

Tackle the 'low-hanging fruit' first

Building envelope

- ✓ **Seal leaks.** Properly seal windows, doors, skylights, duct systems and holes or chases that lead up into the building from the basement.
- ✓ **Increase exterior shading.** Window overhangs and vertical fins provide shade and can be aesthetically pleasing.
- ✓ **Install insulation.** Insulate roof or ceiling spaces to R-19 standards or above wherever possible. Consider insulated drapes or blinds, a quick and affordable way to decrease heat loss.

HVAC systems

- ✓ **Properly maintain units.** Perform scheduled maintenance, including cleaning condenser coils, replacing air filters regularly, tightening and replacing belts, and checking ducts and pipe insulation for damage.
- ✓ **Reduce heating and cooling loads.** Upgrade lighting systems. Install programmable thermostats to ensure air temperatures are regulated according to the number of occupants in the building at different times during the day. Even better, use thermostats that can schedule fan operation and heating and cooling setting independently. Keep vents closed in unoccupied areas to prevent heating and cooling of storage areas and closets.
- ✓ **Evaluate the entire drivepower system.** Replace motors in HVAC systems and drivers for fans, pumps and air-conditioning compressors. Choose motors that meet the National Electrical Manufacturers Association's Premium specification. Such improvements will affect energy use in industrial buildings more than in commercial buildings.

Lighting

- ✓ **Install CFLs and LEDs.** Energy Star-qualified CFLs use 75 percent less energy than a standard incandescent bulb and last up to 10 times longer, according to the U.S. Environmental Protection Agency. An LED light bulb can reduce energy consumption by 90 percent and lasts about 100,000 hours.
- ✓ **Upgrade before buying.** If you don't like the quality of CFLs, look for the latest upgrades in fluorescent technology rather than replacing outdated fluorescent lighting systems.
- ✓ **Retrofit parking lights.** Install more efficient security and parking lot lighting—high-pressure sodium fixtures are more efficient than metal halide, mercury vapor, fluorescent or incandescent fixtures.
- ✓ **Turn off overhead lights.** When possible, rely on small, task lighting rather than overhead lights. Make sure to turn off overhead lights at the end of the day.
- ✓ **Install dimmers and sensors.** Controls help ensure you use only the energy you need, particularly in areas such as bathrooms, copy rooms and storage rooms.

- ✓ **Consider repainting.** Because dark walls require more power to produce the same amount of light, paint dark walls and ceilings with lighter colors to maximize the effect of existing lighting.

Hot water

- ✓ **Conserve water resources.** Don't run faucets while washing dishes, filling water glasses, etc. Lower the water heating thermostat by a few degrees or to the lowest effective temperature. Heat energy is lost as it travels through the pipes to get to your faucet; so lowering the temperature and making sure no water is lost along the way can cut both the amount of energy and water wasted.
- ✓ **Maintain hot water fixtures.** Regularly maintain hot water fixtures and plug leaks as they occur.
- ✓ **Insulate hot water pipes and tank.** Well insulate your hot water storage tank and hot water pipes, especially if they are kept in unheated areas such as the basement. Check with your building owner to ensure such facilities are maintained regularly. Storage-type water heater tanks should be flushed out annually to remove sediments that reduce system efficiency.
- ✓ **Turn off your hot water heater.** If you are not using the facilities on weekends or can do without hot water use for two days or more at a time, turn off the hot water heater all together. How? If you have an electric water heater, you can install a timer and use off-peak power for your hot water.

Office equipment

- ✓ **Upgrade before buying.** Improve shared data storage, add additional memory and install updated software to lengthen the life of existing computers. If that's not possible, buy machines that are easy to upgrade and maintain.
- ✓ **Curb phantom electricity.** Plug office equipment into a power strip and turn it off at night and on weekends. Set office equipment to go into sleep mode when not in use. At night, turn all equipment off because it will continue to draw a small amount of power.
- ✓ **Reduce the number of office machines.** Sharing printers and office equipment discourages printing and removes associated indoor air quality issues from individual work spaces; it also saves money.
- ✓ **Buy energy-efficient computers and office equipment.** Buy Energy Star-labeled computers and office machines. If appropriate, use laptop computers, as they consume 90 percent less energy than desktop computers, according to the Energy Trust of Oregon. If appropriate, use ink-jet printers: They consume 90 percent less energy than laser printers.
- ✓ **Consider leasing.** If your company must upgrade to the latest technology frequently, consider leasing equipment, rather than buying it. Leasing extends the life of equipment your company considers outdated by placing it at another company or organization, where it may still be considered state-of-the-art.