

## Offices and Small Businesses

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### Turn it off

The most cost effective measure you can take to reduce your energy use is to make sure lights and equipment are turned off when not needed.

- Even in sleep mode computers and electronic equipment still consume energy. Even small equipment such as chargers for cell phones consume energy. If the equipment is not being used turn it off or unplug it. One easy way to do this for a computer system is to place the computer and its peripherals on a plug strip that has a switch. At night, when business is over, just shut down the computer and then flip the switch.
- This strategy should be applied to all office equipment. If a copier is only used sporadically then turn it on when it is needed and be sure it is off when not needed and/or put in energy saving mode at night.
- There is a belief that turning off a fluorescent light will reduce its life and that it takes a lot of energy to start a fluorescent light. Studies have shown that a fluorescent lamp will lose 10 minutes of life every time it is turned on and that it takes almost zero extra energy to start a

fluorescent light. Therefore if the lights can be off for more than ten minutes, they should be. Generally, when people leave their area they are gone for more than ten minutes, so it is a good practice to shut the lights off whenever an area is vacant.

- If you have soft drink machines primarily for employees, remove the lights from the front. The employees are a captive group and they know where the machine is located. Typically the lights in a soft drink machine use 150 watts of energy and cost you about \$130 a year.
- Install occupancy sensors in rarely used rooms where lights tend to be left on such as closets, back storage rooms, break rooms and equipment rooms.
- Many times the use of a portable heater under a desk is the best way to keep a good employee happy. However, these heaters are the most expensive way to heat an area. Work to see if there are alternatives. If you can't get it to the point where it can be turned off, maybe you can find a way to turn it down.

### Turn it down

- More than likely your business uses more heating energy at night than during the day. Set the thermostat back 10° at night to reduce energy use. If heating with a heat pump use a smart thermostat made for heat pumps. Heat pump smart thermostats prevent the strip heat from coming on after a temperature setback period, unless it is so cold outside that the heat pump alone can't bring the building back to daytime temperature.

Kentucky is a humid state and because of potential mildew problems it is not

recommended that you raise the thermostat temperature at night in the air conditioning months.

- If hot water is only used to wash hands then you can turn down or turn off your hot water heater. Hot water is only necessary to soften up grease, and it is not necessary for washing hands. If you don't want to turn it off completely, set the temperature to between 100° and 110°

## Change it

- Change all your incandescent lights to compact fluorescent lamps. See our substitution chart for recommended replacement sizes for incandescent lights.
- Change your tube type fluorescent lights to energy efficient lamps and ballasts. The typical 4-lamp, 4-foot fixture uses 156 watts. An energy efficient fixture will use only 98 watts and give you the same or more light.
- Change the incandescent exit lights to LED illumination sources. Retrofit kits are available at electrical supply stores. You will be replacing incandescent lights that use 40 watts and burn out every year with LED lights that use 4 watts and last 25 years.
- Any time you have to replace a piece of equipment or buy something new such as a computer, copier or refrigerator, buy equipment that has the Energy Star label. Energy Star products can use 50% less energy than similar unlabeled equipment.

## Watch it

This means track your electric bill to make sure the changes are actually reducing your costs. Remember billing periods vary, so be sure compare the average daily energy use from month to month and not the total energy use. A watched meter does run slower.

## Maintain it

- Change the filters in your heating and air conditioning system regularly. This should be monthly if you have a lot of foot traffic. Also, every three years or so have the air conditioner coils cleaned.
- Keep the outside parts of the air conditioning units clean and free of near-by vegetation. If possible maintain a three foot clear space around your outdoor unit.
- Maintain your doors and windows. Make sure they close tightly. If you can see light under or around a closed door then the sweep and/or jamb seals need to be replaced. Loose windows and doors will leak air and raise your heating and air conditioning costs.