

RE-Powering America's Land

Evaluating the Feasibility of Siting Renewable Energy Production on Potentially Contaminated Land

Marina, California

RE-Powering: EPA/NREL Feasibility Studies

The U.S. Environmental Protection Agency's (EPA) *RE-Powering America's Land* Initiative encourages renewable energy development on current and formerly contaminated land, landfills and mine sites when it is aligned with the community's vision for the site. EPA and the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) are collaborating on a project to evaluate the feasibility of siting renewable energy production on potentially contaminated sites. This effort pairs EPA's expertise on contaminated sites with NREL's expertise in renewable energy. The feasibility studies provide site owners and communities with a technical and economic assessment of installing renewable energy on a given site.

Site Description

Established in 1917, the 27,800-acre, former Fort Ord Army Base served as a major training area for the World War II, Korea, Vietnam, and Desert Storm military campaigns. Groundwater plumes, contaminated soil, several leaking petroleum underground storage tanks, and munitions and explosives of concern have been identified. The base was added to the EPA Superfund National Priorities List in 1990 and closed in 1991. Cleanup and planning for reuse of the site has been ongoing since 1994, and several acres of property have been transferred from the military to local communities and state agencies.

Community Goals

Based on redevelopment discussions, local stakeholders are interested in exploring the development of a community-owned solar power system on 12,000 acres of the site with the long-term goal of achieving a carbon-neutral electric grid on the former base. By pooling resources, the community hopes to achieve a lower overall system cost when compared to purchasing many smaller individual systems. There is a great deal of support from the landowners and surrounding community for this project. The Fort Ord Reuse Authority plans to set up a monthly working group with these stakeholders and to hold quarterly public outreach workshops for the community as a whole.

Feasibility Study: Solar

EPA and NREL conducted a study on the potential for solar power generation on the Former Fort Ord Army Base site. The feasibility study evaluated the technical and economic opportunities and challenges at the site. The completed study:

- Provides a preliminary analysis of the viability of the site;
- Assesses solar resource availability;
- Identifies possible system size, design and location; and
- Reviews the economics of the proposed system.

Installing a photovoltaic (PV) (i.e., solar power) system on the former Fort Ord Army Base site could generate approximately 125,713 megawatt hours (MWh) annually and meet the demands of all current power consumption for the area. Nine areas were identified by stakeholders for consideration of installation of solar PV arrays. For multiple reasons—the high cost of energy, the dropping cost of PV, the existence of good solar resources, investment tax credits and other probable incentives—PV systems have been determined to be a sensible reuse of this former base property.

Former Fort Ord Army Base Marina, California

Site Facts:

Site type: Superfund
Renewable technology: Solar

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The information presented in this fact sheet is from the site's initial proposal, site visit(s), discussions with community stakeholders, and other information collected in preparation of the feasibility study. This fact sheet is for informational purposes only and may not reflect the site's current regulatory or remediation status.

For more information, visit www.epa.gov/renewableenergyland or contact cleanenergy@epa.gov



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