

## WKU expects big savings from energy shutdown on campus Thermostats set back, lights off, machines unplugged during three-week vacation

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They've unplugged vending machines, dropped thermostats to the 60s and defrosted hundreds of refrigerators. And soon, **Western Kentucky** University officials will see just how effective their three-week-long "hard shutdown" on campus was.

The goal of the shutdown is to save the university 1 million kilowatt hours of electricity – nearly \$80,000 in savings to offset an estimated \$521,000 shortfall in the utility budget.

President Gary Ransdell announced in November that the school would be adding a week to its winter and summer breaks in an effort to reduce the amount of energy used.

As officials begin plugging in their office refrigerators today and computers are turned back on for the first time in weeks, sustainability coordinator Christian Ryan-Downing, will be plugged into the Web site that has been tracking energy usage.

As of Saturday, [www.wku.edu/energy](http://www.wku.edu/energy) showed that the school was actually using less energy than officials aimed for going into the project.

"We're right on track to meeting our goal, so that's really, really exciting," Ryan-Downing said.

Officials are monitoring usage from Dec. 10 to Jan. 10, comparing the consumption to that used during the same time last year. And while many faculty and staff continued to use buildings for professional development and grading during the first week of the study, they were asked to turn off all computers, copiers, chargers, lights and appliances, such as personal refrigerators.

Maintenance staff unplugged hundreds of drinking fountains and vending machines across campus, and reduced thermostats in every building to 60 degrees until Monday.

Ryan-Downing said if successful, the experiment could reduce WKU's greenhouse gas emissions by 712 metric tons – equal to taking 130 passenger vehicles off the road for one year. Regardless of the goals, though, she said the process has been a learning experience – showing campus officials have less control over some usage than they originally thought.

For instance, it was discovered that there are lights on campus that cannot be manually shut down, as well as areas in buildings that get an unnecessary amount of light. In order to increase savings in the future, Ryan-Downing said an assessment may show a need to install motion-sensing lights in some areas, while others will be adjusted to allow for manual control.

"It's overwhelming to think for years we have left these things running over the break with no one there using them," she said.

John Osborne, vice president for campus operations, said with some 4 million square feet of building space on campus, it wasn't hard for him to realize the savings during a shutdown.

"By themselves, the buildings are a huge cost when they are up and running," he said.

He attributes the greatest energy savings to the nearly 10-degree cut to thermostat settings in most buildings. (Pearce-Ford Tower, where some students remained during the winter break, was kept warmer, as were some laboratories and places where sensitive documents are housed.) The university's utility bill runs from Dec. 10 to Jan. 10, so the official savings won't be realized until the current billing cycle ends.

"I was convinced we could do this ..." Osborne said. "This is the first of many activities I feel confident the university will need to do."

Part of those activities will be determined by a lengthy energy audit being conducted by Johnson Controls. For the next 8 to 10 months, officials will be studying how WKU might reduce its energy usage. Ryan-Downing said she hopes to see the success of the shutdown experiment inspire everyone at the university to do little things that make a big difference.

"Hopefully, this will increase campus awareness at how much we control we can have over energy usage and it will catch on," she said.

When the experiment and extra week shutdown was announced, some scoffed at the idea or voiced concerns about being able to use their office for development during the break. But Ryan-Downing said she has received only positive and sometimes constructive feedback from the campus since its inception.

A quick glance at the wavy lines that graph the university usage each week shows significant gaps in kilowatts used per hour from the first week to the third week. Between noon and 4 p.m. on Dec. 8, the university was operating at about 8,000 kilowatts per hour – at the same time on Dec. 29, it was using just more than 3,000. According to the study, usage dropped to less than 3,000 kilowatts per hour for the first time Dec. 27, and has continued to remain below the “goal” usage ever since. Ryan-Downing said other universities have taken interest in the study, as WKU may save slightly more than originally anticipated. “We’re really hoping this will get people started on a new habit,” she said.

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