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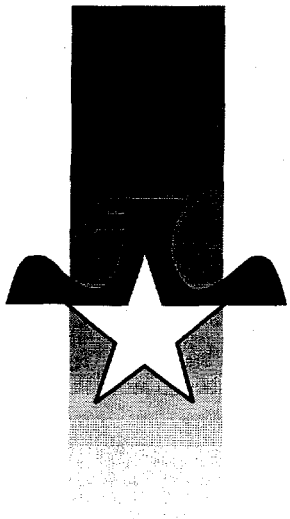

The Department of Energy

and the

Federal Interagency
Energy Policy Committee

1998 Federal Energy and Water Management Award Winners

October 28, 1998

DISCLAIMER

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Acknowledgements

The Department of Energy, Federal Energy Management Program would like to thank the following individuals and agencies for their assistance in evaluating the nominations for the 1998 Federal Energy and Water Management Awards:

Department of the Interior - John Moresko

National Aeronautics and Space Administration - Richard Wickman

Department of Transportation - George Kuehn

Lawrence Berkeley National Laboratory - Brad Gustafson

Department of State - Greg Krisanda, Robert Urdinola

General Services Administration - Brian McDevitt

FEMP would also like to thank the National Capital Chapter of the Association of Energy Engineers for their Assistance in pre-evaluation screening of the nominations.

Secretary of Energy ..... The Honorable William Richardson

Assistant Secretary of Energy Efficiency & Renewable Energy ..... Dan W. Reicher

FEMP Director ..... John Archibald

FEMP Awards Program Manager ..... Nellie Tibbs

FEMP
FEDERAL ENERGY MANAGEMENT PROGRAM

Pursuing Federal Energy Efficiency

Energy is a luxury that no one can afford to waste, and many Federal Government agencies are becoming increasingly aware of the importance of using energy wisely. Thoughtful use of energy resources is important, not only to meet agency goals, but because energy efficiency helps improve air quality. Sound facility management offers huge savings that affect the agency's bottom line, the environment, and workplace quality.

In these fiscally-modest times, pursuing sound energy management programs can present additional challenges for energy and facility managers. The correct path to take is not always the easiest. Hard work, innovation, and vision are characteristic of those who pursue energy efficiency. That is why the Department of Energy, Federal Energy Management Program (FEMP) is proud to salute the winners of the 1998 Federal Energy and Water Management Award.

The 1998 winners represent the kind of 21st century thinking that will help achieve widespread Federal energy efficiency. In one year, the winners, through a combination of public and private partnerships, saved more than $222 million and 10.5 trillion Btu by actively identifying and implementing energy efficiency, water conservation, and renewable energy projects. Through their dedication, hard work, ingenuity, and success, the award winners have also inspired others to increase their own efforts to save energy and water and to more aggressively pursue the use of renewable energy sources. The Federal Energy and Water Management Awards recognize the winners' contributions and ability to inspire others to take action. Please read about these individuals, small groups, and organizations on the following pages. The award winners are the Government's energy champions and FEMP is grateful for their pursuit of excellence in facility management. Congratulations to each winner and thanks to each private sector partner.

Water Management Awards to Organizations

Central Federal Lands Highway Division and Coronado National Forest Department of Transportation, Lakewood, Colorado, and U.S. Department of Agriculture, Tucson, Arizona
303-716-2124

The Central Federal Lands Highway Division, in cooperation with the Coronado National Forest has completed the fifth phase of reconstruction of the Hitchcock Highway, which runs 25 miles from Tucson, Arizona, to the top of the Santa Catalina Mountains. The intent of the project's landscaping practices was to integrate visual goals with safety and maintenance goals, and to ensure cost effectiveness of mitigation measures. The Visual Prioritization Process was used to distribute mitigation measures. The primary philosophy of mitigation was to incorporate landform design into the roadway construction process which is similar to natural landform features in the surrounding topography. Specialized blasting, staggered ridges and slopes; a four- prong revegetation approach using native plants; and a gravity-operated, drip irrigation system were all utilized. Cost benefits will result from reduced maintenance due to the use of natural rock fractures in blasting; using native plants with a high rate of survival; and the use of the low flow drip emitters, which provide a deep soak with a minimal water requirement. The irrigation system is also temporary, as watering is only required during the six month establishment period when plantings are at their most vulnerable. This project sets the example that visual quality and mitigation do not have to be compromised to meet budget constraints.

Renewable Energy Awards to Organizations

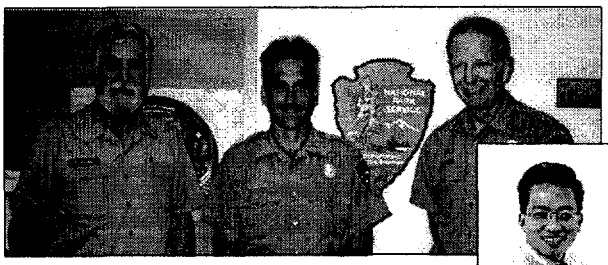
Department of Energy Fermilab Batavia, Illinois
630-840-3127

The Fermilab Main Injector 8 GeV Beamline was completely redesigned to showcase new innovative technologies in accelerator design which conserve energy and water. The essential features of this new technology involve the use of permanent magnets for beam focusing and bending versus conventional electromagnets which require substantial power input and water for cooling in addition to higher maintenance costs for support systems, controls, and calibration. The beamline was commissioned for use in February 1997, 18 months ahead of schedule. The magnet power avoided is 100 kilowatts which yields annual energy savings of approximately $25,000. Additionally, the power needed to drive two cooling systems as well as secondary pond water used as a heat sink are also eliminated. The total reduction of pond makeup water requirements for evaporation totals approximately 300,000 gallons per year. This new design also eliminates the generation of mixed waste from regeneration of the deionizer beds used to produce low conductivity water for the electromagnets.

Renewable Energy Awards to Small Groups

Ivan D. Miller
Daniel W. Krieber
David N. Ha
Paul J. LaValley
Frank Smith
Department of the Interior
National Park Service
Omaha, Nebraska
402-221-3424

The team effort of Sleeping Bear Dunes National Lakeshore and the National Park Service Midwest Support Office resulted in the implementation of a sustainable power system that provides solar energy to North Manitou Island in Lake Michigan. This photovoltaic hybrid system replaced inefficient diesel generators and propane tanks. This new solar-powered system, complete with a battery bank for energy storage and backup diesel generators, has realized significant energy and environmental benefits including eliminating potential fuel spills, controlling air pollution emissions, and decreasing dependency on fossil fuels required to support the basic needs on the island. Solar power now supplies nearly all the electrical energy necessary for the island village from May through Labor Day, and approximately 90 percent of the energy for the entire year. The equipment investment for the North Manitou Island system was approximately $190,000. The present value, on a 20-year life-cycle cost for the hybrid system, is around $296,000.



l-r: LaValley, Krieber, Miller

Ha

Renewable Energy Awards to Individuals

Soheir "Sue" Ibrahim
Department of the Army
Yuma, Arizona
520-328-6128

The U.S. Army Yuma Proving Ground (YPG) obtained solar photovoltaic panels and storage batteries worth $1.6 million from a canceled Hawaiian project in FY 1997. However, no funds were available for the installation of the equipment. Ms. Ibrahim was instrumental in implementing a revision to an existing Cooperative Research and Development Agreement (CRADA) with Arizona Public Service Company to install a complete 100 kilowatt photovoltaic project at a remote site. By loaning half of the equipment to YPG's CRADA partner, Ms. Ibrahim was able to secure funding for the installation of the project, at no expense to the Government. Her initiative and innovation furnished much needed renewable energy to a remote area of this installation. The system produced 625 million Btu during FY 1997. Resulting cost savings per year, including peak demand savings, amount to $48,037.

Mobility Energy Awards to Organizations

56th Civil Engineer Squadron
United States Air Force
Luke Air Force Base, Arizona
602-856-6135

In FY 1997, the 56th Civil Engineer Squadron led the way in the implementation and use of alternative fuel vehicles at Luke Air Force Base. During this time, the Squadron managed 10 propane-powered vehicles, 250 electric golf carts, three electric cars, and seven solar-powered carts. The solar-powered vehicles are primarily used for personnel transport which is 75 percent of the total activity on Luke Air Force Base. These vehicles traveled 324,500 miles annually, saving the Air Force $86,000 in fuel and annual maintenance costs. Use of alternative fuel vehicles translates into an annual reduction of over 6 tons of air pollutants, especially important in the Phoenix valley because the area is classified non-attainment for air pollution. Luke Air Force Base has made a commitment that 33 percent of new vehicle purchases will be alternative fueled. This use of alternative fuel vehicles benefits the Base's effort to reduce air pollution throughout the entire Phoenix Valley.

