



## Army on Track to Power Fort Irwin with Sunshine

By: C. Todd Lopez

WASHINGTON (Army News Service) -- Out in California, the Army has chosen a developer to build a 500-megawatt solar power plant that will provide Fort Irwin with "energy security."

Through an enhanced use lease, the Army will hand over about 14,000 acres of Fort Irwin, in the Mojave Desert, to commercial developers Clark Enterprises of Bethesda, Md., and Acciona Solar Power of Henderson, Nev. Together, the two companies form "Irwin Energy Security Partners LLC."



The Army is planning on building a 500-megawatt solar power facility at Fort Irwin, Calif. The facility will be similar to this photovoltaic solar power facility at Nellis Air Force Base, Nev.

The proposal submitted by the partnership includes both concentrated solar thermal and photovoltaic technology, with an estimated capacity of up to 1,000 Mw, which exceeds the Army requirement. Clark-Acciona will be responsible for developing the project and for footing the bill for its construction -- estimated now at about \$1.5 billion dollars. Neither the government, nor the Army, will pay for development of the project, but will instead collect rent in-kind for use of the land it leases to the developer.

Right now, the Army Corps of Engineers has chosen which company will get to participate in the EUL -- though the lease is not yet signed.

"This is the very first step in that process, we've selected a developer and we are beginning essentially a negotiation process and a due diligence with that developer," said Thomas M. Kretschmar, senior program manager, U.S. Army Corps of Engineers. He said before the actual EUL can be signed, developmental, environmental, regulatory issues must



be dealt with.

For the Army, the development of a 500 Mw or greater power plant on Fort Irwin means the installation -- which uses an estimated 35 Mw at peak usage -- will have power even when the civilian power grid, or the sun, goes offline.

"This project is for energy security," said Dr. Kevin T. Geiss, program director for energy security in the Office of the Assistant Secretary of the Army for Installations and Environment. "Whether we have that the first day the electrons start flowing or not, is yet to be seen. But at the end of the day, once we complete the proposed project here, there would certainly be a mechanism to maintain the flow of electricity even when the sun goes down."

The 500 Mw facility will be built in phases, with a project end date expected around 2022. But Phase 1A of the project, with a completion of around 2014, is expected to provide enough power to sustain Fort Irwin.

Additionally, the Army will benefit from the development of the facility because the developer will pay rent on the land, and will pay "in-kind," as opposed to cash. This allows the Army to use the payment immediately, with rent being paid in the form of services that can be used for operations and maintenance items for which there is no funding.

For the Clark-Acciona team, the land the Army is offering as part of the EUL is ideal for manufacturing renewable energy and selling it to the civilian grid.

"There is an excellent solar resource in the Mojave desert," Kretschmar said.

In addition to location, there's water available to develop solar-thermal power, and also the availability of nearby high-power transmission lines so the developer can sell power to the utility company.

The developer has proposed a facility that can deliver 1,000 Mw of power. For comparison, a Department of the Interior Web site says the Hoover Dam has a capacity of 2,080 Mw -- just over double what Clark-Acciona has proposed. Fort Irwin will use only a fraction of that at peak usage.

"Anything more than that would be sold off base," Kretschmar said. "And there's a ready market for their electricity off post."

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Source: <http://www.army.mil/-news/2009/08/07/25621-army-on-track-to-power-fort-irwin-with-sunshine/?ref=news-science-title4>