

**US Army Corps
of Engineers®**

**FORT IRWIN
SOLAR ENERGY
ENHANCED USE
LEASE (EUL)**

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About the Fort Irwin Solar Energy EUL

Setting New Precedents in Renewable Energy Production

With a potential for 1,000+ MW of solar power production, the Fort Irwin Solar EUL will be the largest renewable energy project in the DoD's history. In comparison, the next largest solar projects are a 14-MW photovoltaic (PV) plant at Nellis AFB and a 2-MW PV plant at Fort Carson. The Fort Irwin solar power fields will encompass almost 21 square miles, roughly the size of Manhattan, across five sites. The initial development plan is expected to result in more than 500 MW of renewable energy with one billion kilowatt-hours (kWh) of clean, renewable solar energy generated per year by 2022, far exceeding Fort Irwin's 34-MW peak load.

Saving Taxpayers Money through Innovative EUL Structure

The EUL structure allows projects like this to move forward without requiring any government spending, as the developer will raise private capital to cover all project costs. In addition, the developer will pay rent on the land in the form of "in-kind" services. As part of the Memorandum of Agreement that was executed today, Clark also made a \$150,000 payment to the U.S. Army Corps of Engineers (USACE) that is intended to reimburse USACE for costs associated with its work on the project.

Capitalizing on Natural Resources with a Mix of Solar Technologies

Located in California's Mojave Desert, Fort Irwin receives more sunlight than almost any other location in the country. The topography of the five sites available for the EUL is generally flat, with little to no shading. One of the sites is adjacent to a major utility corridor that contains both large transmission lines and a natural gas pipeline, enabling this remote site to supply large quantities of power to the Southern California market. In addition, the installation currently reuses only a small portion of its wastewater, which could instead be treated and employed by concentrated solar power (CSP) plants. These factors make Fort Irwin an ideal site for solar generating technology.

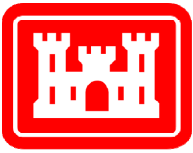
Supporting Critical Missions for the United States of America

After the September 11, 2001 attacks, the National Training Center (NTC) transformed its training program to focus on counterinsurgency operations, including those in urban environments, in response to the ongoing and rapidly changing battlefield. As host to approximately 5,000 troops every month, it is currently the U.S. Army's largest training camp and a critical component in the Global War on Terrorism. Fort Irwin is also home to NASA's Goldstone Deep Space Communications Complex, one of three facilities in the world that, together, provide an international network of antennas to support interplanetary spacecraft missions. Due to the sensitivity and importance of these missions at Fort Irwin, an extended grid outage could have had disastrous effects. The EUL will significantly reduce the risk of such an outage by providing backup power to these two important facilities, as well as to the schools, offices, shops, restaurants, and other ancillary uses that support the post's 23,000 residents and workers.

Enhancing the Nation's Energy Security

In 2008, the Defense Science Board (DSB) released a report on DoD's energy strategy, entitled "More Flight – Less Fuel." (The DSB report can be downloaded from the following site: <http://www.acq.osd.mil/dsb/reports/2008-02-ESTF.pdf>.) This report concluded, among other findings, that "military installations are almost completely





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dependent on a fragile and vulnerable commercial grid, placing critical military and Homeland defense missions at unacceptable risk of extended outage.” The Fort Irwin Solar EUL addresses these vulnerabilities by implementing distributed generation that can be used to fully or partially “island” installations from the grid. This landmark project will serve as a blueprint for other military installations that need to address their energy security vulnerabilities.

Meeting Renewable Energy Goals

Congressional legislation and Executive branch orders mandate change in our nation’s energy consumption and production. The Energy Policy Act of 2005 (EPACT 2005) requires Federal agencies to purchase 7.5% of their energy from renewable sources by 2013; Executive Order 13423 requires that half of this renewable energy come from new sources; and the National Defense Authorization Act of 2007 (NDAA 2007) requires that 25% of DoD’s total electricity come from renewable sources by 2025. The EUL will help Fort Irwin meet these mandates and expedite achievement of its own renewable energy goals. It is also consistent with the Executive Order issued by President Obama earlier this month, which builds on the momentum of the Recovery Act to help create a clean energy economy and reduce greenhouse gas emissions.

Key Component of Army Energy Security Implementation Strategy (AESIS)

The Fort Irwin Solar EUL is an important initiative of the Army Energy Security Implementation Strategy (AESIS), a program that promotes energy efficiency and energy security. Other efforts of the AESIS include procuring electric and hybrid-electric vehicles for peacetime and wartime use, establishing the Army Energy Security Task Force to assess Army energy planning and Army energy initiatives, initiating six prototype projects to jump-start Army energy security, developing a new hybrid-electric powered ground combat vehicle, developing Army energy metrics and objectives, chartering a new Senior Energy Executive and a new Senior Energy Council to coordinate and direct Army energy security initiatives, and publishing energy security implementation plans by Army commands.

