



*Richard Pilatzke*

## Water Management Awards to Organizations

**Fort Carson**  
**Department of the Army**  
**Fort Carson, Colorado**

Fort Carson, Colorado, maintains a comprehensive water conservation program consisting of sound environmental management, special projects, outreach, and education to protect and conserve water resources. Water-saving projects at Fort Carson include centralizing its vehicle wash facility, using wastewater to irrigate its 180-acre golf course, installing composting toilets that are almost waterless, practicing beneficial landscaping, and more. Through these projects, Fort Carson reduced its water-use 17 percent between 1989 and 2000, saving the Post more than \$1.8 million per year in avoided water and wastewater treatment costs. Total water savings are in excess of 580 million gallons per year. Most notable about the reduction in water use is that it occurred while troop strength essentially remained the same and a sizable increase in water use for irrigation took place. Thus, water use and reuse at Fort Carson is a carefully thought out and orchestrated effort.

## Mobility Energy Efficiency Awards to Organizations



*Hasan Pehlivan*

**USS ESSEX**  
**Department of the Navy**

Innovative thinking and creative strategies have characterized the USS ESSEX's energy awareness and conservation plans. Energy training and awareness extends to all Marines on the ship and is integrated into every level of planning and operations by the Energy Conservation Board. Non-traditional anchoring plans and maintenance strategies have generated large energy savings. While at anchor in auxiliary steaming status, fuel savings of 23 percent are achieved. The USS ESSEX also switched to a single boiler plant mode of operation, which is now 24 percent more efficient than operating two boilers throughout the majority of its speed range. These efforts have resulted in savings of 225,000 gallons of fuel and more than \$135,000 during FY 2000. These energy savings were attained despite the high operational tempo of a ship such as ESSEX, laying to rest the belief that energy conservation and real-world military taskings are mutually exclusive.

## Mobility Energy Efficiency Awards to Organizations

### Fleet Logistics Support Squadron 57 Department of the Navy San Diego, California

Through careful planning, heightened awareness, training, and a commitment to sound energy management practices, Fleet Logistics Support Squadron 57 (VR-57) saved more than \$830,000 in energy costs during FY 2000. A 23 percent reduction in fuel consumption was achieved by carefully tailoring fuel loads to the minimum necessary to meet individual mission requirements, using computerized flight planning programs to determine optimum performance, and implementing strict maintenance inspection schedules, among other strategies. By operating more efficiently and reducing flight hours, VR-57 has been able to meet all operational commitments while achieving impressive energy savings.



*PR One Michael Broughton, Commander Tim Fox  
and AEC Edwardo Buenaflor*

## Mobility Energy Efficiency Awards to Small Groups

### 1st Lieutenant Stacy Clark Gunnery Sergeant Michael McGill Marine Corps Air Station Yuma Arizona United States Marine Corps, Yuma, Arizona

The Motor Transport Department at the Marine Corps Air Station initiated several steps to save energy while maintaining sound operational efficiency. A strategy was devised to acquire vehicles with substantially higher fuel economy, procure alternate-fueled vehicles, terminate under-utilized vehicles, and assign vehicles to multi-tasking duties. Forty-four gasoline vehicles were replaced with electric vehicles, resulting in a cost avoidance of more than \$4,400. Bio-fueled vehicles now comprise 75 percent of the new vehicle procurements, and the Department is working with the City of Yuma to locate a compressed natural gas refueling station in Yuma. Total cost avoidance during FY 2000 resulting from these comprehensive efforts was \$112,682.



*Gunnery Sergeant Michael McGill and  
First Lieutenant Stacy Clark*



*Georges Dib and Rod Chisholm*

## Alternative Financing Awards to Organizations

### XVIII ABN Corps and Fort Bragg Department of the Army Fort Bragg, North Carolina

Fort Bragg embarked on an ESPC program in February 1998 by conducting a detailed selection process to choose an energy savings contractor (ESCO). Honeywell was selected, and the first proposal was submitted in October 1997. The project aimed to reduce energy use, lower costs, reduce environmental emissions, and improve the quality of life for the soldiers, dependents, and employees of Fort Bragg. For FY 2000, Fort Bragg saved more than \$5 million and almost 150 billion Btu as a result of the ESPC program. The cost reduction will generate close to \$98 million in savings over the term of the ESPC program. Nearly \$94 million of those savings are being reinvested into Fort Bragg's facilities and infrastructure.

## Alternative Financing Awards to Organizations



*Ensign Marjorie Chiles*

### Naval Training Center Great Lakes Department of the Navy Great Lakes, Illinois

Naval Training Center (NTC) Great Lakes, Illinois, is undertaking a ten-phase multi-year, multi-million dollar Base-wide program to identify and implement energy conservation opportunities. This demand-side management project with Commonwealth Edison (ComEd), the local electrical utility, uses ComEd's expertise and capital to perform and finance initiatives that would otherwise likely not be considered. The project is being accomplished in phases. Each phase covers approximately 20 buildings. ComEd made \$14.6 million in energy improvements at the Center during 2000, resulting in savings of \$2.1 million and more than 107 billion Btu per year. Three additional phases costing \$21 million, that will save an estimated \$2.4 million per year, were developed during 2000, with construction and installation scheduled for 2001.

## Alternative Financing Awards to Organizations

### Naval Support Activity Mid-South Department of the Navy Millington, Tennessee

In its continuing effort to meet high energy performance standards, Naval Support Activity Mid-South entered into a basic ordering agreement project containing three energy conservation measures: 1) replacing the central steam plant; 2) installing an energy management control system; and 3) performing a lighting retrofit. The central steam plant replacement included the installation of high efficiency hot water boilers, high efficiency domestic hot water heaters, and natural gas-fired unit heaters in the 55 buildings served by the central steam plant. An energy management system and commissioning effort included installation of native BACnet Direct Digital Controls in 38 individual buildings and connection of controls via a fiberoptic LAN network station. The system utilizes intelligent distributed control modules located in each building and factors in occupancy schedules as well as night set back, demand limiting, and chiller optimization. The project also included lighting retrofits of all existing F40 fluorescent lamps, magnetic ballasts, incandescent lamps, and exit lights located in the interior of the buildings with new energy-efficient lamps and ballasts. This \$13.2 million project is saving \$1.7 million and 286 billion Btu per year.



*Gregory White*

## Alternative Financing Awards to Small Groups

### Jose Cao-Garcia Richard H. Crowson Brian J. McCarthy Nathaniel James Pines Hilario L. Silverio U.S. Embassy Seoul Geothermal ESPC Department of State Seoul, Korea

The Department of State is the first to advance FEMP's Super Geothermal Heat Exchange ESPC internationally with a project at the U.S. Embassy Seoul, Korea. Geothermal heat exchangers will replace inefficient oil furnaces and window air conditioners in 157 housing units and the Ambassador's residence. The \$5.1 million contract will span 19 years with total cost savings of \$12 million and energy savings of 568 billion Btu. The units will provide a cleaner, healthier environment for U.S. Embassy personnel living in these residences. This project sets an example of the best in U.S. environmental technology and alternative financing.



