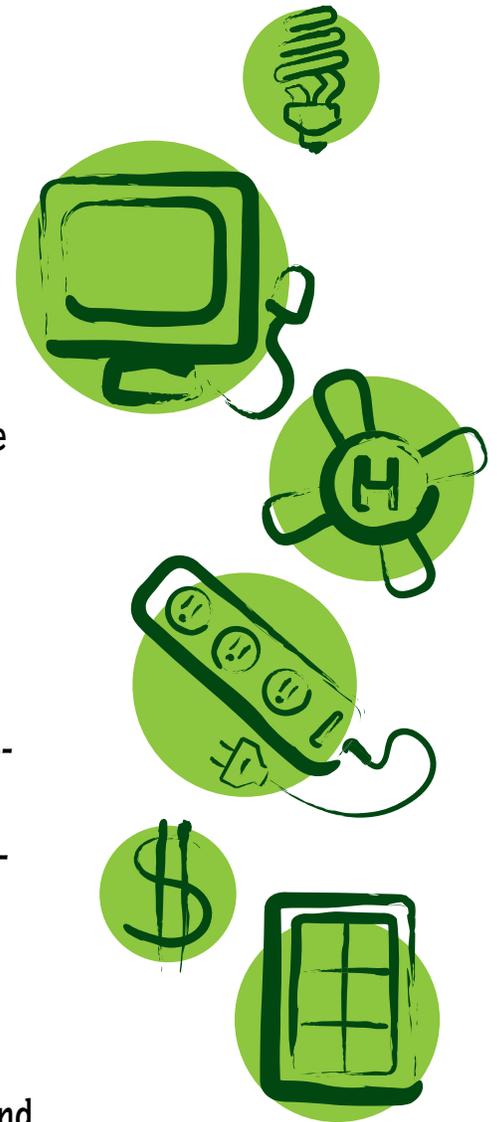


# Top Ten Energy Efficiency Steps

Save money by making your business or commercial operation more energy efficient.

- 1** Replace all exit signs using incandescent bulbs with LED-lit exit signs.
- 2** Replace incandescent light bulbs with compact fluorescent light bulbs (CFLs.)
- 3** Seal windows, doors and ventilation ducts and add insulation where needed.
- 4** Replace single pane windows with double pane.
- 5** Replace older, less efficient heat pumps. Strive for SEER 15 rated units with HSPF of 8.5 or higher.
- 6** Replace older, less efficient furnaces. Strive for 90 percent AFUE or higher rated units.
- 7** Use ENERGY STAR® qualified appliances.
- 8** Consider replacing water heaters that serve just one or two under-used sink fixtures with an instantaneous water heater.
- 9** Institute power management features on all computer related equipment and purchase ENERGY STAR qualified office equipment.
- 10** Purchase a kWh meter and test plug-in equipment.



See reverse side for more information about each of these ten steps.



# Top Ten Energy Efficiency Steps

Save money by making your business or commercial operation more energy efficient.

- 1 Replace all exit signs using incandescent or fluorescent bulbs with LED lit exit signs. If you're not sure what kind of sign you have, use this rule:**
  - Incandescent signs are **hot** to the touch.
  - LED signs are **cool** or normal to the touch.

If you're adding exit signs in new locations, consider non-electric illuminating types, such as photoluminescent or radioluminescent (self-luminous) signs, that don't use any electricity.
- 2 Replace incandescent screw-in light bulbs with compact fluorescent light bulbs (CFLs.)** All replacement types are available, 3-way, dimmable, candelabra, recessed cans or enclosed fixtures. ENERGY STAR qualified CFLs will offer some assurance as to meeting advertised life spans.
- 3 Seal windows, doors and ventilation ducts and add insulation where needed.** Building air leaks are often felt as cold drafts during winter weather, but infiltration of outside air happens any time of year. Check duct work in attics and crawl spaces to ensure it is tightly connected. Drafts around windows and doors are noticed first and are mistaken as the biggest energy drains. However, in many buildings, the most critical air leaks occur through the attic and the basement. Assure adequate insulation levels. The 1995 Model Energy Code (MEC) and DOE Insulation Fact Sheet recommend the following minimum for Kentucky: R-38 for ceilings, R-25 for floors, and R-18 for walls.
- 4 Replace single pane windows with double pane.** Single-glazed windows have an R-value of about 1; double-glazed windows about R-2; and double-glazed, low-E, argon-gas-filled windows about R-3. More exact values can be found at [www.efficientwindows.org](http://www.efficientwindows.org) using their Window Selection Tool.
- 5 Replace older, less efficient heat pumps.**

SEER: Seasonal Energy Efficiency Ratio. The higher the rating, the more efficient the equipment during the cooling season.

HSPF: Heating Season Performance Factor. The higher the rating, the more efficient the equipment during the heating season.

Strive for heat pump systems with SEER ratings of at least 15 and HSPF of at least 8.5. The standard life for heat pumps is 15 to 20 years. Installing the right size equipment (not too large)
- 6 Replace older, less efficient furnaces.** Older furnaces can have 65 percent or lower Annual Fuel Utilization Efficiency (AFUE) ratings. By replacing these older units with 90 percent or higher (AFUE) condensing type furnaces heating costs can be reduced by 30%.
- 7 Use ENERGY STAR qualified appliances.** Some appliance replacements should happen now, before the appliance's useful life is over because the savings potential of replacements is so great. This is especially true of older refrigerators and window air conditioners. The ENERGY STAR online calculator ([www.energystar.gov/index.cfm?fuseaction=refrig.calculator](http://www.energystar.gov/index.cfm?fuseaction=refrig.calculator)) can be used to determine the savings available by replacing a refrigerator with an ENERGY STAR qualified unit. The [energystar.gov](http://energystar.gov) website lists many calculators for determining savings available from appliance replacement with ENERGY STAR qualified units.
- 8 Consider replacing water heaters that serve just one or two under-used sink fixtures with an instantaneous water heater, either electric or gas.** For electric, instantaneous tanks serving just one or two sink fixtures, the power draw may be low enough to utilize the same wiring supplying the existing electric tank water heater (#10 AWG).
- 9 Institute power management features on all computer related equipment and purchase ENERGY STAR qualified office equipment when new purchases are necessary.** A general technical overview of power management can be found at: [www.energystar.gov/index.cfm?c=power\\_mgt.pr\\_power\\_management](http://www.energystar.gov/index.cfm?c=power_mgt.pr_power_management)
- 10 Purchase a kWh meter and test plug-in equipment.** A kWh meter like the Kill A Watt™ (\$30) manufactured by P3 International can measure and show you what plug-in appliances need addressing. The Kill A Watt™ can tell you what equipment has a phantom load (an energy load even when appliance is turned off), how much the appliance costs per month to operate (given your utility rate), and whether the appliance has poor energy performance compared to other available models. You can purchase a meter online at [www.energyfederation.org/consumer/default.php/cPath/388\\_254](http://www.energyfederation.org/consumer/default.php/cPath/388_254).