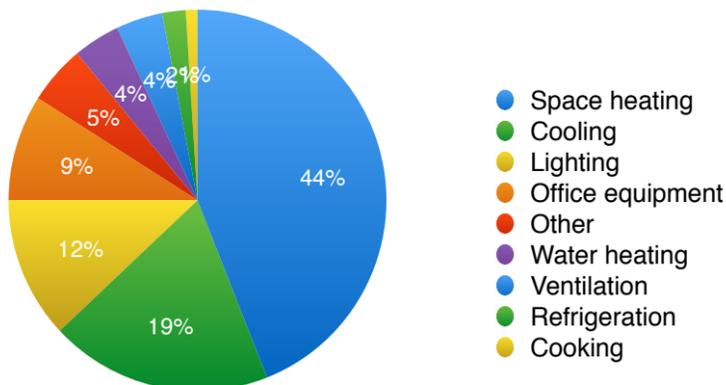


Energy Management For Hospitals

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

A typical Hospital's energy usage is as follows in the U.S.A.

Office equipment	9%		
Lighting	12%		
Cooling	19%		
sub total	<u>40%</u>		
Cooking	1%		
Space heating	44%		
sub total	<u>45%</u>		
Ventilation	4%		
Water heating	4%		
Refrigeration	2%		
other	5%		
sub total	<u>15%</u>		
total	<u>100%</u>		
		27.5	
		110	
			100%



Hospitals in the U.S. use on average

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

 \$3.47 uare Foot / year
 204 kBtu / Square Foot / Year

No- and low-cost energy saving tips

Many hospitals 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.** Computers are used intermittently in laboratories and offices and should employ sleep-mode settings or be shut-off
- * **Air-handling units.** There may be large fan systems serving area unoccupied at night.

TURNING THINGS DOWN

- * **Operating-room air-handling setbacks.** Many operating rooms have air-handling units that draw 100 percent of their supply from outside air.
- * **Room temperature setbacks.** Not all rooms in a hospital are occupied 24 hours a day.

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.

UPGRADE TO MORE-EFFICIENT LIGHTING

INSTALL OCCUPANCY SENSORS

Hospitals have many rooms that are used periodically, such as restrooms, storage rooms, break frooms and offices.

EXPLORE OTHER LAUNDERING OPTIONS

- * **Use ozone laundering.** This method performs better than traditional technology on some stains.
- * **Reduce temperatures.**
- * **Recycle water and heat.**

CONSIDER COGENERATION AND OTHER SOURCES OF HEAT RECOVERY

Cogeneration systems provide both heat and power. They have more applications and offer more savings potential for hospitals than for any other class of commercial building.