

BY ELIZABETH CRUMPACKER

Article featured by the Alliance to Save Energy at http://www.ase.org/blog/what-have-you-done-ee-lately-updates-building-technology-office.

Buildings in the United States – from family homes to office buildings to grocery stores – account for over 70% of electricity and 40% of total energy consumed annually. That adds up to about \$400 billion spent powering our buildings each year.

How can we even begin to reduce those numbers if halting new construction is out of the question? The most obvious solution is greater energy efficiency, and the Department of Energy's Building Technology Office (BTO) is a major force in this effort. BTO, which functions within the Office of Energy Efficiency and Renewable Energy (EERE), has been working on a number of projects lately that will play an integral role in reducing building energy use in the United States.

Improving Performance Evaluation for Commercial Building Energy Codes

Alliance Associate, the American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), has been working with BTO to provide new performance-based compliance options for commercial buildings that will simplify the process of adopting building energy codes. The current system requires separate evaluations for minimum and above-code compliance, but a pending change will allow for a single, performance-based methodology. This will be a simpler, less-expensive and more accurate method that will encourage the development of tools to help code adopters demonstrate compliance.

Home Retrofits Across the Nation

We highlighted the Better Buildings Neighborhood Program (BBNP) last year for providing home upgrades to over 100,000 residences. As of the first quarter of 2015, Better Buildings Residential deployment programs had upgraded over 500,000 homes, including 110,000 through BBNP specifically. The grant period for BBNP has closed out, but over 80% of BBNP grant-funded programs will continue to offer services, indicating that federal investment can spur the market for long lasting energy savings. The participation of 41 grantee partners allowed the BBNP to have such a wide reach and test innovative models to sustain building efficiency upgrades.

These BTO programs are just two examples of how the Office is ensuring the U.S. is at the frontlines of innovation for building efficiency. Considering the impact that buildings have on our nation's energy resources, it's important to acknowledge and support the work that is being done to decrease

WHAT HAVE YOU DONE FOR EE LATELY?
UPDATES FROM THE BUILDING
TECHNOLOGY OFFICE





BY BRANDON SAUER

Over the past month, the PowerSave Campus interns definitely did not skip leg day. Under the instruction of CPP's Energy Manager and treasured PSC stakeholder, George Lwin, the interns set out to perform a count and audit of the lighting fixtures in all of the staircases in state-owned buildings around campus. This may seem like a daunting task, but with the help of the team, technology, and floor plans, the interns were able to successfully count all of the stairwell lighting of seventeen buildings throughout campus in order to calculate savings for a retrofit that could save CPP up to 167,000 kWh over the project lifetime!

Each intern was designated a handful of buildings based on their familiarity with the building. George supplied a spreadsheet with estimated counts as well as floor plans for all of the buildings, and the interns got to work! The interns went through each building with either a phone or tablet, analyzing the floor plans, taking pictures, and completing the spreadsheet with accurate lighting counts along the way. After all of the counts were in, the data was compiled and sent to George, who will analyze the data and calculate the true potential savings for the project. If all goes accordingly, he then will order the new, more energy efficient lamps for the staircases and perform the retrofit, thus converting these potential savings into actual energy savings!

STAIRWELL LIGHTING AUDIT



WELCOME WELCOME NEW INTERNS!

We are fortunate to introduce you to our two new team interns! These two students stood out to our team and are sure to bring new exciting projects to the table. Without further adieu, allow me to introduce to Phoo Kalayar Khine and Jermaine Baylark.

Our first new intern is Phoo. Phoo Kalayar Khine is a third year mechanical engineering student at Cal Poly Pomona. Born on the Earth's day, Phoo has always have an instinct of awareness and appreciation for the Earth's natural environment. She wishes to contribute to the school community and take care of the environment by getting involved in sustainability projects through PowerSave Campus program. She also looks forward to finding new ways for energy efficiency and implementing energy efficiency techniques in her career. Besides academics and appreciating nature, Phoo likes spending time with family and friends, listening to music, going to gym, reading Buddha's teachings and meditating.

Next, we have Jermaine. Jermaine is a second year Civil Engineer major at Cal Poly Pomona with an emphasis on Environmental Engineering. He is passionate about incorporating knowledge of environmentally friendly technology and procedures into his career as an Environmental Engineer. Jermaine is an active member in clubs and organizations such as The American Society of Civil Engineers (ASCE), Engineers Without Borders (EWB), and Habitat for Humanity and is very excited to start implementing green practices on campus. Away from school Jermaine enjoys hanging out with friends, hiking, walking on the beaches of Santa Monica, skateboarding the day away, and actively urging people to be more environmentally conscious.

When we first met these two, we knew they would be a perfect fit for this team. Look out for their own projects and articles in the future newsletters. Again, welcome to the team, Phoo and Jermaine.

PowerSave Campus Interns:

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