USS MOBILE BAY (CG-53)
Department of the Navy
202-685-9256

USS Mobile Bay continued strict adherence to their Energy Conservation Program during FY 1997. This program, the crew's high level of energy awareness, and good engineering practices have all enabled Mobile Bay to achieve fuel savings of $2.7 million over a three year period, with $1.4 million in fuel cost savings in FY 1997. One of the activities responsible for this achievement is compliance with the trail shaft program while operating below 18 knots. This practice has cut fuel consumption between 30 and 45 percent. This translates to a fuel reduction of more than 325 gallons per hour, and more than 7,800 gallons per day. For FY 1997, 30,000 fewer barrels of fuel were consumed. Using an unconventional plant configuration known as Tri-power, which keeps one gas turbine secured, Mobile Bay achieves speeds greater than 22 knots without the fuel consumption incurred operating at full power. Additional activities on Mobile Bay include instructing all personnel with energy savings maintenance tips that include turning off all lights and equipment. This has resulted in a 150 kilowatt decrease in the ship's load during periods in port.

USS CHOSIN (CG 65)
Department of the Navy
202-685-9256

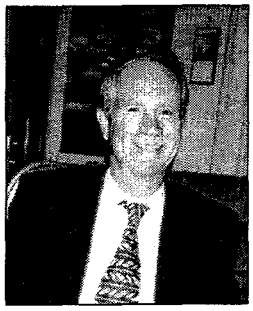
Led by its Energy Conservation Board, the entire crew of the USS Chosin set a new standard of energy conservation. As an integral member of the Constellation Battle Group conducting challenging and intensive operations during the 1997 Western Pacific/Arabian Gulf deployment, the Chosin demonstrated the positive impact that a single ship can have on energy conservation in day-to-day operations. FY 1997 energy saving activities that resulted in cost savings of approximately $990,000 included: conducting an innovative analysis of battle group energy efficiency with detailed recommendations, establishing an Energy Conservation Board, operating on one generator set as much as possible, securing redundant air conditioning plants when feasible, maximizing trail shaft procedures, and minimizing auxiliary loads. These efforts helped reduce annual fuel consumption by 18,000 barrels compared to the ship's three year average rate.

Training Squadron Four (VT-4)
Department of the Navy
Pensacola, Florida
202-685-9256

The mission of Training Squadron Four (VT-4) is to train Naval Flight Officers and Air Force Navigators. The use of more efficient aircraft, savings from combining and re-routing of flights, and increased energy awareness in its buildings, has resulted in annual savings of $975,000 for VT-4. The Squadron decreased fuel consumption by $37,000 and eliminated 351 flight hours by carefully scheduling flights and combining ferry flights with student training. In addition, the new T-1A aircraft assigned to the squadron are 40 percent more efficient than the T-39N aircraft previously used. Compared to an FY 1985 mix of T-34C and T-47A aircraft, the Squadron's FY 1997 mix of flight hours saved $887,000 in fuel costs. In addition to the combining and re-routing of flights, VT-4 renovated Squadron office space, making more efficient use of the available square footage. Energy conservation officers are assigned to office space and utilize a daily checklist to secure lighting, air conditioning, and electronic equipment in unoccupied offices. The Squadron also uses outside security lights with day/night sensors to eliminate unnecessary lighting costs.

Mobility Energy Awards to Individuals

Frank B. Cockrell
Department of the Interior
U.S. Fish and Wildlife Service
Washington, DC
703-358-1719



Throughout his career at the U.S. Fish and Wildlife Service, Mr. Cockrell has planned and implemented alternative fuel vehicle (AFV) acquisitions and organized a network of regional staff specialists to promote and oversee the Service's AFV acquisition and fuel conservation program. Under his leadership, the Service has achieved a 25 percent improvement in vehicle fuel economy. His efforts have led to the acquisition of 16 AFVs, including six compressed natural gas vehicles, three methanol-85 flex-fuel vehicles, and seven dual-fuel (propane) retrofitted vehicles. Mr. Cockrell also provided leadership in identifying field requirements and acquiring the Interior's first 40-passenger electric tram for off-road use at the Patuxent Wildlife Refuge Visitor Center. During FY 1996 and FY 1997, he helped create a "clean transportation zone" at the Back Bay National Wildlife Refuge, Virginia, by introducing three 24-passenger electric trams, several electric bikes, and an electric pick-up. He assembled a group including the Southern Coalition for Advanced Transportation, Georgia Power, Virginia Power, Department of Defense, National Fish and Wildlife Foundation, Commonwealth of Virginia, and Department of the Interior, who all contributed financially and technically to make this program possible. The clean transportation zone project eliminated the need for a $10 million road and bridge project to provide more public access to the refuge. He also created conditions that led to the Back Bay, Chincoteague, Great Dismal Swamp, and Mason Neck refuges committing to the acquisition of five electric pick-up trucks.

Energy Efficiency/Energy Management Awards to Organizations

Pacific Rim Region 9
Property Management Division
General Services Administration
San Francisco, California
415-522-3367

The efforts at the Prince Jonah Kuhio Kalanianaole Federal Building and Courthouse in Hawaii utilized cutting edge technologies and high efficiency and productivity practices in upgrading the central cooling plant at this facility. The project required the replacement of two R-12, 1,000-ton centrifugal chillers and two R-11, 60-ton reciprocal chillers along with the associated pumps, motors, cooling towers, and controls. Initial project funds were cut by 50 percent due to reprioritizing to pay for security upgrades in the wake of the Oklahoma City bombing, but an alliance with Hawaiian Electric Company enabled the project to go forward. The new plant consists of two 950-ton R-123 centrifugal chillers, one 200-ton centrifugal chiller, and a 60-ton reciprocal R-22 chiller for emergency use. For the 10 month period starting June 1997 through March 1998, GSA saved 1.6 billion kilowatt hours or 5.6 billion Btu, a cost savings of $177,628. After deducting the finance repayment costs, there was a net savings of $67,598.

Oakland Operations Office
Department of Energy
Oakland, California
510-637-1696

In FY 1997, the Department of Energy's Oakland Operations Office's three Government-owned, contractor-operated facilities completed 12 major energy management projects. These include retrofits of four large buildings, site-wide motor upgrades, electrical metering, and building automation at the Lawrence Berkeley National Laboratory, site-wide lighting and occupancy sensors at the Lawrence Livermore National Laboratory, and direct digital controls for HVAC equipment and remote monitoring and control of linear accelerator utilities at the Stanford Linear Accelerator Center. Total project costs were $9.4 million, with estimated dollar savings of $24.2 million, over the lives of the projects. During FY 1997, Oakland sites cut electricity acquisition costs by $5.2 million, compared to purchases directly from the local utility. Natural gas costs were also reduced by about 10 percent, or $200,000.

Marine Corps Recruit Depot
United States Marine Corps
Parris Island, South Carolina
843-525-2720

The Marine Corps Recruit Depot in Parris Island decreased total energy consumption over 3 percent from FY 1996 to FY 1997. Numerous energy saving initiatives are part of the Depot's program. Energy audits are currently underway at 67 different locations, and several potential renewable energy projects have been identified. The co-generation ability of the central power plant will be enhanced by the installation of the Decision Support for Operation and Maintenance (DSOM II) system, which is projected to save $250,000 per year in fuel costs, while significantly reducing air pollution. The Metering and Integrated Control Network will be integrated into the DSOM II system, allowing for total energy management and energy metering. The Third Recruit Training Barracks is currently undergoing a lighting retrofit. T-8 fluorescent lights are replacing T-12 lamps and exit signs are being changed to LED, at a cost reduction of $238,447. Heat pump systems in 175 houses were replaced with higher efficiency units, saving 2.1 billion Btu at a cost avoidance of $30,177. Energy efficient chillers are being installed in four buildings. The new water softener system installed at the central power plant has reduced the cost of boiler feedwater by $2 per thousand gallons, resulting in an annual savings of $40,538.

