



2015

# Renewable Energy and Transmission Siting Coordination and Potential Impacts to the Military Mission



Prepared by the WRP Energy  
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## **Western Regional Partnership (WRP)**

The mission of the WRP is to provide *a proactive and collaborative framework for senior-policy level Federal, State and Tribal leadership to identify common goals and emerging issues in the states of Arizona, California, Nevada, New Mexico and Utah and to develop solutions that support WRP Partners and protect natural resources, while promoting sustainability, homeland security and military readiness.*

### **The Value of WRP**

WRP develops solutions that support Partners and protect natural resources, while promoting sustainability, homeland security and military readiness. In the West, there are significant military assets, infrastructure systems such as energy, transportation and wildlife ecosystems. Leveraging of resources and linking of efforts help to avoid duplication of efforts and encourages sharing of best practices. WRP Partners benefit from interagency and cross-state collaboration and use of WRP tools such as the Web Mapping Application.

### **The Purpose of this Document**

The purpose of this document is to highlight the importance of determining potential energy project impacts on the military mission as early as possible. State mechanisms such as disclosure or notice requirements in statutes or executive orders and energy project working groups greatly facilitate enhanced notification/communication. DoD entities must provide information on any known impacts in a timely fashion to minimize and mitigate impacts. WRP seeks to encourage better information sharing to foster awareness of the interdependencies between Partners and provide for a more symbiotic relationship.

### **For More Information**

For more information on WRP please see [www.wrpinfo.org](http://www.wrpinfo.org). To participate in a WRP Committee or to receive updates, please complete the information under "mailing list" on the website.

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# RENEWABLE ENERGY AND TRANSMISSION SITING COORDINATION AND POTENTIAL IMPACTS TO THE MILITARY MISSION

*The purpose of this document is to highlight the importance of determining potential energy project impacts on the military mission as early as possible. State mechanisms such as statutes, executive orders and working groups are extraordinarily helpful to facilitate enhanced notification/communication. It is imperative that DoD entities provide information on any known impacts in a timely fashion to minimize and mitigate impacts. This document neither sets policy nor is designed to identify all possible direct and indirect mission impacts of renewable energy development. Many existing documents already provide such details.*

## **Issue:**

There is considerable interest in the development of additional renewable energy projects and energy infrastructure. Federal and state agencies have set aggressive goals to increase the proportion of energy derived from renewable sources. Without collaborative planning, certain projects in some locations could impact military operations in a number of ways, including: causing radar interference to ground and airborne systems and creating thermal sources that may be detrimental to sensitive testing of weapons systems. The military would like to proactively engage early in the process of energy infrastructure siting in order to minimize and mitigate potential impacts to the military mission. DoD is a chain-of-command organization; therefore, early communication of a proposed project helps DoD properly coordinate the project review and provide an appropriate response. DoD's input is very important since the military testing, training and operations missions are unique to each command and without their timely input it is hard to discern any impacts of a proposed project to those missions. Indirect impacts to the military mission (e.g. impacts of wind, solar, transmission lines on listed and candidate species and their habitats covered by the Endangered Species Act, and on species covered by the Migratory Bird Treaty Act) are beyond the scope of this document.

## **Military Mission Impacts:**

Renewable energy and energy infrastructure can impact military operations in a number of ways, such as:

- Wind turbines may cause radar interference to ground and airborne radar systems, interfering with or preventing safe and effective terminal radar control or airborne operations.
- Vertical structures located in or beneath low altitude military airspace restrict certain types of training, testing and operations, such as terrain following. For example, some solar facilities may include towers over 600 feet tall (and there are plans for much higher) and

wind turbines reach well over 400 feet. The lighting on these structures can also impact Low Level Night Vision training.

- Solar power-generating towers create thermal images that may be detrimental to sensitive testing of weapons systems.
- Evaporative ponds may cause a flight hazard by attracting birds beneath low altitude airspace.
- Transmission infrastructure can create electromagnetic interference to military test operations.
- Development in certain areas may impact the military's ability to conduct ground maneuver training for large forces of troops and equipment over large areas.