*Hilario L. Silverio, Brian McCarthy, Richard Crowson,  
Nathaniel James Pines, and Jose Cao Garcia*





*Jeffrey Robbins, John Vilgos, and Ken Roman*

## Alternative Financing Awards to Small Groups

**Reza M. Jafari**  
**Farhad Memarzadeh**  
**Jeffrey Robbins**  
**Ken Roman**  
**John Vilgos**  
**NIH Bethesda Campus**  
**Cogeneration Facility**  
**National Institutes of Health**  
**Department of Health and**  
**Human Services**  
**Bethesda, Maryland**

The National Institutes of Health (NIH) is installing a 23-megawatt cogeneration power plant at its facility in Bethesda, Maryland.

The power plant will be one of the largest ever built for the Federal government, saving more than 640 billion Btu and approximately \$3.6 million per year. In addition, the plant will reduce greenhouse gas emissions by roughly 100,000 tons per year and other pollutant emissions and particulate matter by close to 600 tons per year. The project cost is approximately \$30 million and will be financed by Pepco Services and paid through energy savings from the project.

## Alternative Financing Awards to Small Groups



*Perry Boeschen, Tony Pensick, Harry Atkins, and Suvit Boyd.*

**Harry K. Atkins**  
**Perry L. Boeschen**  
**Suvit S. Boyd**  
**Chuck Korytowski**  
**Tony Pensick**  
**Lincoln Energy Conservation Project**  
**General Services Administration,**  
**Region 6**  
**Kansas City, Missouri**

The Lincoln Energy Conservation Project was the first project completed with the Department of Energy's Super ESPC contract by the General Services Administration (GSA) Region 6. Using \$3.78 million in funding earmarked for replacement of CFC containing chillers and installing an energy management system, the Lincoln Team took a "whole building approach" to complete the project. The \$4.4 million contract includes replacing the CFC chillers, installing a building-wide direct digital control system for energy

management, converting multi-zone air handling systems to variable air volume, retrofitting light fixtures, replacing steam traps, retrofitting the controls of the boilers, and installing water conserving plumbing fixtures. In order to complete all of the required work, GSA borrowed more than \$300,000. Reductions of \$119,966 and 23.7 million Btu of annual savings for the building have been realized. The project's annual savings are guaranteed, and the loan will be paid off in only 5 years.

## Alternative Financing Awards to Small Groups

**Charles Evans**  
**Stan Hall**  
**Paul Pimentel, PE**  
**Floria Standifer**  
**Timothy Wisner**  
**Atlanta Energy Performance Contract**  
**General Services Administration**  
**Atlanta, Georgia**



*Paul Pimentel, Timothy Wisner, Floria Standifer,  
Stan Hall, Charles Evans*

The Atlanta Energy Performance Contract is a DOE Super ESPC energy project incorporating the major Federal facilities of the General Services Administration's (GSA) Atlanta Property Management Center. The project demonstrates exceptional entrepreneurial drive in achieving the energy reduction requirements of Executive Order 13123. Following the Environmental Protection Agency's (EPA) ENERGY STAR® building methodologies, the project resulted in phenomenal energy savings – more than 30 billion Btu annually – enough to power 990 homes for 1 year. The project has received national recognition by attaining both the DOE Federal Energy Saver Showcase designation and the EPA ENERGY STAR® building certification for the Richard B. Russell Federal Building.

## Alternative Financing Awards to Individuals

**Cathe A. Grosshandler**  
**United States Postal Service**  
**Anchorage, Alaska**

Cathe Grosshandler used innovative and creative alternative financing strategies to implement a demonstration project that saved the United States Postal Service (USPS) Anchorage General Mail Facility (GMF) more than \$1 million. During the initial investigation, the USPS GMF was discovered to have a backup generator with a diesel underground storage tank that would not meet the 1998 EPA underground storage tank regulations. While looking into tank replacement options, Ms. Grosshandler discovered that a recent facility expansion had created some load problems, inspiring her to implement an alternative energy project. The project provides “green” power to the 300,000 square foot facility and is able to prevent the interruption of mail processing operations caused by power grid outages. Ms. Grosshandler's innovative efforts and perseverance brought this project to fruition.



*Cathe A. Grosshandler*



*William Tayler*

## Renewable Energy Awards to Organizations

**Navy Region Hawaii  
Department of the Navy  
Honolulu, Hawaii**

The Department of the Navy in Hawaii is transforming the market for solar water heating systems in the United States. Taking advantage of incentives offered by the local electric utility company, Hawaiian Electric Company (HECO), the Navy installed approximately 2,000 solar water heating systems on Navy housing units by the end of 2000. Additional solar energy systems are already under construction during 2001 and planned for during 2002 on Navy and Marine Corps Bases in Hawaii. In fact, the Navy's goal is to install solar panels in as many new housing projects as possible. Nearly all of the hot water requirements for these units will be from solar energy, and each system is sized to provide a minimum of 90 percent of the hot water heating requirements. The Navy installed 1,703 solar water heating systems through 2000 at a cost of \$1.8 million to the Navy after HECO paid nearly \$2.25 million in rebates, saving 14.5 billion Btu and \$400,000 annually.

## Renewable Energy Awards to Organizations



*Julie Berthold, GSA*

**Metcalf Solar Working Group  
General Services Administration,  
Environmental Protection Agency,  
Department of Energy  
Chicago, Illinois**

The General Services Administration (GSA), Environmental Protection Agency (EPA), and the Department of Energy (DOE) formed a multi-agency team to implement a 10 kilowatt solar photovoltaic system for the Ralph H. Metcalfe Building, EPA Region 5 Headquarters in Chicago, Illinois. The team developed and implemented a photovoltaic (PV) solar cell system that demonstrates a non-polluting, renewable energy approach for generating supplemental electricity for building operations. The photovoltaic system, which consists of 84 panels, will reduce carbon dioxide emissions by more than 20,000 lbs per year, equal to the emissions produced from driving an average passenger car 25,117 miles—or once around the world. In addition, an interactive kiosk system that displays the actual energy production of the PV panels is located in the Metcalfe Building lobby. Funded by DOE, this kiosk will be expanded to educate the general public about the benefits of the PV system and will also include segments on other types of renewable energy. The electricity generated from renewable energy offsets more than 61 million Btu yearly.

## Renewable Energy Awards to Small Groups

**Patrick Dawson**  
**Steve White**  
**National Capital Region**  
**General Services Administration**  
**Washington, DC**

The General Services Administration's National Capital Region (GSA/NCR) has installed a 100-kilowatt photovoltaic power system at the Suitland Federal Center in Suitland, Maryland, operational since the fall of 2000. This facility showcases renewable energy technology in the National Capital Region. Coordinated through GSA/NCR's Maintenance and Energy Branch, the project was funded by the GSA National Energy Center of Expertise. The largest installation to date in the Million Solar Roofs Initiative, this highly visible demonstration project serves as a working model for future photovoltaic installations. It reduces the Suitland Federal Center's conventional energy needs and offsets production of air pollutants and greenhouse gases. An on-site educational kiosk describes the plant's operation and provides current corresponding emissions reductions. Tours will be conducted for students, business leaders, community activists, and elected officials. The project is saving more than 528 million Btu and \$58,000 per year.



