



ENERGY SAVINGS TIPS

Energy efficiency can help boost the bottom line.

Energy-saving improvements can allow for better product display, improved customer comfort and higher worker productivity, **leading to increased sales.**

Most energy efficiency upgrades also improve:

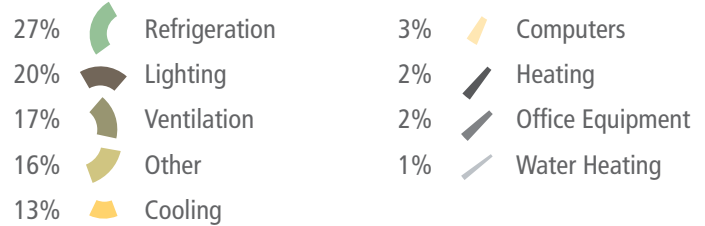
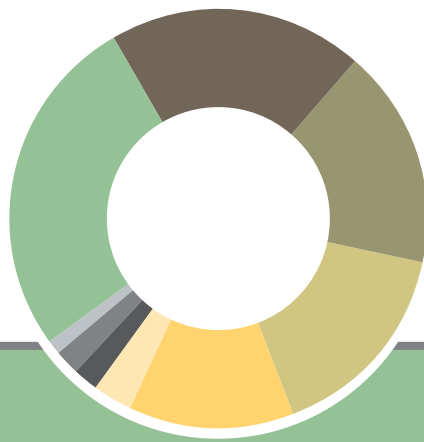
- Safety
- Indoor air quality
- Equipment life

RETAIL FACILITIES



**IDAHO
POWER®**
An IDACORP Company

Electricity Use in U.S. Retail Facilities



Source: Energy Information Administration, Commercial Building Energy Consumption Survey – 2016

LIGHTING

- Contrasting light levels makes products stand out from their surroundings. Only key product areas should be highlighted. Too much accent lighting uses more energy and negates contrast.
- Window display lighting levels may need to be high during the day to provide contrast in sunlit spaces, but can be lowered at night because contrast is easier to achieve. Lights may be able to be shut off at night when no shoppers are present.
- Display posters, stickers or signs reminding occupants to shut off lights when not needed, especially in bathrooms and non-sales areas.
- Daylighting takes advantage of the natural ambient light to reduce electric lighting needs. If you have significant

natural light, consider installing an automated daylighting system. These systems often pay back in less than three years. Additionally, a study by the California Energy Commission showed that daylighting increased sales up to 6%.

- Dimming technology has improved drastically over the last decade and new LED lighting systems often come with this capability integrated. Also, you can remove extra lamps to reduce energy use, visual strain and glare.
- Upgrade to LEDs which can last up to 25 years and reduce energy use by over 90%.
- Parking lot lighting is often overlooked. LED lights direct the light precisely and minimize light pollution. Think about controls that dim or shut off exterior lighting that is not needed during certain times of night.

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, BAS' can save 5 to 15% of the building's energy use with a cost of \$2 to \$4 per square foot.
- Most climate control systems use conditioned air to heat or cool buildings. Ensure you have adequate airflow at each register. Check your filter and replace regularly to avoid prohibitive filter pressure drops that waste energy and reduce system performance.
- When the facility is unoccupied, raise the temperature during the summer and lower it in the winter. You can also explore small temperature setbacks during working hours. A one degree change is frequently unnoticed.
- Have a licensed professional check, clean, calibrate and lubricate your economizers once a year. Consider installing economizers on units that don't have them.
- Demand-controlled ventilation (DCV) systems sense the level of carbon dioxide in the return airstream and use it as an indication of occupancy to vary the

amount of fresh air introduced to the space. This helps minimize the amount of fresh air that needs to be heated or cooled. DCV is most appropriate when coupled with a variable frequency drive on a dedicated unit that serves the sales floor. Annual savings can amount to as much as \$1 per square-foot.

- High-efficiency HVAC units can reduce cooling energy use by 10% or more over a standard unit. If your equipment is more than 10 years old, consider replacing with more efficient equipment.
- For small retailers operating in dry climates, evaporative coolers typically use less than 25% of a typical air-cooled system and paybacks range from 6 months to 5 years.
- If the roof needs recoating or painting, choose white or another highly reflective color to minimize the amount of heat the building absorbs. This can reduce peak cooling requirements by 15 to 20%.
- Lighting retrofits, building envelope improvements and the use of energy efficient office equipment all reduce HVAC system loads.

ENERGY FACTS

Retail buildings account for **16%** of all commercial building space and **20%** of all commercial building energy use.

Retail facilities average **19.2 kWh** used per square-foot.

U.S. retailers spend more than **\$21 billion** on energy annually.

Enclosed and strip malls account for **72%** of all retail energy use.

OFFICE EQUIPMENT

- Purchase ENERGY STAR® certified devices. These devices have met certain energy use standards and often require less upkeep than standard devices.
- Most consumer electronics can be set to a low-power sleep mode after a specified period of inactivity. Enable these power management features on your equipment.
- Use smart power strips when possible. They have built-in occupancy or load-sensing devices that will shut off devices plugged into the power strip when no activity is present. These typically come with constant-on outlets for devices that need to remain on at all times.
- Buy a plug load power meter to find out which devices use the most energy. These are available for as low as \$20 and are easy to use.
- Promote awareness and buy-in. Let your building occupants know that energy is important to you and have them help your efforts. This can include training, letters or emails, signage, videos, small incentives for energy efficient activities, and requesting employee ideas for saving energy.



Other Opportunities

- Benchmark your energy use against similar facilities. The 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.
- 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 facility 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.

Additional Resources

Retail facilities consume the most energy during business hours but may be using unnecessary energy during off-hours. Idaho Power provides hourly energy information that allows you to see how much energy you use and start investigating ways to reduce any unneeded use. Register for **My Account** at idahopower.com/myaccount to pay your bill, get account information, understand your use and find 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 conservation. Operators that have earned certification are saving 172,000 kilowatt-hours on average per facility. Find out more at: www.theboc.info.

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



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