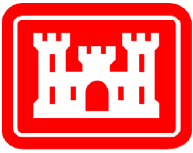
Stimulating a New Energy Economy and Creating Green Jobs

The shift from an economy that is heavily dependent on energy produced from fossil fuels to an economy that fully leverages clean, renewable energy will require massive investment. The \$2-billion Fort Irwin Solar EUL will create jobs both during construction and long-term plant operations, as well as generate additional revenue for the local businesses that support the installation. Furthermore, the project will create countless additional indirect jobs in the manufacturing plants that produce the equipment used by the project. Based on Acciona Solar Power’s experience building Nevada Solar One, we estimate that this project will generate about 4,000 person-years of direct construction jobs and 3,500 person-years of jobs operating and maintaining the power plants.

Promoting Environmental Stewardship

Using the project’s renewable energy electricity in lieu of traditional power will reduce greenhouse gas emissions by a total of 67 billion pounds. When complete, annual emissions avoided by using renewable energy for this project will be similar to taking roughly 865,000 cars off the road or saving 163,000 acres of pine fir forests each year. When complete, the solar power plant facilities will provide all of the electricity needed to power 100,000 homes each year.





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About the Solar Development Plan

Overview

The US Army Corps of Engineers (USACE), Baltimore District selected Clark Energy Group of Arlington, Va. and Acciona Solar Power of Henderson, Nev. to develop, construct, and manage the largest solar power project proposed to date within the Department of Defense. This bold, innovative energy initiative is made possible by an Enhanced Use Lease (EUL), a creative alternative to traditional financing structures that leverages the value of the Army's underutilized land to fund installation operating costs and facility upgrades.

Process

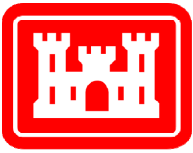
- October 2008 – The Secretary of the Army launched the Senior Energy Council, which was tasked to coordinate and promote energy security and policy for the Army. The council identified Fort Irwin as a pilot project to promote the production of alternate sources of energy from the Army's substantial land holdings across the United States.
- December 2008 – The Army released the Notice of Opportunity to solicit qualifications and development proposals from the private sector.
- July 2009 – The Army selected the Developer and issued a Conditional Notice of Lease award.
- October 2009 – The Army and the Developer entered into a Memorandum of Agreement (MOA).
- October 2009 – February 2010 – The Army and the Developer will work together to produce a Business & Lease Plan ("Plan") for solar energy development and energy security at Fort Irwin. Upon completion, the Plan and supporting documentation, including all draft NEPA documentation, will be submitted to the Army for final review and approval.
- February 2010 - The Army and the Developer will continue the NEPA permitting process, which could take approximately two years. Lease execution will follow.

Scope

The thirteen-year, \$2 billion initial development plan anticipates more than 500 MW of solar power production across multiple plants to be completed between 2013 and 2022. The first plant will be located at the Main Gate site and is expected to generate 20-MW of renewable energy using photovoltaic (PV) technology. Construction of the plant will begin after lease execution. Power production is expected by 2013.

The remaining plants will use a combination of concentrated solar power and PV technologies. In total, the facilities proposed in the initial development plan will generate approximately one billion kilowatt hours (kWh) of solar power per year. Beyond 2022, future development potential could increase to 1,000 MW of electricity should sufficient demand and transmission line capacity exist.





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About the Project Team

Clark Energy Group

Clark Energy Group is a full-service energy services company with a focus on energy efficiency, energy security, sustainability, and renewable energy generation. The firm provides turnkey energy solutions for government, residential, institutional, and commercial facilities. Selected in 2008 by the Department of Energy for a highly competitive \$5 billion indefinite-delivery, indefinite-quantity Super Energy Savings Performance Contract (Super ESPC), Clark Energy Group is now helping federal agencies to achieve strategic national priorities like energy security and sustainability with privately-funded solutions that do not require government spending.

Headquartered in Arlington, Va., Clark Energy Group is part of the Clark family of companies which includes Clark Realty Capital, a premier national real estate developer, and Clark Construction Group, one of the largest privately-held general contractors in the country. The firm already has a local presence at Fort Irwin as Clark affiliates financed, developed, built, and currently manage the privatized military family housing on the installation.