*Steve White and Patrick Dawson*

## Renewable Energy Awards to Small Groups

**Rhonda Brooks**  
**Kent Bullard**  
**Keith Duran**  
**Channel Islands**  
**National Park,**  
**National Park Service,**  
**Department of the Interior**  
**Ventura, California**

The Channel Islands National Park research vessel, Pacific Ranger, underwent a greening project that reduces its environmental impact while operating in sensitive marine areas. For the past 20 years, the vessel has regularly served as the Park research platform and has consumed more than 185,000 gallons of petroleum diesel fuel. Changes made to eliminate further petroleum diesel fuel consumption include utilizing re-refined motor oils and a "Purafiner" filter system, using battery storage and AC inverters instead of generators, installing a "Bulbous Bow" that reduces friction in the water, and operating the vessel on 100 percent biodiesel fuel. This conservation project reduced the fuel consumption of the Pacific Ranger by 24 percent and eliminated the use of more than 10,000 gallons of petroleum diesel fuel annually. The project reduced demand on petroleum resources, decreased exhaust emissions, demonstrated alternative fuels in marine service, and made the Pacific Ranger petroleum free.



*Kent Bullard*





*Lieutenant Commander  
Wade Wilhelm and  
Captain Jack Surash*

## Energy Efficiency/Energy Management Awards to Organizations

**Navy Region Southwest  
Department of the Navy  
San Diego, California**

Navy Region Southwest (NRSW) played a major role in helping its local utility avoid outages during last summer's energy crisis in California. Innovative and far-reaching demand-side initiatives accounted for the success of their efforts. By adopting new practices, NRSW helped avert Stage 3 alerts and regional rolling outages. New practices

include implementing a Resource Efficiency Management program to demonstrate innovative methods of optimizing business practices while reducing costs and enhancing facility operations. New technologies are also being presented such as MVWeb, a Web-based demand management system that identifies electricity anomalies and demand reduction opportunities. NRSW also used distributed generation, including photovoltaics and microturbines, as a part of their strategy. These practices have resulted in a savings of 58 billion Btu and approximately \$1 million for FY 2000.

## Energy Efficiency/Energy Management Awards to Organizations



*Mike Moran*

**Pacific Northwest National Laboratory  
Department of Energy  
Richland, Washington**

Pacific Northwest National Laboratory (PNNL) has 3,500 staff in 2 million square feet of building space. In March 2000, PNNL initiated a campaign to recommission its buildings and restructure building operations to run more effectively and efficiently. Energy saving strategies included fine-tuning the HVAC system, adjusting temperatures, and implementing more night setbacks. Savings from this no-cost campaign were 23 billion Btu of energy - 61,632 therms of natural gas and 5 million kilowatt hours of electricity - compared with energy consumption for March through December 2000. PNNL thus avoided more than \$180,000 in expected energy costs.

## Energy Efficiency/Energy Management Awards to Organizations

**NAVSEA Carderock,  
Surface Warfare Center Division  
Department of the Navy  
Bethesda, Maryland**

The NAVSEA Carderock Surface Warfare Center Division had a successful year in 2000, reaping the benefits of its energy efficiency measures by reducing energy consumption by more than 37 billion Btu and saving more than \$470,000. After replacing a steam heating system with a gas-fired package boiler and achieving a cost avoidance of nearly \$500,000, they turned to automatic controls to wring out further savings. In 2000, Carderock replaced its 15-year-old Energy Management Control System with state-of-the-art Direct Digital Control systems in 13 buildings. Carderock also completely renovated restroom facilities in three buildings, replacing and reducing the number of fixtures on site. All replacement fixtures are water-efficient and employ state-of-the-art electronic controls. Lights and exhaust fans in the renovated facilities are also automatically controlled using motion-sensing technology. Carderock is also attempting to decrease consumption of petroleum energy sources by using propane and electric ground transportation vehicles, and is promoting alternative transportation among employees to further reduce emissions.



*Robert Munday, Lieutenant  
Michael Monreal, and  
Lawrence Cummings*

## Energy Efficiency/Energy Management Awards to Organizations

**Radford Army  
Ammunition Plant  
Department of the Army  
Radford, Virginia**

The Radford Army Ammunition Plant is actively pursuing energy conservation through the implementation of energy projects and energy conservation awareness. The decrease in energy consumed resulted in fuel savings of more than \$350,000 and 230 billion Btu. These savings were due primarily to the continued emphasis on low cost/no cost energy conservation initiatives and increased Nitrocotton/Nitrocellulose production, which reduced the magnitude of steam line losses as a percentage of total plant steam. Projects included installing an oxygen trim for powerhouse boilers, reducing reactive power charges from American Electric Power, and varying steam turbine extraction pressures. Increasing plant energy conservation awareness and implementing energy conservation projects also contributed to savings at the plant.



*Dave Martin*



*Dr. Mehdi Ghaderi*

## Energy Efficiency/Energy Management Awards to Organizations

### U.S. Army Europe 6th Area Support Group Department of the Army Stuttgart, Germany

During FY 2000, the U.S. Army Europe's 6th Area Support Group (ASG) continued its successful energy program through implementation of numerous energy and water management projects, energy audits, and an active energy awareness program that has reduced energy intensity by 8 percent versus FY 1999 levels. The energy reductions translate to cost avoidance and savings of more than \$1 million. During FY 2000, the 6th ASG invested and implemented \$450,000 in energy conservation projects. A major effort included retrofitting more than 80,000 exit signs throughout 80 buildings with new light emitting diodes, installing approximately 400 motion sensors in 40 buildings to turn off lights during unoccupied hours, and using photo cells to control outside lighting. Total energy savings for the 6th ASG is more than 96 billion Btu.

## Energy Efficiency/Energy Management Awards to Organizations



*Jeff Hager*

### Holston Army Ammunition Plant Department of the Army Kingsport, Tennessee

For FY 2000, Holston's energy usage decreased by 1.7 percent, resulting in a coal and electricity cost reduction of 5.4 percent and 4.4 percent, respectively, from FY 1999 levels. This reduction is more significant when considering that no coal was produced in FY 1999, but 2.5 million lbs of coal were produced during FY 2000. Energy saving measures included low cost/no cost maintenance efforts such as peak demand shaving, steam trap maintenance, and reduction of steam pressure. Projects at the plant such as the modernization of the Explosive Plant also contributed to energy reduction. Energy conservation initiatives implemented during FY 2000 that contributed to Holston's energy performance were estimated to have reduced the plant's energy usage by more than 72.2 billion Btu and energy costs by more than \$1 million.

## Energy Efficiency/Energy Management Awards to Small Groups

**Jim Bertrand**  
**Lieutenant Tammy Gray**  
**Charles Guess**  
**Kelly Jordan**  
**Ron Trepanier**  
**17th Training Wing**  
**United States Air Force**  
**Goodfellow Air Force Base, Texas**



*Lieutenant Tammy Gray, Charles Guess, Kelly Jordan, and Ron Trepanier*

In order to meet and exceed the Federally mandated energy reduction goals set forth in Executive Order 13123, the 17th Training Wing Energy Team continually strives to find new ways to improve energy conservation throughout Goodfellow Air Force Base. The Energy Team manages all areas of conservation from energy management to HVAC improvements. Together, the Team made Goodfellow AFB a leader in energy awareness and conservation. During FY 2000, the Energy Team implemented a \$3 million ESPC with the Army Corps of Engineers. Nine new energy saving HVAC projects, extensive updates and improvements to the Energy Management Control System, and a highly visible energy awareness program contributed to savings of more than 25 billion Btu and \$246,000 per year for the Base.