15th Civil Engineer Squadron
United States Air Force
Hickam Air Force Base, Hawaii
808-449-1660

The 15th Civil Engineer Squadron at Hickam Air Force Base achieved significant savings in both the consumption and cost of electricity in FY 1997. These reductions were accomplished under an energy conservation program which implemented various measures to reduce the consumption at Hickam by 6.6 percent, saving 4.3 million kilowatts of electricity. This reduction equates to a savings in FY 1997 of $364,000. A variety of energy conservation measures were implemented to achieve this: daylighting modifications were made in two buildings; a photovoltaic demonstration project is producing 5,600 kilowatt hours per month, saving Hickam $500 per month; a heat recovery system was installed in the central air conditioning (AC) system; timers were installed on the AC system, reducing hours of air conditioning by 25 percent; T-12 fluorescent light fixtures were replaced with T-8 lamps; new efficient HVAC units are being installed; and an energy management and control system has been installed. In addition, Hickam worked toward the award of an energy savings performance contract (ESPC) to replace a Base building HVAC system. This project has an estimated energy cost savings of almost $400,000.

17th Civil Engineer Squadron
United States Air Force
Goodfellow Air Force Base, Texas
915-654-5953

In FY 1997, the Base Energy Management Program, managed by 17th Civil Engineer Squadron, implemented a new energy management and control system (EMCS) which directly impacted Goodfellow Air Force Base's 5.3 percent energy reduction compared to the previous year. During this period, the EMCS expanded the operation of HVAC systems from 25 buildings to 70 buildings, now covering over 1.5 million square feet, or about 69 percent of Goodfellow's main Base facility space. Civil Engineer Squadron personnel conducted research on the HVAC systems and coordinated with building managers to implement HVAC equipment operation only when a building is occupied. These, and other successful energy efficiency campaign measures, improved overall base efficiency and increased personnel awareness of the EMCS. During the last seven months of FY 1997, the new EMCS reduced Goodfellow's electricity consumption by about 2,038 megawatt hours, reduced natural gas consumption by approximately 2.7 billion Btu, and saved about $60,000.

36th Civil Engineer Squadron
United States Air Force
Anderson Air Force Base, Guam
671-366-1926

In FY 1997, Anderson Air Force Base made substantial progress in implementing energy management practices which improved efficiency and reduced costs. Anderson Air Force Base in Guam has unique energy management considerations due to high average daily temperatures along with adverse weather conditions. Through the implementation of numerous energy efficiency measures including industrial water and diesel fuel treatment, the 36th Civil Engineer Squadron's energy management program saved $472,459 in FY 1997. Energy savings activities include the installation of 21 electronic timers for air conditioning units, enabling the Base to program long term non-cooling hours. This new system now saves Anderson Air Force Base $319,192 per year. The replacing of 70 taxiway edge lights with low watt bulbs and planting shade trees near key facilities realized a savings of $105,640. Finally, industrial water treatment for the dining facility boiler and diesel fuel treatment for all boilers was introduced in the last month of FY 1997 and is expected to result in energy savings of over $30,000 annually.

Air Force Materiel Command
United States Air Force
Wright-Patterson Air Force Base, Ohio
937-255-4415

The Air Force Materiel Command established an energy improvement partnership which engaged Dayton Power and Light to conduct an energy audit to identify and prioritize energy improvement initiatives. Based on audit recommendations, an Energy Improvement Partnering Group established several teams to tackle HVAC systems, steam use reduction, energy management systems, and energy efficient lighting and metering improvements. These improvements yielded numerous energy savings for the Base. The newly-installed 100-horsepower HVAC system motors provide improved system performance, saving $66,920 annually in electricity costs. Replacement of inefficient 400-cycle electrical power generators will save $101,500 annually. Direct digital controls linking facility HVAC systems to the Energy Management Center will help avoid peak electricity charges. Lighting improvements, involving converting 16,680 fluorescent tubes to 34-watt lamps, will save $12,840 annually, and the installation of 500 occupancy sensors will save $10,640 per year. Repair of 35 steam traps will save $42,110 per year and a chiller system upgrade will realize annual savings of $132,000. In all, the FY 1997 investment of $272,000 is already yielding an estimated $378,000 in annual savings.

Portsmouth Naval Shipyard
Department of the Navy
Kittery, Maine
207-438-4632

In FY 1997, Portsmouth Naval Shipyard saved 156.8 billion Btu and $1.6 million in energy savings by implementing various Navy headquarters-funded energy initiatives. In addition to these initiatives, the Shipyard implemented shipyard funded conservation projects, resulting in a savings of $534,904. The largest project, implementing boiler plant modifications, is estimated to contribute an operations and maintenance cost savings of $1 million annually. Other projects include: an upgrade of the boiler feedwater system, window replacements, HVAC improvements, and other building renovation and modernization projects including upgrading of heating controls, lighting fixtures, air conditioning and water heating systems. In order to improve water management operations, a sonic water leakage survey was conducted on the entire shipyard water distribution system, resulting in the detection of ten underground water leaks. Eight leaks were repaired, saving approximately 46.7 million gallons per year. The other two leaks are scheduled for repair in FY 1998. The Shipyard is also aggressively pursuing alternative financing initiatives through energy savings performance contracts which when implemented will achieve an estimated annual savings of $2 million. Initial proposals include lighting upgrades, steam system improvements, and HVAC modifications.

Norfolk Naval Shipyard
Department of the Navy
Portsmouth, Virginia
757-396-9629

Norfolk Naval Shipyard has an aggressive energy program with high Command-level interest. During FY 1997, the Shipyard identified more than $1 million worth of headquarters-funded energy projects to achieve an estimated annual savings of nearly $400,000. Projects include weatherization and other facility improvements, installation of a compressed air system, and an energy management and control system for HVAC controls. These projects are expected to save 77.3 billion Btu in annual energy use. The Shipyard funded projects totaling $2.25 million, producing an annual savings of nearly $879,000, and 50.6 billion Btu in energy use. Projects include installing motion detectors in bathrooms, replacing missing insulation on steam pipes, replacing low pressure steam traps, replacing lights and motors, upgrading window air conditioning units, and upgrading air handling and distribution systems. Norfolk Naval Shipyard also installed 26 steam meters at a cost of $235,000, which are helping reduce energy costs by $2 million a year and saving 103.2 billion Btu.

Naval Submarine Base
Department of the Navy
New London, Connecticut
860-694-4485

Naval Submarine Base New London implemented and completed a number of significant energy efficiency projects in FY 1997. These projects generated annual cost savings of approximately $1.7 million for the entire Submarine Base, with a total energy savings of 27.1 billion Btu. Energy efficiency improvements include the installation of a natural gas-fired absorption chiller to replace a 175-ton HVAC system, and a 200-kilowatt phosphoric acid fuel cell at the power plant. The Base also converted its boilers to natural gas, and installed a highly efficient cogenerating 5 megawatt turbine power plant with recovery boiler, as well as retrofitting the lighting systems in multiple buildings. In addition to these projects, the Submarine Base has implemented Base-funded conservation projects during FY 1997 that are saving more than $6,000 per year. These projects include LED exit sign retrofits, power conditioners, water-reducing flow nozzles, and lighting reflectors. Water conservation measures are also saving more than 25 million gallons a year.

Naval Construction Battalion Center
Department of the Navy
Port Hueneme, California
805-982-4069

During FY 1997, the Naval Construction Battalion Center (NCBC) Port Hueneme continued to build on its successful energy program through the implementation of numerous energy and water management projects, energy audits, participation in demand side management programs, and an active energy awareness program. Projects included the renovation of the Navy's Energy Demonstration Center, incorporating innovations that included a 100 percent daylighting design, a photovoltaic system, a solar water heating system, and gray water recovery. The Center also investigated geothermal heat pumps and use of solar energy for cathodic protection at wharves. NCBC purchased 34 electric vehicles and three multi-vehicle charging stations in FY 1997, and completed renovation of 400 housing units with energy efficiency improvements. A natural gas fuel cell was installed at the Base pool and is generating 200 kilowatts and between 700,000 and 1.1 million Btu per hour of thermal energy, saving an estimated $75,000 annually in energy costs. ENVEST, a division of Southern California Edison, audited more than 1 million square feet of NCBC in FY 1997. Approximately $333,000 of utility co-investment was received toward projects implemented by ENVEST, along with $50,000 received as direct rebates on new construction projects.

