

Utilities privatization at Scott garners national attention

*by Jennifer McCabe
AFCEC Public Affairs*

The culmination of five years of water system improvements at Scott Air Force Base, Ill., has attracted the attention of the Partnership for Safe Water, an initiative developed by the Environmental Protection Agency and other water organizations to increase water quality.

The organization awarded American Water its Directors Award last month for comprehensive upgrades that improved the safety and reliability of the Scott water system which serves 15,000 people.

Only six water systems have earned the award since 2007. It recognizes utilities that have completed comprehensive distribution system self-assessment reports. The reports are reviewed and validated by a team of industry experts from across the nation.

The Air Force Civil Engineer Center awarded American Water the 50-year utilities privatization contract in 2007 creating a \$6.3 million cost avoidance for the Air Force.

"Utilities privatization allows military installations to obtain safe utility systems that meet current industry standards," said Rick Weston, who leads the Air Force Civil Engineer Center UP program

management office. "Maintaining utility systems is no longer a core competency of the Air Force. Private industry does it day in and day out, so they can normally do it cheaper than we can."

Building sustainable Air Force installations requires an investment in dependable energy-efficient utility systems. For the past 15 years, the Air Force has upgraded utility systems by privatizing them. According to AFCEC engineers, the Air Force has privatized 66 systems, creating a cost avoidance of \$361 million.

Currently the Air Force has 85 systems, including electric, natural gas, water and

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These photos depict parts of the Scott AFB, Ill., water system before & after utilities privatization. (Courtesy photos)

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Energy Action Month Preparations Underway

by David Georges
Air Force Energy Office

While October is three months away, planning for Energy Action Month is in full swing. Despite the government shutdown last year, 74 bases participated and hundreds of activities were supported, from Base Energy Days and competitions to news stories and Facebook posts. The campaign theme is once again, "I am Air Force Energy," and puts each Airman at the center of the effort to drive innovation and ensure the Service efficiently uses every pound of jet fuel, every watt of electricity and every gallon of gasoline.

Major initiatives for 2014 include:

Expanding the major command champions effort to include operational elements. Last year, the MAJCOM champions were introduced to expand participation in campaign execution beyond the A7 or Public Affairs staff who have supported in the past. While that occurred in some instances, this year, there will be renewed focus on getting others involved. Formal guidance to this effect was sent to MAJCOM vice commanders in early July.

Increased use of competitions. Last August, guides were provided to help energy managers and Wing Commanders plan and execute competitions that



HANSCOM AIR FORCE BASE, Mass. -- Col. Lester A. Weilacher, 66th Air Base Group commander, recognizes October as Energy Action Month by signing a proclamation in his office Nov. 8, 2013 as (left to right) Joan Croteau, David Wong, Lt. Col. Romero Reid and Thomas Schluckebier look on. October is Energy Action Month and as part of a national campaign, led by the Department of Energy, Hanscom provides an opportunity to promote energy and water conservation awareness to the community. (U.S. Air Force photo by Rick Berry)

have the potential to motivate Airmen to incorporate energy-efficient behaviors into their job. Thirty competitions were held, and we hope with more time to plan this year, that number will continue to grow. Guides are available now at <http://www.safie.hq.af.mil/energy/action/energyactionmonth/index.asp>

More information on Energy Action Month will be coming from headquarters

and AFCEC over the coming months. In the near term, work within your leadership chain to help identify MAJCOM Champions and use Energy Management Steering Groups, as appropriate, to coordinate efforts. Be aware of the tools available, especially the competitions guides, to begin developing your own programs.

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Energy Matters

APRIL - JUNE 2014

The Air National Guard Energy Newsletter

The Energy Newsletter of the Air National Guard

President urges water conservation

by Kasie Coccaro

The White House Blog

The Obama Administration is taking action to help the farmers, ranchers, small businesses and communities being impacted by drought across the country. Conditions are especially tough in California. The state is experiencing its worst drought in over 100 years.

In February, President Obama signed the farm bill including \$100 million to help ranchers. "If their fields have dried up, this is going to help them feed their livestock," said President Obama. The administration also announced \$20 million to help hard-hit communities and up to \$15 million more for California and other states that are in extreme drought.

President Obama directed the Interior Department to use its existing authorities, where appropriate, to give water contractors flexibility to meet their obligations.

All federal facilities in California should take immediate steps to curb water use, including a moratorium on water usage for new, non-essential landscaping projects.

President Obama wants Congress to approve \$1 billion in new funding for new technologies to help communities prepare for a changing climate, and set up incentives to build smarter, more resilient infrastructure.

Administration action doesn't stop there.

"My administration will work with tech innovators and launch new challenges under our Climate Data Initiative, focused initially on rising sea levels and

their impact on the coasts, but ultimately focused on how all these changes in weather patterns are going to have an impact up and down the United States -- not just on the coast but inland as well -- and how do we start preparing for that. And that has to be work that we do together," said President Obama.

Click here to learn more about the Administration-wide response to the drought.

<http://www.whitehouse.gov/drought>



President Barack Obama tours a field with farmer Joe Del Bosque, his wife Maria, and California Gov. Jerry Brown in Los Banos, Calif. (Official White House Photo by Pete Souza)

Scott Utilities

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wastewater that are in various stages of the privatization solicitation process.

"Historically, bases have been underfunded," explained Weston. "Over the past 20 or 30 years, maintaining Air Force utility systems was not a high budget priority. Consequently, our systems have degraded substantially."

