

"Make Energy a Consideration in All We Do"

ENERGY express

The Air Force Civil Engineer Center Energy Newsletter

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Water resource management announced as focus of Air Force Earth Day 2013

Chad Starr
AFCEC Public Affairs

Each year Air Force installations around the world observe Earth Day on April 22 by taking actions to enhance sustainability and support the Air Force's Earth Day theme of "Conserve Today - Secure Tomorrow."

This year, the Air Force is highlighting water resource management programs, including conservation, water quality and pollution prevention, wastewater and storm water management, and use of innovative water-saving technologies in design, construction, landscaping and facilities sustainment, restoration and modernization.

Fresh water is a limited, mission-critical resource essential for Air Force operations. It is the third pillar of the Net Zero program, along with energy and waste. Improved water resource management is also a goal of the Department of Defense Strategic Sustainability Performance Plan.

The plan, adopted by the Air Force, calls for a reduction in consumption of potable water from fiscal 2007 levels of 26 percent by fiscal 2020, and a reduction in consumption of industrial and irrigation water from fiscal 2010 levels of 20 percent by fiscal 2020. It also establishes a goal to maintain pre-development hydrology for development and redevelopment

projects of 5,000 square feet or greater to the extent possible.

The Air Force continues to make significant progress in cutting water consumption on its way to achieving the fiscal 2020 goals.

In fiscal 2012, the Air Force reduced potable water intensity by 18.4 percent from the fiscal 2007 baseline. That's 5.3 percent better than fiscal 2011, and well ahead of the fiscal 2012 goal of 10 percent.

Last fiscal year, the Air Force also reduced non-potable industrial, landscaping and agriculture, or ILA, water consumption by 4.6 percent from the fiscal 2010 baseline, exceeding the 4-percent goal for that year.

Aggressive action across Air Force installations to detect leaks and repair infrastructure; replace and upgrade fixtures; disconnect ineffective irrigation systems; incorporate Leadership in Energy and Environmental Design principles; and use non-potable water sources whenever possible were key factors contributing to this successful conservation of potable water.

Xeriscaping, more efficient irrigation and implementing recycling projects to service remaining landscaping applications contributed to reduced consumption of ILA water.

STORY CONTINUED ON PAGE 2

Xeriscaping is underway throughout Cannon AFB, N.M. The use of rocks and mulch in varying colors, sizes and textures along with drought tolerant plants, replaces the need for grass, water and maintenance. (U.S. Air Force photo/Eddie Green)



Air Force Earth Day 2013

STORY CONTINUED FROM PAGE 1

For example, when the City of Wichita Falls, Texas, hit stage two of a drought warning in June and announced a goal of 15 percent water consumption reduction for the city, Sheppard Air Force Base responded by doubling that goal and achieved a 30-percent overall water consumption reduction through the first two months. The base made water efficiency upgrades at multiple facilities to help achieve that goal.

At Holloman Air Force Base, N.M., a wastewater reuse system was installed for irrigating the 47-acre golf course, replacing more than 70 million gallons per year of potable water previously used and reducing Holloman's annual water demand by 15 percent. The project saves \$90,000 a year and will pay for itself in five years.

By replacing Kentucky bluegrass with buffalo grass on three projects, Hill Air Force Base, Utah, reduced irrigation requirements by 80 percent, saving approximately 50 million gallons of water annually.

Although the Air Force is making progress, officials emphasize that more needs to be done and every Airman can make a difference.

"To temper our appetite for, and impact on, the natural and fiscal resources needed to execute the Air Force mission into the future, we must continue to seek and recognize opportunities for achieving long-term efficiencies and lifecycle benefits," said Acting Undersecretary of the Air Force and senior sustainability official Jamie M. Morin.

"Together, through the efforts of every Airman, every day, the Air Force will continue to lead this effort."

To capture individual environmental actions, the Air Force is continuing to collect personal posts on its "Blue Acts of Green" Facebook page, launched last year at www.facebook.com/blueactsofgreen. Airmen and their families are encouraged to demonstrate their support by committing to perform an act of "green" at home or work to benefit the environment.

To assist installations in observing Earth Day, the Air Force Civil Engineer Center is also producing its annual Earth Day toolkit which is available on the AFCEC website at <http://www.afcec.af.mil/news/earthday2013/index.asp>.



