



# Defence Infrastructure Organisation

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Mr Rod Macarthur  
National Infrastructure Planning  
Temple Quay House  
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27 November 2024

**By email only**

Dear Mr Macarthur

**Application by GT R4 Limited (trading as Outer Dowsing Offshore Wind) for the Outer Dowsing Offshore Wind project.**

**Examining Authority's written questions & requests for information - ExQ1  
Issued 6 November 2024.**

This letter is submitted in response to the Examining Authority's written questions which were issued on 6 November 2024. Responses are provided to those questions marked for the attention of the Ministry of Defence (Defence Infrastructure Organisation) only. The wording of those questions addressed to Ministry of Defence (MOD) have been used to structure this response, neither the text providing the context for each of those questions, or those questions directed at other parties have been replicated.

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the 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, technical sites or maritime defence assets and interests.

**Q1 CM 1.1 – Mitigation for Primary Surveillance Radar (PSR) at Staxton Wold and Neatishead and Cromer and Claxby.**

- **Can the DIO comment on the Applicant's suggested potential mitigation measures as referenced in Section 16.7.2.3 of the ES?**

The potential harm of the development on the operation and capability of MOD Air Defence (AD) radars is acknowledged by the applicant in Chapter 16 of the submitted Environmental Statement (section 16.7.2.3 paras 119 and 120).

At paragraph 125 the applicant states that the radar currently deployed at Remote Radar Head (RRH) Staxton Wold is an Indra Lanza LTR-25. At paragraph 137 the applicant suggests that technology within the LTR-25 system might provide the required mitigation. This is not the MOD

position, a technical mitigation will be required that is not derived from the performance capabilities of the air defence radar at RRH Staxton Wold.

Also, at paragraph 125 the applicant states that the radar currently deployed at RRH Neatishead is a TPS-77. The applicant suggests that the impact of the development on the operation and capability of this AD radar at could be mitigated through the use of a Non-Auto Initiation Zone (NAIZ). The applicant acknowledges that an MOD statement issued 24 August 2018 identified that the use of NAIZ as mitigation for TPS-77 radar systems has not been performing to expectations and that NAIZ would not be accepted as mitigation. A subsequent MOD statement was issued in June 2019 (paragraph 126) which identified that MOD would assess NAIZ mitigation proposals for single turbines, before going on to make clear that alternative ADR mitigations would be assessed on their merits. At paragraph 138 the applicant suggests that '*NAIZ mitigation is likely to be an available option for Neatishead PSR*'. This is not the position of the MOD, the use of NAIZ(s) to address the impacts of the proposed development on the effective operation of the air defence radar deployed at RRH Neatishead is not acceptable for the provision of either interim or enduring mitigation.

- **Paragraph 120 of Chapter 16 of the ES states that “Mitigation will be required if both modelling of the windfarm design, based upon parameters outlined in Table 16.4, indicates that WTGs will be above the PSR system threshold levels that allow the WTG blades to be presented on PSR displays, and the airspace is operationally significant to the PSR operator”.**

**Has such modelling taken place? If not, why is it not possible to undertake modelling based upon the maximum design scenario?**

The MOD has carried out a technical analysis using the Rochdale envelope described by the applicant using a combination of the corner points of the wind farm development as provided by email and shown in drawing titled 'Offshore and Onshore Order Limits' numbered Figure 3.1 Revision 0.2, and the WTG parameters as provided through Chapter 3 Project Description of the Environmental Statement (specifically in section 6.1.1).

This analysis indicates that the development would be detectable to the Air Defence radars deployed at both RRH Staxton Wold and RRH Neatishead.

- **Paragraphs 120 and 141 of the ES indicate that mitigation may not be required during the operational period of the Proposed Development as it is anticipated that “MOD and NERL will procure “next generation” PSRs...”**

**Can the DIO and NATS En Route Ltd comment on the likelihood of this occurring during the operational period?**

The MOD will be seeking to replace the extant long range surveillance capability at the end of its service. Replacement Air Defence radar system(s) will be selected to enable MOD to discharge its Defence Tasking and will aim to achieve wind farm mitigation. However, this will not be implemented for the affected air defence radar sites before the operational period for the proposed wind farm development commences.

#### **Q1 CM 1.2 – Physical Obstruction.**

- **Can the DIO confirm if it is satisfied with the Applicant’s response [PD1-071] and current drafting of the dDCO in this regard?**

**If not, what changes should be made to the dDCO?**

The MOD acknowledge that the applicant has added a requirement relating to aviation safety lighting in the draft DCO at Schedule 1, Part 3, Requirement 27 and that this requirement will apply to the development in its entirety.

In addition, 'Aviation safety' conditions have been added to the Deemed Marine Licences for both the generation assets (Schedule 10, Part 2, Condition 10) and offshore transmission assets (Schedule 11, Part 2, Condition 10) that require the submission of data to ensure the development can be accurately charted.

