

**ELECTRICITY ACT 1989 (SECTION 36 AND SCHEDULE 8)
TOWN AND COUNTRY PLANNING ACT 1990 (SECTION 90)
THE ELECTRICITY GENERATION STATIONS AND OVERHEAD LINES
(INQUIRIES PROCEDURE)(ENGLAND AND WALES) RULES 2007**

**PUBLIC INQUIRY TO CONSIDER SECTION 36 ELECTRICITY ACT 1989
APPLICATIONS BY:**

- (1) STEADINGS WIND FARM LIMITED FOR CONSENT AND DEEMED PLANNING PERMISSION TO CONSTRUCT AND OPERATE A WIND FARM AT KIRKWHELPINGTON, NORTHUMBERLAND (KNOWN AS STEADINGS)**
- (2) AMEC PROJECT INVESTMENTS LIMITED FOR CONSENT AND DEEMED PLANNING PERMISSION TO CONSTRUCT AND OPERATE A WIND FARM AT RAY ESTATE, NORTHUMBERLAND (KNOWN AS RAY WIND FARM)**
- (3) WIND PROSPECTS DEVELOPMENT LIMITED FOR CONSENT AND DEEMED PLANNING PERMISSION TO CONSTRUCT AND OPERATE A WIND FARM AT GREEN RIGG FELL, BIRTLEY, NORTHUMBERLAND (KNOWN AS GREEN RIGG WIND FARM)**

**JULIAN CHAFER
SECOND SUPPLEMENTARY PROOF OF EVIDENCE
IN SUPPORT OF OBJECTION BY
MINISTRY OF DEFENCE**

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Introduction

1. On 12 March 2008 the Inspector directed that the Ministry of Defence should by noon on 14 March 2008 set out its case in relation to the anticipated impact of the three wind farms upon the radars of threat systems based at RAF Spadeadam. That was done by means of Addendum to the MoD's Statement of Case. This proof is one of those that was anticipated in the final paragraph of the Addendum.

2. The basic purpose of this supplementary Proof of Evidence is to set out the evolution of the MoD's stance in relation to the anticipated impact of the three windfarms on the radars of threat systems based at RAF Spadeadam. It is to be stressed that the anticipated impact of the three wind farms upon the radars of threat systems based at RAF Spadeadam is a matter additional to, and does not detract from or otherwise impinge upon, the Ministry of Defence's case in relation to the non-vehicular based radars servicing RAF Spadeadam.

The Impact of the Proposed Developments on the Operations at RAF Spadeadam

3. Both the MOD and developers of wind farms have for some time been aware that wind farms have adverse effects on primary ATC and AD radar ("**primary surveillance radar**") where the turbines are in line of sight of radar facilities. This awareness has led to the establishment of the pre-planning consultation process set out in my rebuttal proof of evidence [MOD/1/2 paragraphs 11-16]. It has also guided the technical trials undertaken by the MOD [MOD/1/2 paragraphs 17-28].

4. The MOD's pre-planning consultation process evaluates the potential effect of proposed wind farms on primary surveillance radar. Analysis of the Steadings, Ray and Green Rigg proposals was therefore carried out in relation to those MOD primary surveillance radars near to the proposed developments – the radars at Deadwater Fell and Berry Hill. Once the precise position of all the proposed developments had been correctly established, that analysis showed that all the turbines would be in line of site of one or both of the primary surveillance radars and would be located in an area of particular operational significance for RAF Spadeadam. The potential effect on the ATC provided by RAF Spadeadam to both civilian and military aircraft, and the resultant impact on the EWTR training provided by RAF Spadeadam, became a matter of great concern to the MOD.

5. This concern, combined with familiarity with the potential effects of wind farms on primary surveillance radars, guided those in Defence Estates, both in liaising with officers at RAF Spadeadam and in preparing the objection to the developments. Although potential effects upon Spadeadam's EWTR threat radar systems were touched upon, consideration of these effects was overshadowed by the marked concern arising from the known effects of wind farms on primary surveillance radars and the predicted significance of these upon the Range's primary surveillance radars. This, together with those coordinating the response having a workload that left no time for reappraisal, led to those familiar with Spadeadam's threat systems not being questioned about what they would anticipate would be the effect of the proposed wind farms on the threat radars.

6. Recently, as a result of a line of inquiry, the potential effect upon Spadeadam's EWTR threat radar systems was re-visited and, on discussion with those familiar with Spadeadam's threat systems, the impact of the windfarms on the radars of threat systems was seen to have greater significance than previously thought. The anticipated effects are spoken to in the proofs of Sqn Ldr Andrew Coleman and Sgt William Edmonds.

J CHAFER
17 March 2008