



Defence Infrastructure Organisation

Ministry of Defence
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Ms Menaka Sahai
National Infrastructure Planning
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13 June 2023

By email only

Dear Ms Sahai

National Infrastructure Planning: Sheringham and Dudgeon Extension Projects

I write to further update the position of the Ministry of Defence (MOD) in relation to the proposed Sheringham and Dudgeon Extension Projects. The development proposed consists of extensions to the existing Sheringham Shoal and Dudgeon wind farms, adding a total of up to 53 wind turbine generators (up to 23 to Sheringham Shoal Wind Farm and up to 30 to Dudgeon Wind Farm) as well as the associated infrastructure, export cables, landfall, and onshore export cables.

The MOD objected to the above development through a letter to the National Infrastructure Team dated 19 January 2023 on two grounds:

- the unacceptable impact the development would have on air defence (AD) radar systems sited at RRH Trimmingham and RRH Neatishead; and
- the unacceptable impact the development would have on technical assets (communications equipment) sited at RAF Weybourne.

The second of these objections has formed the subject of discussions between the applicant and MOD. Following the submission of additional information, the objection due to the impact of the development on Technical Assets sited at RAF Weybourne has been withdrawn as set out in the MOD letter dated 20 February 2023.

Air Defence Radar

The proposed development would be sited approximately 18.7km from RRH Trimmingham, approximately 34.5km from RRH Neatishead, and would be visible to radar systems deployed at both sites.

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.

Our assessments have determined that, when operational, the proposed wind farm will cause unacceptable and unmanageable interference to the effective operation of this AD radar. It is for this reason that we issued an objection to this application.

Address of MOD Safeguarding Concerns

The MOD and the applicant have been in dialogue on possible means of addressing the remaining safeguarding objection raised by the MOD. The applicant has made additional submissions that allow the MOD to remove the objection relating to unacceptable impact on the operation and capability of Air Defence radar systems, subject to the inclusion of a requirement in any Development Consent Order to secure appropriate mitigation of impacts on Ministry of Defence Surveillance Operations.

Attached at Annex A is a requirement wording designed to secure the provision of appropriate mitigation of the impacts of the development on Air Defence radar systems. The wording provided at Annex A differs from that set out at Schedule 2, Part 1, Requirement 27 of the applicant's draft Development Consent Order in that reference is made to both RRH Trimmingham and RRH Neatishead.

The proposed development will affect military low flying training activities that may be conducted in the area, it will therefore be necessary for the turbine structures to be fitted with appropriate aviation lighting to maintain the safety of military aviation.

It is acknowledged that the applicant's draft Development Consent Order contains, within the three Marine Licences, conditions designed to secure the submission, approval and implementation of aviation safety lighting and the submission of sufficient data to ensure the development can be appropriately lit and charted to minimise impact on aviation safety. These conditions are at:

- Schedule 10, Part 2, Condition 10;
- Schedule 11, Part 2, Condition 10; and
- Schedule 12, Part 2, Condition 9.

MOD agree that these conditions are both necessary and appropriate to secure aviation safety lighting and suitable charting, no changes to the wording within the draft Development Consent Order are requested.

In summary, subject to the inclusion of the requirement set out at Annex A of this letter, and the retention of:

- Condition 10 – Aviation Safety at Schedule 10 (Marine Licence 1), Part 2;
- Condition 10 – Aviation Safety at Schedule 11 (Marine Licence 2), Part 2; and
- Condition 9 – Aviation Safety at Schedule 12 (Marine Licence 3), Part 2.

within any Development Consent Order that might be made, the MOD is content to withdraw objections to this development.

I trust this adequately explains our position on this matter.

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
Enc. Annex A

Annex A

Ministry of Defence Surveillance Operations

1. No wind turbine generator forming part of the authorised development is permitted to rotate its rotor blades on its horizontal axis until the Secretary of State, having consulted with the Ministry of Defence, confirms satisfaction in writing that appropriate mitigation will be implemented and maintained for the life of the authorised development and that arrangements have been put in place with the Ministry of Defence to ensure that the approved mitigation is implemented.
2. For the purposes of this requirement—
 - (a) “appropriate mitigation” means measures to prevent or remove any adverse effects which the authorised development will have on the air defence radars at Remote Radar Head (RRH) Trimingham and RRH Neatishead, and the Ministry of Defence’s air surveillance and control operations;
 - (b) “approved mitigation” means the detailed Radar Mitigation Scheme (RMS) that will set out the appropriate measures and timescales for implementation as agreed with the Ministry of Defence at the time the Secretary of State confirms satisfaction in writing in accordance with paragraph (1); and
 - (c) “Ministry of Defence” means the Ministry of Defence as represented by Defence Infrastructure Organisation – Safeguarding, St George’s House, DIO Head Office, DMS Whittington, Lichfield, Staffordshire, WS14 9PY or any successor body.
3. The undertaker must thereafter comply with all other obligations contained within the approved mitigation for the life of the authorised development.