



*State University of New York at Albany runs a 10-week long competition each year to save energy and help develop lasting energy-conscious habits.*

# Energy Conservation

## Moving Toward 100% Clean, Renewable Energy on Campus

*Conservation is an important part of the transition to clean, renewable energy. By promoting initiatives to encourage and assist the campus community to adopt less energy-intensive lifestyles, colleges can save money, reduce their environmental impact, and ease the shift to 100 percent renewable energy.*

## Conservation Is a Key Building Block of a Clean Energy Future

Moving toward a clean energy future depends on both boosting clean energy supply and reducing energy demand. Energy conservation is a powerful tool to reduce energy demand, particularly when paired with smart technologies. Simple shifts in how people use energy on campus could save as much as 20 percent of energy consumption, and help colleges achieve their clean energy goals.

## Colleges Across the U.S. Are Promoting Energy Conservation

Many campuses have developed energy conservation programs that often combine:

- **Community Initiatives:** Social interaction programs, like competitions, are relatively cheap and easy to implement, foster energy conservation awareness and help students and faculty to reduce their energy use.
- **Smart Technology:** Many colleges, such as Hamilton College and Brandeis University, use smart sensors and real-time feedback displays to show students, faculty and university administrators their energy use in real time – and help them to understand the powerful benefits of using energy wisely.

## Colleges Are Uniquely Suited to Change Energy Consumption Behaviors

Colleges have tested different strategies to help people use energy more wisely:

- **Motivation:** A main obstacle to people reducing their energy use is the lack of frequent and intuitive feedback about their energy consumption. At Oberlin College, students who received real-time depictions of their electricity consumption reduced their electricity use by 32 percent over two weeks.
- **Norms:** People will often change their behavior to align with those around them – for better or for worse. Schools are building “cultures of conservation,” like Cornell with its Think Big, Live Green program that encourages students, faculty and staff to use energy thoughtfully.
- **Capacity-Building:** Students may not know all the ways they can save energy. At University of California, Merced, the Green Campus team has effectively used social networks, digital media and one-on-one conversations to share efficiency tips, reducing energy use in student residence halls by 3.7 percent. Conservation strategies learned in college can be carried on into life after graduation.

Many schools, like Harvard University, the University of Kansas and University of California, Davis, have used "Shut the Sash" programs to challenge lab workers to turn off fume hoods and save energy.

## Friendly Competition at the State University of New York at Albany Cuts Energy Use

The State University of New York at Albany has been running a 10-week long competition among residence halls and some academic buildings to reduce energy use every fall since 2006. The goal of the competition is to reduce electricity use by 10 percent compared to a 2005 baseline during the competition, and to develop lasting energy-conscious habits. Data on energy use is made available to the campaign participants through an online energy dashboard. Weekly emails reinforce positive progress, call out residential halls that are lagging, and send energy-saving reminders such as, "Did you unplug your phone charger this morning?"

The energy campaigns cost only \$2,000 each year and save approximately \$100,000 annually. The university publicizes how savings are used; part of those savings go back to the residence buildings to fund green amenities and sustainability programming. In 2010, for example, the Office of Sustainability started a bikeshare system using savings from the energy campaign. In 2016, the competition resulted in a 15 percent reduction in energy use by residence halls, with the winning apartment building reducing its energy use by 38 percent.



## Harvard Uses Competitions and Peer Education to Encourage Behavior Change

At Harvard, research laboratories account for 44 percent of energy use but occupy only 20 percent of space. The Green Labs Program works with students, staff and faculty to reduce energy use through a variety of sustainability initiatives. For instance, three labs were sub-metered to track energy use and competed in annual two-week campaigns turn off lights. The efforts yielded an annual reduction in energy used for lighting of 36.4 percent the first year, and 50.9 percent the second year.

Harvard also assigns each dorm a student environmental liaison who disseminates information about environmentally sound habits – and distributes free LED light bulbs. The liaisons monitor energy use and advocate conservation measures, particularly during the Harvard Green Cup, which awards cash prizes for participation and savings.

*This factsheet is one of a 10-piece series.  
For citations, and to read the other factsheets,  
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## List of Resources

To shift energy use behaviors on your campus:

- Consult the U.S. Department of Energy's article on energy-efficient college life: [energy.gov/energysaver/articles/energy-efficient-college-life](http://energy.gov/energysaver/articles/energy-efficient-college-life)
- Learn how Allegheny College challenged its community to save energy through the U.S. Department of Energy's Better Buildings Initiative: [betterbuildingsinitiative.energy.gov/implementation-models/campus-energy-efficiency-challenges](http://betterbuildingsinitiative.energy.gov/implementation-models/campus-energy-efficiency-challenges)
- Follow steps to develop an energy management program with the eBook "Anyone Can Effectively Manage Energy Efficiency Programs in Schools" from SchoolDude: [www.schooldude.com/Portals/0/Public%20Content/eBook/energy-ebook-13.pdf](http://www.schooldude.com/Portals/0/Public%20Content/eBook/energy-ebook-13.pdf)