

Energy Champion's Guide for Tip #3: SummerSense!

The Opportunity

As the summer heats up, it takes a lot of electricity to keep us cool. So more than ever, we should be extra aware of our electricity use and do all that we can to reduce it. In addition to the lights, computers, and other office equipment that we run year-round, the summer also requires fans and air conditioning. Summer is the time of "peak demand" for electricity and the City of Cambridge is counting on its Energy Champions to use their SummerSense to keep that demand low.

What's the Impact?

- Environmental: During peak demand, when the summer heat pushes an increase in air conditioning,
 more power plants have to operate to supply the needed electricity. Increased power plant operations
 results in more air pollution, which is dangerous for public health, and also more greenhouse gas
 emissions that contribute to global warming.
- Financial: The City of Cambridge pays a capacity charge for its electricity consumption. How much that capacity charge is gets determined by a "tag"—the electricity demand of the City during the highest peak of the summer. It is unknown when peak demand—"Tag Day"—will occur, so the City strives to keep demand as low as possible throughout the summer months. This past year, the City was able to save \$90,000 by reducing its peak load 28% in August 2007.
- In just one City building, running 50 window air conditioning units 24 hours a day instead of turning them off at the end of the day can waste \$10,000 per cooling season.

Tips for Employees to Reduce Energy Use and Peak Demand

Lighting

• On hot days, **close shades, blinds, and curtains during the afternoon** or time of most direct sunlight to prevent the sun from heating up your space. At night, open them back up to allow heat to escape.

Cooling

- In buildings that do not have a central air conditioning system try opening windows instead of running window air conditioners, especially on mild days. However, if a.c. units are running, keep the windows closed to prevent wasted energy.
- Ceiling and portable fans use much less electricity than a.c. units. Try to use them instead of the air conditioning when you can.



- If you control over the a.c. unit or thermostat, **set the temperature between 74 and 76 degrees**. Each degree you raise the temperature can save 3-5% on air conditioning costs. You and your colleagues will still be comfortable and the a.c. will have to work less. (If you have to put on a sweater, your a.c. is working too hard and wasting electricity!!!)
- Turn off a.c. units and fans at the end of the day
- If you have any issues with space temperature, contact the Operations and Maintenance line at ext 4841 or 4840 or contact the appropriate designee in your department.

Off-Peak Charging

• If you have equipment or vehicles that need to be charged, try to do so during off-peak hours. In summer months, this would mean **charging between 6pm and 9am**.

Don't Forget Tips 1 and 2!

Continue to turn off lights, computers, and all other equipment when it's not being used and at the end
of the day—and remind your colleagues! These things give off heat and add to the need for more cooling.

Tips for Facility and Maintenance Staff

- Set cooling points higher (74-78°) to lower demand on the cooling equipment.
- Make sure that lights, fans, and air conditioning units are turned off after closing.
- Turn up the temperature setting on window a.c. units by a couple degrees if it feels cooler than necessary in the room. Don't leave window a.c. units on to run all night.
- Report and/or fix any air leaks in windows, walls, doors, or ductwork. Replace old filters or put in a request for replacement.

Sources and More information

American Council for an Energy Efficient Economy—Efficient Home Cooling: http://www.aceee.org/consumerguide/cooling.htm

Energy Star –Heating and Cooling: http://www.energystar.gov/index.cfm?c=heat_cool.pr_hvac

