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Volume 6 THE MONTHLY NEWSLETTER FOR ENERGY MANAGERS AND PUBLIC AFFAIRS OFFICERS Issue 5

Message to Energy Managers:

The Navy Energy website now features two new updates: The 2000 SECNAV Energy Awards and Navy and Marine Corps winners of the 2000 FEMP Federal Energy and Water Management Awards are now online, including photos of each winner and a summary of their accomplishments. You can also check to see how well the Department of the Navy is doing to reduce energy usage.

This issue focuses on two fine examples of using solar power to save money and reduce energy consumption. Congratulations to Marine Corps Recruit Depot Parris Island, SECNAV winner in the USMC Large Activity category, which installed solar-powered lights. Norfolk Naval Station installed a solar wall over two existing buildings, saving the Navy approximately $12,000 annually.

Sincerely,

Bill Tayler

William F. Tayler

Solar Walls Save Costs, Energy for Naval Station Norfolk

Employees driving to work at the Norfolk Naval Station on I-564 may have observed workers installing dark metal panels over a white building in the "NM" area. These dark bronze panels form a solar wall which supplies free space heating for the building. The Department of Energy's National Renewable Energy Laboratory is providing $98,000 to fund the project.

The solar wall is an unglazed perforated metal siding wall mounted about 12 inches from the existing south-facing wall. When the sun warms the surface of the wall, the air in the space between the two walls is heated, passes through the perforated absorber panel, and then rises to an upper plenum chamber. The air-duct system draws the fresh heated intake air and distributes it throughout the entire building.

Supplemental heating is required to bring inside air to the desired temperature. At night, if the ventilation system is operating, heat lost through a south wall is captured by intake air flowing through the air-duct system.

The solar wall system reduces the ceiling temperature and eliminates inside air from becoming stratified vertically into warmer and cooler layers. During the cooling seasons, a damper opens to bypass the solar absorber and prevents the air from being warmed.

The project is in response to Executive Order 13123, requiring Federal agencies to reduce energy consumption 35 percent by FY 2010, and the Million Solar Roofs Initiative, which commits the Federal Energy Management Program to placing 20,000 solar energy systems on Federal buildings by FY 2010. Naval Station Norfolk is one of the first Federal agencies to participate in this program.

The solar wall at Naval Station Norfolk saves the Navy approximately $12,000 annually

Navy Public Works Center Norfolk identified the project, performed economic analysis, competed for the money and implemented the

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DON Energy Awareness Website: Access the tools on the Navy Energy website for ideas, planning tips, and tools. Set your browser to <**http://energy.navy.mil**> and scroll down the left-hand column to the Awareness pick.

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Industrial Activities Take Notice!

Energy Managers at industrial and laboratory facilities, be advised that your baseline will be changing in the near future. Executive Order 13123 established 1990, as opposed to 1985, as the baseline for industrial and laboratory facilities. This change will, in effect, disregard all energy reporting from 1985 to 1990 for industrial and laboratory facilities. Additionally, your goals will be changed from the current 30% by 2005 and 35% by 2010 to the EO 13123 goals of 20% by 2005 and 25% by 2010. Your Energy Audit reports will be modified to incorporate these changes.

Solar Wall, *continued from page 1*

project. The solar wall was then installed on buildings NM-92 and SP-233 via a small purchase contract.

The project will save the Navy approximately $12,000 a year and about 258,000 pounds of greenhouse gases will be avoided from polluting the atmosphere annually.

For more information, contact Ming Truong, Energy Management Branch, at 757-445-4885 x 415. E-mail: <truongmc@pwcnorva.navy.mil>. Ming Truong is an environmental engineer at PWC Norfolk and engineer in charge for the solar panel project.

Based on an article in 18 January 2001 The Flagship *by Ming Truong*

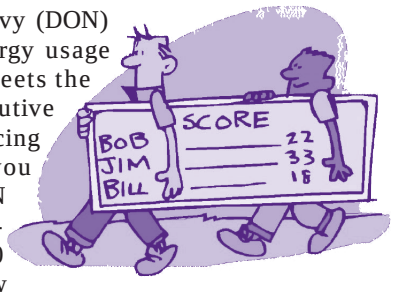
Web Update

Winners of the 2000 Secretary of the Navy (SECNAV) Energy Awards and Navy and Marine Corps winners of the 2000 FEMP Federal Energy and Water Management Awards, based on FY99 accomplishments, are now available for viewing on the Navy energy website. Set your browser to **http://energy.navy.mil** and select the **Awareness/Awards** pick, then **Energy Awards**. A photo of each winner receiving their award accompanies the write-up of each individual winner's accomplishments, so if you have a slow Internet connection, please be patient while the Home Page is downloaded.

All 12 issues of volume 5 (year 2000) of the *energized* newsletter have been converted to Portable Document Format (PDF) and are being posted to the Navy website as PDF files. Select the Energized Newsletter pick. Lost or missing a past issue? With last year's issues now available as PDF files, you'll be able to print them out to have them look exactly like the original (including the color, if you have a color inkjet or laser printer). This year's issues are also being posted as PDF files. Check back often.