## Energy Efficiency/Energy Management Awards to Small Groups

**James Crockett**  
**Ron Judkoff**  
**Larry Kilborn**  
**Patrick Shea**  
**Paul Torcellini, PE, Ph.D.**  
**Department of the Interior**  
**National Park Service,**  
**National Renewable Energy**  
**Laboratory**  
**Golden, Colorado**



*Paul Torcellini, NREL; Patrick Shea, NPS; and Ron Judkoff, NREL*

The Zion National Park Visitor Center design process was a collaborative effort between the National Park Service's Denver Service Center and the Department of Energy's National Renewable Energy Laboratory (NREL). Team members from NREL's Buildings and Thermal Systems Center provided technical support to optimize the energy performance of the building. The Denver Service Center developed the architectural design with input from NREL about the energy implications of design decisions. This "whole-building systems integration" process started in pre-design and continued through to commissioning occupancy. The process resulted in a building that uses 66 percent less energy than code and is virtually immune to the frequent power outages in the region. The project represents a synthesis of passive heating, cooling, and daylighting, energy efficiency, and photovoltaic technology. Shading, natural ventilation, passive evaporative cool-towers, clerestories, trombe walls, direct solar gain, thermal mass, high efficiency lights, and 7 kilowatts of photovoltaics all work together to nearly eliminate loads. The project resulted in cost savings of more than \$10,000 and 309 million Btu in site energy and 1 billion Btu in source energy.





*Russell Dominy*

## Innovative/New Technology Awards to Organizations

### European-Mediterranean (Euro-Med) ESPC Department of the Navy Port Hueneme, California

The Department of the Navy Euro-Med Acquisition Team designed an ESPC in a record 6 months and 11 days from requirement identification to contract and first project award. Not only was the speed of the ESPC development impressive, but it was done while meeting the special needs of seven separate foreign countries and was accomplished by team members spread across nine time zones. The Navy will avoid \$1.3 million in annual energy-related costs and 185 billion Btu due to the implementation of energy conservation measures 1 year in advance of previous lead times. The Navy accomplished the energy reductions by effectively integrating the technical requirements of performance contracting and the streamlined processes of fast track source selection. Projects at Naval Air Station Sigonella (Italy), Naval Air Station Rota (Spain), and Naval Activities United Kingdom are in progress as of December 2000, and would not have been contemplated if the acquisition streamlining procedures had not been implemented.

## Innovative/New Technology Awards to Organizations



*Chris Karandang and Robert Wood*

### Naval Base Ventura County Department of the Navy Point Mugu, California

One of two Naval facilities designated as a Federal Energy Saver Showcase, Building 850 at Naval Base Ventura County has been designed to fully demonstrate state-of-the-art technologies. The building is designed to make use of 100 percent natural daylighting, and has zero net energy usage from the electric utility. Sustainable building design technologies and products are incorporated throughout the building, and its renewable energy technologies include a 31 kilovolt-ampere photovoltaic (PV) array and a solar water heating system. Excess power not used by Building 850 is routed to the electrical grid for use by other base requirements. The PV system also provides non-interruptible power to computers, lighting, ventilation, and control systems. While the energy savings are substantial in Building 850, even greater value will be realized through the replication and the adoption of the building's cutting-edge technologies by other public and private sector organizations.

## Innovative/New Technology Awards to Organizations

### **The John Heinz National Wildlife Refuge at Tinicum Fish and Wildlife Service Department of the Interior Philadelphia, Pennsylvania**

The new Cusano Environmental Education Center at the John Heinz National Wildlife Refuge in Tinicum, Pennsylvania, is a model for the conservation and efficient use of energy and water. The center incorporates geothermal heating and cooling, energy efficient lighting, a well-insulated building envelope, and natural daylighting to reduce building energy consumption. Other sustainable design strategies include use of green building materials with significant recycled content. The geothermal heating and cooling system alone is estimated to save approximately 25 percent of the energy compared to a conventional system. In addition, the center has implemented an innovative on-site “marsh machine,” an organic wastewater treatment plant. Estimated savings for the project include \$3,850 for the geothermal heat pump alone and more than 119 million Btu for FY 2000.



*Dick Nugent*

## Innovative/New Technology Awards to Small Groups

### **Jerard Butler Barbara McPhelim Ken Shutika Don Stiteler Aggregate Power Procurement Team General Services Administration - Mid-Atlantic Region Philadelphia, Pennsylvania**

The General Services Administration (GSA) Mid-Atlantic Region combined the electric requirements of six of their sites with the electric requirements of two non-GSA accounts, and went looking to buy with the combined requirement of 3 million kilowatt hours of renewable electricity. The innovative aggregate power purchase approach resulted in an account large enough to entice very competitive pricing. The method allowed GSA to purchase 100 percent renewable power from 100 percent renewable resources with little or no price premium versus long-term regulated rates. The GSA purchased Green-E certified biomass electricity. The contract was GSA's first procurement for renewable power in Pennsylvania.



*Don Stiteler, Barbara McPhelim,  
and Jerard Butler*

## Innovative/New Technology Awards to Small Groups

**Patrina Eiffert**

**Nate Eisenpress**

**Kendall Kam**

**Stephen Meder**

**Art Seki**

**Ford Island Boathouse Building Integrated PV System**

**Department of the Navy**

**Pearl Harbor, Hawaii**

A partnership between the Commander Navy Region Hawaii; Pacific Division, Naval Facilities Engineering Command; Hawaiian Electric Company; the National Renewable Energy Laboratory; and the University of Hawaii resulted in the installation of a 2.8 kilowatt building-integrated photovoltaic (PV) roof system on the Ford Island boathouse in Pearl Harbor. This demonstration project generates nearly 3 kilowatts of electricity under full sun from a series of PV modules imbedded into the roofing material of the boathouse. The system generates nearly 5,000 kilowatt hours per year, producing an annual savings of approximately \$500. The project is helping the Navy to evaluate the potential use of PV systems integrated with building materials to help meet electricity requirements and its use as an emission reduction strategy. The system is estimated to save more than 16.6 million Btu per year.

## Effective Program Implementation and Management Awards to Organizations

**You Have the Power Campaign**

**Interagency**

**Washington, DC**



*(Left to right) Tim Arthurs, State; Phil Wirdzek, Environmental Protection Agency; Scott Waldman, Health and Human Services; Jeff Hager, Army; Scott Howard, Social Security Administration; Jennifer Landsman-Ayres, Carl Costello, Greening America; Rajinder Garg, Veterans Affairs; Sharon Holcombe, Agriculture; Bill Lawrence, Justice; George Kuehn, Transportation; Beth Shearer, FEMP Director; Annie Haskins, You HAVE the POWER Program Manager; Pat Clark, Labor; Paul Fennewald, USPS; John Moresko, Interior*

*Not present: K. Quinn Hart, Air Force; Jim Woods, Commerce; Nellie Tibbs-Greer, Energy; Mark Ewing, General Services Administration; Tom Hamilton, Housing and Urban Development; Rich Wickman, NASA; Jose Maniwang, Navy; and Bill McGovern, Treasury*

Recognizing that personal behavior is critically important to reducing energy consumption, the *YOU HAVE the POWER* Energy Awareness Campaign was launched by DOE's Federal Energy Management Program in 1997 to assist Federal energy managers in spreading the word about energy-efficient practices and products, as well as facilitate partnerships with energy-related organizations in the private sector. Now in its fifth year, the campaign instills energy efficiency as a basic value among Federal agencies, private sector companies that work with them, and the general public that use, enjoy, and depend on Federal facilities. The campaign's theme is designed to give every Federal worker authority to take positive action to implement Federal energy reduction goals. Twenty of the largest Federal agencies participate in the *YOU HAVE the POWER* campaign. Along with hosting Interagency planning meetings, working with agency Coordinators on a one-on-one basis, and utilizing a wide array of outreach materials and events, the campaign recognizes Energy Champions who have developed and advocated innovative practices at their agencies that save energy and money and improve the efficiency of the Federal government. During FY 2000, the campaign recognized 71 new Federal Energy Champions, bringing the total number of Energy Champions to 296 since the inception of the campaign.