### **Importance of Enhanced Notification/Communication to DoD Entities on Potential Energy Projects:**

- Installations will continue to partner with established contacts to learn of and evaluate development proposals for potential impact to the mission. These partnerships can be very effective. However, renewable energy development processes within the states vary widely based on many distinct features including land management, infrastructure type and size (in Megawatts), location, etc. Siting location and technology type is often considered proprietary information by development companies, making them reluctant to provide sensitive information that may become public prematurely. Permitting and environmental compliance processes vary among state, private, public, and Tribal lands. In most states, there is no single repository of information or standardized process for industry to use for planning and development. Likewise, there is no single source of information for entities such as the military to access early in the process in order to influence favorable siting and compatible development.
- The DoD Siting Clearinghouse is an organization within the Department of Defense (DoD) that was established in the Summer of 2010 and formally authorized by Congress through section 358 of Public Law 111-383 in January 2011. The Clearinghouse coordinates the efforts of all DoD Components (including the Joint Staff, Army, Navy, Air Force, Marines, and other critical offices) in the assessment of project proposals (i.e. renewable energy projects and high voltage transmission lines) and the development of official DoD positions on the impacts of those projects on military missions. To assist in siting renewable energy projects near critical DoD activities, the Clearinghouse has published a siting primer (available through this link: [http://www.acq.osd.mil/dodsc/library/Siting\\_Renewable\\_Energy\\_Primer\\_5SEP13\\_FINAL\\_WEB.pdf](http://www.acq.osd.mil/dodsc/library/Siting_Renewable_Energy_Primer_5SEP13_FINAL_WEB.pdf)) that may be helpful to states and local communities as they plan for renewable energy development projects. For more information please see: <http://www.acq.osd.mil/ie/siting.shtml>

### **Solution Sets:**

- Numerous states already have mechanisms in place for enhanced planning, communication and notification on proposed development or planning changes, that, although they do not refer to energy projects directly, may have an impact on the location

of these projects. (For more information please see document titled, WRP State Support for Military Testing and Training). Over half of the land in the WRP region is managed by the federal government (each state ranges from 34.1% - 84.9% of total state land). There may be different perspectives among the various government agencies on location and processes by which energy goals are met. For this reason, it would be helpful to establish communication and coordination processes for energy projects to provide early notice to the military and ensure that potential issues or conflicts and mitigation measures are identified and discussed at the front end of the process. Efforts to consolidate planning processes in order to provide a framework for stakeholders to share information in a more transparent, proactive, collaborative fashion also greatly assists with timely input on energy siting decisions. It is imperative that DoD proactively engage on energy project proposals.

○ **Best practices for DoD engagement include:**

- Communication by Service and OSD Headquarters to installation commanders on the importance of proactive and enduring engagement regarding siting energy projects. Importance of installation and mission commanders' involvement with developers, transmission companies, counties, state agencies, and other authorities so as to minimize the impact on their missions, including, establishing staff contacts to speak on their behalf in order to most quickly facilitate any issues.
- Coordination at the installation, regional and headquarters level so that the full impact of a potential energy project is considered and conveyed. So that, for example, one service or installation does not provide inconsistent input.
- Consistent communication regarding potential military impacts.
- Understanding that it is very important that DoD take an active role in planning issues; the military knows best the types of development that may impact the mission.
- Working with the energy industry to identify areas currently developed and targeted for expansion. Forming a regional DoD group composed of operators, airspace experts and sustainability professionals to define the areas for energy development that would not impact military testing, training and operational missions and sharing information with industry to develop an agreement. Working with local governing authorities, such as was done in Kern County, to adopt this agreement in ordinance to address height and location limitations.
- Importance of GIS system to utilize accurate data that can be shared with the industry, projects proponents and governing authorities.
- To the extent possible, assist state agencies with project notification to DoD either through a mailing list or some other forum so that a state can provide project details to one military person in the state who will in turn coordinate with the appropriate DoD entities. A central point of contact is most helpful as states usually grant permitting responsibility to multiple agencies, depending on things such as location and technology, and may also include local (county, city or town) or federal management agencies, each of which have their own project notification processes.

- Provide timely and clear information on potential impacts to the military mission so that non-DoD entities can have this perspective before making planning decisions.

