

**ELECTRICITY ACT 1989 (SECTION 36 AND SCHEDULE 8)
TOWN AND COUNTRY PLANNING ACT 1990 (SECTION 90)
THE ELECTRICITY GENERATING 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 PROSPECT DEVELOPMENTS 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)**

STATEMENT OF CASE ADDENDUM MINISTRY OF DEFENCE

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1. On 12 March 2008 the Inspector directed the Ministry of Defence to state by noon on 14 March 2008 its case in relation to the anticipated impact of the three wind farms upon the radars of threat systems based at RAF Spadeadam. This document is prepared in response to that direction. This document should be read in conjunction with the Statement of Case and Proofs of Evidence already filed by the Ministry of Defence. 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.
2. The MoD anticipates that the three wind farms, both singly and collectively, will have a material adverse impact upon the radars of certain threat systems based at RAF Spadeadam, namely:
 - (1) Bespoke copy of a SA-2 FAN SONG static long-range tracking radar, max. range 45 nm and 50,000 ft.
 - (2) Bespoke copy of a SA-3 LOW BLOW static medium range tracking radar, max. range 25 nm and 40,000ft.
 - (3) Bespoke copy of a SA-6 STRAIGHT FLUSH mobile tracking radar, max. range 50 km and up to 40,000 ft.
 - (4) Bespoke copy of a SA-8 LAND ROLL mobile tracking radar, max. range 28 km and 16,000 ft.
 - (5) Two times SA-6 STRAIGHT FLUSH mobile Medium Range SAM Fire Control radars, each equipped with a surveillance, tracking and illumination radars, max. range 50 km and 40,000 ft.
 - (6) Two times SA-8 LAND ROLL mobile Short Range Fire Control radars, each equipped with a surveillance, tracking and missile guidance radars, max. range 28 km and 16,000 ft.
 - (7) Three times Skyguard- Oerlikon mobile short range fire control radars each equipped with a surveillance and tracking radar max. range 16 km and 14,000 ft.
3. The anticipated adverse effects upon the radars of each of these threat systems are:
 - (1) Additional clutter on the radar screens of the threat systems, especially those of (3)-(6) above.
 - (2) Additional radar obscuration and shadow.
4. If the effects upon some or all of the above-mentioned radars is to any material degree as anticipated in §3 above, then the anticipated operational significance for each of these threat systems of these anticipated adverse effects is:
 - (1) In relation to clutter, these adverse effects will impose a significant additional workload onto the threat system radar operators, especially those of (3)-(6) above; this is because the consoles of these radars display almost "raw" (*i.e.* unprocessed) radar returns, it being the operator's task to distinguish target aircraft from clutter, with the effect that it may be expected to lengthen the average time that it will take for the operator to identify and lock onto the target aircraft.

- (2) In relation to radar obscuration and shadow:
 - (a) it is expected to make it more difficult (and sometimes impossible) for the operator to detect the target aircraft over an area in which it could previously have been detected;
 - (b) it may have the effect of disrupting the locking onto a target aircraft by the narrow-beam, monopulse tracking radar; and
 - (c) it may have the effect of disrupting the missile guidance system.
5. If the effects upon some or all of the above-mentioned radars is to any material degree as anticipated in §3 above and the operational significance for any of those threat system radars is to any material degree as anticipated in §4 above, then the likely resultant operational significance for operations conducted at RAF Spadeadam of these anticipated adverse effects is:
 - (1) At the very least, a diminution in the realism and efficacy of the training provided by RAF Spadeadam in that the circumstances in which a threat system will be able to “shoot down” a target aircraft will be materially reduced.
 - (2) It is possible that some of the positions at which threat systems are currently located will be rendered unusable for all practical purposes, thereby further diminishing the realism and efficacy of the training provided by RAF Spadeadam in that the circumstances in which a threat system will be able to “shoot down” a target aircraft will be further reduced.
 - (3) If the effects upon some or all of the above-mentioned radars anticipated in §3 above extends over a significant geographic area within the Otterburn-Newcastle corridor, that approach may have to be abandoned for training purposes, resulting in a significant reduction in the usability of the Spadeadam range and in the breadth and realism of the training that it can provide.
6. The MoD is unaware of any measure (or combination of measures) that offers any realistic prospect, within the next 5 years, of materially mitigating any of the adverse effects anticipated in §§4 and 5 above.
7. The MoD will, by 5:00pm on Monday, 17 March 2008, file and serve proofs giving its evidential basis for the above.

14 March 2008