

Energy conservation, federal compliance top the list of priorities.

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Going Green

CINDY VAN BIBBER

Conserve energy, save the environment, help veterans! Across the VA landscape, at facilities new and old, VA is going green.

From replacing and updating lighting, plumbing, and boilers, to conserving and reducing energy, water and other resources, VA is enhancing efficiency and maximizing savings, allowing more money to go towards the department’s greater mission—serving veterans. With an additional \$68 million in assistance for investments in clean energy and conservation from President Obama’s American Recovery and Reinvestment Act of 2009, VA received a boost to its ongoing conservation programs.

“These investments help spur new energy savings and, at the same time, reduce our environmental footprint,”

said VA Secretary Eric K. Shinseki. “Since hospitals use such large amounts of energy, we need to step up our efforts to transition to clean-energy technologies. These measures, identified through regularly scheduled energy audits, facility condition assessments, and ongoing monitoring by energy engineers and other staff, are important steps in ‘greening’ VA.”

With new environmentally-friendly buildings being constructed across the nation, and older facilities being renovated and retrofitted, VA’s latest efforts were spurred by the recent passage of the American Clean Energy and Security Act of 2009 by the House of Representatives. Aimed at boosting the production of renewable energy while creating jobs, the act encourages a reduction in depen-

dence on foreign energy, and limiting harmful greenhouse gas emissions. The bill also includes a provision to significantly increase the use of renewable electricity by the federal government—the nation’s largest energy consumer.

By 2015, VA’s goal is to cut energy and water consumption, as well as vehicle fuel use, by 2 percent a year. Consider this: a typical VA medical center of 1 million square feet has a combined annual gas and electric bill of \$3.2 million. Cut that by 2 percent and VA would save \$64,000 a year per facility.

The department is already headed in the right direction. The new VA regional office in Fort Harrison, Mont., recently received its Leadership in Energy and Environmental Design certi-

fication from the U.S. Green Building Council as a “Green Building” in support of the President’s Management Agenda. The LEED design shows a strong commitment to promoting energy efficiency and a healthy environment for building occupants.

The VA Pittsburgh Healthcare System also moved into a new 70,000-square-foot LEED-certified administration building. Holding almost 250 employees, the two-story building is lined with large windows, allowing daylight into 85 percent of the office spaces. During construction, the building’s contractor was required to sort, separate and track all recyclable construction debris.

In addition to exploring renewable energy sources, such as solar, wind and geothermal, VA will also dedicate nearly \$238 million toward retrofitting existing buildings to use energy and

water more efficiently. These small changes are amounting to big savings for some of VA’s older facilities.

At the Cheyenne (Wyo.) VA Medical Center, energy conservation is an ongoing effort. The medical center was recently certified as an Energy Star Award facility, a particularly significant achievement since the facility is celebrating its 75th anniversary this year and most of the buildings date to the 1930s. Overseen by the Environmental Protection Agency and the Department of Energy, an Energy Star Award rating means a health care facility must be in the top 25 percent of all health care facilities in energy conservation.

With electricity accounting for one-third of its utility costs (the remaining two-thirds is natural gas), the Cheyenne facility constantly measures and documents its energy use and

when no one is in the room and adjusting lighting if natural sunlight is available. Steam lines were rewrapped and insulated and excess water was recycled and used for irrigation, especially useful since Cheyenne gets just 13 inches of rain a year on average.

More trees, such as pines and elms, were planted, replacing others that died from diseases. That created a wider wind shelter belt, a U-shaped barrier made of trees and vegetation that protects the facility from strong northwestern winds, conserving energy to heat the building. Future plans for the Cheyenne facility include incorporating other renewable energy resources, such as solar panels and a wind turbine.

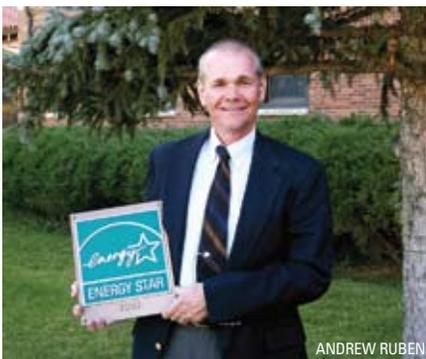
Even VA’s national cemeteries, not typically thought of as big energy consumers, are “greening” their grounds. Cemeteries, especially those in dry, arid regions such as California and Arizona, are using what’s known as “water-wise” landscaping. Employing techniques such as installing drought-resistant plants, removing turf, and using drip-emitters for irrigation, water-wise landscaping uses only 5 to 15 percent of the water typically used in turf landscapes.

After switching from turf to water-wise landscaping, the 61-acre Fort Bliss National Cemetery in El Paso, Texas, reduced its water usage to 9 million gallons a year, achieving an 87 percent reduction in water requirements, not to mention lower maintenance costs. “Frankly, the less water we can use, the better our cemeteries will look,” said Dr. Tom Perkins, NCA’s chief agronomist. “Too much watering creates problems with insects, plant diseases and weeds. By not over-watering, we conserve resources in more ways than one.”

