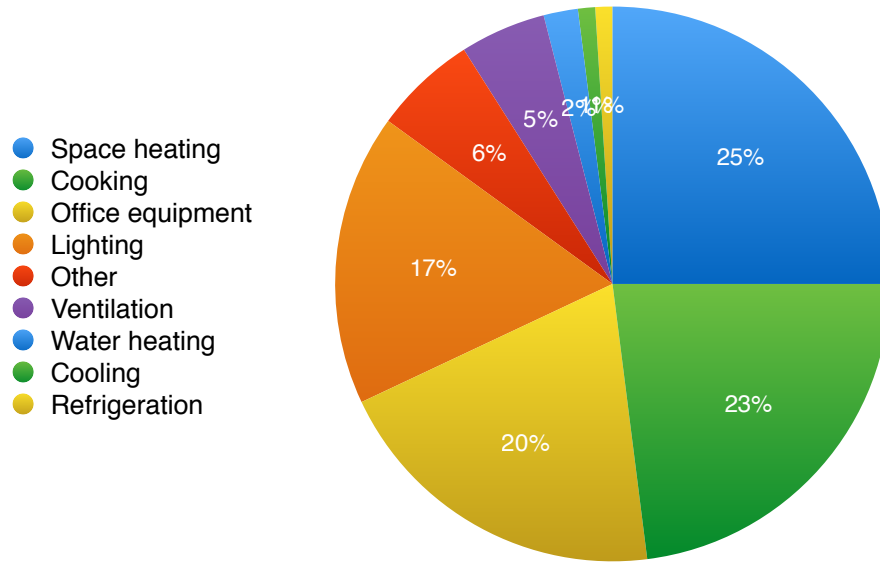


Energy Management For Office

Sources: www.eia.gov/oog/info/ngw/ngupdate.asp
www.xcelenergy.com/
www.energystar.gov/

A typical Office energy usage is as follows in the U.S.A.

Office equipment	20%	Space heating	25%
Lighting	17%	Cooking	23%
Cooling	1%	Office equipment	20%
Sub total	<u>38%</u>	Lighting	17%
Cooking	23%	Other	6%
Space heating	25%	Ventilation	5%
Sub total	<u>48%</u>	Water heating	2%
Ventilation	5%	Cooling	1%
Water heating	2%	Refrigeration	1%
Refrigeration	1%		
Other	6%		
Sub total	<u>14%</u>		
Total	<u>100%</u>		



Energy cost account for 19% of a office's operating budget.
 Offices in the U.S. use on average

17 Kilowatt-hours (kWh) / square foot / year
 32 Cubic feet of natural gas / square foot / year
 Based on \$.10 / kWh
 \$6.50 / mmBtu

\$3.87 / Square Foot / year
 90 kBtu / Square Foot / Year

No- and low-cost energy saving tips

Many Offices can benefit from low- or no-cost measures to reduce energy consumption.

TURNING THINGS OFF

- * **Lights.** Turn off lights when they are not in use.
- * **Computers and office equipment.** They typical desktop computer, monitor, and shared printer draw about 200 watts.
- * **Space heaters.** Space heaters are energy hogs, drawing 1 kilowatt or more of power.

TURNING THINGS DOWN

- * **HVAC temperature setbacks.** During closed hours, turn temperature settings down in warning seasons and up in cooling seasons.
- * **Common-area lighting.** If possible, dim hallway lighting by 30 percent during daytime hours.

CLEANING AND MAINTENANCE

- * **Check the economizer.** An economizer that's stuck in the fully open position can add as much as 50% to a buildings energy bill.
- * **Check air-conditioning temperatures.**
- * **Change Filters.** Change air conditioner filters every month.
- * **Check the cabinet panels.** On a quarterly basis, make sure the panels to your rooftop air-conditioning unit are fully attached.
- * **Clean condenser coils - Clean evaporator coils.**
- * **Check for airflow.** Hold your hand up to air registers to ensure that airflow is adequate. If there is little airflow or dirt and dust are found at the register, have a technician inspect your unit and duct work.

LIGHTING MEASURES

- * **Fluorescent Lamps.** If your facility uses T12 fluorescent lamps, relamping with modern T8 lamps and electronic ballasts can reduce your lighting energy consumption by 35 percent.
- * **Smart lighting design in parking lots.**
- * **Daylighting.** Light shelves, installed high on the inside of a window, will shade and prevent glare in the bottom 6 feet of a floor.

REFLECTIVE BUILDING ROOF COATING

If the roof needs recoating or painting, consider white or some other highly reflective color to minimize the amount of heat the building absorbs.