CFAY, NAVFAC Far East complete The Sullivans School solar-panel installation

From NAVFAC Far East Public Affairs

Commander, Fleet Activities Yokosuka (CFAY) and Naval Facilities Engineering Command (NAVFAC) Far East completed and commissioned CFAY's second large-scale solar photovoltaic energy system of the summer Aug. 27.

The contractor, TECC Isuzu Joint Venture, completed the installation of solar panels at The Sullivans Elementary School in record time, executing the entire project during the school's two-month summer break.

"We were a little concerned at first because the contractor had to have all designs and actual installation completed before the start of school," said CFAY Public Works Construction Manager Masami Shinozaki. "But once they began their installation, we knew that they were going to provide a quality product on time."

The contractor installed a photovoltaic (PV) array across roofs of three buildings at The Sullivans Elementary School. The array consists of 1,472 polycrystalline silicon panels that are each rated at 238 watts of direct current power. These panels will feed up to 350 kilowatts (kW) of clean solar energy to the CFAY electrical grid and provide a major benefit by reducing the amount of power that CFAY needs to purchase from Tokyo Electric Power Company (TEPCO).

This PV system is anticipated to generate approximately 351,500 kilowatt hours (kWh) per year - equivalent to the electrical consumption levels of 60 average-sized homes in California or more than 40 billion iPod songs, according to CFAY Energy Manager Thomas Bawden.

The $1.46 million project was funded by the Department of Defense's Energy Conservation Investment Program. The system will produce its maximum power output during the middle of the hottest, brightest, sunny days – which coincides with CFAY's peak demand period for electricity. With significant recent increases to TEPCO electrical rates, completion of this renewable power system is right on time for CFAY.

This energy system is a significant step toward satisfying the 2005 Energy Policy Act (EPACT) requirement to generate more electricity from our renewable sources, with the added benefit of aiding CFAY in reaching the Navy's energy reduction goal of three percent per year.

"A lot of people assume that installing solar panels and [other] renewable energy systems grants them a free pass to use more power," said CFAY Energy Project Developer Michael Gabiga. "This is definitely not the case; we need to both reduce our consumption and generate electricity from our renewable sources. These two actions together are what allow us to meet our reduction goals successfully as an installation."

The recently completed building integrated photovoltaic system on the CFAY Commissary roof, combined with the new system at The Sullivans School, represent renewable energy projects that account for a reduction of more than two percent of CFAY's peak demand. This means that more than two percent of the energy we normally require from TEPCO can now be avoided with these two systems online. That is a considerable cost savings to the Navy.

(Left) Commander Fleet Activities Yokosuka (CFAY) Capt. David Owen, inspects recently installed solar panels at CFAY's The Sullivan Elementary School. Solar panels are a building integrated photovoltaic system, which is estimated to contribute $297,000 in projected annual energy savings at CFAY.

U.S. Navy photo by MC2 Matthew R. Cole

Secretary of the Navy The Honorable Ray Mabus laid out five aggressive energy goals in October 2009 aimed at improving the Department of the Navy's (DoN) energy security and efficiency, increasing its energy independence and helping lead the nation toward a clean energy economy. This initiative assists in achieving DoN's energy goal of increasing alternative energy afloat and ashore, producing at least 50 percent of shore-based energy requirements from alternative sources by 2020.

"Yes, the energy goals facing CFAY will continue to be challenging, but we have a great team that is ready and willing to tackle these challenges head-on and make a difference," concluded CFAY Public Works Production Officer Lt. Cmdr. LaKeeva Gunderson. "I'm confident that with the support of the CFAY community and tenant commands, we can continue to make serious strides toward meeting these overall goals. CFAY and NAVFAC Far East are committed to increasing our energy independence today in order to bring a brighter tomorrow."

BMED 'cures sick equipment' at USNH Yokosuka

By MC2 Joshua Curtis and Tim Jensen,
USNH Yokosuka Public Affairs

Roaming through the hallways of U.S. Naval Hospital (USNH) Yokosuka one would see what you might expect in a modern medical facility: exam rooms, patients waiting to be seen and doctors in bright, white lab coats decked out with typical diagnostic tools, such as a stethoscope, tongue depressor and a pen. All of these items are ready to use out of the box. No assembly required. No calibration needed.

But what about the more complex gear? An EKG machine for example, a device used to measure the electrical activity of a person's heart, or an ultrasound machine that checks on the health of a developing baby.

Doctors use these instruments to help them diagnose and "fix" the patient. But, just like people, these helpful machines can break down or get "sick". So, who fixes the machines that help fix the patients? For USNH Yokosuka the answer is the Bio-Medical Engineering Division (BMED).

"We are in charge of the calibration, repair and preventive maintenance of all medical and dental equipment in the hospital," said BMED Leading Petty Officer Hospital Corpsman First Class Arnulfo Catungal. "We also service our eight branch health clinics as well as many of the forward-deployed ships here in Yokosuka."

With only seven bio-medical technicians currently working in the division, maintaining the more than 3,000 pieces of equipment can be quite a test. A test the division is not only ready but eager to take on.

"I was an x-ray tech and I decided that I wanted to do something different, something a little more challenging, so I chose this job," said Bio-Medical Technician Hospital Corpsman First Class Sean Hannans. "I believe this is one of the most challenging jobs in the Navy," said Hannans.

With all the hammering, filing and handy work that goes on in the shop on a day-to-day basis one might expect the division to be stacked full of seabees, but it's all corpsman that make up the bio-medical engineering team.

We have to go through a very intense 14-month school where we learn the ins and outs of every piece of medical and dental equipment, said Catungal. This course is comparable to earning an Associates of Arts degree in Biomedical Engineering, he said. And the learning continues even after the corpsmen graduate.

The technology is changing and evolving all the time, said Hannans. That is part of the challenge. It's part of what makes this job so interesting for me. Every time a new piece of equipment comes out we need to get under the hood and take a look at how it works. It keeps you on your toes.

However, these techs have to stay on top of more than the latest technology or the newest equipment.

"One of the key concepts of the bio-medical division is that as equipment ages the performance degrades," said Chief Hospital Corpsman Antonio Lagnada, BMED Leading Chief Petty Officer. "One very important part of our mission is to extend the life of equipment," he said.

Extending the life of equipment saves the hospital money, but more importantly it ensures that the doctors, nurses and corpsman using them can have the peace of mind that during routine check-ups or emergency situations they can rely on these tools to help care for patients.

At the end of the day USNH Yokosuka's mission is quality patient care, and medical providers and the bio-med techs work hand in hand to ensure that mission is completed each and every day.

The doctors use their medical expertise and we use our technological expertise said Hannans. While our role may be a little bit more behind the scenes we all work together to care for the patient, he concluded.

"I am so proud of my guys," said Lagnada. At the end of the day, it is all about providing quality health care so everyone can go home happy and healthy."