US ERA ARCHIVE DOCUMENT



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?

- An ENERGY STAR qualified compact fluorescent light bulb (CFL) or fixture lasts up to 10 times longer than a standard incandescent light bulb and uses about 75 percent less energy.
- One ENERGY STAR qualified CFL prevents 570 pounds of greenhouse gas emissions over its lifetime, the equivalent of keeping 270 pounds of coal from being burned.
- Replacing just one regular light bulb in every American home with an ENERGY STAR qualified CFL would save enough energy to light 3 million homes for one year, save \$600 million in annual energy costs, and prevent greenhouse gas emissions for one year equivalent to approximately 800,000 cars.

## **Learn More**

For more information, please visit: www.energystar.gov



# **ENERGY STAR Light Bulb Changeout**

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 money and protect their environment by improving energy performance.

## Goals of the ENERGY STAR Light Bulb Changeout

- Improve the energy efficiency of your campus by switching out incandescent light bulbs with ENERGY STAR qualified CFLs
- 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 Light Bulb Changeout is for you!

See page 2 for a step-by-step checklist for the ENERGY STAR Light Bulb Changeout.



## **Students Taking Action**

In one year, Morrison Residence Hall at the **University of North Carolina at Chapel Hill** reduced its energy use by 35.7 percent, saving more than \$250,000 in energy costs and eliminating more than 730 metric tons of greenhouse gas emissions. Energy efficiency in the building was increased through lighting improvements and operational and maintenance enhancements. Competitions between dorm floors motivated the students to participate.

Students and staff at three California universities created ENERGY STAR demonstration projects to showcase energy efficiency in a residence hall setting. The three rooms, located at the **University of California (UC)**Berkeley, Humboldt State University, and California State University (CSU) San Bernardino, feature ENERGY STAR qualified lighting, appliances, and electronic devices commonly found in student rooms, such as DVD players, compact refrigerators, and stereos.

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

## **Checklist for the ENERGY STAR Light Bulb Changeout**

Follow the steps below to improve energy efficiency on your campus by leading a program to install energy-efficient compact fluorescent light bulbs (CFL).

## 1. Find out what's being done on your campus.

Your efforts to replace incandescent bulbs with CFLs may be the first step towards creating a campus-wide energy strategy, or they may fit within existing energy program activities. Talk with your school administrators and facilities staff to learn what's already being done and how your efforts might complement ongoing efforts.

# 2. Set a goal for energy and financial savings and reductions in greenhouse gas emissions.

Download the CFL calculator to set a goal for the energy savings you want to achieve, which is available at www.energystar.gov/index.cfm?c=cfls.pr\_cfls\_savings. Using a simple spreadsheet format, the calculator estimates annual and life cycle costs of CFLs, determines the time to recover initial costs based on energy savings, and summarizes the energy savings and reductions in air pollution resulting from the replacement of incandescent bulbs. Make note of your goals for your completion report. Meet with school administrators to get their approval of the goal you've established.

#### 3. Partner with local retailers to obtain CFLs.

Contact local retailers, utility companies, or other potential donors in the area around your campus to find out if they would be willing to donate CFLs for your program or to offer a discounted rate for CFLs for the light bulb exchange. Go to www.energystar.gov to search for retailers near your campus.

## 4. Design a plan to encourage students to participate.

Use the information you have gathered to motivate students and other campus staff to join in and help reduce greenhouse gas emissions by installing CFLs. Be creative! Work with organized campus groups and Resident Advisors in dorms to hold a kick-off event to promote your program and encourage others to take the ENERGY STAR Pledge. Check out the tips for scheduling events on the right. Remember to track how many incandescent bulbs are replaced with CFLs.

## 5. Track your results.

Use the CFL calculator to determine how much energy has been saved as a result of your efforts. Monitor the results periodically to see whether you have reached your initial goals. Share the results to generate enthusiasm and to initiate other activities that will contribute to energy savings and reductions in greenhouse gas emissions.

# 6. Learn how to clean up broken CFLs.

CFLs contain a small amount of mercury sealed within the glass tubing. Learn how to properly clean up a broken CFL to reduce potential risks associated with exposure to the mercury vapors that might be released from a broken bulb. Go to www.epa.gov/cfl/cflcleanup.html for tips on how to properly clean up broken CFLs.

# 7. Recycle burnt-out CFLs.

Check into options for recycling burnt-out CFLs, instead of disposing of them in the trash. Local retailers near your campus may offer in-store recycling. Visit www.epa.gov/cfl/cflrecycling.html for more details.

### Resources

#### **CFL Calculator**

Use the CFL Calculator to estimate your energy and cost saving benefits. The calculator will estimate your savings based on the number of CFLs installed, electricity rate (kWh), hours used per day, cost of conventional bulbs and CFLs, and wattage of conventional bulbs. ENERGY STAR qualified light bulbs pay for themselves in about 6 months.



#### **Tips for Successful Events**

- 1. Find a suitable space.
- 2. Put up posters to advertise the event.
- 3. Create a Facebook event.
- 4. Ask friends to spread the word.
- 5. Plan to have snacks available find out if you can get donations.
- 6. Arrange for music at the event.
- 7. Arrive early to set up the space, including snacks and music.
- 8. Use sign-up sheets to record attendance.
- 9. Create a written summary of the event.

#### **EPA Contact Info**

#### **ENERGY STAR Hotline**

(888) STAR-YES; (888) 782-7937

#### **EPA OnCampus Team**

EPAOnCampus@epa.gov

### **EPA OnCampus Websites**

Visit the EPA website at www.epa.gov/ecoambassadors/oncampus



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