



Energy Answers for Lodging

Customer comfort is paramount for securing repeat business in the hospitality industry but controlling costs is critical to remaining competitive. As the second largest expenditure for most lodging establishments, energy can play a significant role in your business' success. Increasing energy efficiency can raise comfort levels and provide a more satisfying experience for guests, in addition to reducing operating costs and maintenance demands. This fact sheet offers basic strategies for reducing energy use and resources for additional information.

Discover Your Hidden Resources

The good news? Each member of your team can help reduce your hotel's electricity bill, starting today. Discuss specific strategies with staff and ask for ideas. The key is to persuade everyone to turn off equipment that is not in use. Lock-in continued savings by recognizing outstanding individual and team efforts to save energy. Consider these simple actions:

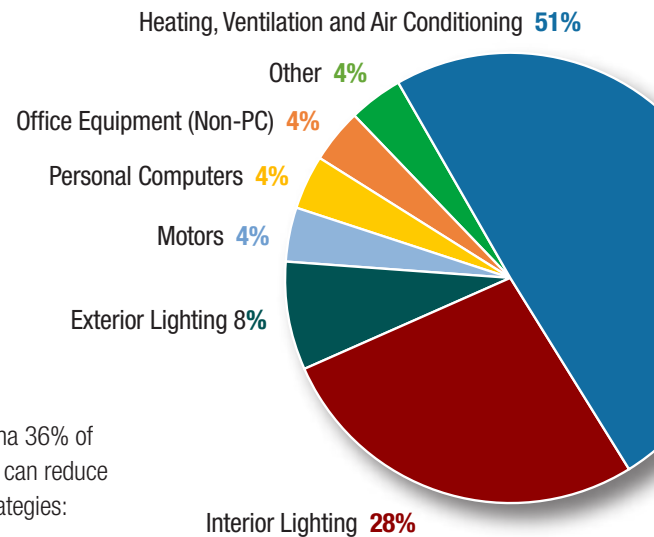
- Ask housekeepers to turn off the lights, radio, coffee maker, etc., and to raise the thermostat after cleaning each room.
- Remind maintenance staff to cover heated pools and hot tubs after hours to reduce heat loss.
- Encourage office and front desk personnel to turn off computers, copiers, adding machines, etc., during long breaks and when leaving at night.

Earn Four Stars for Lighting Efficiency

Electricity costs for a typical lodging establishment average \$1.04 per square foot, and in Arizona 36% of this expenditure is spent on lighting. Improving your lighting efficiency is relatively simple and it can reduce your cooling load by up to 30%, so it's a smart place to start. Consider these energy-saving strategies:

- Replace incandescent bulbs with ENERGY STAR® qualified compact fluorescent lamps (CFLs). By changing one incandescent bulb that burns 6 hours a day with a CFL, you can save \$9 on electricity and \$3 on maintenance costs each year. The more lamps you change, the more you save.
- Replace T12 fluorescent lamps and magnetic ballasts with T8 fluorescent lamps and electronic ballasts and reduce lighting energy use by 15%-25%.
- Install occupancy sensors in restrooms, break rooms, storage areas, and walk-in refrigerators to save 30-75% of lighting energy. Use timers for exterior lighting. Install daylight controls in foyers, atriums and other sunny spaces to reduce use of artificial light when natural light is available.
- Save \$20 per year for each incandescent exit sign you replace with an ENERGY STAR qualified model. These products also last up to 10 times longer.
- Install nightlights in guest bathrooms. Many guests leave the bathroom lights burning all night so they can find their way in an unfamiliar place. Installing photocell nightlights provides a safe beacon for guests and can greatly reduce lighting use.

Fig. 1 Electricity End-Use in a Typical Arizona Hotel



PUT THEM TO SLEEP

You can save \$10-\$30 per monitor and \$15-\$45 per computer each year just by activating the sleep settings. Sleeping computers still draw some energy, so be sure to turn them off when done, along with printers, adding machines, shredders, and other equipment.

Book Big Savings on Cooling Bills

The cost of cooling and heating your facility typically comprises half of your electricity bill. Lodging owners can reduce cooling costs without sacrificing guest comfort. Consider these strategies:

- Raise the temperature in common areas to 79 degrees or higher. Use fans to feel up to 5 degrees cooler. For each degree you raise the temperature, you'll save 2-3% on your cooling costs. Inform staff about the settings and seek feedback on comfort levels.
- Install digital thermostats that monitor room occupancy and automatically adjust the temperature when guests enter or exit.
- Larger facilities should consider installing a centralized energy management system. These systems provide more precise control over HVAC and other equipment, which can improve efficiency, reduce maintenance, minimize peak demand usage, and create a more comfortable environment.
- Don't wait until it breaks! Schedule regular maintenance and tune-ups to keep air conditioning equipment running smoothly. Change filters regularly.
- Replace aging or inoperable equipment with ENERGY STAR qualified models.
- When re-roofing, use reflective roof materials, which can reduce peak cooling demand by 15%.

Add Up the Savings with Office Equipment

From copiers, fax machines, and mailing machines to personal computers, printers, and scanners, office equipment is the engine that drives daily operations. It also consumes 8% of average electricity use and adds to the cooling load. When replacing or purchasing new equipment, look for ENERGY STAR qualified office and imaging products, which use 30-75% less electricity than standard equipment.

Deliver Efficiency from the Kitchen to the Corridors

Your lodging establishment is filled with opportunities to improve efficiency. Consider these additional strategies:

- Replace old appliances with ENERGY STAR labeled commercial solid door refrigerators and freezers, which save up to 45% of electricity use with a 1.3 year payback compared to other models. ENERGY STAR qualified fryers, steamer cookers, and hot food holding cabinets can save 25-60% of electricity use.
- If you have a walk-in refrigerator, switch incandescent lamps to fluorescents. Add strip-curtains to reduce air infiltration by up to 75%.
- Add variable controls to your kitchen exhaust system to reduce operating costs by 30-50%. Operate two-speed fans on low whenever possible.
- Install anti-sweat heater controls on display cases to save \$140 each year per sensor.
- Install high-efficiency evaporative fan motors in refrigerated cases and walk-in coolers to reduce motor energy use by up to 70%.
- Add energy-misers to beverage and snack vending machines to cut electricity use by up to 80%.
- Purchase high-efficiency ice-makers. Set production for non-peak hours to reduce demand charges.

SHARE YOUR SUCCESS STORY

Tell guests about your energy-saving strategies and encourage them to pitch in. Recognize and reward outstanding staff efforts. Become an ENERGY STAR partner.

Can We Help?

APS offers incentives for qualified efficiency measures. Learn more about the Solutions for Business program at aps.com

Recommended Resources

APS: Solutions for Business, Energy Survey and "Ways to Save" Technology Fact Sheets
aps.com

Alliance to Save Energy, Hotel Initiative
www.ase.org/section/topic/ee_hotels/

American Hotel and Lodging Association's Good Earthkeeping Initiative
www.ahla.com/good_earth_overview.asp

ENERGY STAR: Appliances, HVAC, lighting, office equipment, and partner resources
www.energystar.gov

Department of Energy: Cost calculators for energy-efficient products
www1.eere.energy.gov/femp/procurement/eep_eccalculators.html

New Buildings Institute, Advanced Lighting Guidelines
www.newbuildings.org/ALG.htm