



Building Energy Efficiency Checklist

No matter what their role or position, everyone can pitch in to save energy! Email them, read them at your next staff meeting, add them to your intranet, or post them in high visibility areas like break rooms, elevators, and lobbies ... whatever it takes to get the word out!

Tips for Occupants:

- Blinds: During cold weather, take advantage of the sun's warmth by keeping blinds open during daylight hours. To keep out the heat of the summer sun, close blinds in warm weather.
- Let it Flow: Make sure window vents are clear of papers and other items so the air can circulate freely. It takes as much as 25% more energy to pump air into the workspace if the vents are blocked. Plus, you might be able to get rid of your space heater!
- Turn Off Equipment: During off hours, make sure to power down everything – such as copiers, kitchen equipment and task lights.
 - ✓ Power Strip: Even when turned off, electronic IT equipment often use a small amount of electricity when plugged in. Use a power strip as a central “turn off” point when you are done using office equipment to completely disconnect the power supply
 - ✓ Cell Phone: Unplug battery chargers or power adapters when equipment is fully charged or disconnected from the charger. On average, Energy Star qualified battery chargers and adapters use 30-35% less energy than conventional models.
 - ✓ Computers/Printers: Remember to turn off desktop computers and printers at the end of the day.
 - ✓ Lights: Remember to turn off your lights when leaving conference rooms and your work space, especially at the end of the day
- Underdesk Space Heaters: For spot heating consider lower wattage radiant heaters with integral occupancy sensors.
- Window/AC Units: Where practical, cover all through the window cooling units in the winter.

- Team Up: Create a Green Team with your co-workers to help save energy and reduce office waste. Set a goal to make your building one of the most energy efficient in the nation and earn EPA's Energy Star.
 - ✓ Challenge Poster: Take the Energy Star challenge, a national call-to-action to improve the energy efficiency of America's commercial and industrial buildings. Encourage your employer and co-workers to do the same! You can also order free brochures and posters for your office or for employee fairs and Earth Day activities at energystar.gov/publications.

Tips for Managers:

- Desk Lamp: Replace bulbs in desk lamps with Energy Star qualified compact fluorescent light bulbs (CFL's). These light bulbs use about 75% less energy than incandescent bulbs and last up to 10 times longer! Energy Star qualified lamps and light fixtures are also available for even more energy savings. www.energystar.gov
- Harvest Daylight:
 - ✓ Locate work stations requiring high illumination adjacent to windows.
 - ✓ Switch Off Overhead and Task Lights when Daylight Is Sufficient
- Clean Windows and Skylights: Window and skylight cleaning will allow more natural daylight to illuminate work areas.
- Use Work Station Task Lighting: Direct light at areas where tasks are being performed, and use lower wattage for overhead ambient lighting. Consider combining with motion-controlled power strips.
- Exterior Lighting: Check exterior lighting for proper operating times
- Install Sensors: Use occupancy controlled or scheduled power strips to automatically turn equipment off when the space is unoccupied
- Water Cooler: Did you know EPA qualifies energy saving water coolers? On average, Energy Star models require about half as much energy as standard units.
- Printer/Copier/Scanner: An Energy Star qualified multifunctional device that combines several capabilities (print, scan, copy) can save energy and space. Make sure power management features are enabled for additional savings.

- Re-scheduling: Re-schedule off hour activities to accommodate partial shutdown of building systems other than ventilation systems.
 - ✓ Evaluate After Hours Usage: Are you conditioning space when no one is there? Talk to the occupants to learn if they are actually using their space during the operating hours. Do they really need the air until 7:00 p.m.? Or on weekends? Adjust building operating hours to reflect actual occupant usage.

- Turn off Equipment: Use cleaning/security personnel to turn off miscellaneous items such as coffee pots, kitchen equipment and individual office lights.

- Track Usage: Use a tool like the EPA's Portfolio Manager to track and measure your energy usage over time. You can't manage what you don't measure.

