

LINE CIRCUIT

SAVING ENERGY FOR A BRIGHTER FUTURE

WATER BOTTLE ROBBERY

In the United States, it has been found that the consumption of plastic water bottles surpasses sales of both milk and beer, and is second only to soft drinks. Considering most bottled water is nearly the same as tap water it is astounding, both economically and environmentally, that people rely so heavily on bottled water. In 2007, 200 billion liters of bottled water were consumed in the world. That is astronomical! Especially considering that in most first world countries, where a majority of this bottled water is consumed, have access to safe tap water for just pennies a gallon! The amount of energy used in the whole process of bottled water is

up to 2,000 times more than out into tap water. After production—which involves manufacturing the plastic, fabricating it into bottles, processing the water, filling and sealing the bottles, transporting them to varying locations, and finally chilling them for use—it requires between 5.6 and 10.2 million joules of energy per liter! That is enough energy to power a 60-watt light bulb for 1-2 days!



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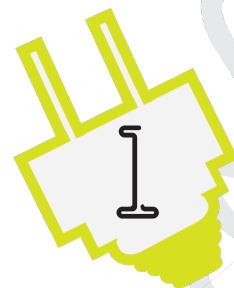
The monetary difference between tap water and bottled water is also exorbitant! Just to put this into perspective, let us do some calculations: in Bowling Green, KY the cost of tap water is \$2.26 for every 748 gallons. What that boils down to is roughly 0.003¢ for every gallon of water consumed. Now let us say that the average cost of a 20-ounce (or 0.156 gallon) plastic water bottle is \$1.29. This means that bottled water is roughly sold at \$8.27 per gallon, which is a 2,757 times increase in price for one gallon. Statisticbrain.com says that the total average number of plastic bottles consumed per person annually is 167. So that's about \$215 for roughly 26 gallons of water. If one had only used municipal tap water, it would have cost \$0.08. Is the "convenience" of plastic water bottles really worth that difference?

The solution to this problem is obvious. Giving up plastic water bottles in exchange for a reusable one is a great way to save money and energy! So go to the store today and kick the habit of buying plastic water bottles!

Ashley McCloughan

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POWERSAVE CAMPUS, AN AFFILIATE
OF WESTERN KENTUCKY UNIVERSITY,
AS A INITIATIVE TO REDUCE CAMPUS
ENERGY CONSUMPTION.

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HOBOS LURK ACROSS CAMPUS

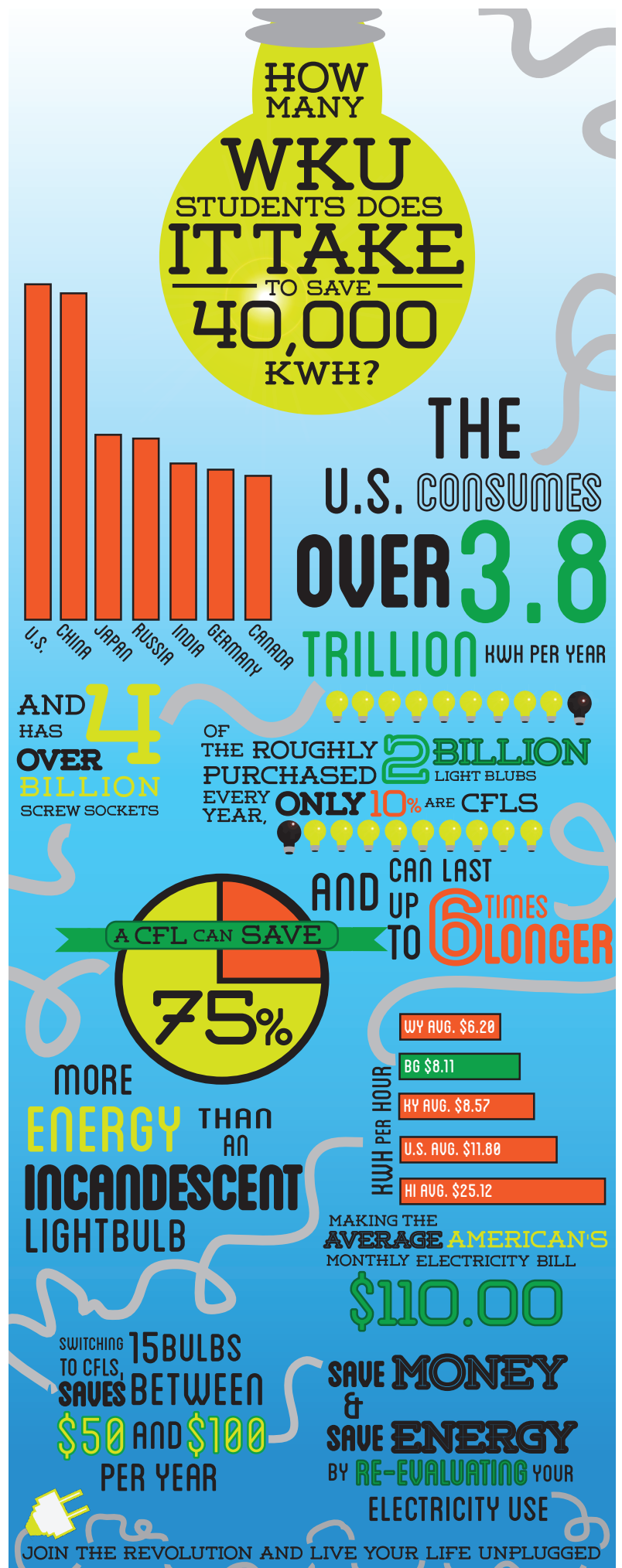
If you visit WKU's campus, you may have noticed many of the buildings are equipped with lighting occupancy sensors. In fact, there are 1,402 of the sensors across campus as a result of the Energy Savings Performance Contract. These gadgets are very valuable as they turn lights off in areas that are not occupied and consequently save some serious electrical power for the university. However, if these systems are faulty in any way, they can quickly drain energy and money. As a result, WKU PowerSave Campus interns seek to investigate the performance of campus occupancy sensors in the upcoming fall 2012 semester to prevent any unnecessary energy waste.

