refer to Section 19.4.6 of Chapter 19 of the 2024 EIAR.

19.5 Potential Effects

There are no changes to this section. Refer to Section 19.5 of Chapter 19 of the 2024 EIAR.

19.5.1 Do-Nothing Scenario

There are no changes to this section. Refer to Section 19.5.1 of Chapter 19 of the 2024 EIAR.

19.5.2 Construction Phase

There are no changes to the introductory text in this section. Refer to Section 19.5.2 of Chapter 19 of the 2024 EIAR.

19.5.2.1 Impact 1 - Impacts on Civil and Military PSR and Weather Radar due to Tall Construction Vessels/Cranes and Partially Complete Structures

There are no changes to this section. Refer to Section 19.5.2.1 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged. During construction, radar impacts would be negligible because static structures, vessels and cranes do not generate significant radar clutter, resulting in a not significant effect in EIA terms.

19.5.2.2 Impact 2 - Creation of an Aviation Obstacle Environment

There are no changes to this section. Refer to Section 19.5.2.2 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged; embedded mitigation measures, including obstacle charting, marking, lighting and compliance with aviation clearance requirements, would reduce aviation obstacle impacts to a negligible level, resulting in a not significant effect in EIA terms.

19.5.2.3 Impact 3 – Increased Air Traffic in the Array Area Related to Construction and Installation Activities

There are no changes to this section. Refer to Section 19.5.2.3 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged; the limited number of helicopter movements required during construction, together with compliance with existing air traffic management procedures, would result in a negligible impact and a not significant effect in EIA terms.

19.5.3 Operational Phase

19.5.3.1 Impact 4 – WTGs Causing Long Term Interference on Civil and Military PSR and Weather Radar

In Section 17 (b) of the RFI further consultation was requested with daa and AirNav Ireland. A meeting with daa and AirNav Ireland was held in May 2025 during which details of the newly commissioned Tooman PSR/SSR facility were shared. Tooman PSR/SSR replaces the existing Dublin Head 2 PSR/SSR and is now the closest radar facility to the array area. AirNav raised concerns regarding the range between the array area and their SSR facilities. To address their concerns, an SSR assessment has been undertaken, detailed in Appendix A19.1 (see Appendix A19.1: Airspace Analysis and Radar Modelling), that demonstrates that any effects on SSR caused by WTGs within the array area should be operationally tolerable.

As a result, the following text from Section 19.5.3.1 of Chapter 19 in the 2024 EIAR shall be deleted:

"Dublin Airport

Dublin Airport has three radar sites: Dublin Head 2 and Dublin Head 3 are combined PSR/SSRs while Forrest Little is an SSR only facility.

All WTGs within the array area will be within operational range and in RLoS of the Dublin PSRs, and likely to generate clutter on radar displays from rotating WTG blades, irrespective of blade tip height.

The document Eurocontrol Guidelines for Assessing the Potential Impact of Wind Turbines on Surveillance Sensors (Eurocontrol, 2014) recommends an SSR protection range of 16km, beyond which the impact of WTGs on SSR is considered to be tolerable. However, this is based on WTGs with tip heights of up to only 200m.

In the UK, NATS (formerly National Air Traffic Services) does not specify a WTG tip height limit but extends the SSR protection range to 15nm (28km) for its SSR facilities. There is no current equivalent Irish guidance available, and engagement with the radar operator, AirNav Ireland, has to date been limited to the provision of information on the proposed development. As such, it is considered appropriate to follow UK guidance regarding the required SSR protection range.

Given that the closest SSR facility (Dublin Head 2) to the array area is more than 29km away, further consideration of impacts on SSR is not considered necessary."

And be replaced with:

<u>Dublin Airport</u>

Dublin Airport has three radar sites: Tooman and Dublin Head 3 are combined PSR/SSRs while Forrest Little is an SSR only facility.

All WTGs within the array area will be within operational range and in RLoS of the Dublin PSRs, and likely to generate clutter on radar displays from rotating WTG blades, irrespective of blade tip height.

The document Eurocontrol Guidelines for Assessing the Potential Impact of Wind Turbines on Surveillance Sensors (Eurocontrol, 2014) recommends an SSR protection range of 16km, beyond which the impact of WTGs on SSR is considered to be tolerable. However, this is based on WTGs with tip heights of up to only 200m.

In the UK, NATS (formerly National Air Traffic Services) does not specify a WTG tip height limit but extends the SSR protection range to 15nm (28km) for its SSR facilities.