Naval Air Station Oceana
Department of the Navy
Virginia Beach, Virginia
757-433-2024

During FY 1997, Naval Air Station (NAS) Oceana completed an Energy Vision study, which identified and prioritized opportunities for energy management improvements. The Energy Vision is a unique planning exercise designed to enable the Air Station to make the best energy purchasing and management decisions through the year 2020. A key recommendation is to improve the existing steam heating system. In FY 1997, ground source heat pumps were incorporated into a barracks renovation project and a new construction project, and several buildings were converted to natural gas heating systems. In addition NAS Oceana worked with DOE to develop a technology-specific Super energy savings performance contract (ESPC) for ground source heat pumps. NAS Oceana is applying the whole building concept to the project's ten buildings, installing all cost effective energy saving measures, such as lighting upgrades, lighting controls, and insulated windows. Among the initiatives undertaken at NAS Oceana during the past year were building modifications, a passive solar project implemented under the Cool Communities program, and replacement of air conditioning units. Annual savings from these measures are estimated at $106,400.

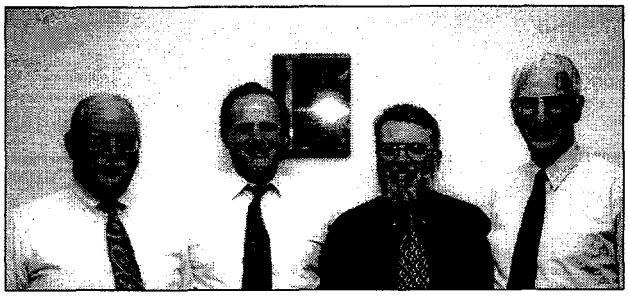
Headquarters III Corps and
Fort Hood
Department of the Army
Fort Hood, Texas
254-287-8716

The success of the Energy Management Program at Fort Hood is attributable to the implementation of carefully thought-out energy management strategies and policies and the execution of sound energy saving projects. Even with an energy load increase of 50.5 billion Btu, Fort Hood met its energy goal for FY 1997 with energy consumption of 92,300 Btu per square foot, or 1.8 percent below the FY 1997 target. Energy conservation measures which contributed to this achievement include the expansion of the FM load management system to reduce the installation's electricity bill, removing 7 megawatts from 1997 summer peaks, and avoiding $1 million in demand costs in FY 1997. The installation of an active daylighting system, which eliminates daytime electric costs by using a sun tracking mirror device attached to skylights, will yield savings of $80,000 per year. Installation of a solar lighting system for the parking lot will save $18,000 per year. A watering policy that prohibits watering during peak electrical hours reducing demand on the pumps has saved $542,000 annually. Additional energy saving projects being explored for FY 1998 include wind generation and more wide-spread use of geothermal heat pumps.

Energy Efficiency/Energy Management Awards to Small Groups

William G. Jackson
Leslie Fish
Donald E. Garvin
William E. Watkins
Portland District
United States Postal Service
Portland, Oregon
503-294-2500

The Portland District Energy Team has a remarkable track record, completing 167 energy saving projects from FY 1992 through FY 1997. Fifty-one of these projects were completed in FY 1997, saving 2.9 million kilowatt hours. The annual energy cost savings for the 51 projects completed during FY 1997 is almost $138,000. The total first year energy cost savings for all 167 projects is $734,966. The Energy Team has completed energy conservation projects on approximately 88 percent of their facility inventory, with plans to complete 100 percent by the conclusion of FY 1998. Future activities will include possible installation of a sulfur lamp light pipe, developing cost effective means to retrofit small facilities (those less than 2,000 square feet), and developing a Pollution Prevention Plan for buildings.



l-r: Garvin, Jackson, Watkins, Fish

Michael V. Sazonov
Edward B. Murtagh
David W. Dunn
Haren P. Dhokai
Beltsville Office Facility
U.S. Department of Agriculture
Beltsville, Maryland
202-720-3672

This Energy Saver Showcase Facility took a whole-building approach to minimize life-cycle costs by using energy efficiency, water conservation, and passive solar features. The team at the Beltsville Office Facility ensured that these technologies were implemented and was involved with the project from program development to construction management. The construction cost of the new facility was $125 per square foot, which compares very favorably to the average new construction cost of $150 to $175 per square foot in the Washington, DC area. The variety of technologies used in this Showcase Facility include: ice storage, low temperature chilled water and air distribution, direct digital controls, energy efficient lighting systems and daylighting, high efficiency motors and chillers, high performance building envelope features, water-conserving plumbing fixtures, passive solar design, and variable speed drives. Using a conservative savings estimate of 25 percent, energy savings of 9.8 billion Btu per year will be achieved.

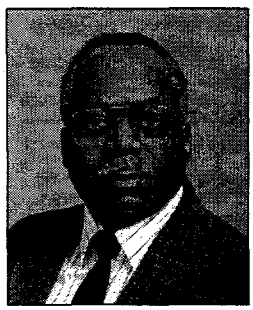
Paul Curley
Frank Saviano
Peter Menzies
Terri Tarr
Jim Devir
New Boston Courthouse
General Services Administration
Boston, Massachusetts
617-223-8614

The New Boston Courthouse Project Team successfully negotiated design changes and energy saving measures with Boston Edison Company, which would have been cost prohibitive without the utility's participation. This enabled the implementation of thermal storage technologies at the Boston Courthouse at no cost to GSA. The resultant total energy cost saving is $158,354, saving 1.5 million kilowatt hours of electricity. The thermal storage system includes an icemaker/chiller, a storage tank, ancillary pumps, and a heat exchanger, which operate at night and during off-peak utility hours. This allows it to generate and store ice in a storage tank for use by the air conditioning systems during the day. Other measures include variable speed drive motors on chilled and hot water pumps and air handling units, a retrofit of T-8 lamps and electronic ballasts, and occupancy sensors in general offices and conference rooms. All implementation costs will be fully funded by Boston Edison through their Energy Efficiency Partnerships New Construction Program, and will result in a zero year customer payback period with immediate energy savings. The team is confident that this thermal storage technology will become a model for other Government-owned buildings.

l-r: Saviano, Devir, Tarr, Curley, Menzies

Dennis Kincy
Ken Fletcher
Jose Mascorro
Edward Miller
Fred Seitel
Lawrence Berkeley National Laboratory
Department of Energy
Berkeley, California
510-486-4281

The installation of a site-wide energy management and control system (EMCS) was coordinated by this team of professionals at Lawrence Berkeley National Laboratory (LBNL). Each member of the small group was instrumental to the ultimate success of the project. The scope of this EMCS was to improve the operation, monitoring, and control of the HVAC systems in 34 buildings at LBNL. Total annual energy saved by the retrofit is an estimated 10 billion Btu. Total annual cost savings is an estimated $144,027 or 60 percent of the pre-retrofit annual energy cost of the equipment affected. Dollars saved over the lifetime of the project are expected to reach $3.6 million. Over the lifetime of these projects, pollution will also be reduced an estimated 7,750 tons.



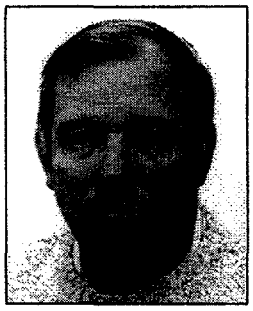
Miller

Jerome Gonzales
Tom Christopherson
Roger Perkins
Royce Taylor
Robert D. Patterson
Los Alamos National Laboratory
Department of Energy
Los Alamos, New Mexico
505-665-9199

This team of dedicated individuals at Los Alamos National Laboratory were instrumental in the installation of 14 satellite boiler plants, replacing an old, costly central steam plant and over 15 miles of steam and condensate lines. This first-ever energy savings performance contracting (ESPC) type project at the Laboratory demonstrated not only ESPC concepts, but an expedited project design and delivery method. The project avoided an investment of approximately $20 million in old system upgrades, remedied some environmental issues, and was performed in record time. Los Alamos saved 160,000 cubic feet of natural gas and over 12 million gallons of water in the first year of operation. The total operations, maintenance, and energy costs for the old system were around $4 million per year. This has fallen to approximately $1.3 million per year, a reduction of 67 percent. Structured for an eight-year payback, the guaranteed savings of $2.3 million per year were exceeded by nearly $500,000 in the first year of operation. At full power, the old system produced nitric oxide at the rate of 139 metric tons per year. The 14 new plants, at full power, produce a total of 8.4 metric tons annually, a reduction of around 94 percent in air emissions. The contractual model and lessons learned on this project are being used to stimulate other projects at Los Alamos.