- **Best practices for State mechanisms include:**

- Establishing specific provisions to require consideration of military testing, training and operations in energy permitting/siting processes. Completed energy project applications must include coordination with the military to learn of any known potential impacts of project and include DoD's technical information.
- Authorizing renewable energy incentive districts in areas compatible with military airspace requirements.
- Requiring state agencies to consider DoD's energy security and military mission goals when developing or implementing policies.
- Requiring state and local agencies to forward energy project applications in certain key DoD military testing, training and operational areas (defined) to the military and if DoD comments are provided that the governing authority must consider the DoD input before acting on the application.
- Enabling agencies to consider reasonable restrictions for energy projects including height, noise, safety and operational restrictions.
- Establishing working committees to share information on energy projects with the military to learn of any impacts to the DoD mission.
- Setting forth State policies regarding proposed energy projects so they do not affect national security.
- Including State Military Officials in the reviews of transmission and generation projects.
- Requiring energy generation and transmission developers to submit a Military Impact Statements (MIS) on proposed energy and/or transmission projects which are in the vicinity of installations and military flight paths.

### **Detailed information on State's Statutes or Administrative Actions to Facilitate Development of Energy Projects Compatible with DoD Mission**

#### Arizona

#### **Arizona Land Use Planning Around Military/Enhanced Zoning Restrictions/Real Estate Disclosure**

The following information is more fully detailed in the WRP State Support of Military Testing and Training. Please see [www.wrpinfo.org](http://www.wrpinfo.org) for more information.

Statutory guidance on compatible land use planning around the state's five military airports by enforcing planning, zoning, and noise requirements:

- Cities, towns and counties shall adopt and enforce zoning regulations to *“assure development compatible with the high noise and accident potential generated by military airport and ancillary military facility operations that have or may have an adverse effect on public health and safety.”*
  - Provides specific guidance on development of utilities and other transportation, communications and utilities within statutorily defined “high noise or accident potential zone” (generally the noise contours and the arrival/departure corridors) requirements around each military airport and their ancillary military facility.
- Cities, towns, counties and schools containing territory within the vicinity (statutorily defined area designed to capture major military operating areas) for military airports and ancillary military facilities of a military airport must consult with, advise, and provide these military airports with the opportunity to comment on the use of land surrounding their installation.
- Cities, Towns and Counties must:
  - Include in the land use element of their general and comprehensive plans consideration of military airport or ancillary military facility operations;
  - Provide the military airport notice and opportunity to provide comments on general and comprehensive plans or amendments prior to adoption;
  - Identify the boundaries of territory in the vicinity of a military airport or ancillary military facility and high noise or accident potential zones boundaries within their general/comprehensive plan;
  - Provide the military airport notice of public hearings for zoning changes. If the military airport provides comments concerning the compatibility of the proposed rezoning prior to the first hearing, the governing body must hold a public hearing and consider the comments before a final decision is made. (This insures that plans are not adopted on a consent agenda.)
  - Notify the military installation commander of a military electronics range (MER) when certain land use applications are deemed complete. The base commander may submit comments regarding a proposed land use change.

Real estate disclosure of land under military training routes and military restricted airspace; and within a military airport, territory within the vicinity of a military airport or ancillary military facility and MER.

Statute information can be found on this website:

<http://www.azleg.gov/ArizonaRevisedStatutes.asp>

### **Arizona Renewable Energy Incentive Districts (Compatible with Military Mission)**

A.R.S. § 9-499.14 and A.R.S. § 11-254.07 authorize cities, counties and towns to designate a renewable energy incentive district in areas that are compatible with commercial and military airspace requirements.

A.R.S. § 9-499.14:

<http://www.azleg.gov/FormatDocument.asp?inDoc=/ars/9/00499->



[14.htm&Title=9&DocType=ARS](#)

A.R.S. § 11-254.07:

<http://www.azleg.gov/FormatDocument.asp?inDoc=/ars/11/00254-07.htm&Title=11&DocType=ARS>

## California

### **California Coordination with DoD regarding Energy Projects**

California Government Code Section §65040.7 (added by SB 1409, Ch. 617, 2012) requires the California Office of Planning and Research (OPR) to identify which state agencies develop and implement energy and environmental policies that directly affect the Department of Defense's energy security and military mission goals. The identified agencies would in turn be required to consider those impacts when developing or implementing their policies. The OPR will serve as a liaison to coordinate inclusion of the DoD in the development of state energy and environmental policy.

CA Govt. Code §65040.7:

[http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb\\_1401-1450/sb\\_1409\\_bill\\_20120927\\_chaptered.html](http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_1401-1450/sb_1409_bill_20120927_chaptered.html)

California Public Resources Code Section §25519.5 (added by SBX1 2, Ch. 1, 2011) requires applicants to the Public Utilities Commission for certain electrical power facilities, who must already provide notice to various affected entities, to also inform the Department of Defense of any proposed project "*within 1,000 feet of a military installation, or [that] lie within special use airspace or beneath a low-level flight path.*" Additionally, if DoD provides the applicant with information regarding potential impacts on national security, including impacts on land, sea and airspace for conducting operations, training, research, development, testing and evaluations of weapons, sensors and tactics, the applicant must include DoD's information in its application or, if the information is received after the application is filed, forward the information to the Public Utilities Commission on receipt.