Tooman SSR is within 22km of the array area and is the closest SSR facility. At a consultation meeting in May 2025 AirNav Ireland noted that the array area is beyond the recommended Eurocontrol protection range of 16km from the nearest SSR site but highlighted that both Project Option 1 and Project Option 2 WTGs will have tip heights in excess of 200m. An assessment of Tooman SSR, as detailed in Appendix A19.1, demonstrates that any effects on SSR caused by WTGs within the array area should be operationally tolerable and therefore further consideration of impacts on SSR is not considered necessary.

The following text from Section 19.5.3.1 of Chapter 19 of the 2024 EIAR shall be deleted:

"The following radars are potentially affected by WTGs in the array area:

- *Dublin Head 2 PSR;*
- *Dublin Head 3 PSR;*
- *Isle of Man PSR; and*
- *Casement PSR*

The following radars are scoped out of the assessment of likely significant effects:

- *Dublin Head 2 SSR;*
- *Dublin Head 3 SSR;*
- *Forrest Little SSR;*
- *Belfast City PSR;*
- *Belfast Aldergrove PSR;*
- *RAF Valley PSR; and*
- *Dublin weather radar"*

And be replaced with:

The following radars are potentially affected by WTGs in the array area:

- Tooman PSR;
- Dublin Head 3 PSR;
- Isle of Man PSR; and
- Casement PSR

The following radars are scoped out of the assessment of likely significant effects:

- Tooman SSR;
- Dublin Head 3 SSR;
- Forrest Little SSR;
- Belfast City PSR;
- Belfast Aldergrove PSR;

- RAF Valley PSR; and
- Dublin weather radar

The following text from Section 19.5.3.1 of Chapter 19 of the 2024 EIAR shall be deleted:

"Dublin Head 2 PSR and Dublin Head 3 PSR
In Ireland all class C controlled airspace is designated as a Transponder Mandatory Zone (TMZ). Aircraft operating within a TMZ are required to carry and operate SSR transponders so that they can be detected by SSR and thus appear on ATC radar displays. Aircraft with temporarily unserviceable transponders may be admitted into class C airspace only on an exceptional case by case basis. Furthermore, the IAA have introduced monitoring codes/listening squawks to help reduce the number of airspace infringements in both the Shannon FIR and Dublin CTA, which requires aircraft to have an operating transponder. This implies that even aircraft in class G uncontrolled airspace are expected to have operating transponders.

Given the use of SSR transponders, ATC units in Ireland are able to monitor, track and control aircraft using SSR. This greatly reduces the reliance on PSR for providing a safe and effective ATS. Consequently, the magnitude of impact on Dublin Head 2 PSR and Dublin Head 3 PSR from Project Option 1 and Project Option 2 would be low."

And be replaced with:

<u>Tooman PSR and Dublin Head 3 PSR</u>
In Ireland all class C controlled airspace is designated as a Transponder Mandatory Zone (TMZ). Aircraft operating within a TMZ are required to carry and operate SSR transponders so that they can be detected by SSR and thus appear on ATC radar displays. Aircraft with temporarily unserviceable transponders may be admitted into class C airspace only on an exceptional case by case basis. Furthermore, the IAA have introduced monitoring codes/listening squawks to help reduce the number of airspace infringements in both the Shannon FIR and Dublin CTA, which requires aircraft to have an operating transponder. This implies that even aircraft in class G uncontrolled airspace are expected to have operating transponders.

Given the use of SSR transponders, ATC units in Ireland are able to monitor, track and control aircraft using SSR. This greatly reduces the reliance on PSR for providing a safe and effective ATS. Consequently, the magnitude of impact on Tooman PSR and Dublin Head 3 PSR from Project Option 1 and Project Option 2 would be low.

The following text from Section 19.5.3.1 of Chapter 19 of the 2024 EIAR shall be deleted:

"Dublin Head 2 PSR and Dublin Head 3 PSR
Overall, it is predicted that the sensitivity of the Dublin Head 2 PSR and Dublin Head 3 PSR receptors for Project Option 1 and Project Option 2 is high and the magnitude of the impact is low. The high sensitivity and low magnitude of the impact on the Dublin Head 2 PSR and Dublin Head 3 PSR receptors would result in a moderate effect, which is not significant in EIA terms."