The development will, along with the generation assets and offshore transmission assets, introduce up to two artificial nesting structures, each of which will comprise an offshore platform with a maximum height of 60m LAT. The MOD request that conditions that duplicate the wording of those applied to both Schedules 10 and 11, Part 2, Condition 10 are also applied to the deemed marine licences for the 'northern artificial nesting structure 1' (Schedule 12), 'northern artificial nesting structure 2' (Schedule 13), 'southern artificial nesting structure 1' (Schedule 14), and 'southern artificial nesting structure 2' (Schedule 15).

### **Q1 CM 1.3 – Impacts scoped out of the assessment - Holbeach Air Weapons Ranges.**

- **Can the DIO please elaborate on this concern and how it might be remediated with revised drafting in the dDCO?**

The proposed onshore cable routing passes through the safeguarding zones associated with Holbeach Air Weapons Range. Specifically, sections shown within Document Reference 2.1 Works Plans Onshore, Revision 3.0 (dated September 2024), on sheets 30 to 43 inclusive, with drawing number PP1-ODOW-DEV-CS-MAP-0001\_02 Revision 3.0.

Within Holbeach Air Weapons Range aircraft operate at low levels, the introduction of physical structures, permanent or temporal, may create physical obstacles to those aircraft leading to a degradation of aviation safety. This harm could be addressed through expansion of the information that is specified as forming part of the code of construction practice, as required under Schedule 1, Part 3, Requirement 18 of the draft Development Consent Order (Document Reference 3.1, Revision 3.0 (dated September 2024)), and by identifying the MOD as a consultee when that requirement is to be discharged. The requirement should stipulate that the code of construction practice contains, for those parts of the development falling within the area shown on sections shown within Document Reference 2.1 Works Plans Onshore, Revision 3.0 (dated September 2024), on sheets 30 to 43 inclusive, with drawing number PP1-ODOW-DEV-CS-MAP-0001\_02 Revision 3.0, details of any temporal structures, construction equipment, plant, or cranes that may be deployed to facilitate the development, as well details of any proposed storage compounds and the materials, equipment, or plant that may be stored within them.

In addition, the stripping and bulk storage of soil may provide an environment attractive to those large and/or flocking bird species which can degrade aviation safety. To minimise the potential for the development to impact on the operation and capability of the range, a soil management plan should be produced. Such a plan is specified as forming part of the code of construction practice required under Schedule 1, Part 3, Requirement 18 of the draft Development Consent Order (Document Reference 3.1, Revision 3.0 (dated September 2024)), by adding the MOD to those parties consulted on the discharge of that requirement this impact would be addressed.

### **Q1 CM 1.4 – Impacts scoped out of the assessment – construction.**

- **Do the Defence Infrastructure Organisation and NATS En Route agree with this assessment? If not, please set out any reasons for disagreement?**

Any rotation of wind turbine blades of the dimensions proposed in this development will be detected by MOD Air Defence radar systems. The returns from turbine blades without mitigation would contribute to the desensitisation of radar in the vicinity of the turbines, and the creation of "false" aircraft returns. The probability of the radars detecting aircraft flying over or in the vicinity of rotating turbine blades would also be reduced and would contribute to unacceptable degradation of the radar's operational integrity. Ultimately this may contribute to a reduction in the RAF's ability to detect and deter aircraft in United Kingdom sovereign airspace, thereby preventing it from effectively performing its primary function of Air Defence of the United Kingdom.

**Q1 CM 1.5 – Impacts scoped out of the assessment – decommissioning.**

- **To DIO and NATS En Route:  
Do you agree with this approach? If not, please set out any reasons for disagreement.**

On the basis that any mitigation(s) will remain in place until all turbine blades have ceased turning the MOD, in principle, would have no objection to this approach. At such time as mitigations are proposed, the MOD will be in a position to provide a more definitive statement on its position.

**Q1 CM 1.8 – Wide Area Multilateration (WAM) Network.**

- **Does the DIO agree with the Applicant's approach? If not, please set out any reasons for disagreement?**

The proposed onshore cable route crosses a statutory safeguarding consultation zone south of Boston and immediately to the west of The Haven (sections shown within document reference 2.1 Works Plans Onshore, Revision 3.0 (dated September 2024), with drawing number PP1-ODOW-DEV-CS-MAP-0001\_02 Revision 3.0, sheets 34 and 35).

Within this consultation zone any development has the potential to degrade the operation and capability of a technical asset, known as the East 1 Wide Area Multilateration (WAM) network, which facilitates air traffic management. Within this relatively narrow consultation zone the use of structures to bridge/cross The Haven as well as the storage of any soil, materials, equipment or plant has the potential to degrade the operation of the East 1 WAM network.

This potential harm can be addressed by adding the MOD to those consulted on the Code of Construction Practice as required through Schedule 1, Part 3, Requirement 18 of the draft Development Consent Order, and stipulating that the Code of Construction Practice should contain details of any temporal structures that may be deployed to bridge/cross The Haven, as well details of any proposed storage compounds and the materials, equipment, or plant that may be stored within them, as well as any soil storage.

I trust this adequately explains the MOD position in response to relevant questions within the Examining Authority's written questions issued 6 November 2024.

Please do not hesitate to contact me should you require any additional information, or should you wish to discuss matters.

Yours sincerely

James Houghton  
Senior Safeguarding Manager