Mitigating Wind Energy Impacts on Federal Radar Systems and Agency Operations

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Summary

Wind Turbines Can Have Radar/Mission Obstruction Impacts

Need a Comprehensive Framework of Technology, Policy and Process Improvements

Need to Secure Robust Appropriations
• testing and evaluation project
• smart blade development
• prescreening toolkit development
• agency process improvements

Need Wind Developers and Radar Industry to form Consortia to Fund the Effort

SMI/Helios Well Positioned on Policy and Appropriations Push
Helios Strategies: Who We Are

• Clean Energy Division of SMI Inc.
  – Founded in 1990 by 2 Engineers
  – 20 Staff (Engineers, Lobbyists, Policy Analysts)
  – 112 Clients across 35 states

• Strong, Experienced Team
  – Capitol Hill
  – Federal Agencies
  – Renewable Energy Advocacy

• Expertise in Policy, Technology, Markets
  – Clean Energy/Climate Change Policies
  – Research, Development, Demonstration Funding
  – Technology Procurement

• Proven Track Record
  – $780 million + in contract activity for clients in 6 years
  – $180 Million for clients in FY08 Appropriations
  – $34 client return for every $1 spent on services
Concerns

• Wind Interaction with Federal Operations/Missions
  – Obstruction & safety (DOD, FAA)
  – Radar interference (DOD, FAA, NOAA)
  – Microwave Link Impacts on Agency operations (DOE-PMAs)

• Outcomes:
  – Wind projects stopped or delayed
  – Military weapons testing and training impacted
  – Weather radar storm tracking degraded
Current Framework

• Multiple Federal Siting Requirements
  • Not coordinated internally/externally
  • Not transparent or well understood
  • EXAMPLE:
    • FAA obstruction/safety filing regulatory requirement
    • Commerce’s National Telecom and Info Administration policy requirements
    • Interior Fish & Wildlife Interim Siting Guidelines (under FACA revision)
    • BLM Land Use/Wind Development Best Practices
    • Interior MMS offshore wind requirements (under development)
    • USDA Forest Service requirements (under development)

• Multiple Federal Siting Roles/Processes Within Agencies
  • EXAMPLE: DOD/Air Force as Wind Regulator
    • Part of FAA obstruction/safety review
    • Part of NTIA/interagency radio frequency group
    • Part of county siting processes
Current Framework (cont’d)

Clean Technologies Not Understood
- Limited testing/evaluation/criteria on impacts
- Mitigation options unclear/not promoted

Lack of Decision-Making Tools
- Limited prescreening abilities/no interactive capability
- Need to protect classified info

= Risk to Agencies/Industry/Stakeholders
- Agency budgets/legal challenges
- Project stoppage/cancellation
- State/local revenues & jobs
Key Needs

- Timely, Predictable Federal Wind Siting Process
- Improved Radar Performance & Capabilities
- Partnership to Support New U.S. Energy Industry Growth
Options For Moving Forward

Executive Order?
  • Federal Task Force on Wind – Radar Interaction
  • Scope of Effort/Timelines
  • Location & Logistics

Launch Full Wind-Siting Federal Advisory Committee at One Agency?
  • 2-3 year timeframe
  • Time & $s
  • Membership & Participation

Revise/Enhance Existing Regulatory Framework?
  • Turf Issues
  • Time & $s for full regulatory effort
  • Membership & Participation
Proposal

Form Consortia of Wind and Radar Industry Interests To:

- Secure Appropriations to Fund $30 Million, 5-Year Effort
  - Test & Evaluate Wind Impacts
  - Test, Evaluate and Adopt Mitigation Options
  - Develop Wind-Siting Toolkit
  - Enhance and Streamline Agency Processes

- Secure Agency Buy-In and Adoption of Effort and Results

- Promote Modernization of US Civilian and Military Radar Systems and Operations

SMI/Helios Strategies Positioned to Develop, Refine and Promote Mix of Technology, Policy and Process Improvements
Legislative Action

$30 M in new Congressional Appropriations for 5 year effort (FY10-FY14)

$10 million to federal agencies to develop and implement the wind-radar impacts project
- establish a baseline impacts database using current and expected wind technology
- existing and projected civilian and military radar systems and aircraft

$10 million to a public-private partnership to test existing and emerging technology fixes for wind radar interactions
- hardware and software fixes for radar systems
- advanced sensors for wind blades, towers and other major components
- assist radar operators in identification, tracking and proper disposition of radar contacts

$5 million to develop, implement, and maintain a “wind-radar impacts toolkit”
- prescreening capabilities
- likely interactions/impacts and viable mitigation options
- input to and contacts for federal agency wind siting processes

$5 million to a qualified organization for support services to develop, implement and maintain the overall program
- regular reporting on overall program;
- areas of concern or need for improvement.

GOAL: Establish a CLEAR, TIMELY, PREDICTABLE federal path for siting wind projects
LONG-TERM GOAL: MODERNIZE U.S. Radar Fleet
Key Preliminary Issues

• Which Wind and Radar Industry Members to Solicit?
• Which Agency should “Own” the Effort? Participate?
• Is this the Right Mix of Activities?
• How Should Funds be Disbursed/Offered? Cost-Shared?
• Mechanism to Use for Partnership to Develop & Own IP for Toolkit?
• Include Language Requiring Agencies to Use/Buy Toolkit?
• Need to identify Strongest Congressional Supporters based on Consortia Membership
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