

US EPA ARCHIVE DOCUMENT



## OnCampus ecoAmbassadors

OnCampus ecoAmbassadors are college students who implement projects from EPA's partnership programs to help carry out the Agency's mission to protect human health and the environment. The program is open to ANY college student, regardless of program, age, or background. All interested students are encouraged to participate.

### Did you know?

- If the energy efficiency of the buildings where we work, play, and learn improved by just 10%, Americans would save about \$20 billion and reduce greenhouse gases equivalent to the emissions from about 30 million vehicles.
- Energy efficiency improvements represent the fastest, cheapest, and largest untapped solution for reducing energy use, lowering energy bills, and preventing greenhouse gas emissions that contribute to the challenge of climate change.
- More than 225 colleges and universities have joined ENERGY STAR as a partner and are making significant strides in improving energy management.

### Learn More

ENERGY STAR® is a joint voluntary program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) that promotes energy-efficient products and practices to reduce greenhouse gas emissions. ENERGY STAR helps individuals, schools, businesses, universities, and other organizations save energy, save money, and protect the environment by improving energy performance. For more information, please visit: [www.energystar.gov](http://www.energystar.gov)



## ENERGY STAR Benchmarking Project

University buildings are major energy consumers. By understanding the energy performance of various buildings, facility managers can set improvement goals and prioritize investments in efficiency upgrades. You can encourage better energy management on your campus by working with facility managers and implementing an ENERGY STAR Benchmarking Project to measure and track building energy performance.

### Goals of the ENERGY STAR Benchmarking Project

- Improve the energy efficiency of your campus by measuring and tracking the energy performance of one or more buildings
- Reduce greenhouse gas emissions
- Educate students about links between energy use and the environment
- Lead your school to become an ENERGY STAR partner

### If You're Interested In:

- Planning fun events to get students interested in energy efficiency
- Meeting new people
- Designing creative messages
- Empowering and motivating students to change their energy behavior

**...then the ENERGY STAR Benchmarking Project is for you!**

See page 2 for a step-by-step checklist for the ENERGY STAR Benchmarking Project.



### Students Taking Action

The University of Virginia (UVA) identifies buildings that have a high energy use compared to other, similar buildings through benchmarking building energy and water. Investigations are conducted on these buildings to determine the causes of high use so that corrective action can be taken. One example of successful benchmarking at UVA involved the university's chemistry building. Its energy use increased unexpectedly, making it one of the larger energy users per square foot on campus. Because it was sub-metered and energy use was measured and tracked, the university's facility managers were able to quickly identify the increase and examine the building for its cause.

To make utility usage and metering data more compelling to building occupants, UVA engineering students developed web pages to show energy use and cost statistics per building. The web pages included real-time data from meters and building automation systems.


The ENERGY STAR Benchmarking Project is ideal for students pursuing degrees in business, communications, education, environmental science, engineering, and public policy.

## Checklist for the ENERGY STAR Benchmarking Project

Follow the steps below to implement an ENERGY STAR Benchmarking Project.

- 1. Find out what's being done on your campus.**  
 Your efforts to measure buildings' energy use may be the first step toward creating a campus-wide energy strategy or it may fit within existing energy program activities. Talk with your school administrators, energy managers, and facilities team to learn what's already being done and how your efforts might complement their ongoing efforts.
  
- 2. Encourage your university to install sub-meters on campus.**  
 Ask your facility managers how the buildings on campus are metered. Follow the tips on the right for talking with facility managers. Many campuses have master meters that quantify the energy use for groups of buildings or for the entire campus. Sub-metering individual buildings shows how much energy each campus building consumes and results in more accurate benchmarking of energy use.  
  
 Although installing sub-meters may require an up-front investment, there are associated savings with these meters and energy consumption can be managed more effectively when the energy use profile of individual buildings is understood and tracked.
  
- 3. Benchmark your campus facilities in EPA's Portfolio Manager.**  
 Regardless of how your campus is metered, you can use EPA's Portfolio Manager to track your campus' energy consumption. To access the Portfolio Manager, visit [www.energystar.gov/benchmark](http://www.energystar.gov/benchmark). Benchmarking of building energy and water use can identify buildings that use more energy and water per square foot in comparison to similar buildings. This information allows facility managers to conduct investigations to determine the causes of high use so that corrective action can be taken on low-performing buildings.  
  
 In addition, you can use the Benchmarking Starter Kit to find out what information you need to collect and other information to get started quickly. A link to the Benchmarking Starter Kit is available at [www.energystar.gov/benchmark](http://www.energystar.gov/benchmark).
  
- 4. Apply for ENERGY STAR certification.**  
 Certain building types are eligible to receive an ENERGY STAR energy performance score, a weather-normalized comparison to the national average energy use for similar building types. If any of your buildings receives an ENERGY STAR score of 75 or higher in Portfolio Manager, the building may be eligible for the ENERGY STAR, EPA's nationally recognized symbol for superior energy performance. For details, visit [www.energystar.gov/index.cfm?c=evaluate\\_performance.bus\\_portfoliomanager\\_intro](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager_intro).
  
- 6. Involve students in tracking your campus' energy use.**  
 Building energy data provides a wealth of insight and learning opportunities for students. Involve classes and student groups in all aspects of the energy measurement and tracking processes, from entering data into Portfolio Manager to analyzing your facilities' energy performance over time.
  
- 7. Fill out your completion form.**  
 Record the information that you are required to report to EPA on the event completion form, including your name, date of the event, name of your college, a description of the event or events, the number of interactions (include any interesting comments), and additional comments.

## Resources

<b>Additional Online Guidance</b>
<p>EPA provides many no-cost, easy-to-use training materials to help you get started on the path to benchmarking your buildings' energy use. Visit this site to explore EPA's live Web training sessions, pre-recorded sessions, and animated presentations on using ENERGY STAR tools and resources.</p> <p style="text-align: center;"><a href="http://www.energystar.gov/buildingstraining">www.energystar.gov/buildingstraining</a></p> <p>Access and learn more about Portfolio Manager, EPA's no-cost online tool for measuring and tracking energy use.</p> <p style="text-align: center;"><a href="http://www.energystar.gov/benchmark">www.energystar.gov/benchmark</a></p>
<b>Tips for Talking with Facility Managers</b>
<ol style="list-style-type: none"> <li>1. Schedule a meeting in advance. Make sure they know who you are, who you're working with, and what you'd like to know.</li> <li>2. Be on time, polite, and to the point, and be sure to look nice!</li> <li>3. Do your research. Try to find out as much as you can about your campus' energy use before the meeting.</li> <li>4. Be open to suggestions, and look for ways that facilities staff are already doing what you hope to accomplish.</li> <li>5. Ask the right questions. Who manages the campus' energy use? Are buildings sub-metered? Do you already benchmark our energy consumption?</li> <li>6. Agree on action items for both of you to accomplish before meeting again.</li> <li>7. Follow up promptly with any further information, thanking staff for their time.</li> </ol>
<b>EPA Contact Info</b>
<p><b>ENERGY STAR Hotline</b> (888) STAR-YES; (888) 782-7937</p> <p><b>EPA OnCampus Team</b> EPAOnCampus@epa.gov</p>
<b>EPA OnCampus Websites</b>
<p>Visit the EPA website at <a href="http://www.epa.gov/ecoambassadors/oncampus">www.epa.gov/ecoambassadors/oncampus</a></p> <p> Join the conversation at <a href="https://www.facebook.com/epaoncampus">www.facebook.com/epaoncampus</a></p>