

ENERGY SAVINGS TIPS

Convenience stores have higher energy use per square foot than virtually any other retail market segment, including larger grocery stores. **Energy saving measures can help your business improve efficiency, reduce operating costs and save energy.**

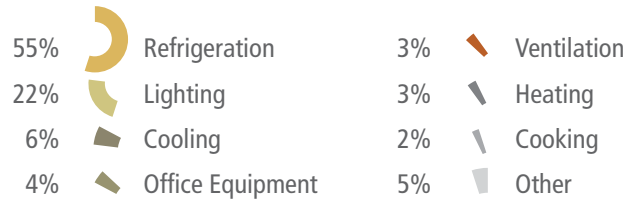
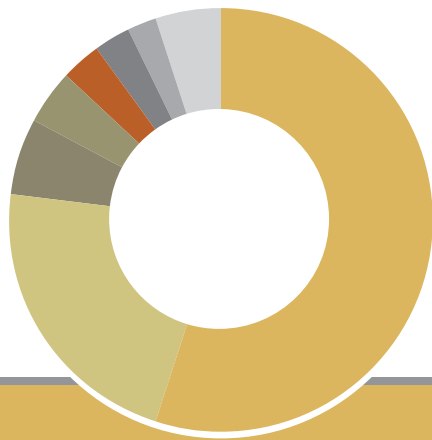
Most energy efficiency upgrades also improve:

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

CONVENIENCE STORES



Electricity Use in U.S. Convenience Stores



Source: E Source, Managing Energy Costs in Convenience Store

REFRIGERATION

- Check temperature settings. If the settings are too low, you may be wasting energy. Recommended settings are between -14° F and -8° F for freezers and between 35° F and 38° F for refrigerators.
- Keep evaporator coils clean and free of build-up. Dirt and ice build-up can prevent heat transfer and make the refrigeration system work harder to maintain the same temperature.
- Seal refrigerator and freezer doors. Air gaps let warm air enter the refrigerator or freezer and make the system work harder to maintain the same temperature. If you can slide a dollar bill between the door and the case, it is time to reseal the refrigerator or freezer.
- Invest in energy efficient refrigerators and freezers. A variety of ENERGY STAR® certified options are available, including reach-in, walk-in and a multitude of food/drink storage and display cases.
- Install anti-sweat heater controls on display cases to sense humidity conditions and turn the heaters off when not needed.
- Replace shaded-pole motors with electronically commutated motors in refrigerated cases and walk-in coolers, which can reduce energy use by 50 percent.
- Add evaporator fan motor controls to slow or shut off motors when the compressor is not running.
- Add night covers to open display cases to trap refrigerated air and keep food cold.
- Add glass doors to open refrigerated display cases to improve efficiency by 50 percent.
- Install strip curtains in the doorways of walk-in boxes to reduce air infiltration by 75 percent.
- Install auto-closers on reach-in case doors and cooler freezers.
- The floating head pressure approach reduces the work required by the compressor and saves energy by allowing the refrigerant pressure to float down with reduced ambient temperatures. Check that expansion valves are capable of operating at these lower pressures and that the pressure is high enough to avoid unwanted vaporization of refrigerant.

LIGHTING

- If you have a gas station, upgrade your canopy lighting to more efficient technology.
- Disconnect or remove lamps in multiple-lamp fixtures and use task lighting where possible.
- Upgrade the store and refrigeration case lighting to LEDs to save lighting and refrigeration energy.
- Install occupancy sensors in rooms with low traffic (break rooms, restrooms, storage areas).
- Turn off promotional lighting/neon signs when the store is closed.
- Use timers to dim the lights or shut them off at night when the store is closed.



Every \$1 saved on energy in a food retailer is equal to selling an additional \$18 of product.

Convenience stores use nearly **2x more** energy than other food retailers.

Refrigeration and lighting account for **77%** of energy use.

Convenience stores use an average of **52.5 kilowatt hours** per square foot.

HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

- Install a Building Automation System (BAS) to control HVAC systems. According to the Department of Energy, BAS' can save 5 to 15 percent of the building's energy use with a cost of \$2 to \$4 per square foot.
- Raise the temperature slightly during the summer and lower it during the winter. A one degree change can reduce your energy use by about 1 percent.
- Have a licensed professional check, clean, calibrate and lubricate your economizers about once a year. Consider installing economizers on units that don't currently have them.
- Tune your HVAC equipment annually. This should include cleaning the condenser coils, a thorough check of proper controls operation and general system inspection.
- High efficiency HVAC units can reduce cooling energy by 10 percent or more. If equipment is over 10 years old, consider replacing it with more efficient equipment.
- Change your air filters at least every three months. A dirty filter creates a higher pressure drop for the fan to work against which wastes energy.
- Seal and insulate ductwork to improve the efficiency of your HVAC system by as much as 20 percent.

Additional Resources

Register for **My Account** at idahopower.com/myaccount to pay your bill, get account information, understand your use and find more ways to save.

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



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