Xeriscaping eliminates the need for irrigation and saves Cannon AFB, N.M. money. While much of the base is already landscaped with rocks and drought-tolerant plants, civil engineers hope to xeriscape an additional 20 acres. (U.S. Air Force photo/Eddie Green)

Air Force announces new energy strategic plan

*Air Force News Service
Washington, D.C.*

A media roundtable, held March 21 at the Pentagon with Dr. Kevin Geiss, Deputy Assistant Secretary of the Air Force for Energy, and Dr. Jamie Morin, Acting Under Secretary of the Air Force, focused on highlighting recent Air Force energy consumption achievements, as well as current initiatives under the new Air Force Energy Strategic Plan.

"The Air Force is fundamentally a global force that the nation relies on for global vigilance, for global reach, and for global power; we have to be ready to project American influence anywhere in the world on a moment's notice," said Morin. "Having those capabilities and using those capabilities requires energy. It requires a lot of electricity, and even more so, it requires a lot of gas."

The Air Force is the largest single consumer of energy in the federal government. In fiscal 2012, the Air Force spent more than \$9 billion for energy, with over 85 percent of those energy costs dedicated to aviation fuel. "That of course means that even moderate improvements in our conservation, in our efficiency, can drive very large dollar savings that can enable us to invest in other vitally needed capabilities," Morin said.

While this number seems daunting, the Air Force is on track to reduce energy consumption and has taken significant actions to avoid \$1.5 billion in energy bills in 2012 compared to the baseline years for its facility and aviation energy reduction goals.

Much of this can be attributed to achievements in reducing aviation fuel consumption. In 2006, the Air Force set a goal of reducing aviation fuel consumption 10 percent by 2015.

But it's not just about goals for reducing fuel consumption; the service has also reduced facility energy intensity by more than 21 percent since 2003 and increased its use of renewable energy.

The Air Force is also on track to meet goals of reducing energy intensity by a total of 37.5 percent by 2020, and the long-term goal of increasing the amount of renewable energy use to 25 percent of renewable energy consumption by 2025. Last year 5.5 percent of the Air Force's

electricity came from renewable energy sources.

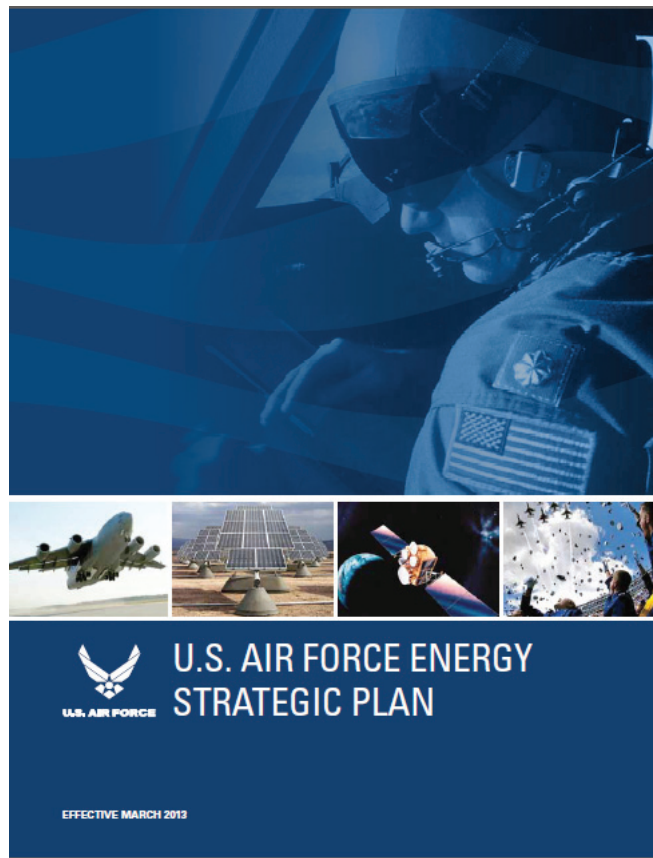
"These are fundamentally important accomplishments for the nation," said Morin. "Every taxpayer dollar we can save on energy is absolutely going to help us transform resources into increased Air Force readiness, increased combat capability for the joint force."