New and innovative methods of obtaining energy are helping VA facilities become self-sustainable, and in some cases, even providing surplus energy for the local community. In 2001, the James H. Quillen VA Medical Center in Mountain Home, Tenn.,



The VA Pittsburgh Healthcare System’s new administration building is lined with large windows, allowing daylight into 85 percent of the office spaces; below: David “Mike” Kilpatrick, M.D., director of the 75-year-old Cheyenne VA Medical Center, which was recently certified as an Energy Star Award facility.



cost. To cut energy use, the facility installed new double-pane windows throughout the buildings, providing improved insulation against the elements. Old fluorescent lighting was replaced by low-energy fluorescents, not only saving energy but also improving visibility.

The facility also installed occupancy and daylight sensors in all rooms, ensuring lights are turned off

built the first power plant on VA property in a lease agreement with Energy Systems Group. The power plant generates electricity for the medical center as well as a neighboring medical school. Any additional energy needs are supplemented by the local power company.

A year ago, Energy Systems Group proposed harnessing the methane gas from a local landfill called Iris Glen, and piping it to Mountain Home Energy System to be converted for energy use. By using garbage to make energy, the landfill is turning a problem into a solution. In return, the city receives money from the purchase of the methane gas.

Established in March 2005, the Green Environmental Management System works to ensure VA meets environmental compliance laws and regulations and that those laws are integrated into their day-to-day planning, purchasing and operating decisions. GEMS also aims to reduce waste generation and hazardous exposures by enhancing environmental practices set forth by the EPA.

In Boise, Idaho, the VA medical center's GEMS program has sent nearly 9 tons of X-rays off for the recovery of silver, a byproduct of diagnostic imaging that is considered hazardous waste by the EPA. This process reclaims the silver, ensuring it doesn't end up in the sewer and septic systems and pollute the local drinking water.

Besides the typical recycling of paper and cans, the Southern Oregon Rehabilitation Center and Clinics in White City, and the Jonathan M. Wainwright Memorial VA Medical Center in Walla Walla, Wash., have also found ways to recycle materials such as fluorescent light bulbs, used oil, batteries, tires and organic materials. Almost 20 new items, previously identified as hazardous waste or general bulk waste, have been tagged as recyclable since the GEMS program began there, reducing the amount of waste headed to the local landfill.

Conservation doesn't end with

the facility itself. Executive Order 13423 mandated that all federal agencies manage end-of-life electronics in an environmentally sound manner. Among the many entities helping VA with that requirement is UNICOR, a component of Federal Prison Industries run by the Department of Justice.

Established by Congress in 1934, UNICOR provides job skills to prison inmates. With eight locations around the country, UNICOR takes end-of-life electronics, such as computers, and recycles them for free. VA pays for transportation, although in some cases, UNICOR will pick up and transport the used electronics for free.

VA is also leading the way among federal agencies by "greening" its information technology purchases according to EPA's EPEAT® system. The EPEAT® (Electronic Product Environmental Assessment Tool) program evaluates computer desktops, laptops and monitors based on 51 environmental criteria developed through an extensive stakeholder consensus process.

VA ranked as a leader in EPEAT® purchases for 2008. All of the 290,623 Dell desktops and monitors leased by the department between September 2007 and December 2008 were EPEAT® gold or silver products.

"This is particularly notable because EPEAT® requirements are new and being implemented along with security and other IT requirements," said Dana Arnold, of the Office of the Federal Environmental Executive. "This striking level of compliance reflects great work on the part of agency IT purchasing staff, as well as the ease of use of the EPEAT® system."

The Veterans Canteen Service, with food courts, retail stores and coffee shops in VA facilities nationwide, has also converted to using more environmentally friendly products. Recent improvements include switching from Styrofoam to paper cups, using napkins made from recycled products, offering reusable coffee mugs for purchase, and introducing reusable

shopping bags and recycled plastic bags into their retail stores. Another alternative option being considered for future implementation includes changing food delivery methods, further reducing plastic and Styrofoam usage.

Hybrid and subcompact vehicles, recently listed as alternative fuel vehicles in the GSA Lease Program, are also helping facilities save money and gas costs. In Loma Linda, Calif., where freeway driving is the norm and E85 fueling stations are 60 miles away, the VA Loma Linda Healthcare System researched other types of AFVs that would fit their fleet.

The facility's new Chevrolet Malibu hybrids, which arrived in April, use regular gasoline but are supplemented by an electric engine for better power and performance. Besides costing less per month to lease, the new hybrids save .04 cents per mile over the standard midsize Chevrolet Impalas they replaced. Two subcompact Ford Focuses, which get 35 miles to the gallon fuel economy, were also ordered, replacing the other midsize cars in the fleet.

With a focus on the future, VA has launched a "Green Routine" campaign, which seeks to further engage employees in recycling and reducing paper and energy use, and gives guidance on the overall "greening" of their work areas. A working group, consisting of several subcommittees, met over the summer to develop the new campaign at VA Central Office.

The Green Routine, an ongoing and collaborative effort, aims to improve VA's awareness and review methods, and help employees "go green," both at work and at home. With the upcoming launch of the Green Routine Web site and a toolkit for employees, the department's goal is to become a cleaner, healthier, more energy-efficient place to work, allowing employees to serve its most important resource—veterans. **VA**

By Amanda Hester