- Thermostats:
 - ✓ Limit Access to Thermostats: Occupants typically feel that they should have access to the thermostats. If they feel cold, they will move the thermostat from 72o to 85o or conversely, if they feel hot, they will move the thermostat from 72o to 50o. Their goal is to change the temperature quickly. Your job is to protect the thermostats from unauthorized adjustment. Consider using EMS controls, tamper-proof locking covers on thermostats, or locking screws to prevent tampering.
 - ✓ Thermostat Settings: Reduce thermostat settings by a minimum of 10F at nights, weekends and holidays.
 - ✓ Adjust Temperature: Physically walk through the building and talk with occupants to determine if the actual temperature is comfortable. Make sure that the temperature you have in the building is what occupants need.
 - ✓ Calibrate Thermostats: Periodically walk through the building and compare the thermostat setting with a hand-held digital thermometer (preferably one measuring to 2 decimal places). Ensure thermostat setting equals actual space temperature. Verify thermostat schedules match actual occupancy of the rooms.

- Doors: Improper alignment and operation of doors can cause excessive infiltration. Make sure automatic door closing mechanisms work properly.

- Controls Equipment: Routinely check all time clocks and other control equipment for proper operation, correct time and proper on-off set points. Protect from unauthorized adjustment.

- Ventilation: Inspect all room air outlets and inlets. Remove obstructions as necessary. Post signs instructing occupants not to place objects where they will obstruct airflow

- Drips/Leaks: Repair dripping faucets

Kitchen Equipment:

- ✓ Maintain your equipment. Simple maintenance steps, like cleaning equipment, changing air filters and checking seals and gaskets regularly, can have a big impact on the energy-efficiency of your appliances.
- ✓ Establish a start-up and shut-down schedule. Eliminate idle time for all of your appliances. Only turn on cooking and heating equipment 20 minutes before you need it. This should be enough time for most equipment to preheat. Lights, hoods, ranges, signs and fans should all be turned off when not in use
- ✓ Conserve hot water. Saving hot water will lower two utility bills at once. Use cold water whenever possible. Insulate hot-water pipes, regularly check your water temperature and follow all the general guidelines for water conservation to save even more money
- ✓ Rearrange your kitchen. Separate your cooling equipment from your cooking equipment so your refrigerators do not have to work as hard. Group the hottest appliances, like broilers, steamers and open burners, under the same vent
- ✓ Long Term Savings: Replace old appliances (dishwashers, refrigerators, etc) for ones with the ENERGY STAR label.

Tips for Resource Conservation Managers:

- Programmable Thermostat: Energy Star qualified programmable thermostats can automatically adjust your building's temperature settings so energy is not wasted to cool or warm air when the building is empty.
- Vending Machines: Vending machines remain energized during unoccupied periods. Consider installing occupancy sensing controls.
- Consider Your Cleaning Options:
 - ✓ Team Cleaning—Janitors go through the building as a team floor by floor, and the lighting is turned on/off as they progress through the building.
 - ✓ Occupancy Sensors—Install motion sensors that will turn lights on when janitors are cleaning and automatically turn them off when the floor is vacant. This way, cleaning staff doesn't have to remember.
 - ✓ Coordinate—Have janitors coordinate with the security crew to walk through the building and turn off equipment that was inadvertently left on by tenants.
 - ✓ Day Cleaning—Why not have the janitors clean during the day while the lights are already on?
- Encourage Occupants to Use ENERGY STAR® Equipment: Adopt a procurement policy as part of your overall successful energy management strategy and encourage tenants to do the same. ENERGY STAR labeled computers, copiers, external power adapters, fax machines, laptops, monitors, multifunction devices, printers, scanners, water coolers and more. And, when you're finished or ready to upgrade, recycle that equipment.

- Install Monitor Power Management Software: In U.S. companies alone, more than \$1 billion a year is wasted on electricity for computer monitors that are left on when they shouldn't be. Avoid those wastes by installing power management software for computer monitors and CPU/Hard Drives. These devices allow monitors and CPUs to enter a "sleep" mode when they're not in use.

- Institute an Energy Awareness Program: Create promotional items, post posters, write news releases—tell everyone about your commitment to energy savings. Use your company newsletter and company/building announcements to keep occupants informed about your energy savings goals and how they can both help and benefit. Share these energy savings tips with them.

- Recognition: Good work deserves a pat on the back. Really good work deserves a prize, preferably given in front of a large audience. Whether it's a coffee mug or a check, incentives and recognition are great ways to motivate your occupants to achieve even greater energy savings.

- Host and Event: Host a "Lunch and Learn" event to educate occupants on ways to save energy.

- Champion Facility Efforts: Help facilities management communicate the benefits of changes and improvements as they implement energy efficiency measures, which may include system maintenance, lighting upgrades, automated system controls additions, and other improvements.