For the Fort Irwin Solar EUL, Clark Energy Group will serve as the Army's single point of contact for the project team. Clark Energy Group and its affiliates will be responsible for leading all planning, master development, construction, financing, marketing, community and stakeholder relations, and asset management activities over the course of the project. The firm will also provide comprehensive energy advisory services to Fort Irwin and will be responsible for delivering a comprehensive energy security solution that will address each of the installation's energy security vulnerabilities.

For more information, visit www.clarkenergygroup.com.

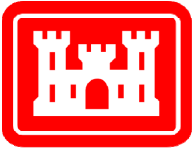
Acciona Solar Power

Acciona Solar Power is a solar industry powerhouse, revolutionizing the development, construction, operation, and maintenance of concentrating solar power (CSP) plants. Acciona Solar Power is a majority-owned affiliate of Acciona Energy North America Corporation, a wholly-owned subsidiary of Acciona Energía, a division of the international company Acciona SA, headquartered in Madrid, Spain. In 2005, Acciona Energy purchased a 55 percent stake in Solargenix. The joint venture became Acciona Solar Power in 2006. Acciona has completed over 6,000 MW of renewable energy projects around the world. The company designs, develops, and operates large-scale solar power plants, including the largest concentrating solar power plant to be completed in the world since 1991 (64-MW Nevada Solar One in Boulder City, Nev.); one of the world's largest solar photovoltaic plants (46-MW Amareleja PV Plant in Moura, Portugal); and the first of four 50-MW CSP plants currently under construction in Spain (50-MW Alvarado I CSP Plant in Badajoz, Spain).

For the Fort Irwin Solar EUL, Acciona Solar Power will be responsible for comprehensive site analysis, procurement and supply chain management of solar production systems, system design and engineering, marketing, and ongoing operations and maintenance.

For more information, visit www.acciona.com.





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About the Enhanced Use Leasing (EUL) Program

Enhanced Use Leasing (EUL) is a program through which the Army creatively applies rental value from leased installation land directly back to the maintenance and improvement of its installations and facilities through in-kind services rather than the payment of cash rents.

Through EUL, selected private firms or consortiums finance, construct and operate the development of federally owned land for the benefit of the installation and its mission. EUL is managed by the Corps Baltimore District Real Estate Office as an Army Center of Excellence.

EUL projects are developed by the specific installation and EUL and Army mission specialists. Potential developers attend an Industry Forum that outlines the proposed EUL, and submit bids that are rated on a rubric of requirements outlined in the request for proposals. Developers are selected that offer the best value to the Army. The value of the EUL is held in escrow for the installation and may be applied to a range of services over the 50-year life of the lease.

EULs presently awarded to developers for execution and under negotiation include projects at Yuma Proving Ground, Ariz.; Forts Bliss and Sam Houston, Texas; Fort Leonard Wood, Mo.; Rock Island Arsenal, Ill.; Selfridge ANGB, Minn.; Redstone Arsenal, Ala.; Snake Creek ANGTS, Fla.; Walter Reed AMC, Washington, D.C.; Forts Detrick and Meade, and the Aberdeen Proving Ground, Md.; Picatinny Arsenal, N.J.; and Fort Irwin, Calif.

Advantages of EUL Development

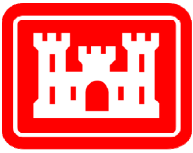
- Since the value of the lease is returned to the installation through in-kind services rather than cash rental payments, 100 percent of the value is available to support the Army.
- A developer can operate on a large, well placed tract of land adjacent to the military installations, an advantage to tenants who value proximity to their Army customers.
- Installations can elect the in-kind services they require over the 50-year life of the EUL, allowing for flexibility of application over time.
- Local governments profit from EUL without rezoning or altering long-term growth plans.
- EUL requires no congressional approval and speeds the development process.

Requirements of the EUL

- EUL projects must be consistent with an installation's mission.
- The value of in-kind services rendered to the Army must be equal to or greater than the fair value of the leased property.
- Developer selected tenants must meet varying degrees of clearance consistent with the sensitivity of particular military bases or EUL projects.

U.S. Army Corps of Engineers, Baltimore District, Public Affairs Office, October 2009





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About Fort Irwin and the National Training Center (NTC)

Overview

The U.S. Army's National Training Center performs one of the Army's most important missions-TRAINING THE FORCE! Brigade Combat Teams along with our joint, multi-national and interagency partners train in a fully instrumented, realistic operational environment for successful deployments across the full spectrum of conflict. The NTC replicates the tough, realistic, operational environment that America's war fighters face daily; our training is current and quickly adaptable to changing situations on the ground and emerging threats worldwide. Additionally the NTC trains, sustains, and deploys combat ready units from the 11th Armored Cavalry Regiment, 916th Support Brigade for rotational support and worldwide contingency missions while taking care of Soldiers, Civilians and Family Members.

