



Energy efficiency investments pay for themselves.

Building Operator Energy Efficiency Ideas

For building operators, the bottom line often is the cost of energy. Energy efficiency investments pay for themselves. There are numerous opportunities that generally involve maintenance and operation rather than more long-term capital investments that can save energy and dollars. Here is a sampling of suggestions for reducing energy use that building operators can do.

General

Track your energy use. Analyze your energy bills for the past year, looking for patterns. This information will help you see the results of energy-saving efforts and alert you to developing problems that could be costly. Encourage employees to be energy conscious. Consider offering a small reward or other incentives for employees who save the most energy.

Lighting

- ◆ Eliminate unneeded lights. Many offices are over-lighted. You may be able to turn off up to half of overhead lights without a problem. Don't run desk lights and task lights in addition to overhead lights.
- ◆ Replace incandescent task lights (desk lamps) with compact fluorescent lamps. Compact fluorescent lamps use one fourth as much energy and last ten times longer.
- ◆ Change out incandescent exit lights with 3-7 watt LED exit lights. These lights last up to 25 years, reducing maintenance costs.
- ◆ Motion sensors, timers, and other simple lighting controls can turn lights on and off according to occupancy and time of day.
- ◆ Make sure photocells (light sensors that turn on electric lights after dark) are clean.
- ◆ Increase use of available daylighting. It is not only the healthiest but also the cheapest source of lighting.
- ◆ If a janitorial service comes in after hours, request that they only use lights in areas they are cleaning. Have them turn all lights off when they are finished for the night.

Heating and Cooling

- ◆ Schedule HVAC tune-ups once or twice a year. Clean coils, check and correct refrigerant charge, clean and lubricate the fan motor, check for proper airflow, adjust the pulley settings and fan belts, replace air handling unit filters, and do routine checks to ensure proper performance.
- ◆ When the building is unoccupied, make sure outside air dampers are closed. This includes morning warm-up periods.
- ◆ During occupied hours, make sure the amount of outside air matches load. Adding CO2 monitors, coupled with outside air controls, will only allow as much outside air as is necessary to enter the building in the heating season.

Managed by:



Funded by:



- ◆ Raise cooling settings and lower heating settings on programmable thermostats for both occupied and unoccupied hours.
- ◆ Seal ducts that run through unconditioned spaces. Leaking ductwork can lose 20 percent or more of the conditioned air in a supply duct run.
- ◆ When scheduling group activities and meetings after hours, use rooms and areas that can be heated and cooled individually, so you don't have to heat or cool a whole floor.

Equipment

- ◆ When purchasing computers, computer monitors, photocopiers, fax machines, and other equipment choose those with "Energy Star" power management features.
- ◆ Install "energy misers" on indoor vending machines. These are motion detectors that turn off display lights and slow the cooling compressor when customers aren't around.
- ◆ Set domestic water heater thermostats at 120 degrees. To avoid health risks associated with Legionnaire's Disease, never go below 115 degrees on potable water systems.
- ◆ Stage turn-on of continuous motor loads with 1/2 hour intervals between loads. This prevents spikes in demand use and associated charges due to higher-than-normal start-up power.

Recycling

- ◆ Substitute reusable products for disposable products, whenever possible. If you must use disposable products, make sure that they contain post-consumer recycled content.
- ◆ Reuse items such as paper clips, rubber bands, and paper with print on only one side.
- ◆ Recycle all waste office paper, aluminum cans, and plastic bottles in containers provided for that purpose.

Contacts for State Facilities:

Idaho: Dept. of Water Resources, Energy Division at (800) 334-7283; or visit <http://www.idwr.state.id.us/SaveEnergy/Default.htm>

Montana: Dept. of Environmental Quality at (406) 444-6750; or visit <http://www.deq.state.mt.us/energy/index.asp>

Oregon: Dept. of Administrative Services at (503) 378-2865; or visit <http://www.facilities.das.state.or.us>

Washington State facilities call General Administration at (360) 902-7194; or visit the Web site at <http://www.ga.wa.gov>

The EnergyIdeas Clearinghouse provides information on a broad range of energy technologies for customers of Pacific Northwest utilities. EIC provides a searchable website and has a team of energy specialists ready to respond to technical information requests by phone or email. Funded by the Northwest Energy Efficiency Alliance.

Web: <http://www.EnergyIdeas.org>

Regional Hotline: 1-800-872-3568

Email: info@energyideas.org

© 2002 Washington State University Cooperative Extension Energy Program. This publication contains material written and produced for public distribution. You may reprint this written material, provided you do not use it to endorse a commercial product. Please reference by title and credit Washington State University Cooperative Extension Energy Program and the Northwest Energy Efficiency Alliance. WSUCEEP02_149 December 2002