

## Frequently Asked Questions

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**Q:** *Isn't turning my computer off and on bad for the machine?*

A: Studies conducted at the Lawrence Livermore National Laboratory at Berkeley have found that hard drives are not affected by frequent shutdowns. In fact, your hardware may actually last longer because of reduced heat stress and mechanical wear.

**Q:** *Don't screen savers save energy?*

A: A: No, they use about the same amount of power whether in use or not (about 65watts for the CPU and 90 watts for the monitor). They draw only slightly more energy when under heavy use, like opening up an application ([www.blueowltechnologies.com](http://www.blueowltechnologies.com)).

**Q:** *Don't computers take up only a little energy if they sit idle?*

A: No, they use about the same amount of power whether in use or not (about 55 watts for your CPU and 85 watts for your monitor). They draw only slightly more energy when under heavy use, like opening up an application. Using sleep mode or turning it off is much better than leaving the computer to "idle."

**Q:** *How do my computer usage habits affect the environment? (In other words, why should I care?)*

A: The combined effort of the thousands of people in the Emory community can make a

significant impact. Every little bit helps. Many people think of computers as pretty "clean," but when you think about where the electricity comes from, it's clear that computer use increases air pollution. Also, Atlanta's coal-burning power plants generate tons of carbon dioxide, as well as other gases that contribute to global climate change. One Emory computer turned off evenings and weekends for a semester can save nearly half a ton of carbon dioxide from being released into the atmosphere.

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# The Energy Conservation Project at Emory

EMORY



# The Emory Energy Conservation Project

The Energy Conservation Project at Emory University fosters creative solutions to reducing harmful environmental impacts and strengthens our commitment to the Environmental Mission Statement passed by the Senate and endorsed by the President in March 2001.

It is our hope that electricity use by faculty, staff and students can be reduced by 10% during the next year. Using simple recommendations developed by EPA and tested at other universities, we will encourage energy saving habits in computer use, lighting, and other university functions.

***Polluted air is a major environmental concern in Atlanta***, and roughly half comes from power plants (the other half comes from vehicle exhaust). Increasing smog alerts this summer remind us of the lung-scarring ozone that contributes to asthma and higher rates of respiratory disease. Atlanta's air quality is among the worst in the nation, in part, because local power plants use older, coal-based technology.

***Power plants are one of the major producers of greenhouse gases***, which contribute to global climate change. Many universities around the country seek to reduce energy use as part of their commitment to international climate change concerns. Recent news of glacier melts from Greenland and Alaska support the urgency of greenhouse gas reductions. Eliminating waste at Emory is a simple first step.

## "The Truth"

-One computer left on all day results in the emission of 1500 pounds of carbon dioxide in a year. It would take 100 to 500 trees to off-set the amount of extra carbon dioxide released into the atmosphere.

-One computer left on all day will cost between \$115 and \$160 per year to power

-The energy it takes to power 15 computers emits as much greenhouse gases as a 4WD Ford Explorer.

## Recommendations

Please review the following four recommendations; which items are feasible for you to adopt at this time?

### 1 • Turn off computers at night and on weekends AND reduce computer monitor energy use.

- If available on your machine, activate "power management" sleep mode (not an option, however, for those using Windows NT). Set your monitor to dim after 10-30 minutes of non-use.
- Or, simply turn off your monitor when leaving unused for 10-30 minutes.

### 2 • Turn off lights.

- Turn off unused lights in dormitory rooms and lounges; rely as much as possible on daylight.
- Modify your dorm lighting for possible savings. For example, one typical Emory 4 foot fluorescent bulb uses approximately 34 watts. An office with 12 such bulbs in ceiling fixtures will use roughly 400 watts. One compact fluorescent desk lamp equivalent to a 100 watt incandescent bulb uses only 27 watts.

### 3 • Look at other electricity uses.

- Reduce elevator use by taking stairs if going "one floor up or two floors down."
- Use automatic door opener only when necessary.
- Be sure new appliances, including computers carry the Energy Star rating.

### 4 • Use heating and air conditioning wisely to reduce waste in your building.

Window blinds can substantially reduce solar heat gain in summer.