



## FAQ for Energy Champions

### I. FACTS ABOUT ENERGY CONSERVATION

We want to arm you with the facts about the value of reducing energy use in City of Cambridge facilities. Following are validated statistics from reputable municipal, federal, and energy non-profit sources to back up our Cambridge GreenSense initiative.

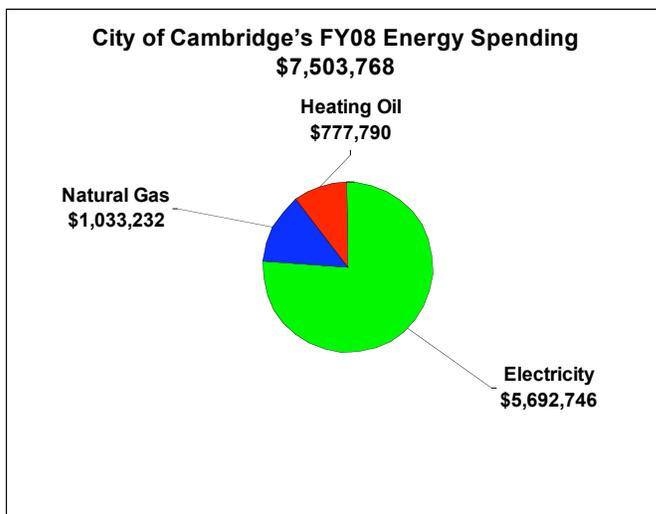
#### Some Quick Facts About Energy Use and Energy Waste

##### *Nationally<sup>1</sup>*

- Energy production and use account for nearly 80 percent of air pollution, more than 83 percent of greenhouse gas (GHG) emissions, and more environmental damage than any other human activity
- Commercial/industrial buildings use \$200 billion worth of electricity and natural gas each year. Those buildings are responsible for nearly 50 percent of our national emissions of greenhouse gases
- Nearly 1/3 of the energy used to run typical government buildings goes to waste
- A **10 percent reduction** in energy usage nationally would:
  - Save about \$20 billion a year
  - Reduce greenhouse gases equal to the emissions from about 30 million vehicles

##### *In Cambridge*

- If the region's GHG emissions continue unabated, we'll see an increase in average temperatures from 6 to 10 degrees by 2090<sup>2</sup> (making our climate more like Richmond, Virginia (6 degrees) or Atlanta (10 degrees))
- Nearly 66% of Cambridge's GHG emissions<sup>3</sup> come from fuel oil, natural gas, and electricity used to heat and cool buildings and to run machinery and equipment—energy usage we as City employees can have an effect on
- The City's FY 2008 expenditure for electricity, oil, and gas was @\$ 7.5M. If City employees pitch in and help us cut usage by our 5% goal we can reduce our GHG emissions and reduce wasteful energy spending



\*Includes municipal departments and schools.  
Source: Energy Information System

## II. Facts relating to Cambridge GreenSense Tip 1: Turn it Off!

- Electricity makes up the largest portion of the City's energy spend
- Employees can't control everything related to lights and appliances, such as emergency lighting and equipment
- We can control lights and equipment within our personal space and common areas

### Facts about Lighting

- Lighting consumes 25-30 percent of energy in commercial/government buildings
- A 200 watt light bulb uses one kilowatt (1 thousand watts) of electricity in 5 hours; A coal burning power plant produces over 6 pounds of CO2 emissions to run that light bulb for 5 hours
- Compact Fluorescent Light bulbs (CFL's) use less than 25 percent of the electricity standard bulbs use and last 10 times longer

### What we can do to reduce lighting-related energy waste

#### *In your personal work space*

- If you have a work light on your desk, replace the standard bulb with a CFL. A 23-watt fluorescent bulb produces about the same number of lumens as a 75-watt incandescent. Screw-in CFL's today can be purchased in softer tones than the old harsh white light tones of past years.
- Turn off your lights when you leave your space for longer than 10 minutes (even the CFL's...it's a myth that turning CFL's on and off is more inefficient)
- Halogen torchieres are expensive to operate and burn so hot they can cause fires
- Always turn off the lights when you leave at the end of the day
- Let the sun shine in! Use daylight whenever possible

#### *In the common areas*

- Designate a colleague on each floor/area to be the "last one out turns out the lights" person
- If your common areas don't have motion sensors, turn off the lights when you leave the bathrooms, break rooms...any area where no one else is left in the room

### The Lights are On But Nobody's Home!



## What we can do to reduce equipment-related energy waste

### *In your personal workspace*

- Unplug electronics such as cell phones and laptops once they are charged
- Use a power strip as a central “turn off” point when you are using equipment to completely disconnect the power supply (not for PC’s)
- Turn off your radio every time you leave your space...turning it on and off does not use more energy than leaving it on
- The City is working hard to improve the heating/cooling systems in our buildings so you don’t need to supplement the warm or cool air. But...if you must use a space heater or fan turn them off when you leave your space for more than 10 minutes.



### *In the common areas*

- Designate a colleague on each floor/area to be responsible for monitoring/turning off/unplugging (where appropriate), depending on what is most appropriate for your department:
  - Copy machines – activate sleep mode for 30 minutes or less during the day; turn off at end of day if there is no use after hours.
  - Fax machines – activate sleep mode during the day; turn off at end of day (unless your Fax machine must always be on to receive faxes)
  - Coffee makers – turn off when coffee’s gone; unplug at end of day
- If you have a refrigerator in your office/break room:
  - Set the refrigerator to 40 degrees—but no higher—and the freezer to 0 degrees
  - Make sure the refrigerator and freezer doors shut tightly and have a good seal. If the doors need to be fixed contact the DPW Building Maintenance division at 617-349-4840

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<sup>1</sup> U.S. EPA statistics

<sup>2</sup> NE Regional Assessment, commissioned by US government

<sup>3</sup> Cambridge Climate Protection Plan