Energy Development and the Department of Defense: State Policy Options

Thursday, July 31, 2014
National Conference of State Legislatures
For audio, phone (646) 558-2121; access code 508-176-020
Energy Development and DoD: State and Local Policy Options

NCSL sponsored Webinar, July 31, 2014: Bill Van Houten, Deputy, DoD Siting Clearinghouse Office of the Secretary of Defense
Bottom Line Up Front 1

• Renewable Energy Sources, especially wind turbines and solar towers, can impact DoD operations, training and testing.
• Transmission Lines can also impact military mission.
• DoD has Siting Clearinghouse to manage the encroachment risks through a Mission Compatibility Evaluation process.
However, federal policy protections are somewhat limited:

– The FAA processes under which DoD can object to a project can make development more difficult, but may not prevent it.

– The standard under which the DoD operates, an “UNACCEPTABLE RISK TO NATIONAL SECURITY” is a high bar to meet.

• Protections at the state and local level could be helpful.
Section 1

History and Purpose of the DoD Siting Clearinghouse
DoD Siting Clearinghouse
Office of the Deputy Under Secretary of Defense
Installations and Environment

DoD Siting Clearinghouse

The Department of Defense (DoD) is committed to maintaining an effective, consistent, transparent, and timely process for evaluating the impact of energy projects on its military test, training, and operational missions. This is the core responsibility of the DoD Siting Clearinghouse.

Created by DoD in 2010, and further shaped by Congress in the Ike Skelton National Defense Authorization Act for Fiscal Year 2011, the Siting Clearinghouse provides a "one-stop-shop" for comprehensive, expedited evaluation of energy projects and their potential effect on DoD operations.

The Clearinghouse's formal review process applies to projects filed with the Secretary of Transportation, under

http://www.acq.osd.mil/dodsc/
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
FY2011 NDAA, Section 358

- Section 358 “Study Of Effects Of New Construction Of Obstructions On Military Installations And Operations”
  - Integrated review process
  - Identification of mitigation options
  - Comprehensive strategy for addressing military impacts of projects, including R&D
  - Limited authority to object to projects
  - Ability to accept voluntary contributions for mitigation

http://www.acq.osd.dodsc.about/library.html
The Clearinghouse promulgated a Rule to implement Section 358 of the FY2011 NDAA.

The Rule establishes general procedures on how DoD reviews and comments on applications filed pursuant to 49 U.S.C. § 44718.

It provides information on how developers, local officials, or members of the public can engage the Clearinghouse for early consultation on projects.

Interim Rule - Published in Federal Register in October 2011

Final Rule - Published December 2013

See: Http://www.acq.osd.mil/dodsc/about/library.html
Project Stats, CY13: Improved Processes are Working

• Formal Reviews (projects filed under the FAA’s OE/AAA process)
  – 2,075 received
  – 2,084 cleared (9 projects from CY12 cleared in CY13)
  – CY13 Carryover: 91 projects (16 Projects over 120 days old)

• Informal Reviews (Early Consults)
  – 58 received
  – 49 cleared

• Reviews in support of other Federal Agencies
  – BLM - 1
  – FERC - 1

• Unacceptable Risk to National Security
  – Sun Zia Southwest Transmission Line project raised objections to the Deputy Secretary of the Interior by the USD/AT&L
  – 17 non-energy projects raised as an objection

Further information on this topic can be found in the Clearinghouse Annual Report to Congress in the Library Tab on the web site.
Section 2

What is on the horizon for wind turbine and transmission line development and how might it impact DoD?

Note – DOE slides presented herein were presented by Mr. Jose Zayas, DOE’s Director for Wind and Water Programs at a May, 2014 DoD event.
Wind Power Program Supports National Clean Energy Goals

- **Total Addressable U.S. Wind Energy Potential**: \(\approx 140 \text{ Quads} \) (13,000 GW equivalents) *
- **Total U.S. Energy Consumption** \(\approx 95 \text{ Quads} \)
- **Total U.S. Electrical Energy End Use** \(\approx 13 \text{ Quads} \) (from 1,162 GW installed capacity in 2013)
- **20% by 2030 Goal**: \(\approx 3 \text{ Quads} \) (assuming 20% of generation from wind in 2030)
- **Current U.S. Wind Contribution** \(= 0.57 \text{ Quads} \) (from 61 GW installed wind capacity in 2013) **

* Based on the assumed distribution of land and offshore wind resources
** 1 kilowatt-hour = 3,412 Btu (EIA Electricity Conversion Calculator)

---

**Key Wind Facts**
- 4.3% of U.S. 2013 power generation ¹
- 42% of all 2012 U.S. power capacity additions ²
- Wind more than doubled from 2008-2012 (average of 8.7 GW/year) ³
- 56 GW capacity added from 2002 to 2012 ⁴
- 10 states with > 10% wind generation in 2013: Colorado, Idaho, Iowa, Kansas, Maine, Minnesota, North Dakota, Oklahoma, Oregon, and South Dakota ⁵
  - Two states with >25% wind generation: Iowa (28.6%) and South Dakota (26.0%)
- Over 80,000 U.S. jobs in installation, manufacturing and O&M ⁶