CA Govt. Code §25519.5:

[http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb\\_0001-0050/sbx1\\_2\\_bill\\_20110412\\_chaptered.html](http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0001-0050/sbx1_2_bill_20110412_chaptered.html)

## Nevada

### **Nevada Wind and Solar Zoning Restrictions**

Nevada A.B. 122 of 2011 provides that, for zoning of wind energy, in addition to the currently reasonable restrictions relating to height, noise or safety, reasonable restrictions on the use of a system for obtaining wind energy may include restrictions relating to location and appearance. The bill also authorizes the imposition of reasonable restrictions relating to the appearance, height, location, noise or safety of a system for obtaining solar energy.

Nevada A.B. 122 of 2011:

[http://www.leg.state.nv.us/Session/76th2011/Bills/AB/AB419\\_EN.pdf](http://www.leg.state.nv.us/Session/76th2011/Bills/AB/AB419_EN.pdf)

## New Mexico

### **New Mexico Energy Coordination with the Military**

In 2011 the New Mexico State Legislature passed Senate Joint Memorial (SJM) 8, which requests the New Mexico Renewable Energy Transmission Authority and the Energy, Minerals and Natural Resources Department collaborate with the White Sands Missile Range and other military installations when developing renewable energy programs and corridors for transmission lines in New Mexico. New Mexico EMNRD collaborated with New Mexico RETA in developing a November 15, 2011 report titled, "*State Government Collaboration with New Mexico Military Installations on Renewable Energy and Transmission Development.*" For more information please see: <http://www.sos.state.nm.us/uploads/files/Bills2011/Memorials/SJM8.pdf> and <https://wrpinfo.org/FileDownload.aspx?fileID=547>

## Maryland

### **Maryland Law Siting of Wind Turbines Compatible to Mission of Patuxent River Naval Air Station**

Maryland Laws 2012, Ch. 644, made certain revisions to the existing statutes regarding electric companies obtaining Certificates of Public Convenience and Necessity (CPC) from the Public Service Commission (PSC) for the construction of generation stations and overhead transmission lines. Among other things, the enactment revised Maryland Code §7-207.1, which effectively exempts the construction of certain generating stations from the necessity of obtaining a CPC if they obtain approval from the PSC. Among the exempted stations are certain wind energy generation stations if the PSC has provided the public with an opportunity for comment prior to the PSC's approval and provided that the generation station:

- Does not exceed 70 MW
- Only exports energy by selling it through the local electric company and
- Is land-based
- Locates its wind turbines outside a distance from the Patuxent River Naval Air Station determined by the PSC in coordination with the Commander, Naval Air Warfare Center Aircraft Division, provided that the distance so determined is
  - Not greater than necessary to prevent Doppler radar interference to the Air Station's mission
  - Not greater than a 46 mile radius from a particular point located on the Air Station
  - Subject to modification if needed because of changes in the mission or technology used at the Air Station or in wind energy technology

Maryland Laws 2012, Ch.644:

<http://mgaleg.maryland.gov/webmga/frmStatutesText.aspx?article=gpu&section=7-207.1&ext=html&session=2015RS&tab=subject5>

## North Carolina

### **North Carolina Wind Energy Facility Permitting Process; Consideration of DoD**

North Carolina's wind energy facility permitting process (for companies desiring to construct or expand wind energy facilities) requires consideration of military facilities in several ways.

- At least 180 days before submitting an application for a permit to the State Department of Environment and Natural Resources, the applicant must request a preapplication site evaluation meeting with the Department. The application may not be filed until 120 days have passed since that meeting. The purpose of the meeting is to make a preliminary evaluation of the site including whether the site poses:

- "serious risk to . . . military air navigation routes, air traffic control areas, military training routes, special-use air space, radar, or other potentially affected military operations."

Additionally, at the meeting the participants are directed to:

- "Identify areas where proposed construction or expansion activities pose minimal risk of interference with . . . military air navigation routes, air traffic control areas, military training routes, special-use air space, radar, or other potentially affected military operations."