And be replaced with:

<u>Tooman PSR and Dublin Head 3 PSR</u>
Overall, it is predicted that the sensitivity of the Tooman PSR and Dublin Head 3 PSR receptors for Project Option 1 and Project Option 2 is high and the magnitude of the impact is low. The high sensitivity and low magnitude of the impact on the Tooman PSR and Dublin Head 3 PSR receptors would result in a moderate effect, which is not significant in EIA terms.

There are no other changes to this section. Refer to Section 19.5.3.1 of Chapter 19 of the 2024 EIAR.

19.5.3.2 Impact 5 - Creation of an Aviation Obstacle Environment

There are no changes to this section. Refer to Section 19.5.3.2 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged; embedded mitigation measures, including obstacle charting, marking, lighting and compliance with aviation clearance requirements, would reduce operational aviation obstacle impacts to a negligible level, resulting in a not significant effect in EIA terms.

19.5.4 Decommissioning

19.5.4.1 Impact 6 - Impacts on Civil and Military PSR and Weather Radar due to Tall Decommissioning Vessels/Cranes and Partially Dismantled Structures

There are no changes to this section. Refer to Section 19.5.4.1 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged; decommissioning activities would not generate significant radar clutter, and the gradual removal of infrastructure would reduce radar interactions, resulting in a not significant effect in EIA terms.

19.5.4.2 Impact 7 - Removal of Aviation Obstacle Environment

There are no changes to this section. Refer to Section 19.5.4.2 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged; embedded mitigation measures would remain in place throughout decommissioning, and the gradual removal of infrastructure would return aviation conditions to pre-development levels, resulting in a not significant effect in EIA terms.

19.5.4.3 Impact 8 - Increased Air Traffic in the Area Related to Decommissioning Activities

There are no changes to this section. Refer to Section 19.5.4.3 of Chapter 19 of the 2024 EIAR. For clarity, the significance of effect remains unchanged; the limited number of helicopter movements required during decommissioning, together with compliance with existing air traffic management procedures, would result in a negligible impact and a not significant effect in EIA terms.

19.6 Mitigation and Monitoring Measures

There are no changes to this section. Refer to Section 19.6 of Chapter 19 of the 2024 EIAR

19.7 Residual Effects

There are no changes to this section. Refer to Section 19.7 of Chapter 19 of the 2024 EIAR. As no additional mitigation measures are required, there is no change between the pre-mitigation and residual effects, and all aviation and radar effects remain assessed as not significant in EIA terms.

19.8 Transboundary Effects

There are no changes to this section. Refer to Section 19.8 of Chapter 19 of the 2024 EIAR.

19.9 Cumulative Effects

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the Nationally Significant Infrastructure Projects (NSIP) (2024) guidance, following the request by An Bord Pleanála in RFI Section 5.

The second paragraph shall be deleted:

"The Cumulative and Inter-Related Effects Chapter contains the outcome of Stage 1 Establishing the list of 'Other Existing and/or Approved Projects'; and Stage 2 'Screening of 'Other Existing and/or Approved Projects'. This section presents Stage 3, an assessment of whether the proposed development in combination with other projects, grouped in tiers, would be likely to have significant cumulative effects."

And be replaced with:

Chapter 38: Cumulative and Inter-Related Effects contains the outcome of Stage 1 Establishing the list of 'Other Existing and/or Approved Projects'; Stage 2 'Screening of 'Other Existing and/or Approved Projects'; and provides the CEA conclusions in the NSIP Appendix 2: Matrix 1 – Assessment matrix. This section presents the full Stage 3 assessment, which steps through whether the proposed development in combination with other projects, grouped in tiers, would be likely to have significant cumulative effects.

The fifth paragraph should be deleted:

"Given the location and nature of the proposed development, a tiered approach to establishing the list of other existing and/or approved projects has been undertaken in Stage 1 of the cumulative effects assessment. The tiering of projects is based on project relevance to the proposed development, and it is not a hierarchical approach nor based on weighting. Further information on the tiers is provided in Section 19.9.2 and in the Cumulative and Inter-Related Effects Chapter."

And be replaced with:

Given the location and nature of the proposed development, a tiered approach to establishing the list of other existing and/or approved projects has been undertaken in Stage 1 of the cumulative effects assessment. The tiering of projects is based on the NSIP 2024 guidance. Further information on the tiers is provided in Section 19.9.2 and in Chapter 38: Cumulative and Inter-Related Effects.