¹-⁶ DOE Energy Information Administration (EIA), Electric Power Monthly.
³-⁴ American Wind Energy Association (AWEA) database and annual market report
Evolution of Turbine Size (Land Based)
Summary and thoughts on wind related mission impacts

• DOE is working to achieve a six fold increase in wind generation from now to 2030.
• Turbine sizes are increasing, which will lead to further obstructions and higher tip speed, increasing the challenges to radars.
• As further turbines are added, there will be an increasing CUMULATIVE IMPACTS and fewer sites to avoid conflicts.
• DoD is conducting a robust R&D program to lessen impacts, but test ranges may be particularly difficult to protect.
Transmission

- In addition to military mission impacts from renewable energy sources, the Clearinghouse is also reviewing transmission line siting.
- Over half of the cases we currently receive from the FAA involve transmission issues.
- They frequently involve NEPA, as proposed lines cross federal lands.
- In general, the DoD issues associated with transmission lines involve our test ranges (e.g. White Sands, Nellis, UTTR).
- Concerns are both obstruction and EMI related.
Proposed Transmission in the West

• The Wind Vision supports more consistent growth in new capacity relative to historical trends; repowering drives some continued variability in total annual additions.

- 2009-2013 (historical): ~7.25 GW/yr
- 2013-2030: ~10 GW/yr (8 GW/yr New Land-based; 0.6 GW/yr Repower; 1.1 GW/yr Offshore)
Mitigation R&D

- For the last several years, DoD has worked with partners in DOE, FAA and DHS to mitigate the impact of renewable energy and transmission sources.
  - Long range radars interference
  - Wind turbine, military unique airborne radar testing interference
  - Glint and glare issues
  - Power line electromagnetic interference
- We are making progress, but there are still issues, and the need to have “pristine conditions” at DoD test ranges is a challenge.
Examples of Efforts to implement or strengthen state and local planning processes to enhance the mission compatibility process.
CA is working on the “Desert Renewable Energy Conservation Plan (DRECP).”

The plan focuses on Development Focus Areas (DFA’s) within the Mojave and Colorado/Sonoran desert ecosystem of Southern California.

When DRECP is published, these DFA’s will define locations for renewable energy what should not be an issue for DoD.
California - Partnerships

- DoD benefits from partnerships with the CA Governor’s Office of Planning and Research (CA-OPR), and the local level.
- Example – OEA grant to CA-OPR supporting efforts to ensure that local land use planning is compatible with military needs.
California - Legislation

• CA Senate bills 1462 and 1468 support DoD’s MCE process by requiring that local governments consider the impact of new development near military installations and ranges, beneath MRT’s, or within special use airspace.

• There is also an early notification process for development within 1000 feet of a military installation.

The law provides procedures for raising MCE issues early in the planning process.

Developers must request a pre-application meeting with the NC Department of Environment and Natural Resources (NC-DENR) to identify.
• Areas of potential risk be discussed at the meeting:
  – Military air navigation routes
  – Air traffic control areas
  – Military training routes
  – Special use air space
  – Radar
  – And other military operations
• The DENR is required to provide written notice to the commanding officer of each major military installation in the state of the proposed renewable energy project and invite them to participate in the review process.

• NC will inform the Clearinghouse of any mitigation actions agreed to by the applicant.

• The Clearinghouse will provide DENR with info on any mitigations it an and an applicant agree to.
• The DoD is actively collaborating with the NC-DENR as they develop implementation instructions for HB 484.
Virginia Model Ordinance

- In 2012, Virginia produced a model ordinance for “Utility-Scale Wind Energy Projects.”
- It provides provisions for the siting, development, and decommissioning of utility scale wind projects.
- The model contains a footnote, on page 5, providing DoD contacts so that projects can be evaluated early for Defense Department impacts.
- The listed contacts are the Clearinghouse and the DoD Regional Environmental Coordinator.
• Chapter 19.08.160 of Kern County Ordinances contains a section entitled “Height of Structures.”
• The section contains a “red/yellow/green” map detailing height restrictions, drafted in cooperation with the local military.
• Should an applicant seek a variance, the ordinance requires written concurrence from the military authority responsible for operations in this flight area.
Kern County, CA
Representative
Tom Sloan,
Kansas
Archived Webinar

Slides and a recording of today's event will be made available within 5 business days at http://www.ncsl.org/default.aspx?tabid=28307

Questions or Comments?

Contact Jocelyn Durkay, NCSL
Jocelyn.durkay@ncsl.org
303-364-7700
www.ncsl.org