- At least 21 days before that meeting, the Department gives written notice to various potentially interested persons, specifically including "the commanding military officer or the commanding military officer's designee of any potentially affected major military installation." Persons receiving notice of the meeting are also invited to attend and participate.
- At least 60 days before filing the application, the applicant must request a scoping meeting with the Department, at which the Department and the applicant review the proposed application. The meeting is to be held at least 30 days before the application is filed. Notice and an invitation to participate is also given by the Department at least 21 days in advance of this meeting to "the commanding military officer of each major military installation, or the commanding military officer's designee, . . ."
- At least 45 days before filing its application, the applicant must file a pre-filing package that contains:
  - "A description of any known potential impacts of the proposed wind energy project location on . . . military air navigation routes, air traffic control areas, military training routes, special-use air space, radar, or other potentially affected military operations."
- The application itself requires the applicant to identify and give actual notice to adjoining property owners and further requires that the applicant provide:
  - "A description of . . . military air navigation routes, air traffic control areas, military training routes, special-use air space, radar, or other military operations that may be affected by the construction or operation of the proposed wind energy facility or proposed wind energy facility expansion."
  - "Documentation that addresses any potential adverse impact on military operations and readiness as identified by the Department of Defense (Siting) Clearinghouse pursuant to Part 211 of Title 32 Code of Federal Regulations (July 1, 2012 edition) and any mitigation actions agreed to by the applicant."

- “Documentation that the applicant has either (i) submitted Federal Aviation Administration Form 7460-1 for the turbines associated with the proposed wind energy facility or proposed wind energy facility expansion or (ii) initiated an informal review by the Department of Defense Siting Clearinghouse of the proposed wind energy facility or proposed wind energy facility expansion. If the applicant has submitted Federal Aviation Administration Form 7460-1 in order to fulfill the requirements of this subdivision, the applicant shall provide any determination reached by the Federal Aviation Administration at the time the application is submitted to the Department. If the Federal Aviation Administration has not made a determination at the time the application is submitted to the Department, the application shall include a description of the status of the applicant's engagement with the Federal Aviation Administration and the Department of Defense Siting Clearinghouse.”
- Within ten days after the application is filed, the Department is required to provide notice of the filing to:
  - “the commanding military officer of all major military installations” in the State and
  - “the commanding military officer of any military installation located outside the State that is located within 50 nautical miles of the location of the proposed wind energy facility or proposed wind energy facility expansion.”

This notice includes a map showing the specific location of the turbines and invites the commanding military officer to provide “technical information related to any adverse impact on the installation's operations, training, or mission, including military air navigation routes, air traffic control areas, military training routes, special-use air space, radar or other military operations that may be affected.”

- The Department is also required to provide a copy of the entire application (and any appendices or amendments) to any “commanding military officer of any major military installation or the commanding military officer's designee” upon request.
- Within 75 days of filing the application, a public hearing is to be held by the Department, which must give notice of the hearing to “[t]he commanding military officer of any potentially affected major military installation or the commanding military officer's designee.”
- The Department is to grant the permit unless any one of certain things are found during the application process, including that:
  - “Construction or operation of the proposed wind energy facility or proposed wind energy facility expansion would encroach upon or would otherwise have a significant adverse impact on the mission, training, or operations of any major military installation or branch of military in North Carolina and result in a detriment to continued military presence in the State. In its evaluation, the Department may consider whether the proposed wind energy facility or proposed wind energy facility expansion would cause interference with air navigation routes, air traffic control areas, military training routes, or radar based on information submitted by the applicant . . . and any information received by the Department” from the military pursuant to the request for technical information referred to above.

- "Construction or operation of the proposed wind energy facility or proposed wind energy facility expansion would obstruct major navigation channels or create a significant obstacle to navigation in coastal waters, as determined by the United States Army Corps of Engineers and the United States Coast Guard."
- After a permit is granted, the Department is required to annually consult with "representatives of the major military installations to review information regarding military air navigation routes, air traffic control areas, military training routes, special-use air space, radar, or other potentially affected military operations" and provide them with "relevant information on civil air navigation or military air navigation routes, air traffic control areas, military training routes, special-use air space, radar, or other potentially affected military operations to permit applicants as requested."

NC General Statutes Chapter 143, Article 21C.

[http://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter\\_143/Article\\_21C.html](http://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_143/Article_21C.html)