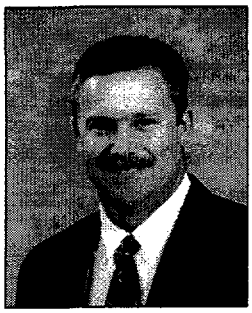
Energy Efficiency/Energy Management Awards to Individuals

Morgan Benson
26th Area Support Group (ASG)
Department of the Army
Heidelberg, Germany
717-770-6711



The 26th Area Support Group (ASG) manages the 293rd, 411th, and 415th Base Support Battalions facilities in the U.S. Army Europe. While working in support of these facilities, Mr. Benson instituted a strong energy conservation program where none had previously existed. In FY 1996, two of the three Energy Conservation Investment Program (ECIP) projects submitted by Mr. Benson became the first-ever ECIP projects funded in Europe. In FY 1997 alone, the 26th ASG reduced its energy consumption by 11 percent. Today, one ECIP project is complete, three are under construction, two are under design, and several are planned. As a direct result of Mr. Benson's efforts, the 26th ASG has achieved annual savings of more than 48.7 billion Btu and avoided costs of $634,800. The dramatic success of the 26th ASG program has been achieved despite considerable mission-related activities: numerous units have been relocated and Operations "Joint Endeavor" and "Joint Guard" have been ongoing in Bosnia. These activities increased demand for energy significantly, but Mr. Benson's conservation programs and projects have more than compensated, clearly demonstrating his leadership and commitment to energy savings activities.

Joe Whitefield
Oak Ridge National Laboratory
Department of Energy
Oak Ridge, Tennessee
423-576-1815



Mr. Whitefield has successfully implemented numerous comprehensive energy audits at Oak Ridge National Laboratory (ORNL) and has followed these up by implementing $7 million in successful energy and cost savings projects. His efforts in energy savings performance contracting (ESPC) have helped bridge the DoD and DOE methodologies in how energy service companies are selected for contract award. His input into the DOE Savannah River Site's ESPC team was largely responsible for the success of their site-specific contract. He assisted in developing a master plan for water chiller replacement at ORNL, which is already producing significant energy and cost savings. In FY 1997, Mr. Whitefield helped organize, and participated in, an in-depth ORNL steam plant study that resulted in a ten year master plan. Early in FY 1997, Mr. Whitefield had implemented training and facilitated the certification of 18 "Certified Energy Managers" for the three DOE Oak Ridge sites. He provided additional training for 20 engineers and technicians in the management and verification of performance contracts. He has also successfully worked to sign both the State of Tennessee and Middle Tennessee State University as Rebuild America Partners with DOE.

Joseph E. Williams
United States Postal Service
Denver, Colorado
303-853-6609

Joseph Williams, the In-Plant Support Manager at the Denver Bulk Mail Center (BMC), investigated the performance of the incandescent bulb indicator lights used for mail chutes, operation run indicators, and equipment status indicators. The BMC historically requires the annual use of over 9,000 incandescent bulbs for that equipment. These bulbs have a short life expectancy due to the vibrations and constant cycling required of the indicator lights. Given this situation, Mr. Williams designed special light emitting diode (LED) indicator lamps for use at the BMC. In FY 1997, after a thorough testing process of prototype bulbs, Mr. Williams replaced all the incandescent indicator bulbs in the Denver facility with 3.5-watt, 360-degree LED bulbs. These are projected to have a life of 100,000 hours, as compared to the 300 hours for the incandescent bulbs. In addition to the estimated annual energy savings of over $7,500, the BMC will realize an annual maintenance labor savings of over $30,000, as well as a reduction in environmental impact due to reduced bulb disposal requirements. Mr. Williams' LED indicator bulb solution has been a great success and is in the process of being adopted nationally by the U.S. Postal Service.

Alternative Financing Awards to Organizations

United States Air Force
Little Rock Air Force Base,
Arkansas
501-987-3544

Little Rock Air Force Base partnered with its providing utility, Energy Arkansas Incorporated, to design and install 1,535 geothermal ground source heat pumps in military family housing. The $10 million project is the single largest demand side management effort ever undertaken in the Department of Defense. The process reduced the procurement cycle time and allowed Luke Air Force Base to execute needed infrastructure repair with no up-front capital investment. The project will result in an annual energy and maintenance savings in FY 1997 of over $1 million and a nearly 16 percent reduction in the Base's annual electricity usage. The ground source heat pump units were equipped with a de-superheater and attached to the hot water heaters. The de-superheater will supplement the heated water in the hot water heater while the new heat pump is running, thereby utilizing waste heat. The contract for phase one was awarded in March 1997. Following the award of phase two, a Notice to Proceed was issued in June 1997 and the project is currently underway. Initial calculations project that the ground source heat pump retrofit will move Little Rock Air Force Base a full 7 percent closer to their overall goal of a 30 percent reduction in energy consumption.

Naval Surface Warfare Center,
Crane Division
Department of the Navy
Crane, Indiana
812-854-3675

The Naval Surface Warfare Center has been a pioneer in alternative financing, signing a first-of-a-kind energy savings performance contract (ESPC) for the Department of the Navy shore establishment. The Crane Division signed a $15 million ESPC agreement in FY 1997. The first delivery order, with a value of $2 million, involves 46 buildings covering 400,000 square feet of floor space. Crane's energy management program has worked closely with the local electric utility on demand side management initiatives, resulting in extensive lighting replacements and improvements that are saving $10,000 per month. The ESPC is structured to provide service to other installations. The energy service company's $1.9 million investment in the first delivery order is providing annual cost savings of approximately $16,000. This is expected to save 58.6 billion Btu per year. The entire ESPC is expected to produce savings of 200 billion Btu annually. During FY 1997, Crane identified weatherization and electrical improvement energy projects which will produce annual cost savings of nearly $150,000, with an expected savings of 7.4 billion Btu.

Alternative Financing Awards to Small Groups

Timothy Wisner
Floria Standifer
Edward Zachary
Rex Noble
Michael Nuzzo
Claude Pepper Federal Building
General Services Administration
Miami, Florida
404-331-6417

The teamwork at the General Services Administration's Southeast Sunbelt Region helped create an alternative financed energy conservation and chiller replacement project at the Claude Pepper Federal Building in Miami, Florida. The team contacted their local utility, the Florida Power & Light Company to discuss the potential project and ultimately formed a partnership to eliminate the CFC chillers and improve the efficiency of the building. Based on energy audit results, it was determined that these improvements, combined with a building-wide lighting retrofit, could reduce the central plant capacity by 350 tons. In place of two old chillers, a single new one was installed. Additional measures included variable speed pumping, an outside air damper control system, and water-saving flush valves. The project was completed in February 1997 and performance has been fine-tuned throughout the year. FY 1997 energy usage was 14.8 billion Btu, a reduction of 19.4 percent from FY 1996. Savings in FY 1998 are expected to be even greater. This process has already been replicated once with the same utility company and currently the GSA Southeast Sunbelt Region is in discussions with several other utilities to implement projects of a similar magnitude.

Wisner *Standifer* *Zachary* *Noble* *Nuzzo*

Mary Colvin
Peter Gaddy
Mark Levi
Lilia West
Evo DeConcini Courthouse
General Services Administration
San Francisco, California
415-522-3367

In 1996, the project budget for the proposed new Evo DeConcini U.S. Courthouse and Federal Building was severely cut. As a result, there were sufficient funds to build to minimum program standards, but insufficient to build an efficient building. The team at the Pacific Rim Region developed a method using energy savings performance contracting (ESPC) to solve these problems. The team implemented a pilot new construction ESPC to improve the energy and operational efficiency for the new courthouse planned for Tucson. A baseline building model was developed, and was used to estimate the potential energy savings. The ESPC is expected to reduce energy consumption from 19.5 billion Btu (base case building model) to 13.4 billion Btu (building as designed and being constructed incorporating the ESPC). Peak electricity demand is reduced from 1,550 kilowatts to 1,179 kilowatts. The energy cost saving is roughly $139,000 per year, or 30 percent. This project has served as the first model of how ESPC, and Federal alternative financing, can be implemented in new construction.

