

# NRSW Participates in Energy Incentive Programs

## Efforts Reduce Consumption & Set Green Example

### NAVY REGION SOUTHWEST

(NRSW) and Naval Facilities Engineering Command Southwest (NAVFAC SW) participate in a number of energy incentive programs that allow them to reduce consumption and set a greener example to tenant commands and area Sailors.

Many programs have been created by federal, state and local agencies to encourage individuals, companies and organizations to reduce energy and water consumption, build renewable energy resources, and use alternative fuels. Federal regulations allow installations to participate in these programs and retain incentive payments locally to use for energy and water conservation projects. NRSW deposits incentive payments into the Region's utility account and makes funds available to the installations that qualify for the programs.

One such installation was Naval Base Coronado, which received \$113,294 in energy incentive payments for base-wide improvements in 2010 under a program run by investor-owned utility companies (IOU). In California, IOUs oversee a set of programs designed to decrease energy use in lighting, appliances, heating, ventilation and air conditioning, motors, building renovations, and new construction.

One project involved replacing inefficient refrigerators in authorized break rooms throughout the installation with Energy Star refrigerators.

"The Public Works Department set up a program for the exchange of older refrigerators with new units purchased with incentives funds," NRSW Utilities and Energy Program Manager Bernie Lindsey explained. "These refrigerators use approximately fifty percent less

BMC Rene Rios and BM2 Justin Marks deliver new Energy Star refrigerators at Naval Base Coronado.

*Fred Speece*





Old mini refrigerators from Naval Base Coronado at the recycling facility.  
*Fred Speece*

energy than the old models,” he continued. In-house staff was used to install the 120 new refrigerators and to haul away the old ones, which were removed from the base and recycled. This single measure will save the Navy approximately 60,000 kilowatt-hours (kWh) annually, or 900,000 kWh over the life of the refrigerators resulting in a savings of \$100,000.

energy efficient technologies have higher initial costs in most cases, lifecycle costs generally prove them to be more effective,” he said.

Also in 2010, Naval Base San Diego replaced 1,182 street and parking lot lights with light-emitting diode (LED) lamps to save from 50 to 80 percent of the energy consumed by traditional high and low-pressure sodium

nado and Naval Base Point Loma, where nearly every street and parking lot light on the bases will be replaced with an LED bulb. Naval Base San Diego, meanwhile, plans to replace its perimeter lighting with LEDs. Naval Base Ventura County installed nearly 1,200 LED light fixtures during 2010. The project included 537 street and parking lot fixtures and 661 exterior building fixtures that will save over 400,000 kWh per year worth \$55,000. Other Navy Region Southwest bases have submitted similar exterior lighting projects for Sustainment, Restoration and Modernization funding or to be financed under Utility Energy Service Contracts (UESC). These projects together will save the Navy hundreds of thousands of dollars per year while providing improved nighttime lighting.

Another program that qualified for energy initiatives in the region was a boiler replacement project at Naval Air Weapons Station (NAWS) China Lake. This project was executed under a financed UESC contract. NAWS China Lake replaced a 20-year-old boiler with a 78 percent efficiency

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—Bernie Lindsey

“These incentive programs improve consumer awareness, increase the availability and demand for energy efficiency products, and promote emerging technologies,” Lindsey commented. “Financial incentives encourage the replacement of inefficient systems and building components with efficient ones. Although

lamps. This project saves over 1,400,000 kWh per year worth \$157,000 and earned Naval Base San Diego a rebate of \$147,000 that will be used for further energy conservation investments.

Similar LED replacement projects are underway at Naval Base Coro-

rating with an 84 percent efficient unit with a heat recovery system. The project also included expansion of the natural gas system to eliminate propane use in various locations, installation of a water well replacement project, and Supervisory Control and Data Acquisition controls. The project was completed in 2009 at a

cost of \$3,300,000. The improvements are now saving the Navy \$150,000 and 2,500 Million British Thermal Units per year—this is roughly enough energy to power 65 houses at China Lake each year. This project received a \$33,000 rebate from Pacific Gas & Electric Company.

California Solar Initiative incentives with potential value of \$678,000.

Another program sponsored by four of California's largest utilities is called Savings By Design. This program provides incentives for energy efficiency measures in new construction

environmental Design (LEED) -certified building. The Navy received \$293,000 in incentive funds for this facility. The Navy is scheduled to receive \$70,000 in incentive funds in FY11 for the Weapons and Armaments Technology Laboratory. These rebates do not reflect the significant

## These projects generate about 4.6 million kWh of renewable energy per year worth over \$500,000.

“Our energy conservation program is remarkable in that many innovations are implemented through an integrated approach with a network of government energy managers and contract Resource Efficiency Managers throughout the Region,” Lindsey stated. “NRSW will serve as an inspiration for other federal agencies and organizations,” he continued.

According to Lindsey, NRSW has been participating in various energy incentives programs for ten years, with several facilities receiving rebates for energy and water-savings projects. In the past five years alone, NRSW installations have secured \$2.2 million in state and utility incentives.

In 2009 and 2010, nine NRSW bases and the Space and Naval Warfare (SPAWAR) Systems Center Pacific installed 35 solar roofs under the American Recovery and Reinvestment Act. These projects generate about 4.6 million kWh of renewable energy per year worth over \$500,000. Many of these projects also qualify for

and major renovations. The program offers building owners and their design teams a range of services, including design assistance and owner incentives (up to \$500,000) to help offset the costs of new energy-efficient buildings, and design team incentives (up to \$50,000) to reward designers who meet ambitious energy efficiency targets.

Two buildings at NAWS China Lake qualified for this program. The William B. McLean Laboratory is a gold Leadership in Energy and Envi-

energy savings expected throughout the facilities' lifecycle. For example, each facility's landscaping system uses 67 to 74 percent less water than a “typical” system of its size. Overall, each building is expected to achieve an annual energy savings of 18 to 22 percent.

“This is what we need to be doing going forward,” commented Lindsey. “We need to make sure we design a building for maximum energy efficiency before ground is ever broken,” he said.



New LED lights at Naval Base San Diego use 50 to 80 percent less energy than traditional high-pressure sodium lamps.

*Fred Speece*



The William B. McLean Laboratory—one of two buildings at NAWS China Lake that qualified for California’s Savings by Design energy incentive program.

U.S. Navy photo

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### Naval Facilities Engineering Command Southwest

One of ten facilities engineering commands in NAVFAC, NAVFAC SW is responsible for the public works, planning, engineering/design, construction, real estate, environmental services, and acquisition/disposal of facilities and real estate in a six state area on the West Coast. NAVFAC SW contracts with commercial businesses to produce and deliver construction for the military such as housing, piers, airfields and hospitals. The command also provides public works services such as transportation, maintenance, utilities/energy delivery, facilities management and base operations support to the Navy and Marine Corps Installations within its geographic area of responsibility as well as support to other federal agencies in California.

### Navy Region Southwest

As the Naval shore installation management headquarters for the Southwest region (California, Arizona and

Nevada), NRSW provides coordination of base operating support functions for operating forces throughout the region. This includes providing expertise in areas such as housing, environmental, security, family services, port services, air services, bachelor quarters, supply, medical and logistical concerns for the hundreds of thousands of active duty, reserve and retired military members in the area. The command also serves as the regional coordinator for the Commander, U. S. Pacific Fleet, headquartered in Hawaii, coordinating support for bases in Southern California and Nevada. ⚓

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