History

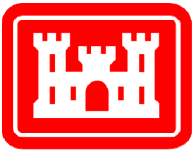
Although the National Training Center is only 28 years old, Fort Irwin traces its history back to the late 1930's when the War Department identified a need for an anti-aircraft training range. On August 8, 1940 a Presidential Order withdrew from public use an estimated 1000 square miles of public land in the High desert area of southern California and called it the Mojave Anti-Aircraft Range. Two years later, the reservation received its official title of Camp Irwin, in memory of Major General George Leroy Irwin, a World War I commander of the 57th Field Artillery Brigade.

In 1944, the camp was closed and remained in a caretaker status until 1951, when it was reactivated to become the home of the U.S. Army Armor and Desert Training Center. In August 1961, Camp Irwin received its fort status and the designation as permanent, Class I installation. Also during this period, the National Aeronautics and Space Administration was granted approval to position its Goldstone Deep Space Communications Complex on the installation. In 1973, with the end of the Vietnam War, Fort Irwin was deactivated, placed in caretaker status, and turned over to the State of California for use as a training area by the National Guard and Army Reserve.

In 1978, the outlook for Fort Irwin changed. Training and Doctrine Command of the U.S. Army was looking for a site to house its national Training Center. The site had to be large enough and far enough away from civilian populations to be able to provide realistic training. The National Training Center required at least 400,000 acres for maneuver area and ranges. It also had to have uncluttered airspace and favorable weather conditions. Eleven sites were given serious consideration before Fort Irwin was selected in 1980. It was officially opened as Fort Irwin and the National Training Center in July 1981.

One of the elements necessary for Fort Irwin to truly be a National Training Center was the creation of a robust, world-class enemy. An infantry battalion and armored battalion were moved to Fort Irwin and became the Opposing Force. They were trained to accurately replicate a Soviet Motorized Rifle Regiment. They were given M551 Sheridan tanks that were visually modified to look like Soviet BMP's and T-72's. Although they were called forces from the country of Krasnovia, there was no doubt in anyone's mind that they replicated Soviets. And soon because of constant training and deep knowledge of the battlefield, they became "the finest Soviet Motorized Rifle Regiment" in the world. The Opposing Force along with a sophisticated instrumentation system and the Multiple Integrated Laser Engagement System





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(MILES) coupled with a group of 650 trainers known as Observer-Controllers helped create the premier training center for military forces in the world.

The first training rotation occurred in March 1982. It was established at the beginning of the NTC and continues to this day that NTC host 10 brigade combat teams a year for basically a one month training rotation. This resulted in the NTC training 50-60,000 Soldiers a year.

When the Berlin Wall fell and the Soviet Union ceased to exist, the opposing force of the National Training Center, also known as the 177th Armored Brigade changed its model from one of Soviet style to that of an Iraqi Republican Guard Force. The same force on force training occurred but now with a distinct desert feel. The National Training Center trained all the Army brigades that were called on to fight Iraq in Desert Storm. In fact General Colin Powell, General Carl Vuono and General Norman Schwarzkopf all commented on the outstanding and vital contributions made by the NTC in preparing the U.S. Army for war in the Gulf.

All through the 90s, the NTC continued to train the Army brigades using force-on-force scenarios. In 2004, The National Training Center suddenly changed its training. No longer would the NTC have force-on-force battles but rather fight a kinetic and non-kinetic battle in Iraqi towns facing the same challenges that the Army faced in Iraq. 13 Iraqi villages were constructed. The Opposing Force (now the 11th Armored Cavalry Regiment) along with 250 Arabic speaking Iraqi actors made up the role players the rotational unit would find occupying the villages. The scenarios were complex detailed scripts threaded together. Now the NTC trains Soldiers how to search for insurgents, spot snipers, recognize car bombs and improvised explosive devices in the kinetic battlefield. At the same time Soldiers are taught how to build relationships with the local inhabitants in the non-kinetic battlefield. The center of gravity in this type of conflict is at the company and platoon level. It is imperative the Soldiers receive this kind of training. It is the heart of the current NTC mission.

Training the Force

Today, U.S Army and joint service units along with other governmental agencies deploy to Fort Irwin for training rotations. A typical rotation lasts several weeks and involves field training including Situational Training Exercises and Full Spectrum Operations. Each rotation brings 4-5,000 Soldiers who represent major combat, combat support and combat service support elements of a United States Army Heavy Brigade Combat Team or Armored Cavalry Regiment.

Throughout its many evolutions Fort Irwin and the National Training Center has maintained a proud and distinguished heritage of providing world class training to the world's best Army.