Richard T. Arthurs
Leon Dunbar
Lester Best
Harry D. O'Meara, Jr.
Melvin Sims
Main State Building
U.S. Department of State
Washington, DC
202-647-8970

While in the process of preparing the Request for Proposal for an electronic relamping contract of the Main State Building, the Department received an unsolicited proposal from Lord & Company, Inc., a DOE-qualified energy service company. The efforts of the State Department team led to contract negotiations and financing of an ESPC. The subsequent project became one of the largest Washington, DC relamping contracts with the installation of 30,779 T-8 lamps in ceiling units with approximately the same amount of reflectors and lenses and 14,191 electronic ballasts. A total of 56,080 T-12 fluorescent tubes were removed along with 34,489 mechanical ballasts, many laden with PCBs. The benefits of this projects exceeded expectations. A notable example was the Loy Henderson Conference Room, which not only uses 67 percent less energy, but the color enhancement of the paneled wood is outstanding. The project will save approximately 7,500 megawatt hours and nearly $500,000 per year. This project reduced the Main State Building's utility consumption by 13 percent and reduced the overall Department of State's managed properties energy consumption by 11 percent.

l-r: O'Meara, Dunbar, Best, Arthurs, Sims

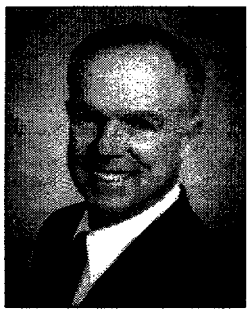
James E. Woods
James E. Beam
Ronald E. Gellalty
Kenneth Gray
Karen Thomas
Herbert C. Hoover Building
Department of Commerce
Washington, DC
202-482-3580

The Department of Commerce took an innovative approach to finance comprehensive and cost-effective energy conservation measures at its headquarters, the Herbert C. Hoover Building in Washington, DC. First, Commerce worked with the DOE's Federal Energy Management Program to obtain an energy and water survey of the facility. Recommended operations and maintenance initiatives were implemented immediately, with Commerce funding all low cost improvements. To realize all potential savings, a partnership was formed between Commerce, the DOE and the General Services Administration; an energy services agreement was initiated with Potomac Electric Power Company (PEPCO), the serving utility. This agreement and agency partnership enabled Commerce to proceed with four energy conservation projects valued at $1.4 million. The projects include upgrading the energy management and control system, installation of energy efficient motors, installation of variable speed drives on chilled water risers, and replacement of refrigeration equipment. The projects will save $387,000 and more than 50 million gallons of water annually. The partnerships and energy service agreement are the first of their kind in this region, and such arrangements are now available to all other Federal customers in PEPCO's service area.

Mary-Lynn Hartford
Robert D. (Dino) Herrera
Jerome Gonzales
John Jay Lopez
Albuquerque Operations Office
Department of Energy
Albuquerque, New Mexico
505-845-5414

A team that included Albuquerque Operations Office (DOE/AL) and Support Service Contractors established DOE's first ever Utility Incentive contract. The contract for the DOE/AL Steam to Hot Water Conversion, between the Public Service Company of New Mexico and DOE/AL is part of the GSA are-wide contract designed to provide energy and water resource management services to Federal agencies. The building heating and service water heating systems are being converted from steam to hot water. This will remove the DOE/AL from the Kirkland Air Force Base steam system, completely removing the safety hazards to maintenance personnel posed by the 40 year old system. Completion of this project will result in savings of $250,000 per year and reduce the energy consumption of the DOE/AL complex by over 13 percent in FY 1998.


Gonzales


Lopez

Alternative Financing Awards to Individuals

Michael J. Anderson
United States Air Force
Grand Forks Air Force Base,
North Dakota
701-747-4652

As the Base Utility Engineer, Mr. Anderson implemented a military family housing water heater replacement project for Grand Forks Air Force Base using alternative financing. The project provided all plant, labor, material, and financing to replace 1,621 electric water heaters with natural gas water heaters. In 1992, Grand Forks informally solicited power companies to assist the Air Force in saving energy through demand side management. The local utility, Northern States Power Company, responded with a proposal to replace all the water heaters, which was rejected at the time. When Mr. Anderson joined Grand Forks, he encouraged Northern States to resubmit the proposal, which was evaluated using the National Institute of Standard and Technology's "Building Life-Cycle" costing program to assess energy cost savings. The cost savings estimated for this project were tremendous. The evaluation of the proposal resulted in award of the contract to the local utility company, with Grand Forks Air Force personnel providing construction management for the effort. Mr. Anderson's utilization of the local utility will result in a savings to the Government of over $630,000 annually in energy costs. This project is a Show Case example for utilizing alternative financing to reduce energy costs.

Exceptional Service Awards to Organizations

Civil Engineer Support Agency
United States Air Force
Tyndall Air Force Base, Florida
850-283-6341

The U.S. Air Force Civil Engineer Support Agency (AFCESA) Team, with headquarters at Tyndall AFB is the Air Force's program manager for its energy savings performance contract (ESPC) program. To date, energy service company (ESCO) investments of approximately $40 million have been approved. The first two ESPCs alone (Randolph AFB, Texas and Hill AFB, Utah) saved over $2 million in FY 1997. FY 1997 began with the award of a base-wide indefinite delivery, indefinite quantity (IDIQ) ESPC for Nellis AFB, Nevada, which could produce over $20 million in energy efficiency enhancements over the 20 year contract period. Subsequently, the Team drafted the ESPC contract package for the first Air Force ESPC overseas, at Anderson AFB, Guam, which also has the capacity to reach $20 million, and appears to be ideal for renewable energy technologies. The Team was simultaneously developing installation-wide ESPCs at Cape Canaveral Air Force Station and Sheppard AFB. The Cape Canaveral contract provides for an ESCO investment of $11.9 million. In late FY 1997, the Team began developing an ESPC for all U.S. Air Force activities in Korea. This approach was then tailored for six regional procurements covering all Air Force activities in the fifty states and all U.S. territories. AFCESA also required, programmed, designed, and managed $10 million to install natural gas cooling technology equipment in an Air Force-wide demonstration program. Six bases are now installing 8,500 tons of natural gas-fueled chiller capacity that will save thousands of dollars in electrical peak charges. AFCESA managed the installation of eleven 200 kilowatt natural gas fuel cells costing $13 million for an Air Force-wide demonstration program. Finally, the team scheduled and directed the accomplishment of 45 Energy Awareness Seminars at 43 AFBs over a two-year period. The seminars identified annual savings potential of $9.2 million. A second phase of these seminars was created for base assistance visits that identified low cost/no cost energy conservation opportunities.

Department of Defense
Defense Commissary Agency
Jacksonville, Florida
804-765-2711

The Energy Services Division of Reynolds, Smith and Hills, Inc. (RSH) provided exceptional assistance, providing energy management consulting services to the Defense Commissary Agency's (DeCA) energy managers of over 300 commissaries and facilities world-wide. RSH's staff provided detailed recommendations in a quick-turnaround fashion that allowed development of improvements in energy efficiency methodologies and energy conservation techniques. This included identifying energy savings deficiencies and recommending techniques for improvement, such as the use of better equipment, and/or procedures, and production of training and awareness videos that included energy analysis methods and troubleshooting techniques for DeCA. RSH also provided construction project design and inspection services to assure proper installation of energy efficient devices at Bolling Air Force Base, Washington, DC, Andrews Air Force Base, Maryland, and Fort Bragg, North Carolina. Anticipated savings from implementing these energy savings projects exceeds $1 million per year.

Exceptional Service Awards to an Individual

R. David Bateman
United States Postal Service
Pittsburgh, Pennsylvania
412-494-2563

During FY 1997, Mr. Bateman identified and completed energy conservation lighting retrofit projects at Postal Service facilities with combined interior space of more than 3 million square feet. These actions resulted in significant energy reduction and direct utility cost savings of over $750,000 annually. Additionally, these lighting retrofits have resulted in improved operating conditions with respect to safety, productivity, and morale. Currently, Mr. Bateman has an additional 1.4 million square feet of energy conservation projects awarded for completion in FY 1998. In addition, Mr. Bateman has been a significant contributor in the development and award of a national materials contract to provide preferred lighting products to the Postal purchasing community. He personally conducts training classes providing guidance and prescriptive solutions for retrofit opportunities and is the central player in the planned retrofit of the Bulk Mail Centers, totaling over 8 million square feet.

Stephen E. Butterworth
National Park Service
Department of the Interior
Seattle, Washington
206-220-4277

Appointed as the first Park Energy Manager at Saratoga National Historical Park in 1974, Mr. Butterworth has served in the energy field for 24 years. In 1985, he became the energy manager for the former Pacific Northwest Region leading energy conservation efforts for the 17 parks in Washington, Oregon, and Idaho. In 1997, he gained responsibility for an additional 37 parks in Montana, Nevada, California, Hawaii, Guam, American Samoa, and Saipan and is currently the Regional Energy Manager for the Pacific West Region of the National Park Service. The present energy and water program has a budget of approximately $10 million and supports over 3,200 permanent employees and thousands of additional part-time employees and volunteers. Mr. Butterworth has worked to create new relationships and innovative arrangements to help the Parks strive to achieve their energy efficiency and water goals. In an effort to holistically deal with interrelated elements of energy, water, air, and the land, Mr. Butterworth served as a founding member of a pilot Sustainability Practices Opportunity Program Team.