Such was the case at Scott, where system degradations there led the utilities privatization contractor to make several improvements to the system, including replacement of more than 95,000 feet of mains and distribution lines in the 245,000 lineal feet system and development of an accurate water system map of the base.

Enhancements were also made to the valves and storage tanks. Of the 1,100 existing valves, 20 percent were initially inoperative and the status of many others was unknown. Also, four of the base's large storage tanks were experiencing excessive water flows, creating the potential for water stagnation and reduced water quality. To correct the situation, a specially configured computer system now controls the valves and sensors trigger them to open and close based on tank levels.

The enhanced system is already showing signs of improved reliability. While Scott experienced 35 main water breaks in 2008, there have only been seven breaks during the first half of 2014. The system also improved efficiency, with the base

using 50 million gallons less water in 2013 when compared to 2008.

The improvements not only improve drinking water quality, but also increase reliability and availability for potential firefighting activities.

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This 14-megawatt solar project at Nellis Air Force Base, Nev., made big news in 2007 as being the largest solar photovoltaic array in the United States. Now there are plans to expand solar power production at the base. The Air Force recently signed a lease with Nevada Energy to add a 19-megawatt solar array. Together the projects will provide 42 percent of the energy needed to power Nellis. (U.S. Air Force photo)

Nellis to add another large solar plant

by Jennifer McCabe
AFCEC Public Affairs

The Air Force is set to outdo itself with another large solar project at Nellis Air Force Base, Nev.

SunPower Corporation completed its first 14-megawatt solar power system at Nellis in 2007. At the time, it was the largest solar photovoltaic power plant in the United States. Recently, the Air Force signed a lease with NV Energy, paving the way for construction of a 19-megawatt solar photovoltaic power system at Nellis, the second to be built by SunPower.

The project is a combined effort by Nellis, Air Combat Command and the Air Force Civil Engineer Center.

The installation conducted the National Environmental Policy Act process, gained acceptance of the project with other installation agencies and coordinated with NV Energy, while ACC evaluated the economic viability and provided expertise for the Power Purchase Agreement.

AFCEC provided overall project oversight and served as the liaison with senior

Air Force leadership by providing updates on project plans, execution and scheduling. In addition, AFCEC and Air Force general counsel led the real estate actions and development of the lease.

NV Energy will construct, own, maintain and operate the array. All power from the photovoltaic array will flow through the installation, and power not used by the base will go to the grid.

Nellis will purchase power at the existing NV Energy tariff rate under the utility contract which is already in place, and NV Energy will provide a secondary substation and a transmission line as an in-kind consideration to the government for the lease.

"This is a huge benefit to the Air Force,"

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Nellis Air Force Base, Nev., plans to more than double its solar power production pictured here in 2007. Recently the Air Force signed a land lease with NV Energy paving the way for construction of a 19-megawatt solar photovoltaic power system. NV Energy will provide a secondary substation and transmission line as in kind consideration to the government for the lease. The substation will provide energy security and mission assurance by providing a redundant primary electric feed to the base. (U.S. Air Force photo)

Nellis Solar Plant

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said Frederick Cade, project manager at AFCEC. "It affords Nellis much needed energy security and mission assurance by providing a redundant primary electric feed to the installation."

Construction is contingent on Nevada's Public Utilities Commission approving the contract. Once complete, renewable energy from both solar arrays could provide 42 percent of the energy needed to power the base.

"We are pleased to team again with NV Energy," said Howard Wenger, SunPower's regions president. "In 2007, it took nine months to construct the 14-megawatt plant at Nellis. Today, we can install more than one megawatt per day at our larger power plant sites."

"NV Energy looks forward to the opportunity to bring more clean, renewable energy to power facilities and military operations at Nellis," said Stacey Kusters, NV Energy's vice president for renewable energy.

"It's exciting to see Nellis Solar II coming to fruition," said Lynn Haarklau, Nellis

optimization chief. "A lot of Air Force and NV Energy folks have worked hard and put in long hours to ensure the success of this project. It's extremely gratifying to know that all our efforts are paying off by providing Nellis with a mission-critical redundant power source."

Based on data derived from the U.S. Environmental Protection Agency's greenhouse gas equivalencies calculator, the new plant will offset the annual production of almost 27,000 tons of carbon dioxide emission, which is equivalent of removing 136,800 cars from Nevada's roads over the next 31 years.

Watts Happening



Hill electric system privatized

In June, the Air Force, using Defense Logistics Agency Energy Contracting, awarded the Hill Air Force Base, Utah, electric distribution system to City Light & Power, Inc., Long Beach, Calif. The 50-year contract is valued at \$282 million. The contract allows Hill to shift

from owner-operator to utility service customer. City Light & Power, Inc. will invest approximately \$5 million in the first contract year to bring the system up to industry standards.

NEXGEN IT testing

AFCEC energy personnel traveled to Gunter AFB, Ala., in June for the second round Tririga Component Integration Testing of energy capabilities. Several functions were tested including: vendor, meter, reimbursable rate setup; Energy Independence Security Act 432 data capture; meter reading entry; utility invoice entry, reporting, and contracts. Data fields were available to capture data, but functionality to calculate and cross feed data into reports did not work.

The next event is scheduled for Sept. 15 - Oct. 3.

Federal energy and water awards announced

The Department of Energy announced the 2014 Federal Energy and Water Management Program Award winners. The Air Force won eight FEMP awards, more than any other year. DOE will post the complete list of winners on its web site and follow up with notifications to individual winners around mid-July.



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