

### **KEY POINTS**

- Building envelope insulation maintenance and upgrades are the least expensive, fastest payback projects to reduce energy use.
- Consider installing a booster heater at points of heavy use in the food preparation areas, such as for dishwashing.
- Simple operational changes and cost-effective retrofits can save significant amounts of energy in the cooking/baking areas.

Find out what incentives are available for your home or business. Energy Efficiency 603-216-3698 <u>NHSaves@LibertyUtilities.com</u> or visit <u>NHSaves.com</u>

# Quick Tips for Grocery and Convenience Stores

Natural gas energy use is a smaller portion of the energy bill than electric use for refrigeration and cooling in grocery and convenience stores, but there are still opportunities for reducing energy costs.



Source: americancooler.com

### **Space Heating**

- Building envelope insulation maintenance and upgrades are the least expensive, fastest payback projects. Regularly inspect and repair all caulking and weather stripping around doors and windows.
- Be sure that gas furnaces and boilers are cleaned and inspected. Inefficient burners with air/fuel ratios above 10% burn energy dollars. Dirty filters decrease efficiency and reduce the operating life of the heating equipment. If new efficient burners are purchased, they will improve fuel combustion and reduce emissions.
- Be sure that refrigeration coolers and cold storage areas are properly insulated, and do not exhaust excess lower-temperature air into the aisles. Excessive cooling and then reheating is a common problem in inefficient food stores.
- Maintain proper insulation levels on key heating equipment components.
- Use shades, blinds, and ceiling fans to supplement heating without consuming large amounts of energy. Make sure that all doors and windows are closed tightly while the heating system is operating.
- Determine the building's heating load and rightsize the heating system's capacity accordingly. An oversized furnace or boiler cycles too often, creating discomfort.

### Cooking

Most grocery stores and some convenience stores have kitchen facilities. On average Integrate controls that turn down the heat input with sensors that determine when food is not present. of total energy consumption in grocery stores is used for cooking. A few simple operational changes and costeffective retrofits can save a significant amount of energy.

Ovens should reach their desired temperature within 15 minutes. To save energy, pre-heat ovens for no longer than 15 minutes.



Integrate controls that turn down the heat input with sensors that determine when food is not present.

## **Liberty Utilities**

- may fund a portion of the cost of an energy audit study
- provides incentives on energy savings improvements
- may require preapproval of the audit and incentives



### Cooking (cont.)

- Use hood fans only when cooking. Hood fans draw air that has been heated and exhaust it outside.
- Integrate controls that turn down the heat input with sensors that determine when food is not present. A large percentage of food equipment continues to run (idle) at high heat input rates even when food is not present.
- For gas fryers and gas griddles, use infrared (IR) burners that operate with less than 10% excess air, reducing combustion energy loss up the flue.solution regularly.

### Water Heating

Water heating can be a moderate energy use for facilities with kitchens and restrooms. The following general guidelines are typical ways to reduce energy use.

- Schedule regular inspection and maintenance to ensure the efficient operation of water heating equipment. The hot water system should be checked regularly for leaks, and the burners should be tested annually.
- Make sure that hot water pipes and storage tanks are well insulated.



- If the food service store has a full kitchen area, consider installing a booster heater at points of heavy use, such as the dishwashing area.
- Aerated faucets mix air and water using a screen to limit the amount of water flow and improve water pressure.

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