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# The Government View

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## Onshore Wind and Aviation

- Perspective & Key Drivers
- The Government Role
- Aviation Specifics
- Summary



## Perspective & Key Drivers

### Climate Change & Security of Supply

#### Targets:

- **Kyoto** – Green House Gas
  - 12.5% Reduction of Emissions by 2012
  - 20% Below 1990 Levels by 2020
- **Energy White Paper** - February 2003
  - 60% Reduction in Carbon Emissions by 2050
  - 10% Electricity From Renewables by 2010
  - Aim to Double That by 2020
- **Energy Review Proposals**



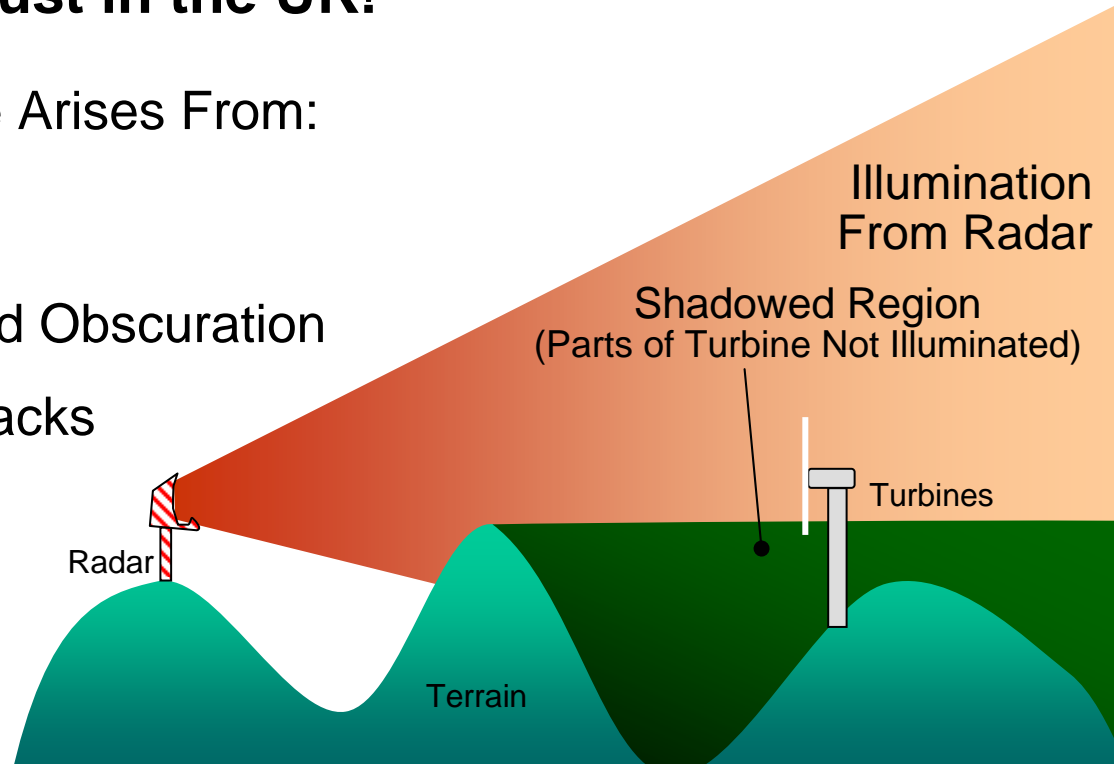
## The Government Role

- Barrier Busting
  - Grid, Planning, Capital Grants, RO
- Facilitator
  - Working With All Stakeholders
- It's Not Just About Money

## Wind Turbines Interfere With Radar Performance And Not Just in the UK!

Interference Arises From:

- Clutter
- Overhead Obscuration
- False Tracks
- Shadow





## **The Interference Is Further Complicated by;**

- Number of Turbines
- Size (MW) and Layout of Wind Farm
- Type of Turbine
- Type of Radar
- Topographical Features
- Weather

## Who & What Is Affected

- All Stakeholders
  - MoD, Airports, DTI, CAA, NATS, Developers, Planners, BWEA
- Military Air Defence Radar
- Military Air Traffic Control Radar
- Civil Air Traffic Control Radar
- NATS En Route Radar
- Met Office Radar





## The Government Role

- ASG
- Stakeholder Engagement
- Partnerships
- Something in it for Everyone



## Aviation Specifics

### Military Air Defence

- Driven by Greater Wash Round 2 Developments
- Trials Have Identified a Mitigation Solution
- Radar Replacement/upgrade Programmes
- In Built Solution addresses Onshore & Offshore Issues
- Greater Wash Fallback Position
- Special Conditions



## Military and Civil Air Traffic Control

- Phase 1 Trials July 2005
- Focus on BAES Advanced Digital Tracker
- But Also Some Work on the Sensis SPE-3000



## Military and Civil Air Traffic Control

- Phase 2 Trials May 2006
- Product Testing of the BAEs Advanced Digital Tracker & the Sensis SPE-3000
  - MoD Supplied Watchman Radar, Staffing, Aircraft and MoD Safety Case Analysis
  - DTI Funded Instrumented Aircraft and Safety Consultant
- Solutions Available This Year



## NATS En Route

- Radar Monitor Aircraft at 30000ft
- Existing Radar Being Replaced
  - But Not With Windfarm Mitigation Technology
- DTI Funded Scoping Study
  - To Identify Solution, Timescale and Cost



## Stealth Technology

- No Single Mitigation Solution for All Sites
- Two DTI Funded Projects Underway
  - BAE Systems and QinetiQ
  - Radar Absorbent Material to Reduce Radar Cross Section
- Report Due by End 2007



## Summary

- Process in Place to Deliver Solutions for All Radar Issues
  - Timelines Identified
- Objections Will Be Lifted Providing That;
  - Windfarm Mitigation Technology Installed at Affected Site
  - Developer Pays
- Partnership Model Works

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