William B. Croom
Department of the Army
Washington, DC
703-697-1514

In his position as the Assistant for Supply to the Deputy Assistant Secretary of the Army (Logistics), Mr. Croom has been instrumental in guiding the development and execution of the Army's Energy Program. One of Mr. Croom's efforts in support of this program includes the development of the Army's Energy Awareness Seminar Program. These seminars are presented at approximately 25 installations per year and instruct facility managers on how to implement cost-effective savings opportunities. Mr. Croom obtained high-level support and program funding for these seminars, which enabled the Army to capitalize on its energy savings opportunities. This effort by Mr. Croom is just one of the many in the Army's Energy Programs that have resulted in improved energy efficiency, reduced dependency on petroleum fuels, a cost avoidance of $1.88 billion, and a reduction of approximately 42 trillion Btu since 1985. Mr. Croom's dedicated support and commitment to the Army Energy Program has ensured energy management and awareness maintain a highly visible position within the command structure of the U.S. Army.

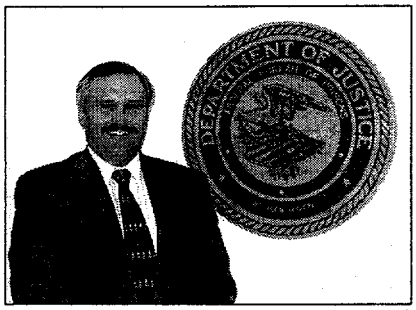
Phyllis E. Johnson, Ph.D.
Agricultural Research Service
Department of Agriculture
Beltsville, Maryland
301-504-1465

As Beltsville Area Director, Dr. Johnson provided support to the Beltsville Agricultural Research Center (BARC) in its energy awareness and conservation programs. Dr. Johnson was instrumental in the signing of an energy savings agreement with Washington Gas and Light Company, resulting in the installation of natural gas lines to the entire facility, eliminating the use of heating oil. Washington Gas and Light will pay the initial $700,000 project cost. She also helped develop a state-of-the-art compost facility, eliminating the inflow of nitrogen and phosphorous to the Chesapeake Bay, resulting in a cost savings in excess of $70,000 annually. The building consolidation program has resulted in savings of approximately $200,000 per year in maintenance and utility costs. The Agricultural Research Center applied for Potomac Electric Power Company energy conservation rebates and recovered significant amounts on equipment, saving approximately $70,000. The newly-constructed west side recycled water tank system will store effluent from the waste water treatment facility. The water will then be used for steam production, saving $40,000 each year.

Rabinder N. Malhotra
Argonne National Laboratory
Department of Energy
Argonne, Illinois
630-252-6623

Since 1978, Mr. Malhotra has had site-wide responsibility at Argonne National Laboratory (ANL) for identification of energy conservation opportunities, development of all studies and funding proposals, and for the implementation of funded projects. During this period, ANL has successfully invested nearly $20 million for over 60 highly-varied energy conservation projects. In FY 1997, Mr. Malhotra recognized the need to refocus the energy conservation activities due to rapid changes in the worlds of capital funding and electricity purchasing. By the end of FY 1997, Mr. Malhotra was leading ANL in detailed negotiations with Commonwealth Edison for a utility incentive program agreement to be in place by FY 1998. At the same time, negotiations were being held with Nicor Gas on their ability to enter into a similar agreement. Mr. Malhotra also initiated and directed a major utility options study in FY 1997, which is aimed at identifying all available new opportunities for reducing the unit cost of energy at the ANL. A team of DOE personnel endorsed the strategies developed and recommended that the local DOE office proceed with a major contract initiative to obtain significant electric rate concessions or to seek another supplier under de-regulation. Mr. Malhotra is leading this effort. He also set up, and will lead, a new Utilities Efficiencies Team which will take all appropriate actions necessary to implement the site energy strategy on an expedited basis.

David A. Pearson
Federal Bureau of Prisons
Department of Justice
Dublin, California
510-803-4700



Mr. Pearson has been responsible for the success of the comprehensive energy conservation program in the Federal Bureau of Prisons' Western Region. The area covered by the Western Region Office includes 11 institutions containing in excess of 3.8 million square feet of conditioned space. His accomplishments during FY 1997 included establishing region-wide life-cycle cost training for institution staff in the use of the Building Life Cycle Cost computer software, training in the Bureau of Prisons energy conservation policy, and provision of guidance on the submission of requests for energy conservation funding. One of the notable projects for which Mr. Pearson was instrumental was the Metropolitan Detention Center in Los Angeles. He assisted the institution in identifying a project replacing existing heating boilers, saving approximately 9,500 therms of natural gas annually with a monetary savings of more than $11,000 per year. Additional projects that Mr. Pearson has contributed to include lighting retrofits, upgrades of HVAC equipment, and assistance in the contracting for an energy savings performance contract for the installation of a solar system for the production of domestic hot water.

Bruce Rice
Food and Drug Administration
Department of Health and Human Services
Jefferson, Arkansas
870-543-7351

Mr. Rice has been responsible for energy management at the National Center for Toxicological Research for the past seven years. He was responsible for decentralizing the chilled water plant, saving significant amounts of electricity, particularly during peak demand periods. He automated boiler controls, downsized three feedwater pumps, installed variable frequency drives, and replaced three old steam-driven forced draft fans with electrical motors, increasing boiler efficiency by 6 percent. Mr. Rice upgraded bathroom fixtures to low-flow types, reducing water usage in these restrooms by approximately 60 percent. In FY 1997, Mr. Rice worked on completing lighting retrofits in several buildings, with approximately 400 fixtures retrofitted with T-8 lamps and electronic ballasts. This will save 30 percent of the electricity used to operate these fixtures. Mr. Rice and his division performed a building-by-building inspection to check water usage and identify areas of waste. Problems identified were immediately addressed and corrected, saving approximately 26 million gallons of water per year. However, the success of these programs has been disguised by unoccupied areas comprising 19 percent of the conditioned space and the continued renovation of older buildings into new, energy intensive laboratory space. It would be easy to be discouraged under these conditions, but Mr. Rice has continued to champion his division's energy efficiency efforts with remarkable enthusiasm, and continuous success.

Richard A. Wickman
National Aeronautics and Space Administration
Washington, DC
202-358-1113

Mr. Wickman has been individually responsible for a number of significant accomplishments over the past five years in support of the NASA energy conservation program. Because of his leadership in developing and implementing comprehensive agency-wide energy management procedures and guidelines, NASA has experienced an overall 25 percent energy reduction since FY 1985. These efforts have directly helped NASA to achieve $69 million in cumulative energy cost avoidance since FY 1990. Mr. Wickman also managed a comprehensive electricity competition study of all NASA Centers. He hosted numerous video-teleconferences with all NASA Centers to coordinate energy and water management program activities, discuss new conservation technologies, and transfer best practices across NASA. Mr. Wickman conducted an agency-wide energy and conservation prioritization survey identifying cost effective conservation measures at all NASA Centers with the potential to save $14.4 million annually. He also oversaw coordinated energy manager training for 20 energy managers and their support contractors, and coordinated NASA participation in the DOE "You Have the Power" energy awareness and outreach program.

Roger N. Wykle
U.S. Coast Guard
Department of Transportation
Oakland, California
510-535-7267

Lieutenant Wykle distinguished himself as a key player in energy conservation activities during FY 1997 as the Energy Coordinator for the Coast Guard's Civil Engineering Unit Oakland. He played a significant role in every major initiative to improve energy efficiency at Coast Guard units on the U.S. West Coast. He coordinated the Coast Guard's first ever Super energy savings performance contract (ESPC) initiative that will save up to $380,000 per year. A cogeneration project proposal prepared with Lt. Wykle's input, has the potential to save an additional $337,000 annually. He wrote an exceptional scope of services to perform energy audits at smaller stations not covered by an ESPC. The scope met the Coast Guard's needs so far above and beyond its original intent that it was sent to DOE with a recommendation to include it in their SAVEnergy program. He also took over project coordination of a solar heating project at the Coast Guard Station in San Francisco. Lt. Wykle also served as the single point of contact for 67 Coast Guard units on energy retrofit technology, helping to implement lighting retrofits and energy management systems.