## Effective Program Implementation and Management Awards to Organizations

### NAVSEA Crane, Surface Warfare Center Division Department of Navy Crane, Indiana

The NAVSEA Crane, Surface Warfare Center Division in Crane, Indiana, targeted the improvement of the Center's heating and air conditioning systems. After pinpointing high energy-consuming buildings through analysis of utility bills, Crane enlisted the support of its 96 Building Energy Monitors and Public Works Inspectors to perform building envelope surveys and identify and correct cold air infiltration and areas of heat loss. The result was a solid success with a 21 percent reduction in Btu during winter months and a major steam trap repair effort that saved 10 million Btu and \$68,000 per year. Crane also repaired steam leaks, saving \$37,901. In the summer, a major effort went into repairing or replacing thermostat controls and optimizing systems. The thermostat replacement is saving more than 7 billion Btu annually with a cost savings of \$48,409 per year. The effort resulted in a 2 percent reduction in Btu during summer months. Energy consumption was reduced by 8.3 percent for FY 2000 as a result of Crane's diligent efforts. By implementing the basic principles of energy management: contain, control, and optimization, as well as utilizing employee awareness and outreach activities, the Crane Energy Management Program is maximizing the Center's energy benefits.



*Brent Storey and Captain Select  
F. Frank Aucremanne*

## Effective Program Implementation and Management Awards to Organizations

### Property Management Division Great Lakes Region General Services Administration Chicago, Illinois

The General Services Administration's Great Lakes Region is focusing significant attention on older and historic Federal courthouses as a part of its Courthouse Energy Renovation Program. The courthouses, most of which are between 69 and 101 years old, are in need of significant upgrades. Funds from the Energy Center of Expertise allowed for whole building retrofits of three Federal courthouses in Indianapolis, Indiana; Milwaukee, Wisconsin; and South Bend, Indiana. More than \$1.44 million was invested in the three courthouses saving more than 13 billion Btu and \$168,000 annually. All three courthouses qualified for the ENERGY STAR® label during 2000 and have received numerous other building awards. The whole building retrofits for the courthouses included energy management system improvements, lighting upgrades, steam trap replacements, and direct digital control upgrades.



*Jerry Guca and Julie Berthold*





*Michael Hoffman, Richard Crowson, Jane Loyer, and Tim Arthurs*

## Effective Program Implementation and Management Awards to Small Groups

**Richard H. Crowson**  
**Peter Greenberg**  
**Michael Hoffman**  
**Margaret Lewis**  
**Jane Loyer**  
**Foreign Building Operations**  
**Department of State**  
**Arlington, Virginia**

In an effort to provide full lighting efficiency services to eight U.S. Missions that would otherwise be unable to support such projects, managers from the State Department's Utility Management Program teamed up with the DOE's Bonneville Power Administration and Energy Wise Lighting, a private contractor.

Many of the project locations are in areas where utility costs are high, utility availability is uncertain, and mission maintenance staff is strained or non-existent. For FY 2000, the project saved \$188,365 and more than 5 billion Btu during FY 2000. The U.S. Missions receiving the benefit of these lighting services include Singapore; Ulaanbaatar, Mongolia; Phnom Penh and Laos, Cambodia; Ho Chi Minh City, Vietnam; Bogota, Colombia; Djibouti, Republic of Djibouti; Havana, Cuba; and T'blisi, Republic of Georgia. By minimizing overall costs and maximizing utility services to U.S. Missions, the State Department's Utility Management Program reaches many diverse locations around the world.



*Guy Lunay, Carol Lautzenheiser, Mark Trimarchi, and Kevin Myles*

## Effective Program Implementation and Management Awards to Small Groups

**James Kuo**  
**Carol Lautzenheiser**  
**Guy Lunay**  
**Kevin Myles**  
**Mark Trimarchi**  
**Greater Southwest Region**  
**General Services Administration**  
**Fort Worth, Texas**

The General Services Administration's (GSA) Greater Southwest Energy Team has successfully accomplished much groundbreaking work in the way GSA procures utility services, energy-efficient building equipment, building infrastructure improvements, and energy conservation services.

During FY 2000 alone, the Energy Team completed three projects that resulted in significant energy and maintenance savings and allowed the needed replacement of aging equipment. Two of these projects were financed through an ESPC and one was funded outright. The three projects, encompassing 26 GSA buildings in Texas, will save more than 30 billion Btu and \$740,000 per year in energy, water, and maintenance costs. The largest project is a \$3.97 million, multiple-building ESPC project covering seven GSA buildings in the Austin, Texas area. The Energy Team's work has provided a substantial and much needed supplement to the limited funds available for updating, repairing, and maintaining the region's Federal properties.

## Effective Program Implementation and Management Awards to Small Groups

LTC Carmen Anderson  
LTC Scott Ayres, PE, CEM  
CW3 Rickey Johns, CEM  
LTC Don Juhasz, ME, CEM  
Mr. Sam Truax, PE, CEM  
Army National Guard  
Department of the Army  
Arlington, Virginia



*Sam Truax, Lieutenant Colonel Scott Ayres, Lieutenant Colonel Carmen Anderson, Chief Warrant Officer 3 Rickey Johns, Lieutenant Colonel Don Juhasz, and BG Michael Squier*

With its broad-based energy program, the Army National Guard's Energy Working Group serves 29,608 facilities in all 50 states and several U.S. Territories. During FY 2000, the Energy Working Group assisted in the development and implementation of energy projects totaling more than \$5.3 million, including the first Energy Conservation Investment Program military construction project that was awarded for \$850,000. Eight comprehensive energy audits were completed at 122 facilities resulting in 378 projects with a first year savings of \$1.2 million. The Energy Working Group managed wind data and installed a 225-kilowatt wind turbine with an annual savings of \$22,000. To enhance energy awareness, the Energy Working Group provided two energy manager training courses and an executive course for 127 energy managers and the Army National Guard's leadership. The group also hosted Army National Guard Day at Energy 2000 for approximately 90 participants and presented energy awareness briefings at the Army National Guard's National Engineering Conference for 328 Army National Guard engineering participants.

## Effective Program Implementation and Management Awards to Individuals

Thomas W. Waller  
Columbus Air Force Base  
United States Air Force  
Columbus Air Force Base, Missouri



*Thomas W. Waller*

Assertive energy management and consistent dedication are just a few of the exemplary characteristics that Thomas Waller brings to the Energy Program at Columbus Air Force Base. His technical expertise and mission-minded service have improved the base's infrastructure, reduced maintenance requirements, and increased operations. Through Mr. Waller's efforts, the highlight of Columbus AFB's Energy Program is a phenomenal increase of nearly 11 percent in energy efficiency at the Base. During FY 2000, Mr. Waller partnered with the Tennessee Valley Authority to analyze the potential application of capacitor banks to lower the power factor of Columbus AFB's electric service. Doing so reduced the base's summer cooling costs by \$3,000 per month. Under Mr. Waller's leadership, the Energy Program's "Tiger" Team conducted a comprehensive facility review targeting not only the HVAC system, but other factors that change its efficiency and optimization. The Team initiated an energy monitoring and control system-supported trend log analyses and hands-on facility surveys. The evaluations will result in an estimated annual energy savings of 205 million Btu. During FY 2000, Mr. Waller also reviewed \$2.3 million in construction projects for energy efficiency by using his engineering expertise, a highly-coordinated systems approach, and a thorough assessment of all energy-related systems. In addition, his rigorous implementation of ESPC contracting has proven its effectiveness. Mr. Waller's consistent efforts during FY 2000 made the year an outstanding success for the Columbus AFB Energy Program.