The new energy strategic plan lays out four priorities: improve resiliency, reduce demand, assure supply, and foster an energy aware culture. To support these priorities, the Air Force is making changes to flying operations to use less fuel, working with private industry on

renewable energy facilities, and driving energy awareness at all levels of professional development and technical training, among many other activities.

"The robust, resilient, and ready energy posture that we're working to develop is about enabling the Air Force to be operationally effective; it's about enhancing national security; it's about getting better value out of every taxpayer dollar," Morin said. "We are not, and will not, accept the notion that one has to choose between energy efficiency and mission accomplishment. What I think we've demonstrated over the last several years, and will continue to demonstrate, is that those can be complimentary and mutually reinforcing goals."

To view the entire "U.S. Air Force Energy Strategic Plan," go to the Air Force Energy website at <http://www.safie.hq.af.mil/energy/index.asp>.



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Search for 15 FEMP award nominees narrows



In 2012, the Air Force won six DOE Federal Energy Management Program awards across three categories: Programs, Projects and Individuals. This month AFCEC reviewed more than 40 nomination packages from bases and MAJCOMs, which is a testament to the facility energy, fuel and water management conservation efforts underway across the Air Force.

This week, AFCEC narrowed the 40 nominees to 20 and must narrow it down once more. These outstanding programs, projects and people will prepare complete formal nomination packages. AFCEC will select the top 15, the maximum allowed by FEMP, and submit them in April. Winners will be announced in August. Nominations selected to submit formal packages are:

Programs:

AFMC, Hanscom AFB, Hanscom AFB Energy Reduction Program

AFSPC, 21st Civil Engineer Squadron, 21st Space Wing Energy Management Program

ACC, ACC Facility Energy Team

ACC, Nellis AFB, Nellis AFB Efficiency Improvements

PACAF, 718 CES/CEAOE, Kadena Air Base, Japan

Projects:

ACC, Seymour Johnson AFB, LEED Gold Seymour Johnson Support Center

ANG, Pease ANGB, Pease High Temp Boiler Decentralization

AETC, 325th Civil Engineer Squadron, HQ AFCEC East Facility Renovation

AMC, Dover AFB, Installation of Thermal Ice Storage Systems

AFGSC, 509 BW-509 CES, Repair Steam Line Insulation & Pumps

Individuals:

USAFE, HQ USAFE, Ms. Kelly Jaramillo

ANG, Scott AFB, MSgt Eric Haynes

AFSPC, Los Angeles AFB, Mr. Edward Wilson, 61st Civil Engineer and Logistics Squadron

AETC, Laughlin AFB, Mr. David Morin

AMC, HQ AMC, Mr. Stephen Kalmer

Fuels:

AMC, Travis AFB, 60th Air Mobility Wing Fuel Efficiency

AMC, Scott AFB, Mobility Air Forces Tanker

ANG, McConnell AFB, 22nd Operations Fuel Efficiency Office

AMC, Dover AFB, Precision Loading

AMC, JB Lewis-McChord, 62nd AW Fuel Savings Program

AFMC announces facility excellence winners

Robins Air Force Base, Ga., has won first place in Air Force Materiel Command's 2012 Facility Energy Excellence Award program. Hill AFB, Utah, took second place, and Hanscom AFB, Mass., received third. AFMC Commander, Gen. Janet Wolfenbarger, announced the winners during an Energy Management Steering Group meeting March 26th.

The Facility Energy Excellence Award provides an objective assessment of an installations' energy programs, and recognizes efforts in promoting energy reduction, changing the energy culture and recognizing the performance of the installation facility energy managers. Culture change was weighted at 80 percent, recognizing that the key to

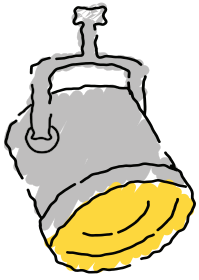
energy conservation truly resides in each individual's actions and in active leadership at all levels across the enterprise. Energy reduction was weighted at 15 percent and water reduction was weighted at 5 percent. These categories capture actual, tangible gains made in energy conservation. The award acknowledges outstanding accomplishments from January 2012 through December 2012.