1998 FEDERAL ENERGY AND WATER MANAGEMENT AWARDS
CERTIFICATES OF RECOGNITION

ENERGY EFFICIENCY/ENERGY MANAGEMENT

Individuals

Rexford Belleville, USAF, Kadena, Japan
John Scott Bly, US Army, Schofield Barracks, HI
Bradley Bracher, USAF, Tinker Air Force Base, OK
Larry L. Cullop, US Navy, Crane, IN
Mehyar Ebrahimi, HHS, Rockville, MD
Walter Fleming, State Department, Washington, DC
Gary Gates, US Navy, San Diego, CA
David Greene, DOE, Oak Ridge, TN
Ahmad Hazaveh, DOT, Atlantic City, NJ
Ray Howard, DOE, Livermore, CA
William G. King, Jr., USAF, Maxwell Air Force Base, AL
George Lopez, USAF, Andrews Air Force Base, MD
David L. Osborn, US Army, Rock Island, IL
Robert Palazzi, Veterans Affairs, West Haven, CT
Steven J. Pientka, US Army, Fort Riley, KS
Joe Pierce, DOJ, Goldsboro, NC
Rene Quinones, US Army, Fort Irwin, CA
David Robinson, DOT, Miami, FL
E. Carroll Shepherd, III, DoD, Fort Lee, VA
James C. Sides, USMC, Camp Lejeune, NC
Stephen Szarka, USMC, Camp Pendleton, CA
Diane "Pookie" Mansker, Interior, El Portal, CA
Albert Ream, DOT, Washington, DC

Small Groups

Agricultural Research Service, USDA, Beltsville, MD
Air Combat Command/Cannon Air Force Base, NM
Air Force Materiel Command, Edwards Air Force Base, CA
Army Energy Management Team, US Army, New Cumberland, PA
Bechtel Nevada, DOE, Las Vegas, NV
Boeing North American Inc., NASA, Downey, CA
Camp Pendleton, USMC, Camp Pendleton, CA
Edmund Muskie Federal Building, GSA, Augusta, ME
Federal Building, GSA, East St. Louis, IL
Federal Bureau of Prisons, DOJ, Duluth, MN
Department of the Army, Fort Hood, TX
Fort Polk Energy Management Team, US Army, Fort Polk, LA
Department of the Army, Fort Riley, KS
Air Force Materiel Command, Hanscom Air Force Base, MA
Iowa Energy Conservation Project - Region 6, GSA, Kansas City, MO
John W. Peck Federal Building, GSA, Cincinnati, OH
Kadena Air Base, Kadena, Japan
Lawrence Berkeley National Laboratory, DOE, Berkeley, CA
Marine Corps Logistics Base, USMC, Barstow, CA
Mike Monroney Aeronautical Center, DOT, Oklahoma City, OK
National Institutes of Health, HHS, Rockville, MD
Naval Air Station, US Navy, Lemoore, CA
Pacific Rim Region, GSA, Los Angeles, CA
Plum Island Animal Disease Center, USDA, Greenport, NY
Rhein-Main Air Base Germany, Rhein-Main, Germany
Rocky Mountain Region, Denver Federal Center, GSA, Denver, CO
San Diego Area Navy Bases, US Navy, San Diego, CA
Tucson Property Management Office, GSA, Tucson, AZ
United States Air Force Academy, USAF Academy, CO
U.S. Coast Guard, DOT, Washington, DC

Organizations

11 CES Bolling Air Force Base, USAF, Washington, DC
Aberdeen Proving Ground, US Army, Aberdeen Proving Ground, MD
Defense Commissary Agency, DoD, Lackland Air Force Base, TX
Federal Bureau of Investigation, DOJ, Washington, DC
Federal Bureau of Prisons, DOJ, Marianna, FL
Fleet and Industrial Supply Center, US Navy, Norfolk, VA
Fleet Anti-Submarine Warfare Training Center, US Navy, San Diego, CA
Fleet Combat Training Center Atlantic, US Navy, Virginia Beach, VA
Food and Drug Administration Beltsville Facility, HHS, Laurel, MD
Fort Riley, US Army, Fort Riley, KS
Fort Huachuca, US Army, Fort Huachuca, AZ

Goddard Space Flight Center, NASA, Greenbelt, MD
Holston Army Ammunition Plant, US Army, Kingsport, TN
Kadena Air Base, Kadena, Japan
Kennedy Space Center, NASA, Kennedy Space Center, FL
Lake City Army Ammunition Plant, US Army, Independence, MO
Marine Corps Base, USMC, Camp Pendleton, CA
Metcalfe Federal Building, GSA, Chicago, IL
National Institutes of Health, HHS, Rockville, MD
National Training Center, US Army, Fort Irwin, CA
Naval Air Station Atlanta, US Navy, Marietta, GA
Naval Air Warfare Center, US Navy, Lakehurst, NJ
Naval Amphibious Base Little Creek, US Navy, Norfolk, VA
Naval Hospital, US Navy, Great Lakes, IL
Naval Inventory Control Point, US Navy, Mechanicsburg, PA
Naval Submarine Base Bangor, US Navy, Silverdale, WA
Naval Undersea Warfare Center, US Navy, Newport, RI
Naval Weapons Station Yorktown, US Navy, Yorktown, VA
Nebraska Army National Guard, US Army, Lincoln, NE
Office of Foreign Building Operations, State Department, Arlington, VA
Pacific Missile Range Facility, US Navy, Kekaha, HI
Pascagoula Naval Base, US Navy, Pascagoula, MS
Picatinny Arsenal, US Army, Picatinny Arsenal, NJ
Radford Army Ammunition Plant, US Army, Radford, VA
Rock Island Arsenal, US Army, Rock Island, IL
Spangdahlem Air Base, Spangdahlem, Germany
Tyndall Air Force Base, Tyndall Air Force Base, FL
U.S. Courthouse, Dayton, GSA, Dayton, OH
US Army Garrison Hawaii, US Army, Schofield Barracks, HI
U.S. Coast Guard Integrated Support Command, DOT, Kodiak, AK
U.S. Coast Guard Maintenance and Logistics Command, DOT, Norfolk, VA
USAARMC Fort Knox, US Army, Fort Knox, KY
Headquarters, USPS, Washington, DC
Queens Postal District, USPS, Flushing, NY
Vance Air Force Base, Vance Air Force Base, OK
Washington Army National Guard, US Army, Tacoma, WA
Westover Air Reserve Base, Chicopee, MA

Renewable Energy

Individual

Elmer Sheely, USPS, Oklahoma City, OK

Small Group

Agricultural Research Service, USDA, Beltsville, MD

Organizations

Fort Huachuca, US Army, Fort Huachuca, AZ
Red River Army Depot, US Army, Texarkana, TX
Columbia District, USPS, West Columbia, SC

Alternative Financing

Individuals

John Alfano, US Navy, Newport, RI
Mike Fernandez, DOE, Livermore, CA
Dave Smith, DOE, Great Lakes, IL

Small Groups

Agricultural Research Service, USDA, Beltsville, MD
Indiana Naval Surface Warfare Center, DOE/US Navy, Crane, IN
Region 2, GSA, New York, NY
Huntsville Army Corps of Engineers, DoD, Huntsville, AL
Oak Ridge National Laboratory, DOE, Oak Ridge, TN
Potter Stewart Courthouse & John W. Peck Federal Building, GSA, Cincinnati, OH
Tyndall Air Force Base, Tyndall Air Force Base, FL
U.S. Army Garrison Hawaii, Schofield Barracks, HI

Organizations

Fort Knox, US Army, Fort Knox, KY
Richland Operations Office, DOE, Richland, WA

Mobility Energy

Organizations

Marine Corps Air Station, USMC, Yuma, AZ
USS TARAWA (LHA-1), US Navy, San Diego, CA

Water Management

Individual

Jimmy E. Jones, USAF, McChord Air Force Base, WA

Small Groups

Agricultural Research Service, USDA, Beltsville, MD
Albuquerque Operations Office, DOE, Albuquerque, NM
Brookhaven National Laboratory, DOE, Upton, NY
John J. Pershing Medical Center, Veterans Affairs, Poplar Bluff, MO
Pacific Rim Region, GSA, Los Angeles, CA

Organization

Fort Carson, US Army, Fort Carson, CO