The tiering structure is intended to provide an understanding of the potential for likely significant effects of the proposed development with the construction of all existing and submitted projects (tier one); followed by a cumulative assessment of the likely significant effect of that scenario combined with all projects that have a scoping report or Maritime Area Consent (MAC) (tier two); and lastly the combination of tier one and tier two with all other projects include existing and/or approved developments that have been identified in the relevant Development Plans and other plans and programmes as appropriate (tier three).

There are no other changes required to this section. Refer to Section 19.9 of Chapter 19 of the 2024 EIAR.

19.9.1 Aviation and Radar Cumulative Screening Exercise

There are no changes to this section. Refer to Section 19.9.1 of Chapter 19 of the 2024 EIAR.

19.9.2 Projects Considered Within the Cumulative Effects Assessment

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, as per RFI Section 5.

The entire section shall be deleted and replaced with:

The planned, existing and/or approved projects selected through the screening exercise as potentially relevant to the assessment of impacts to aviation and radar are presented in Table A19.5. The tiers for the assessment are:

- Tier 1 is all existing submitted and approved projects (not yet in operation/part of baseline), including the Operation and Maintenance Facility (OMF) option being considered which involves the adaption and leasing part of an existing port facility at Greenore (further detail is provided in Chapter 6: Description of the Proposed Development Offshore) and the East Coast Phase One Projects.
- Tier 2 is all projects that have scoping reports or have a MAC.
- Tier 3 is all other projects including existing and/or approved development that have been identified in the relevant Development Plans and other plans and programmes as appropriate.

The tiering structure is intended to provide an understanding of the potential for likely significant effects of the proposed development with the construction of tier one projects; followed by a cumulative assessment of the likely significant effect of that scenario combined with tier two projects; and lastly the combination of tier one and tier two with all other projects including existing and/or developments that have been identified in the relevant Development Plans and other plans and programme as appropriate (tier three).

Table A19.5: Projects and plans considered within the cumulative impact assessment (replaces Table 19.9 of Chapter 19 in the 2024 EIAR)

Development type	Project	Status	Data confidence	Distance to the proposed development		Justification for screening into the cumulative effects assessment
				Array area	ECC	
Tier 1						
Phase One Offshore Wind Farm (OWF)	Oriel Wind Park	Planning application submitted	High	16.9km	21.6km	Overlap in construction period, Oriel Wind Park due to construct during 2028-2030
	Dublin Array	Planning application submitted	High	32.9km	37.6km	Overlap in construction period, Dublin Array due to construct during 2029-2032
	Codling Wind Park	Planning application submitted	High	51.0km	57.0km	Overlap in construction period, Codling Wind Park due to construct during 2026-2029
	Arklow Bank Phase 2	Planning application submitted	High	76.4km	80.1km	Overlap in construction period, Arklow Bank Phase 2 due to construct during 2027-2030
Operational OWF	Arklow Bank Phase 1	Operational	High	88.3km	91.5km	Proximity to the proposed development
Tier 2						
Projects with scoping report or MAC	In Stage 2: Screening, there were no projects identified with the potential for interaction between effects with the proposed development.					
Tier 3						
All other projects include existing and/or approved developments that have been identified in the relevant Development Plans and other plans and programmes as appropriate	In Stage 2: Screening, there were no projects identified with the potential for interaction between effects with the proposed development.					

19.9.3 Project Impacts Included in the Assessment

The change in this section is limited to the update replacing Table 19.10 of Chapter 19 of the 2024 EIAR with Table A19.6. This table reflects the updated cumulative effects assessment that has been undertaken in response to An Bord Pleanála's request under RFI Section 5.

Table A19.6: Potential cumulative impacts and tiers for assessment (replaces Table 19.10 of Chapter 19 in the 2024 EIAR)

Potential cumulative impact	Phase	Tiers and projects	Justification for inclusion in CEA
1. Creation of an aviation obstacle environment	Construction/ Operation/ Decommissioning	Tier 1 – Phase One Projects and Operational Offshore Wind Farms	Other offshore wind farms have the potential for creating an aviation obstacle environment due to the presence of WTGs.

Potential cumulative impact	Phase	Tiers and projects	Justification for inclusion in CEA
2. Increased air traffic in the area related to wind farm activities	Construction/ Decommissioning	Tier 1 – Phase One Projects and Operational Offshore Wind Farms	Other offshore wind farms have the potential for requiring helicopters during the various project phases.
3. WTGs causing permanent interference on civil and military PSR and weather radar	Operation	Tier 1 – Phase One Projects and Operational Offshore Wind Farms	Other offshore wind farms within the RLoS of receptors have the potential for impacting on ATC activities.