A sister school in the PowerSave Campus program, California State University Long Beach, found a portion of their campus lighting occupancy sensors were malfunctioning. Interns at CSULB used HOBOS Data Loggers to gather and interpret light on/off information from individual lighting fixtures in various rooms and hallways. They found that some occupancy sensors failed to turn off lights at appropriate times of day (when buildings were clearly vacant). After calculating the amount of electricity wasted during these hours, the interns concluded that thousands of dollars could be saved if these occupancy sensors were adjusted.

Your WKU PowerSave Campus interns have invested in their share of the same HOBOS Data Loggers to perform a similar assessment. With this simple project, we hope to prevent the loss of money and energy that could be used for other important university initiatives.



Mary Newton



THE GREENIE OF THE MONTH: MARK SANTORO



One of our own, Mark Santoro, a Graduate Assistant in the Office of Sustainability was nice enough to submit to be the subject of this month's Spotlight on a Greenie profile.

Santoro, originally from South Carolina, came to WKU as an undergraduate in Business Management and Marketing. After finishing his undergraduate degree at WKU, Mark decided to pursue his MBA with a sustainability emphasis. Why? When I asked him it seemed quite logical; desire to make a difference in more than just one facet of the way things are run. He confided that he learned more and more about sustainability concepts and practices while going through the program. The "plus" was getting to work with Christian Ryan-Downing, our very own Sustainability Coordinator. As a Graduate Assistant, Santoro's responsibility was data collection and submission for the Association for the Advancement of Sustainability in Higher Education (AASHE) STARS program here at WKU, in which we earned a Bronze rating in 2011 for our efforts. What this meant for Mark Santoro was that he had to contact all campus departments and many affiliates of higher education to determine the degree to which they were giving

attention to sustainability concepts and practices in the classroom as well as in the daily operations; like doing inventory on the inner workings of a huge machine, picking out the bits that matter to your quest. I saw the "STARS binder" and was impressed by what was documented as "accomplished". But this degree of effort is not surprising, considering Santoro's business sense inherited from his father, and honed by his choice to pursue education in this field. The outcome is that WKU will earn Silver rating in 2012!

"SANTORO'S RESPONSIBILITY WAS DATA COLLECTION AND SUBMISSION FOR THE ASSOCIATION FOR THE ADVANCEMENT OF SUSTAINABILITY IN HIGHER EDUCATION (AASHE) STARS PROGRAM . . . WKU WILL EARN SILVER RATING IN 2012"

In less than three weeks though, Mark graduates. And after 5 years of school he is glad to be able to give something back to WKU, and learn some skills that have real world use. What's the plan after the cap and gown are donned? Law School, but first a bit of well-deserved time off and travel before jumping into law, or whatever career Mark Santoro chooses. Thanks, Mark being a good sport and for the service you've done for WKU!

Sophia Sterlin

DID YOU KNOW

WITH A PLEDGE TO USE IT ON CAMPUS, YOU CAN GET A FREE CFL LIGHT BULB IN THE OFFICE OF SUSTAINABILITY LOCATED IN PARKING STRUCTURE 1?



WATT'S THE WORD

1.
2.
3.
4.
5.
6.
7.
8.

1. A CFL can save up to 75% more energy than an _____ light bulb.
2. HOBO meters test the functionality of _____ sensors by monitoring the amount of light in a room.
3. KWH is an abbreviation for kilowatt hours. This is the standard measurement for the amount of _____ consumed in a household.
4. The average person consumes 167 _____ bottles annually. Equalling about \$215 for roughly 26 gallons of water.
5. The average American's monthly _____ bill is \$110.00 per month.
6. WKU heats campus through the use of _____ gas.
7. _____ energy occurs when appliances that are off remain plugged in and still use electricity.
8. 19% of the energy produced in the U.S. is _____.



BE THE FIRST TO TURN IN YOUR COMPLETED ENERGY ACTIVITY TO CHRISTIAN RYAN-DOWNING IN THE OFFICE OF SUSTAINABILITY, LOCATED IN PARKING STRUCTURE 1, TO WIN A ENERGY GIFT BASKET AND BE FEATURED ON OUR FACEBOOK PAGE.