



# ENERGY SAVINGS TIPS

Energy efficiency makes office buildings more appealing and affordable. **Energy efficiency upgrades improve tenant retention, occupancy rates and lease revenue for building owners.**

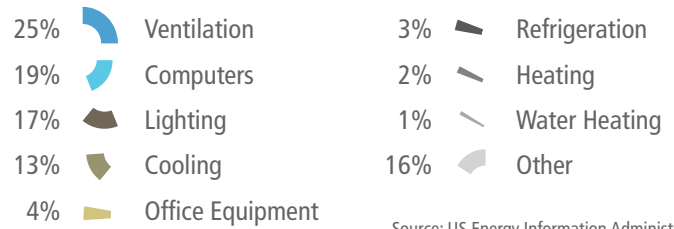
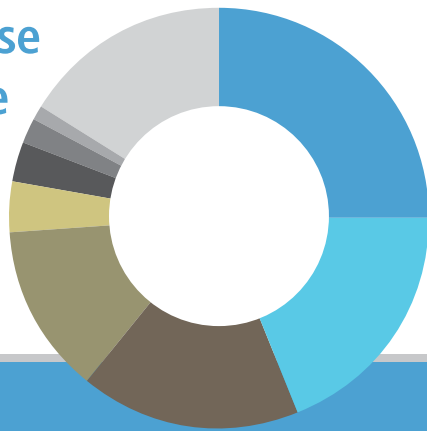
Most energy efficiency upgrades also improve:

- customer and employee comfort
- visual appeal
- safety
- indoor air quality
- equipment life

# OFFICE BUILDINGS



# Electricity Use in U.S. Office Buildings



Source: US Energy Information Administration, 2012 CBECS Survey Data

## HVAC

- Install a Building Automation System (BAS) to control HVAC systems. This allows for greater zone control by continuously monitoring and adjusting lighting and HVAC equipment based on occupant densities, environmental factors and weather. According to the Department of Energy, the average energy savings from BAS' is 5 to 15 percent of building energy use with a cost of \$2 to \$4 per square foot.
- When the facility is unoccupied, raise the temperature during the summer and lower it during the winter. You can also try small temperature changes during working hours. A one degree change is not harmful to health or comfort and is frequently unnoticed.
- Economizers can save energy, but often don't work correctly. These systems use a vent to draw in cool outside air, when it is available, to reduce mechanical cooling. Have a licensed professional check, clean, calibrate and lubricate your economizers once a year.
- Most climate control systems use conditioned air to heat or cool buildings. Ensure you have adequate airflow at the registers for each space in your building. Check your filter to see if there is little airflow or dirt and dust in the register. Replace filters regularly to avoid filter pressure drops that waste energy and reduce performance.
- New, high-efficiency HVAC units can reduce cooling energy use by 10 percent or more over a standard unit. If your equipment is more than 10 years old, consider replacing it with more efficient equipment.
- Lighting retrofits, building envelope improvements and the use of energy-efficient office equipment all reduce HVAC system loads.

## LIGHTING

### Turn it off

The easiest way to save energy is to turn off lights when they are not in use.

- Display posters, stickers or signs reminding occupants to shut off lights when not in use.
- Use occupancy sensors, timers and building automation systems to automatically shut off lights when not needed.
- Install lighting controls that use photosensors to cycle lights on or off to meet an indoor light level and reduce energy use.

### Turn it down

Sometimes you can't shut off the lights entirely, but you can dim lights to reduce energy use. Dimming technology has improved over the last decade, and new LED lighting often comes with this capability. You can also remove extra bulbs to reduce energy use, visual strain and glare.

### Upgrade

Lighting upgrades can save 25 to 90 percent on lighting costs and easily fit into routine building maintenance.

- LED can last up to 25 years and reduce energy use by over 90 percent. If you haven't upgraded to LEDs, get a quote from a lighting vendor or contractor. Idaho Power has incentives available and can lead to project paybacks of one to three years.
- Parking lot lights typically run about half of the day, and energy use adds up in a hurry. LEDs direct the light precisely and minimize light pollution. Consider controls that dim or shut off exterior lighting when it is not needed.
- Daylighting takes advantage of natural ambient light and reduces the amount of electric lighting needed. However, without lighting controls, daylighting may not save energy. Automatic photosensor controls that sense daylight help ensure that electric lighting is reduced when enough daylight is available.

Nearly **30%** of office buildings' operating expenses are spent on energy bills (often the largest operating expense).

Commercial buildings account for around **1/3** of all energy use in the United States

Offices have higher energy costs than any other type of commercial building sector, spending **\$19.2 billion** each year.

Office buildings make up **17%** of the floor space and **22%** of the energy use by commercial buildings in the United States.

Office buildings use an average of **17 kilowatt-hours** per square-foot.

Green office buildings operating costs average **30%** less.



## OFFICE EQUIPMENT

- Purchase high-efficiency equipment and ensure the equipment is shut off or in a sleep mode when not needed.
- Most consumer electronics can be set to a low-power sleep mode after a specified period of inactivity; however, users rarely use these features. Check to see if power-management features are enabled on your equipment.
- Smart power strips have built-in occupancy or load-sensing devices that shut off devices when energy isn't being used. These typically come with constant-on outlets for devices that need to remain on at all times.
- Purchase ENERGY STAR® certified devices. These devices have met certain energy-use standards and often require less upkeep than standard-efficiency devices.
- Buy a plug-load power meter to see which devices use the most energy. These are available for as low as \$20 and are easy to use.
- Let building occupants know that saving energy is important and have them help. This can come in the form of training, letters or emails, signage, videos, incentives for energy-efficient activities, requesting employee ideas for saving energy and more.

### Other opportunities

- Commissioning is a process where building systems are observed and tuned-up to ensure they are working efficiently. Studies have shown that commissioning can save a building 10 to 15 percent of its energy costs. Consider investing in commissioning every three to five years.
- Office buildings may use unnecessary energy during off-hours. Idaho Power provides hourly energy information to allow you to see how much energy you use and start investigating ways to reduce energy use.
- Benchmark your building's energy use against similar buildings. The EPA's ENERGY STAR performance standards benchmark similar buildings and offer certification for the top quartile of buildings in a given category.

### Additional resources

- Register for **My Account** at [idahopower.com/myaccount](https://idahopower.com/myaccount) to pay your bill, get account information, understand your use and more ways to save.
- Building Operator Certification (BOC) provides ongoing training for building operators that focuses on electricity, HVAC, lighting, indoor air quality and energy savings. Operators who have earned certification save 172,000 kilowatt-hours on average per facility. Learn more at [theboc.info](https://theboc.info).

Idaho Power has programs available to help customers just like you save energy and money. To learn more, visit [idahopower.com/business](https://idahopower.com/business).



An IDACORP Company

P.O. Box 70  
1221 W. Idaho St.  
Boise, ID 83702  
[idahopower.com](https://idahopower.com)

