

Ministry of Defence (“MOD”)



**Defence
Infrastructure
Organisation**

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12th September 2023

Dear Anna,

SCOP-0020 - MarramWind Offshore Wind Farm Limited

REGULATION 14 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017. REGULATION 13 AND SCHEDULE 4 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2007. REGULATION 12 OF THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017(collectively referred to as the "EIA Regulations").

Thank you for consulting the Ministry of Defence (MOD) in advance of an application for the construction and operation of the MarramWind Offshore Wind Farm. Consultation correspondence was received by this office on 15 February 2023.

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the Ministry of Defence (MOD) as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the Military Low Flying System.

I write to provide the MOD safeguarding position on information provided in the Scoping Report.

It is acknowledged that the final design of this project has not yet been determined and that an indicative design envelope has been provided. Chapter 2 of the scoping report provides a description of the project, stating that the project could be made of up to 225 turbines, 350m to tip height above Mean High Water Springs (MHWS).

Air Defence Radar

Chapter 7.4 *Military and civil aviation and telecommunications* covers Military Aviation. Paragraphs 7.4.21 and 7.4.22 references the MOD's Air Defence (AD) Radars.

Wind turbines have been shown to have detrimental effects on the operation of AD radar. These include the desensitisation of the radar in the vicinity of wind turbines, and the creation of "false" aircraft returns. The probability of the radar detecting aircraft flying over or in the locality of the turbines would be reduced, hence turbine proliferation within a specific locality can result in unacceptable degradation of the radar's operational integrity. This would reduce the RAF's ability to detect and manage aircraft in United Kingdom sovereign airspace, thereby preventing it from effectively performing its primary function of Air Defence of the United Kingdom.

Within paragraph 7.4.21 of Chapter 7.4, it is stated that the nearest military air defence radar is located at Remote Radio Head (RRH) Buchan which is approximately 86.5km from the array.

The MOD has undertaken an assessment based on 225 wind turbines at 350m to tip height using the Rochdale Envelope boundary co-ordinates. Turbines within the array area will be detectable to the AD Radar at RRH Buchan. The impact of the turbines on the AD radar at RRH Buchan will therefore need to be addressed through a suitable technical mitigation solution. It is the applicant's responsibility to provide a suitable technical mitigation solution to the MOD.

Mitigation to address the impact of the development on the AD Radar is considered at 7.4.32. It is stated that engagement with the MOD will continue throughout the application process, this is welcomed.

Air Traffic Control

Chapter 7.4 *Military and civil aviation and telecommunications* covers Military Aviation. Paragraph 7.4.23 references the MOD's Air Traffic Control (ATC) Radars.

This paragraph acknowledges there are no MOD Air Traffic Control (ATC) radars active or in use within the study area, the MOD agree with this based on the information available at this stage. Any variations to the number or height of the turbines proposed may change this position, however in its current form the MOD have no concerns.

Danger Areas

Chapter 7.4 *Military and civil aviation and telecommunications* identifies nearby danger areas and airspace, and states that the Marramwind Offshore Windfarm is outside these, the MOD agrees with this conclusion.

Military Low Flying

The potential for the development to create physical obstructions to military low flying activities is acknowledged within Chapter 7.4 *Military and civil aviation and telecommunications*, paragraph 7.4.45 identifies potential effects on military aviation. and the requirement for military aviation charts to be updated is recognised in Table 7.4.5 (ID M-116). The MOD will request that a Requirement is added to any Development Consent Order that might be issued requiring the submission of information such as commencement dates, maximum turbine heights and the longitude and latitude of each wind turbine. This information is required to allow accurate charting of the development.

Table 7.4.5 (ID M-100) includes the MOD's lighting requirements for the development. It is welcomed that the turbines will be fitted with infra-red lighting in combination with the ANO's lighting requirement. The MOD will request that the aviation warning lighting requirements is added as a Requirement to any Development Consent Order that might be issued.

Practice and Exercise Areas (PEXA)

Practice and Exercise Areas also known as PEXA, are designated areas of the sea where military exercises can be undertaken. Paragraph 5.13.25 of Chapter 5.13 *Infrastructure and Other Marine users*, states that no military PEXAs overlap the array. The MOD agrees with this statement in relation to PEXA.

Unexploded Ordnance (UXO)

The potential for unexploded ordnance (UXO) to be present within the development area and the necessity for clearance should be considered. The potential presence of UXO and disposal sites should be a consideration during the installation and decommissioning of turbines, cables, and any other infrastructure, or where other intrusive works are necessary.

Highly Surveyed Routes

The MOD has highly surveyed routes within the locality of the development area which may be relevant to the installation of wind turbines, export cables & associated infrastructure. These routes are retained by the MOD to support national defence requirements and are not defined in the public domain. Highly surveyed routes must not be obstructed or impeded by offshore developments such as wind turbines. At this time, we are unable to advise if the development will impede any highly surveyed routes in the area. An assessment to determine any impact has been requested and we will share the results with you as soon as we are able to.

Landfall and Onshore

Maps provided within Appendix 1 a (Chapter 1 – 5 Section 5.8 and Chapter 6 Sections 6.1 – 6.3) show the extent of the onshore and landfall area of interest. Parts of this onshore area of interest are covered by statutory safeguarding zones surrounding RAF Buchan and Crimmond. As the proposal matures MOD should be consulted so any impact on these safeguarded MOD assets can be identified.

I trust this is clear however should you have any questions please do not hesitate to contact me.

Yours sincerely

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Teena Oulaghan (Safeguarding Manager)