*Garland Scott*

## Effective Program Implementation and Management Awards to Individuals

**Garland Scott**  
**Randolph Air Force Base**  
**United States Air Force**  
**Randolph Air Force Base, Texas**

Spearheading one of the most effective and efficient energy programs in the Air Force, Garland Scott brings 25 years of energy management experience and knowledge to the 13 Air Force installations at Randolph Air Force Base, Texas. Mr. Scott's dedication to the Air Education and Training Command's (AETC) Energy Management Program has been instrumental in AETC achieving a 22.2 percent reduction over its 1985 baseline. He developed and implemented the AETC Energy Management Incentive Award in which 13 Air Force installations compete for \$100,000 each year for their Energy Awareness and Conservation Programs. The program has sparked genuine interest within the command and has contributed to AETC consistently meeting or exceeding energy reduction goals. Mr. Scott's efforts to finance

energy efficiency improvements have resulted in the development of 15 ESPC task orders totaling \$44 million. The ESPCs will result in a cumulative reduction in energy savings of \$5.2 million per year and 287 billion Btu per year with a total of 5.1 trillion Btu saved over the life of the contracts. He was also responsible for developing ten task orders for utility energy service contracts. Mr. Scott's other noteworthy accomplishments at Randolph AFB include the installation of a 1.2 million gallon thermal energy storage tank, central chiller plant tie-ins for six additional facilities, removal of six energy-hog chillers, and automatic controls to capture peak-load savings. The upgrade to the Base became a model for several other initiatives at AETC. Mr. Scott's keen knowledge of the energy field coupled with his extraordinary knowledge and involvement in alternative financing have proven critical to the successful implementation of over \$200 million in projects.



*Ron Durfey*

## Exceptional Service Awards to Individuals

**Ron Durfey**  
**United States Marine Corps**  
**Yuma, Arizona**

Located in the Southwest corner of Arizona, the Marine Corps Air Station (MCAS) Yuma is the most heavily utilized air facility in the Marine Corps. Because of its location and mission requirements, the MCAS had to be both creative and versatile in dealing with energy and water usage that directly affect productivity and working conditions at the Air Station and the quality of life for Marine Corps personnel and family members. With dwindling Federal funding available for energy conservation, Mr. Durfey was one of the first energy managers to implement guidance issued by Headquarters, Marine Corps to utilize alternative financing to execute energy efficiency projects. These projects include lighting retrofits, replacement of antiquated motor generators, and recommissioning of thermal energy storage units. Under Mr. Durfey's leadership, MCAS Yuma has reduced energy consumption at its shore facilities by more than 25 percent versus the 1985 baseline.



## Exceptional Service Awards to Individuals

**William G. King, Jr.**  
**United States Air Force**  
**Eielson Air Force Base, Alaska**

William King's innovative approach to energy management has consistently helped to save energy and improve the efficiency on Eielson Air Force Base. His tireless efforts during FY 2000 will result in an energy and water savings performance contract that will save approximately 24 billion Btu per year, equating to more than \$330,000 saved annually. His expertise in renewable energy sources ensured the conversion of 1,505 tons of solid waste into a usable fuel source for Eielson Air Force Base. Mr. King's impressive knowledge of utility systems was instrumental in the planning, design, and construction of several distribution projects that may save the Base over \$3 million in energy costs annually.



*William G. King, Jr.*

## Exceptional Service Awards to Individuals

**Gene McCann**  
**Mike Monroney Aeronautical Center Academy**  
**Federal Aviation Administration**  
**Department of Transportation**  
**Oklahoma City, Oklahoma**

Gene McCann is the energy coordinator of the Academy organization at Mike Monroney Aeronautical Center's (MMAC) largest single energy-consuming entity. As energy coordinator, Mr. McCann undertook an energetic campaign to instill new attitudes about and commitment to energy conservation in a complex organization. The Academy's mission requires providing diverse training classes and operating major energy-consuming equipment beyond normal office hours. Conserving energy would require that MMAC's systems be operated differently. The Academy's energy consumption was not being reduced nearly enough to comply with Federal mandates of MMAC's reduction goals. Mr. McCann has been successful in incorporating energy efficiency in all new and renovation construction projects. Directly due to Mr. McCann's perseverance and imaginative campaigning, the Academy has become one of the most energy conscious and efficient organizations within MMAC. His accomplishments include establishing an energy conservation team, developing an Academy energy conservation plan, and exceeding quarterly goals by 7 percent, remarkably through one of the coldest winters on record. As a result of Mr. McCann's efforts, MMAC saved more than \$134,000 and 13 billion Btu during FY 2000.



*Gene McCann*





*Chief James Trocke*

## Director's Award to Individuals

**Chief James Trocke**  
**United States Marine Corps**  
**U.S. Marine Corps Air Station, Iwakuni**

Chief James Trocke is receiving the 2001 Director's award for his role in three projects undertaken during FY 2000. As Air Station Energy Manager, Chief Trocke orchestrated Energy Awareness Week 2000, full of fun and innovative events that encouraged all Air Station residents to focus on energy conservation and usage. On a regular basis, Chief Trocke ensures that the Air Station is using its limited and expensive resources to their fullest. Renegotiation of the base's electrical billing rates, implementation of an aggressive underground pipeline water leak detection plan, and a comprehensive energy conservation awareness program are just a few outstanding achievements Chief Trocke spearheaded during FY 2000. To combat the long term effects of incurring new electrical consumption peak levels, the Marine Corps Air Station Iwakuni, Japan and Chief Trocke implemented a comprehensive action plan called "Green Out" during FY 2000. Recognizing the costly nature of setting new electrical consumption peaks, the command implemented a comprehensive, power shaving plan to reduce electrical loads during critical time periods. Aggressive on-Base media coverage and Base-wide flash e-mail messages on all station personal computers ensured that all electrical power users participated in reducing office, household, and workplace usage where feasible. As a result of the entire Air Station's cooperation in this program, new electrical peak charges were avoided. This Base-wide effort, along with Mr. Trocke's personal achievements, have saved the Iwakuni Air Station more than 50 billion Btu and more than \$1.5 million.

## Lou R. Harris Jr. Award



*David Waller*

**David Waller**  
**Hawaiian Electric Company**  
**Honolulu, Hawaii**

David Waller works to form partnerships with Federal agencies in Hawaii to help them achieve the goals outlined in Executive Order 13123. Mr. Waller accomplishes this task by installing energy efficient technologies, employing water conservation measures, and incorporating the use of renewable energy at Federal facilities. Mr. Waller provides leadership and overall management responsibility for the Energy Services Department at the Hawaiian Electric Company (HECO). Mr. Waller's professional standards of excellence are exemplified in his technical and team-building expertise. His efforts to develop partnerships between HECO and its Federal customers are focused on cooperatively accomplishing mutual objectives that include achieving energy and cost savings and environmental benefits, improving work environments, and promoting economic development and job creation. Under Mr. Waller's guidance, "A Partnership to Save Energy" has resulted in a number of successful partnerships between Hawaiian Electric Company and a number of Federal agencies, including the General Services Administration, Department of Defense, United States Postal Service, Department of Energy, and the Environmental Protection Agency. Mr. Waller was also involved in implementing HECO's own Green Lights Program which, through a major conversion to efficient lighting, now saves the company 1.3 million kilowatts per year.