There are no other changes required to this section. Refer to Section 19.9.3 of Chapter 19 of the 2024 EIAR.

19.9.4 Cumulative Impact 1 – Creation of an Aviation Obstacle Environment

19.9.4.1 Tier 1

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

Construction of the proposed development will involve the installation of infrastructure above sea level which could pose a physical obstruction to military low flying and other offshore fixed-wing and helicopter operations, including those undertaking SAR missions over the Irish Sea. There is potential for cumulative effects when also considering other operational offshore wind farms, and other Phase One offshore projects, the construction of which will also involve the installation of infrastructure above sea level.

Military low flying and other offshore fixed-wing and helicopter operations are deemed to be of low vulnerability, high recoverability and high value. The sensitivity of the receptor is therefore considered to be medium.

Through the use of embedded mitigation measures such as obstacle notification, the charting, marking and lighting of obstacles, and reliance on pilot requirements to avoid any obstacle by legislated minimum distances, the magnitude of the cumulative impact on military low flying and other offshore fixed-wing and helicopter operations will be negligible.

The medium sensitivity and negligible cumulative impact on military low flying and other offshore fixed-wing and helicopter operations receptors would result in a not significant cumulative effect, which is not significant in EIA terms.

19.9.4.2 Tier 1 and 2

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

No Tier 2 projects have been screened into the assessment of Cumulative Impact 1.

There are no other changes required to this section. Refer to Section 19.9.4.2 of Chapter 19 of the 2024 EIAR.

19.9.4.3 Tier 1 and 2 and 3 (All tiers)

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

No Tier 3 projects have been screened into the assessment of Cumulative Impact 1.

The medium sensitivity and negligible cumulative impact on military low flying and other offshore fixed wing and helicopter operations receptors would result in a not significant cumulative effect of all tiers, which is not significant in EIA terms.

19.9.5 Cumulative Impact 2 - Increased Air Traffic in the Area Related to Wind Farm Activities

19.9.5.1 Tier 1

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

During the construction and decommissioning phases of the proposed development there is likely to be an increase in helicopter air traffic over the current baseline levels due to the use of helicopters in the provision of support in the airspace around the array area.

The predicted number of daily helicopter movements is considered to be low, however the cumulative effect of this activity and similar activities associated with the other projects included in the assessment will create a greater potential risk of mid-air collision between aircraft engaged in such operations and/or aircraft in transit across the study area.

Helicopter support operations and existing air traffic are deemed to be of low vulnerability, high recoverability and high value. The sensitivity of the receptor is therefore considered to be medium.

Any increase in air traffic will be managed by the existing ATS infrastructure, provided in accordance with national procedures, and pilots will be expected to operate in accordance with civil and military regulatory requirements. The magnitude of the cumulative impact on helicopter support operations and existing air traffic will be negligible.

The medium sensitivity and negligible cumulative impact on helicopter support operations and existing air traffic would result in a not significant cumulative effect, which is not significant in EIA terms.

19.9.5.2 Tier 1 and 2

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

No Tier 2 projects have been screened into the assessment of Cumulative Impact 2.

19.9.5.3 Tier 1 and 2 and 3 (All Tiers)

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

No Tier 3 projects have been screened into the assessment of Cumulative Impact 2.

The medium sensitivity and negligible cumulative impact on helicopter support operations and existing air traffic would result in a not significant cumulative effect of all tiers, which is not significant in EIA terms.

19.9.6 Cumulative Impact 3 – WTGs Causing Long Term Interference on Civil and Military PSR and Weather Radar

19.9.6.1 Tier 1

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5. The updated text also accounts for the newly commissioned Tooman PSR/SSR facility which replaces the existing Dublin Head 2 PSR/SSR. These radar details were shared at a meeting with daa and AirNav Ireland which was held following the consultation request in RFI Section 17 (b).

The entire section shall be deleted and replaced with:

There is potential for a cumulative effect where radars detect the rotating blades of WTGs from multiple offshore wind developments that are in their operational phase. This could result in a significant increase in clutter being generated on radar displays over a larger area.

Civil and military PSR are deemed to be of high vulnerability, high recoverability and high value. The sensitivity of the receptor is therefore considered to be high.

