Building Energy Monitors Look to Reduce Waste During Summer

07/21/14 Shawn Miller NDW Public Affairs

WASHINGTON – As summer heats up and air conditioners and building systems start working overtime, Building Energy Monitors (BEMs) are keeping a close watch on energy usage to mitigate waste and save money across Naval District Washington (NDW).

Assigned in writing by installation commanding officers, BEMS play a central role to the NDW energy program by monitoring every building across all NDW installations while communicating energy goals, encouraging positive habits, serving as points of contact, and ensuring buildings are running efficiently.

"The Building Energy Monitor is essentially our eyes and ears for the energy program," said NDW Energy



The Navy energy mascot, BRITE, shows the building controls in the Shore Operations Center (ShOC) during a visit to the Washington Navy Yard, July 9 to build energy awareness. Operators and analysts at the ShOC maintain command and control of energy usage at the base through a secure network, allowing for more efficient power usage to enable mission readiness and lower operating costs. (U.S. Navy photo by Chatney Auger)

Program Director Lt. Cmdr. Keith Benson. "We've empowered the BEMs to create a strong energy culture to focus on reducing energy intensity and water intensity."

BEMs help coordinate repairs and maintenance, have the ability to monitor building consumption through advanced meters and identify potential energy projects for further development.

According to the Navy and Marine Corps BEM Guide, utilities account for an average of 40 percent of shore operating budgets each year, with office electronic equipment, lighting and HVAC equipment soaking up much of the power used.

The guide notes small fixes such as installing occupancy sensors, replacing incandescent bulbs with compact fluorescent or LED bulbs, and reducing plug loads on electrical outlets as ways to save power and money. Personnel are encouraged to shut down computers and other office equipment during nights and weekends, as simply putting computers into sleep mode still draws power.

With temperatures across the region breaking into the 90s recently, HVAC systems' controls and set points during the workday become important in managing output. In June 2013, Commander, Navy Installations Command (CNIC) issued an order to reduce utilities consumption ashore by setting building thermostats to 78 degrees in the summer.

During an Energy Management Board conducted by Naval Facilities Engineering Command (NAVFAC) Washington July 15, energy leadership focused on retro-commissioning efforts already completed, work in progress and the way forward. Accomplishments include the implementation of night setbacks, adjusting thermostat set points to policy, hundreds of service calls processed to include safety hazards, and 4,760,044 kilowatt hours of annual energy savings identified.

BEMs are encouraged to regularly check in with building occupants and note any problems that may arise if those thermostat temperatures rise beyond set points, causing inefficiency or discomfort for those working within the building. Furthermore, the Facility Engineering Operations Center (FEOC) now has the ability to monitor some buildings at the Washington Navy Yard, providing an alarm when temperatures are out of specification.

"In accordance with Naval District Washington's energy policy statement, a judicious use of energy resources must be the

daily drumbeat and priority for all hands at all times," Benson said.

Strong leadership is important to promoting a sustainable energy culture, said Benson, who encouraged personnel and commanders at all levels to support energy as a holistic program.

"It's a team approach across each installation throughout Naval District Washington to reduce energy intensity, water intensity and transportation fuel consumption," he added. "The BEMs are the deckplate leaders in that whole process. The efforts we put forth through our energy program are directly contributing to improving readiness and mission support through efficient use of energy."

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