## Lou R. Harris Jr. Award

**Captain John E. Surash**  
Department of the Navy  
San Diego, California

As Assistant Chief of Staff for facilities, Captain John E. “Jack” Surash plays a key leadership role in maintaining the energy efficiency of the Navy Region Southwest (NRSW). In partnership with the Southwest Division, Naval Facilities Engineering Command (SOUTHWESTDIV), Captain Surash initiated an aggressive program to upgrade the energy efficiency of NRSW facilities throughout the San Diego area through SOUTHWESTDIV’s Utility Energy Service Contract (UESC) with San Diego Gas & Electric. The projects performed under the UESC offer over \$5 million per year in energy savings with a simple payback of less than 10 years. In addition to advancing the energy efficiency of NRSW facilities through UESC contracting, Captain Surash established a Regional Energy Program Office (REPO) to manage NRSW’s energy programs. He also established one of the Federal government’s first resource efficiency management contracts to provide expert support to REPO, and built strong partnerships with SOUTHWESTDIV, the Federal Energy Management Program, the Department of Energy National Laboratories, the Federal Utility Partnership Working Group, and San Diego area local governments and community groups. Captain Surash’s accomplishments were demonstrated during the California energy crisis, when he mobilized his team and enlisted the help of his partner organizations to counter the effects of the crisis and to help address its root causes. As a direct result of Captain Surash’s efforts, three NRSW bases in San Diego achieved a cumulative 11 percent reduction in shore facility electricity consumption since July 2000 compared to the same period last year.



*Captain John E. Surash*

## ENERGY STAR® Building Award for Superior Performance

ENERGY STAR® is a symbol of energy efficiency established by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE). Buildings that are among the top 25 percent nationwide in terms of energy performance (earning a benchmarking score of 75 or greater) and maintain an indoor environment that conforms to industry standards can qualify to receive the ENERGY STAR® label for buildings.

In FY 2000 the following buildings, operated and maintained by the General Services Administration (GSA), achieved a benchmarking score of 95 or higher:

**Prince Kuhio Kalanianoʻe Federal Building,**  
U.S. Courthouse, Honolulu, Hawaii

**El Paso Federal Office Building**  
El Paso, Texas

**Federal Building, U.S. Courthouse**  
Lafayette, Louisiana

**Federal Building**  
Tucson, Arizona

**U.S. Customhouse**  
New Orleans, Louisiana

**A. Maceo Smith Federal Building**  
Dallas, Texas

**Federal Building, U.S. Courthouse**  
Las Vegas, Nevada

**Chet Holifield Federal Building**  
Laguna Niguel, California



*Kathleen Hogan, EPA and Mark Ewing, GSA*

The superior performance rating of these Federal buildings reflects the leadership, dedication, and contributions of GSA building designers, operators, and managers who are responsible for the Federal government’s real property assets.



# FEDERAL

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## ENERGY SAVER SHOWCASE FACILITIES

Eighteen outstanding Federal facilities were awarded Federal Energy Saver Showcase designation in 2001. These 18 facilities are expected to save the government 50 million kilowatt hours of energy, or about \$2 million in energy costs, each year.

Since 1995, FEMP has recognized more than 70 facilities across the country as Federal Energy Saver Showcases. Located throughout the Nation, this year's showcase facilities utilize technologies and strategies that range from a comprehensive energy retrofit project of a 29-building Federal facility campus and an installation of the nation's largest commercial fuel cell system to the use of off-the-shelf energy-saving technologies. Each facility nominated by their respective agencies features energy efficiency, renewable energy, or water conservation technologies designed to save natural resources and reduce operating costs.

**Department of Agriculture  
Animal and Plant Health Inspection Service**

**Wildlife Services – National Wildlife Research Center  
Animal Research Building  
Fort Collins, Colorado**

Despite their limited building and maintenance budget, the USDA made effective use of off-the-shelf technologies to save energy and conserve water. A new building control system, electrical duty timers, and boiler combustion analysis reduces energy consumption by almost 35 percent, while new water pressure pumps and set-back timers on the high pressure steam boilers save more than 400 million gallons of water each year.



*Joseph Fuller accepted an award for the Animal Research Building, Fort Collins, Colorado.*

**Department of Commerce  
National Oceanic and  
Atmospheric Administration**

**Guam Weather Forecast Office  
Barrigada, Guam**

This low-maintenance, energy efficient building is designed so that the HVAC and lighting systems use up to 30 percent less energy than a conventional building. Energy savings are achieved through the use of high-efficiency HVAC and lighting systems, passive solar design to maximize natural daylighting and minimize solar heat gains, while use of recycled and non-toxic materials help to meet sustainable design goals and improve indoor air quality.



*James Woods and Sherrilyn Villegas accepted an award for the Guam Weather Forecast Office, Barrigada, Guam.*

**Department of Defense Navy  
MCPON Plackett Manor**

**Great Lakes Naval Training Center  
Great Lakes, Illinois**

This Leadership in Energy and Environmental Design (LEED)-certified sustainable design project, the first of its kind for the Navy, entailed design and construction of nine new dormitory facilities to house more than 2,000 sailors. As part of the sustainable design process, energy efficiency goals were established and the project was designed to minimize impact on undeveloped land and make use of existing utilities and transportation infrastructure.





*Michael Geynisman accepted an award for the Fermi National Accelerator Laboratory, Batavia, Illinois.*

## Department of Energy

### Fermi National Accelerator Laboratory Batavia, Illinois

Since the inception of the Laboratory's utility-based, alternatively-financed, campus-wide energy efficiency program in 2000, energy-efficient lighting systems, occupancy sensors, and direct digital controls have been installed and transformers, motors, and cooling towers have been replaced. Replacement and reconfiguration of the cooling towers and compressors used in the Central Helium Liquefier Plant have produced additional energy and operational efficiencies, resulting in 30 percent savings.



*Richard Gaistia accepted an award for the Albuquerque Public Health Service Indian Hospital, Albuquerque, New Mexico.*

## Department of Health and Human Services

### Albuquerque Public Health Service Indian Hospital Albuquerque, New Mexico

To reduce energy use, and associated costs of the existing HVAC system, a geothermal heating and cooling system consisting of 210 closed-loop boreholes was installed. To further improve efficiency, the system was upgraded with variable speed pumps and direct digital controllers.

## United States Postal Service

### Center Ossipee Post Office Center Ossipee, New Hampshire

This project was completed as part of a district-wide energy efficiency retrofit program, saving significant energy and dollars. With the installation of efficient lighting upgrades and LED exit lights, the Post Office achieved 40 percent energy savings per square foot. Future upgrades for the New Hampshire district include installation of setback thermostats, hot water heater timers, and point-of-use hot water heaters.

## Department of the Interior Fish and Wildlife Service

### Cusano Environmental Education Center

#### John Heinz National Wildlife Refuge at Tinicum Philadelphia, Pennsylvania

This innovative new building incorporates geothermal heating and cooling, energy-efficient lighting, a well-insulated building envelope, and natural daylighting to reduce building energy consumption, improve occupant comfort, and demonstrate the center's mission to the thousands of visitors expected each year. Other sustainable design strategies include use of recycled materials and an on-site "marsh machine," an organic wastewater treatment plant.