Tooman PSR and Dublin Head 3 PSR

Given the use of SSR transponders in Irish airspace, ATC units in Ireland are able to monitor, track and control aircraft using SSR. This greatly reduces the reliance on PSR for providing a safe and effective ATS. Consequently, the magnitude of the cumulative impact on Tooman PSR and Dublin Head 3 PSR will be low.

The high sensitivity and low cumulative impact on the Tooman PSR and Dublin Head 3 PSR receptors would result in a moderate cumulative effect, which is not significant in EIA terms.

Isle of Man PSR

The Head of ATS at Isle of Man Airport has stated that the airspace above the offshore development area is not operationally significant to Isle of Man Airport for the safe provision of ATS. Consequently, the magnitude of the cumulative impact on Isle of Man PSR will be negligible.

The high sensitivity and negligible cumulative impact on the Isle of Man PSR receptor would result in a not significant cumulative effect, which is not significant in EIA terms.

Casement PSR

Radar vectoring of aircraft by Casement ATC is used predominantly to the south-west of the aerodrome and not in the vicinity of offshore developments, therefore it appears, from the available IFPs (refer to Appendix 19.1) that the airspace above all offshore developments is not operationally significant. Consequently, the magnitude of the cumulative impact on Casement PSR will be low.

The high sensitivity and low cumulative impact on the Casement PSR receptor would result in a moderate cumulative effect, which is not significant in EIA terms.

19.9.6.2 Tier 1 and 2

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

No Tier 2 projects have been screened into the assessment of Cumulative Impact 3.

19.9.6.3 Tier 1 and 2 and 3 (All Tiers)

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, following the request by An Bord Pleanála in RFI Section 5.

The entire section shall be deleted and replaced with:

No Tier 3 projects have been screened into the assessment of Cumulative Impact 3.

Tooman PSR and Dublin Head 3 PSR

Given the use of SSR transponders in Irish airspace, ATC units in Ireland are able to monitor, track and control aircraft using SSR. This greatly reduces the reliance on PSR for providing a safe and effective ATS. Consequently, the magnitude of the cumulative impact on Tooman PSR and Dublin Head 3 PSR will be low.

The high sensitivity and low cumulative impact on the Tooman PSR and Dublin Head 3 PSR receptors would result in a moderate cumulative effect of all tiers, which is not significant in EIA terms.

Isle of Man PSR

The Head of ATS at Isle of Man Airport has stated that the airspace above the offshore development area is not operationally significant to Isle of Man Airport for the safe provision of ATS. Consequently, the magnitude of the cumulative impact on Isle of Man PSR will be negligible.

The high sensitivity and negligible cumulative impact on the Isle of Man PSR receptor would result in a not significant cumulative effect of all tiers, which is not significant in EIA terms.

Casement PSR

Radar vectoring of aircraft by Casement ATC is used predominantly to the south-west of the aerodrome and not in the vicinity of offshore developments, therefore it appears, from the available IFPs (refer to Appendix 19.1) that the airspace above all offshore developments is not operationally significant. Consequently, the magnitude of the cumulative impact on Casement PSR will be low.

The high sensitivity and low cumulative impact on the Casement PSR receptor would result in a moderate cumulative effect of all tiers, which is not significant in EIA terms.

19.10 References

Three references included in the 2024 EIAR have since been updated. The following references listed in Section 19.10 of Chapter 19 of the 2024 EIAR shall be deleted:

"AirNav Ireland Aeronautical Information Publication (AIP) (2023). Ireland.

Civil Aviation Authority (CAA) CAP 032: United Kingdom (UK) AIP (2022).

CAA CAP 764: Policy and Guidelines on Wind Turbines (2016)."

And be replaced with:

AirNav Ireland Aeronautical Information Publication (AIP) (2026). Ireland.

Civil Aviation Authority (CAA) CAP 032: United Kingdom (UK) AIP (2026).

CAA CAP 764: Policy and Guidelines on Wind Turbines (2025).

The following references shall be added in Section 19.10 of Chapter 19 of the 2024 EIAR:

Department of Transport (DoT) Guidance on Safety of Navigation & Emergency Response: Offshore Renewable Energy Installations (OREI) (2025).

Department of Transport (DoT) Standard Operating Procedure 07-2025 Offshore Renewable Energy Installations (OREI): Guidance and Operational Considerations for SAR and Emergency Response (2025).

There are no other changes to this section. Refer to Section 19.10 of Chapter 19 of the 2024 EIAR.