The DoD Siting Clearinghouse

Dave Belote
Director, Siting Clearinghouse
Office of the Secretary of Defense
The Nexus of National Security & Renewable Energy

• Unintended Consequences
  – Rapid development of renewable technologies
  – Rapidly changing military technology research & development

• Existing Policy and Processes
  – Not up to date with changing technologies
  – Land use decision-making authorities fragmented across all levels of government
From Nellis to Shepherds Flat: Congressional Push for Action
Congressional Response – FY2011 NDAA, Section 358

- Section 358 “Study Of Effects Of New Construction Of Obstructions On Military Installations And Operations”
  - Integrated review process
  - 180-day backlog assessment
  - Identification of mitigation options
  - Comprehensive strategy for addressing military impacts of projects
  - Limited authority to object to projects
  - Ability to accept voluntary contributions for mitigation
32 CFR Part 211: Mission Compatibility Evaluation Process

• Establishes general procedures on how DoD reviews and comments on applications filed pursuant to 49 U.S.C. § 44718
• Provides information on how developers, local officials, or members of the public can engage the Clearinghouse for early consultation on projects
• Will serve as the foundation for a formal DoD Instruction
• Published in Federal Register on October 20, 2011
  – Comment period ends December 19, 2011
DoD Siting Clearinghouse—Concept of Operations

- **A Single DoD Voice**
  - Parallel Multi-Service Review
  - Timely, Repeatable, Predictable Process
  - Promote compatibility between renewable energy & military mission operations
  - Oversight and coordination of mitigation negotiation
  - Decisions based on empirical data and rigorous science
  - Outreach & early consultation with industry, local, state, and Federal stakeholders
  - NOT a replacement for OE/AAA, NTIA, or NEPA
DoD Siting Clearinghouse—CONOPs continued

- **Impact Analysis & Tools**
  - Projects assessed by all DoD Components across core missions
  - Evaluation Criteria:
    - **Green**: Minor to no impact on military operations
    - **Yellow**: Major impact to military operations but mitigation is possible
    - **Red**: Major impact to military operations that cannot be reasonably mitigated
  - Mission Compatibility Awareness Tool (MCAT)
  - Operational Impact Assessment Tools
  - Preliminary Review: 30 days
  - Final Decision: DepSecDef

<table>
<thead>
<tr>
<th>3 x 3 Impact Analysis Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor or No Impact</td>
</tr>
<tr>
<td>Training &amp; Readiness</td>
</tr>
<tr>
<td>LRR &amp; Surveillance</td>
</tr>
<tr>
<td>Test &amp; Evaluation</td>
</tr>
</tbody>
</table>

![3 x 3 Impact Analysis Matrix](image_url)
Early Success:

- **249**: Number of projects delayed due to DoD concerns prior to passage of Section 358 in the FY2011 NDAA
- **229**: Number of projects the DoD Siting Clearinghouse and DoD Components found have minor/no impact on military missions
- **20**: Number of projects that may have adverse impacts on military missions and require additional analysis to determine if mitigation is possible
- **>10**: gigawatts of mission-compatible renewable energy electrical generation capacity (6300+ turbines, 30 solar projects)
Model for Success

- **Travis AFB CRADA**
  - Siting of Turbines created radar tracking issues
  - Cooperative Research and Development Agreement (CRADA)
  - Multiple Partners including Air Force, utility provider, wind developer, and consultants, plus multiple supporting organizations
  - Sensor fusion greatly reduces radar interference
  - A partnership is in place to better address future siting issues
South Texas Model

- At least 6 onshore, 2 offshore projects built or proposed
- Multiple impacts on Navy radars and training
- FAA controllers and radar also impacted
- OSD and Dept of Navy team is reaching out to developers
Mitigation Response Teams

• Evaluate mitigation options for projects that were deemed to have an impact on military operations, and negotiate implementation with industry and other stakeholders
• Comprised of representatives from all affected DoD Components
• Report to the Mitigation Oversight Committee – Senior Staff from all Clearinghouse Components.
Research & Development

- **Wind-Radar Interagency Field Test & Evaluation**
  - Multi-agency partnership led by DOE, DoD, DHS, & FAA
    - Through MIT Lincoln Labs and Sandia National Laboratory
    - RFI Closes October 31, 2011
  - Multiple Off-The-Shelf Technologies
    - Baseline radar systems, including air traffic control and homeland defense
    - Test multiple OTS mitigation technologies
    - Tests begin April 2012

- **DHS-led Radar Modeling Tool Development**
  - Goal: Improve modeling of the effects of wind-turbines on radar systems
  - Focus primarily on Raytheon CARSR & ARSR-11
  - Two-year program expecting December 2012 delivery
  - 3-dimensional models for scatter, clutter and false targets.
DoD Energy Partnerships

- **Multiple Goals**
  - Energy Security
  - National Renewable Energy Goals
  - Mission Sustainability

- **Multiple Authorities**:
  - Power Purchase Agreements (PPAs)
    - Up to 30 years – 10 U.S.C. § 2922a
  - Enhanced Use Lease (EUL)
    - Consistent with 10 U.S.C § 2662 and 10 U.S.C § 2911
  - Energy Savings Performance Contracts (ESPCs)
  - Utility Energy Service Contracts (UESCs)
  - Contracts signed by Services/Installations

- **More Information**:
  Sarah Streff
  Facilities Energy & Privatization
  571-372-6843
  Sara.Streff@osd.mil

  Or DoDSitingClearinghouse@osd.mil
Dave Belote
Director, DoD Siting Clearinghouse
(703) 697-7301, david.belote@osd.mil
Backup Slides
America’s Military Missions

We train...
operate...
and defend.

test...

Military Mission Operations

Land

Cyberspace

Space

Air

Water
Lessons Learned

• DoD’s Response Inadequate
  • Case-by-case basis, steep learning curve, slow responses to requests for review
  • Uneven coordination among installations/Services
  • No single voice

• RESULT: Confusion, Delay, and Frustration for All Stakeholders – and extensive Congressional interest
Renewable Energy: Driving the DoD Siting Clearinghouse

• A Single DoD Voice
  – Timely, repeatable, and predictable process that promotes compatibility between energy independence and military capabilities: two key facets of national security
  – Most projects will be reviewed and cleared by Services in 30 – 45 days
  – Only projects with significant impacts or that need multi-Service coordination will receive full Clearinghouse attention
Annual Report to Congress

• Provides an overview of all DoD Siting Clearinghouse activities to implement provisions of Section 358 of the FY2011 NDAA

• The first DoD Siting Clearinghouse Report to Congress includes:
  – Results of the preliminary review
  – Efforts to assess risks associated with the loss/modification of military training routes and the quantification of such risks
  – Interagency efforts to assess the risks associated with solar power and similar systems as to the effects of glint on military readiness
  – Efforts for evaluating the risks associated with electromagnetic interference on military readiness, test, and evaluation
  – DoD’s approach to prescreening applications
  – Request for legislative clarification on intent of law
DoD Siting Clearinghouse—Board of Directors

Board of Directors

- Installations & Environment (Lead Organization)
- Readiness (Co-Chair)
- Navy/Marines
- Homeland Defense
- Operational Test & Evaluation (Co-Chair)
- Army
- Joint Staff
- Air Force
- Impact Analysis Team/MCAT