*John Moresko accepted an award for the Cusano Environmental Education Center, Philadelphia, Pennsylvania.*

## Department of State

### Florida Regional Center Oakland Park Facility Ft. Lauderdale, Florida

This "solar showcase facility" demonstrates the cost and energy saving potential of solar energy sources in geographic locations best suited for their application. Solar photovoltaic panels power parking lot lights to provide much-needed evening illumination for the building's parking lot, and flat-plate solar collectors mounted on the building's roof provide heating for domestic hot water.



*Tim Arthurs accepted an award for the Florida Regional Center, Oakland Park Facility, Fort Lauderdale, Florida.*

## United States Postal Service

### Center Sandwich Post Office Center Sandwich, New Hampshire

As part of a district-wide energy efficiency retrofit program, efficient lighting upgrades and LED exit lights are cutting costs and saving energy. This facility, just one of 111 New Hampshire Postal Centers that has undergone these efficiency upgrades, uses 43 percent less energy per square foot. Future upgrades for the entire New Hampshire district include installation of setback thermostats, hot water heater timers, and point-of-use hot water heaters.



*Brian C. McClung accepted an award for the VA Salt Lake City Health Care System, Salt Lake City, Utah.*

## Department of Veterans Affairs

### **Salt Lake City Health Care System Salt Lake City, Utah**

Through a comprehensive energy retrofit project of all 29 buildings on the campus, almost \$500,000 will be saved each year in energy costs alone. By using an energy savings performance contract, the center was able to install 16 energy conservation measures, including a solar domestic water heating system, a new medical waste sterilizer, a new chiller plant, and HVAC equipment.



*Julie Berthold accepted an award for the Ralph H. Metcalfe Federal Building, Chicago, Illinois.*

## General Services Administration

### **Ralph H. Metcalfe Federal Building Chicago, Illinois**

The GSA, working with the EPA and the DOE, recently completed a roof-mounted, grid-connected photovoltaic system on the Metcalfe Federal Building. This system not only saves energy, but also reduces carbon dioxide emissions and meets the requirements of the Million Solar Roofs initiative.

## United States Postal Service

### **Anchorage Processing & Distribution Center/ Air Mail Facility Anchorage, Alaska**

The high-tech plant in this facility is powered by five 200-kilowatt natural gas phosphoric acid fuel cells, the nation's largest commercial fuel cell system. Not only do the fuel cells provide enough electricity to power the entire facility, they also create enough waste heat to meet most of the building's thermal load, thereby further reducing overall energy consumption.

## General Services Administration

### Leo W. O'Brien Federal Building Albany, New York

One of two pilot projects in the Northeast Super ESPC program, this energy efficiency project included installation of building automation systems, energy-efficient lighting, and electric-to-gas conversion of the building's HVAC and domestic hot water systems. A rebate from the New York State Energy Research and Development Authority made this energy-saving project even more cost-effective.



*Brian McDevitt accepted an award for the Leo W. O'Brien Federal Building, Albany, New York.*

## National Aeronautics and Space Administration

### Dryden Flight Research Center Aircraft Support Facility, Building 1623 Edwards, California

In replacing the oversized and inefficient aircraft hangar heating system in Building 1623 with a modern forced-air system employing a solar ventilation air pre-heating system and modular gas-fired condensing boilers, NASA simultaneously improved indoor air quality, reduced greenhouse gas emissions, and saved energy. Emissions reductions were so significant the boilers no longer require expensive air permitting.



*Richard A. Wickman accepted an award for the Aircraft Support Facility, Dryden Flight Research Center, Edwards,*

## General Services Administration

### Richard B. Russell Federal Building Atlanta, Georgia

This ENERGY STAR® Building incorporates energy-efficient lighting systems together with new high-efficiency and non-CFC HVAC equipment to achieve significant energy and cost savings while providing environmental benefits. An energy savings performance contract was utilized to finance the energy conservation measures rather than use appropriated funds.



*Tim Wisner accepted an award for the Richard B. Russell Federal Building, Atlanta, Georgia.*





*Glen Phillips and Robert High accepted an award for the PSC Parklawn Building, Rockville, Maryland.*

## Department of Health and Human Services

### Program Support Center Parklawn Building Rockville, Maryland

Over 2 million kilowatt hours and 6.3 million gallons of water will be saved annually due to the recent installation of energy-efficient lighting upgrades and water-conserving fixtures financed through a utility energy savings contract. More than 90,000 people visit the Parklawn building each year.



*Henry D. Toney accepted an award for the BEP Main Building, Washington, D.C.*

## Department of the Treasury

### Bureau of Engraving and Printing, Main Building Washington, D.C.

Vintage 1960s cooling towers and chillers were recently replaced with new high-efficiency units, reducing energy consumption by almost 40 percent. In addition, a new carbon fluidized bed/thermal oxidizer, needed to control volatile organic compounds (VOCs) emissions from the currency printing process, significantly reduces natural gas consumption while also reducing nitrous oxide emissions by as much as 96 percent.

## United States Postal Service

### Gilsum Post Office Gilsum, New Hampshire

As part of a district-wide energy efficiency retrofit program, efficient lighting upgrades and LED exit lights are saving significant energy and dollars. This highly replicated project saves this facility alone 40 percent in energy per square foot. Future upgrades planned for the entire New Hampshire district include installation of setback thermostats, hot water heater timers, and point-of-use hot water heaters.

# SUMMARY

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Energy efficiency is the ability to use less energy to produce the same amount of work. For a Federal agency, it means lower energy bills. For the government as a whole, it means making the most of America's natural resources, lowering reliance on imports, and mitigating impacts on the environment.

Dependable, affordable, and secure energy – with less impact on the environment—is a shared responsibility of every Federal agency. Government personnel at all levels are working to save energy and money for American taxpayers.

*Federal agencies are using energy more wisely.* Dramatic technological advances in energy efficiency have enabled Federal employees to make great strides in energy savings — from the operation of industrial facilities to the construction of new Federal buildings.

*Federal agencies are modernizing and upgrading facilities.* Inadequate and antiquated buildings and facilities are not being allowed to further deteriorate and fall into disrepair. New public-private partnerships and innovative financing are being arranged to renovate, refurbish, and revitalize our country's publicly-owned facilities.

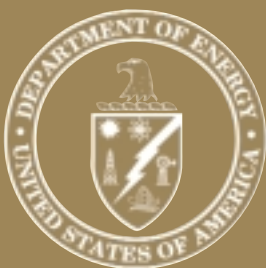
*Federal agencies are including diverse and distributed energy supplies.* Even with efficiency gains and successful conservation efforts, the Federal government is increasing its use of renewable and alternative fuels to ensure the Nation's energy security.

The Federal government is addressing the President's National Energy Policy with advanced technology, dedicated leadership, public-private partnerships, and a coordinated plan shared among all Federal agencies. With continued dedication and purpose, America can look forward to dependable, affordable, and secure energy supplies, with less impact on the environment and less cost to the American taxpayer.









**United States  
Department of Energy**

**Office of Energy Efficiency  
and Renewable Energy**

**Federal Energy Management Program**

**[www.eren.doe.gov/femp](http://www.eren.doe.gov/femp)**

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