

ENERGY-SAVINGS TIPS HOTELS



Energy accounts for about 6% of a hotel's total operating expenses. Getting the most value out of every energy dollar will improve profitability and guest satisfaction.

Most energy efficiency upgrades also improve:

- Customer and employee comfort
- Visual appeal
- Safety
- Indoor air quality
- Equipment life

Electricity Use in U.S. Hotels



- 16% Office Equipment
- 15% Ventilation
- 12% Lighting
- 12% Refrigeration
- 10% Cooling
- 9% Other
- 26% Miscellaneous*

*Other category includes water heating, heating, and cooking. Miscellaneous includes plug loads, process equipment, air compressors, and motors.

Source: Energy Information Administration, Commercial Building Energy Consumption Survey – 2019

HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

- Install a Building Automation System (BAS) to control HVAC systems. This allows for greater zone control by monitoring and adjusting lighting and HVAC equipment based on occupancy, environment, and weather. According to the Department of Energy, a BAS can save 5 to 15% of the building's energy use with a cost of \$2 to \$4 per square foot.
- Have a licensed professional check, clean, calibrate, and lubricate your economizers once a year. Consider installing economizers on units that don't currently have them.
- Set only reserved rooms to heat or cool at a comfortable temperature. Limit the thermostat range available to guests to above 65 degrees Fahrenheit (°F) in the summer or below 80°F in the winter.
- Consider using keycards that shut off power-consuming devices when a guest leaves a room. These occupancy-based controls can significantly reduce energy use and may have less than a one-year payback.
- Consider replacing equipment over 10 years old with more efficient equipment. High-efficiency HVAC units can reduce cooling energy use by 10% or more over a standard unit.
- Heat pump water heaters are great solutions for pool heating in addition to their typical water heating applications. They heat water while producing cool, dehumidified air that can be used for the room housing the pool (for indoor pools) or other areas with cooling needs.
- Install variable-speed drives on cooling tower fans, continuously operating circulation pumps, and any constant-speed fans that only meet partial loads.
- Variable-speed hood controller systems can significantly reduce energy costs in kitchen areas.
- Use revolving doors in lobby areas to keep wind and weather out to reduce energy costs.
- Regularly clean air conditioner coils, clean or replace air filters, and check ducts and pipe insulation for leaks that can be sealed.
- Install high-efficiency glazing chosen for each façade's relation to the sun and other variables. Choose a product with high transmission in the visible spectrum but low transmission in the infrared to enhance energy performance during the summer. Install overhangs to limit direct sunlight coming in windows. Window films, additional insulation, or reflective roof coating (also known as a white or cool roof) will also reduce energy use.



HOUSEKEEPING STAFF

- Housekeeping personnel can help save energy by resetting thermostats when they are done cleaning a room, closing drapes, reporting water leaks, turning off lights, and more.

The median hotel has

48,000 square feet with
115 rooms and **31 workers**.

Hotels use an average

14.7 kilowatt-hours (kWh)
per square foot.

Hotels account for **7%** of total commercial floorspace, but account for **9%** of energy consumption in commercial buildings.

After labor, energy is the
highest operating expense for hotels.

TUNE-UP OPPORTUNITIES

- Cover pools and hot tubs after hours to reduce heat loss, makeup water, and chemical treatment requirements.
- Set hot water for laundry to 120°F. This is a good temperature for all hot water uses outside of the kitchen, where codes specify water temperatures.
- Wait until 15 minutes before kitchen equipment is needed to start pre-heating. Reducing the operating time of appliances will also reduce cooling-related energy.
- Set the temperature in lobbies, offices, and other peripheral rooms to minimum settings during hours of low use.
- Re-caulk and weather-strip around leaky windows and doors.

LIGHTING

- Upgrade to LEDs, which can last up to 25 years and reduce energy use by over 50%. If you haven't upgraded to LEDs, get a quote from a lighting vendor or contractor. Incentives are available and often lead to project paybacks of one to three years.
- Upgrade common space lighting, signage/neon lighting, exit signs, and guest room lighting to LEDs.
- Turn parking lot and outside security lights off during the day and upgrade exterior lights to LEDs.
- Install occupancy sensors in low-traffic areas like bathrooms, break rooms, and storage areas.
- Daylighting uses natural ambient light to reduce electric lighting needs. Automatic photosensor controls that sense daylight ensure electric lighting is reduced when enough daylight is available.
- Use timers to dim or turn off lights and promotional signage when not needed.



OTHER OPPORTUNITIES

- Benchmark your energy use against similar facilities. The Environmental Protection Agency (EPA)'s ENERGY STAR® performance standards benchmark similar buildings and offer certification for the top quartile of buildings in each category. Use EPA's Portfolio Manager to measure and track energy performance and improve your operations.
- Use low-energy sleep functions on computers, printers, and copiers and choose ENERGY STAR certified appliances when possible.
- Commissioning is a process where building systems are observed and tuned-up to ensure they are operating efficiently. Studies have shown that commissioning can save a typical hotel 10 to 15% of its energy costs. Savings typically result from resetting existing controls to reduce HVAC waste while maintaining or increasing comfort levels for occupants.

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- Contact your local area energy advisor for support at idahopower.com/energyadvisor.
- Idaho Power has programs available to help customers just like you save energy and money. To learn more, visit: idahopower.com/business.



P.O. Box 70
1221 W. Idaho St.
Boise, ID 83702
idahopower.com