

Carlisle Barracks striving for "Net Zero" energy use

Staff Sgt. Corey Baltos, USAWC Public Affairs

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As part of its on-going recycling efforts Carlisle Barracks recycles much of the material from demolished post buildings.

Photo by Staff Sgt. Corey Baltos

Maj. Gen. Gregg Martin has nominated Carlisle Barracks to be one of the five installations to lead the way and achieve "Net Zero" ten years earlier than the Army standard. By doing so the Army War College Commandant is challenging Carlisle Barracks to implement programs that will reduce the amount of energy and water it is using.

"(Net Zero) is a growing and important domain for our Army and nation, who are trying to be leaders in all this," said Martin. "As the center for developing strategic leaders and thought, I think we can, and should be more aggressive in this field."

"Net Zero" means that the amount of a substance produced on an installation is equal or less than the installation's demand.

"The goal is net-zero: net-zero energy, net-zero water and net zero waste," said Katherine Hammack, the assistant secretary of the Army for installations, energy and the environment.

The first step is conducting an assessment and coming up with a plan to meet those goals according to Tom Kelly, Carlisle Barracks Department of Public Works director.

"This is an opportunity for Carlisle Barracks and the USAWC to help shape the future of our Army and nation," said Lt. Col. Janet Holliday, Carlisle Barracks garrison commander. "As the Army's home for developing strategic leaders, we believe we have a responsibility to do what we can in a bold and

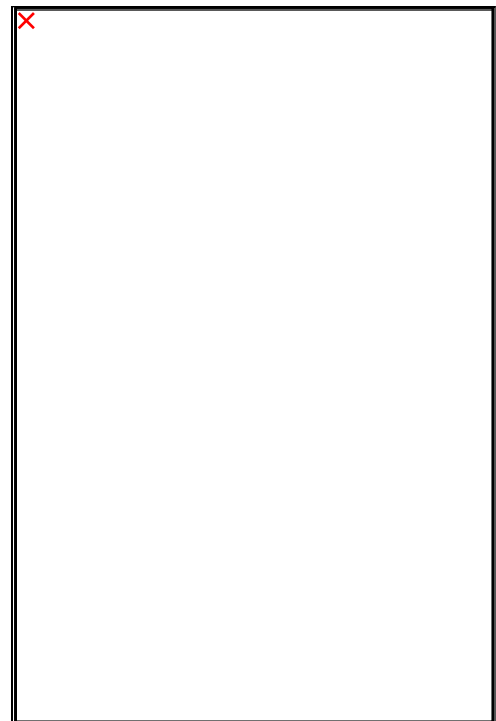
innovative way. We see the Net Zero campaign as fitting squarely within our greater Army War College and Carlisle Barracks' Campaign Plan and we are excited to take on this important Department of Energy initiative.”

Even though Carlisle Barracks does not yet know if it has been chosen by the IMCOM as one of the five posts, it is working hard to decrease its environmental footprint by decreasing the amount of waste, energy and water used.

“Regardless of whether we are chosen as one of the five installations we are moving forward on our energy saving programs,” said Kelly.

“We have reduced the amount of energy used to heat and cool homes by approximately 20 percent by installing geothermal heating and cooling systems underneath the housing areas,” he said. Geothermal or ground source systems use the earth as a heat or cooling source by taking advantage of ground temperatures to boost efficiency and reduce the operational costs of heating and cooling systems.

Streetlights on post have been upgraded to use new induction lighting, which uses 50 percent less energy than traditional lighting. *Photo by Staff Sgt. Corey Baltos*



Kelly also pointed out that the streetlights and homes on post all use energy efficient bulbs, and motion based lighting and exhaust fans have been installed in Root Hall.

New building projects on post are being built with an eye towards reducing energy consumption. The new SSI building will feature solar panels that will support the electric water heater.

Many of the existing buildings on post are also receiving energy efficient upgrades. “We are installing energy efficient heating system in the chapel as well as replacing all but the stained glass windows in the chapel with double glass windows which will provide more insulation and decrease the amount of energy needed to heat the chapel,” said Kelly.

According to the Environmental Protection Agency the average American produces 100 garbage cans full of garbage every year. Many of this garbage can be recycled and reused. Carlisle Barracks is working on ways to reduce its carbon footprint through recycling.

“To reduce the amount of waste we are producing Carlisle Barracks has implemented a single-stream recycling program,” said Kelly. “This system allows people to put all of their recyclables in one container instead of sorting them into different containers.” DPW is working to buy more containers so they will be available in most post buildings.

Single-stream recycling containers are also used at all on-post housing.

“Recycling is a big part of our renovation efforts,” said Heidi Puente, the community manager of Balfour Beatty.

Carlisle Barracks also reduces waste is by recycling the bricks, copper pipes and siding from buildings that are demolished said Kelly.

Solar energy is also a way to become more energy efficient, but the historical nature of many post buildings present a unique challenge, however solar panels have been installed on some newer Carlisle Barracks buildings.

“The solar panel on the DPW building is currently producing about 15 amps of electricity a day,” said Kelly. “This is enough electricity to run a home computer. We are also planning on installing solar panels on the new SSI building to act as a secondary source of power for the building’s water heater.”

The “Net Zero” campaign is something that everyone who lives and works on post can participate in.

“Everyone can do their part to reduce the amount of energy, water and waste they are producing,” said Kelly. “If everyone, when they leave their office at night, turns off their computer monitor and the lights, that will reduce the amount of energy we are using. If everyone recycles their drink cans instead of throwing them out that will reduce the amount of energy we are using,” Kelly said.

“The short-term goal of the “Net Zero” campaign is to save energy, water, and increase recycling. The long-term goal is to be absolutely "Net Zero" in all three areas; we will strive to produce more energy than we need, more water than we need, and have zero waste,” said Holliday.