Get Your Scorecard Here

Do you know how well the Department of the Navy (DON) is doing reducing energy usage overall? Or how well DON meets the new requirements of Executive Order 13123, such as reducing greenhouse gases? Did you know EO 13123 requires DON to reduce water consumption compared to an FY 2000 baseline, or sets a new Industrial Energy Usage reduction goal? The answers to these, and other questions, can be found on the Navy Energy website. Set your browser to <http://energy.navy.mil> and click on the Progress/Data pick on the left. There are graphs showing the progress for DON as a whole, Navy and Marine Corps separately, as well as Major Claimant, sub-claimant, geographic area, and activity level. There's also a scorecard revealing how well DON is meeting EO13123 goals.



Here's where DON stands:

	FY 2000 Actual	FY 2000 Interim Goal
Site energy reduction per ft^2 compared to 1985 baseline:	24.8%	22.5%
Source energy reduction per ft^2 compared to 1985 baseline:	8.8%	NA
Industrial energy reduction per ft^2 compared to 1990 baseline:	17.5%	13.3%
Greenhouse gas reduction compared to 1990 baseline:	27.6%	15%
Water reduction compared to 2000 baseline:	NA	NA
Renewable energy (RE) from self-generation & RE purchases	1,399 BBtu	NA

Check back often to check on DON's progress.

SECNAV Energy Award Winners

MCRD Parris Island Enlists Support; Is Rewarded for Energy Savings

Marine Corps Recruit Depot (MCRD)/Eastern Recruiting Region Parris Island, SC, is the 2000 winner of the Secretary of the Navy Energy Award in the Marine Corps Large Activity Category –receiving a monetary award of $45,000 and the privilege of flying the SECNAV energy flag for one year.

MCRD Parris Island reduced its energy consumption 21% in FY99 compared to the 1985 baseline. The Depot gained support from various partners to attain its goals. Solar-powered lights funded by the National Renewable Energy Laboratory were installed at numerous locations on the Depot. The project cost an estimated $33,000 and has a payback on investment of 1.1 years over conventional lighting.

The Depot continued to expand the Decision Support of Operation & Maintenance II (DSOM II), an innovative system developed by DOE's Pacific Northwest National Laboratory (PNNL), that not only monitors but also improves the operation and maintenance of the Central Power Plant. The DSOM II system cost $1.825 million and is expected to save $250,000/year in fuel costs.

MCRD Parris Island has an active energy awareness program. The Energy Office regularly runs energy articles in the local *Tri-Command Tribune* newspaper, and uses the "Tackboard" electronic messaging service to disseminate energy information. An Energy Hotline has been established to receive calls on energy matters from the Depot, and an electronic mailbox receives in-coming energy e-mail. The Energy Monitor Program provides a point of contact for Depot personnel to directly affect the energy use in their facility or command.

The Motor Transportation Department purchased electric vehicles that can be recharged using solar photovoltaic modules.

The Central Heating Plant Building #160 has the ability to co-generate up to 3 MW of electricity. This capability is used for "peak shaving" and energy cost reduction which resulted in a savings of $80,784.

A Y2K-compliant energy-efficient control system was installed in the Child Development Center. The new system has improved the comfort within the facility and will be integrated into the Depot's overall control system. In addition, energy education programs were conducted at local elementary schools.

For more information, contact Mr. Ronnie Myers at 843-228-2720 or Mr. Rick Pierce at 843-228-2126.

Check it out

Check Out These Proceedings

The proceedings from the 2000 Summer Study on Energy Efficiency in Buildings are now available in print and on CD-ROM. Sponsored every other year by the American Council for an Energy-Efficient Economy (ACEEE), this conference brings together many of the world's experts on building science to discuss the latest in energy technologies and practices, programs, and energy policy.

The theme of this year's study program was "Efficiency & Sustainability" and was addressed in papers on strategies for reducing CO^2 emissions due to energy use in buildings; initiatives promoting the construction of "green buildings" and ensuring that these buildings perform the way they are designed; analysis of the environmental benefits of urban heat island mitigation strategies; implementation and monitoring of community-based climate actions plans; the status of the "green power" market; techniques for crediting energy efficiency measures for air emissions benefits; and the impact that appliance efficiency standards have on pollutant emissions.

The effects of electric utility restructuring on energy efficiency initiatives received

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Check it out

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considerable attention. Strategies for reducing summer peak power demand were also hot topics at the 2000 Summer Study. Market transformation covered plans for expanding the Energy Star labeling program, the progress in transforming residential lighting to compact fluorescent lamps, and a report on an innovative and successful commercial building operator training program in the Pacific Northwest. Read about the above topics, as well as consumer behavior, non-energy variables, and building industry trends.

The proceedings contain more than 300 peer-review papers. The 10-volume printed set costs $220, including shipping (U.S.) and handling (S&H); add $20 for foreign postage. The CD-ROM version is $120, including S&H. To order, contact the ACEEE publications office:

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Watts News?

We want to hear from you.

Tell us about the energy initiatives you're working on, the problems you encounter, and the solutions you discover.

Submit article ideas, comments, or questions to:
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Be sure to include your name and commercial phone number.

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