"Each of these installations built a robust energy management program focused on energy reduction and energy culture," said Col. Jeff Todd, AFMC deputy director of Communications, Installations and Mission Support. "Their efforts display great achievements in energy reduction and promotion of cultural change at the installation level and subsequently the MAJCOM."

Sequestration's Impact on Air Force Energy Initiatives

*Merri Shaffer
Air Force Magazine*

Sequestration's most immediate effect on the Air Force's energy initiatives is already happening, said Acting Undersecretary of the Air Force Jamie Morin last week. Because sequestration, which went into effect on March 1, compresses a fiscal year's worth of spending cuts into seven months, "we've had to absolutely stand on the brakes in terms of vital facility investments" related to energy efficiency, Morin told reporters during a March 21 press roundtable. The service's budget for facilities sustainment, restoration, and modernization is one of the hardest hit areas, he said. "We had to take much deeper reduction in that area of activity in order to somewhat protect our flying-hour activity," said Morin. In an attempt to cut spending, earlier this year the Air Force drastically cut facility sustainment activities to emergency work orders only, he said. "We are seeing about a 90 percent reduction in expenditures in that area," said Morin.



Spotlight on Success



March ARB Electric Utility Contract

The Utility Rate Management Team negotiated more fair and reasonable rates for Southern California Edison's delivery of Western Area Power Administration's Federal preference hydropower allocation to March ARB. Anticipated savings are estimated at \$420,000/year. (Nancy Coleal, AFCEC/CNR, DSN 523-6295)

Energy Focus Fund Execution

The first Authority to Advertise (ATA) was issued on November 7, 2012, and the second ATA was issued on March 15 2013, for MAJCOM Energy Focus fund projects. Bids are being solicited in anticipation of initial funds distribution to enable quick execution of energy projects. Based on the March 22 pull from ACES, 32% of ATA projects have received bids. (Steve McLellan, AFCEC/CND, DSN 523-6453)

New 2003 Energy Baseline

The AFERS program management office applied the adjusted 2003 baseline to the data of record in the AFERS database. "Rebaselined" 2003 energy data is now available via AFERS and will be used in all

reporting. (Rebaselining--Rick Weston, AFCEC/CNU, DSN 523-6655; AFERS--Jaika Stone, AFCEC/CNA, DSN 523-6556).

F.E. Warren ECIP Decentralized Heat Plant Project

Approximately 25 people attended the kick off for the FY12 ECIP decentralized heat plant project including the base's operations, asset management, and leadership. AFGSC and AFCEC/CND (including contracting) also participated. AFCEC awarded the SATOC task order on February 26, 2013, to TolTest at a cost of \$15.5M. The project scope includes replacement of the central heat plant and hot water distribution system with individual boilers at 85 base facilities. The 772nd ESS issued the Notice to Proceed on March 14, 2013. The estimated completion date is July 2015. (John Byrnes, AFCEC/CND, DSN 523-6464)

Otis ANGB Capped Landfill PV Array PPA

On March 5, 2013, staff from SAF/IEI, SAF/IEN, SAF/GCN, AF/A7CEN, AF/A7CIB, AFCEC/CN, AFCEC/CZ, ANGB/A7O, and ANG102CE participated in a working group DCO call. The group reviewed details of a proposed 6MW PPA project

in preparation for approval by SAF/IEN to release an RFP. The concept is for a third party to develop and sell power from a 6MW PV array located on a capped landfill site subleased by the AF. The team identified potential contractual and environmental issues and is working to resolve them. (Dick Fillman, AFCEC/CNR, DSN 523-6265)

Federal Utility Rate Intervention Working Group

Lt Col Fike, AFLOA Utility Litigation Field Support Center, attended the Federal Utility Rate Intervention workgroup with GSA, Army, Navy, and DOE representatives to discuss items including delegation of authority to intervene in regulated utility rate cases before local, state, and federal regulatory bodies. Attendees decided that the AF will continue to have delegated responsibility from GSA to intervene on behalf of all Federal Executive Agencies for 32 regulated utility companies with operations in 17 states. The 32 companies represent service territories where AF installations have the greatest consumption relative to other agencies. The new GSA delegation letter will remain in effect for 5 years and should be issued in the coming weeks. (Lt Col Fike, AFLOA/ULFSC, DSN 523-6347)



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