

Solutions and Incentives for Grocery Stores and Supermarkets

Sell More Food, Save More Energy With PECO

Food retailers across Greater Philadelphia are boosting profits by lowering energy costs. From large supermarkets to corner grocers, any business with refrigeration and food-service equipment can receive financial incentives to improve energy efficiency.

Grocery stores are the most electricity-intensive¹ of commercial buildings. With incentives from PECO, upgrading to more efficient equipment can result in operational and maintenance savings that offer a fast return on investment.

In addition to lowering costs, energy efficiency improvements can enhance store appearance, improve aisle comfort, help prevent food waste and increase visibility in display cases.

Energy efficiency solutions offered by PECO include incentives for refrigeration controls and motors, LED lighting, various types of ENERGY STAR[®] certified cooking and refrigeration equipment, and a variety of heating, ventilation and air conditioning (HVAC) system upgrades.

Don't Sweat It: Incentives for Efficient Refrigeration

Think of energy efficiency improvements like a boost in sales. A recent study² of energy efficiency opportunities in grocery stores found that achieving a 10% reduction in energy costs would be equivalent to increasing net profit margins by 16%.

Refrigeration savings are plentiful. Door heater controls, for instance, prevent heaters from unnecessarily operating to remove condensation in periods of low humidity. By making sure anti-sweat heater controls are properly calibrated, grocers can achieve maximum savings.

Each door with properly tuned heater controls can generate about 1,300 kWh in annual energy savings. When comparing net profits with energy savings, retrofitting an average grocery aisle with door heater controls would be equivalent to the profit margin from selling about 750



additional standard cartons of ice cream every year.

To maintain the temperature in walk-in coolers, grocers can replace motors in forced-circulation evaporators. These motors typically run continuously, even though on average full airflow is only required about half the time. Adding a controller can cut voltage to the motor by more than 75%. In the process, more efficient motors create less excess heat, maintaining cooler walk-in temperatures.

It also pays to replace an entire walk-in refrigerator/freezer. Shaded-pole motors can be replaced with electronically commutated motors (ECMs) in evaporator fans to yield annual savings of about \$104 per fan, equivalent to the profit margin³ from selling more than 2,000 gallons of milk in a year.

Save Energy With the Lights On or Off

Even after hours, improving refrigeration efficiencies can boost store profits. Refrigerated case shields, often known as night curtains, can reduce a display case's electricity use⁴ by more than 35% and delay food spoilage by avoiding exposure to heat and dry air. PECO offers incentives for each linear foot of night shields installed.

Installing more efficient lighting offers another opportunity to extend product life. Due to the absence of UV radiation and the ability to maintain colder case temperatures, LED lighting can extend the retail life⁵ of packaged meats.

Likewise, LEDs help to maintain fresh flower bouquets,⁶ stalling decomposition while enhancing true colors. Several stores are seeing less product spoilage and more appealing displays through the use of LEDs.

PECO offers incentives for LED case lighting, day lighting sensors and case light occupancy controls. Several other lighting options qualify for incentives, including upgrades to exit signs and parking lots and the removal of unnecessary lighting.

Businesses that replace lighting equipment with their own maintenance staff are encouraged to contact a distributor who offers PECO Instant Lighting Discounts⁷ on energy efficient interior and exterior lighting. Save instantly at checkout on approved products.

Many More Incentive Options

In addition to incentives for refrigeration controls, case shields and LED lighting, PECO offers incentives for a variety of refrigeration, food service and HVAC projects.

Comfort systems including high-efficiency air conditioners, as well as energy management systems that centralize control of HVAC equipment, are incentivized on a per-ton basis.

PECO representatives are available to help identify appropriate energy-saving measures and explain the incentive application process.

Examples of qualifying energy efficiency measures

Technology	Description
Floating head pressure control	Saves energy by reducing the amount of work compressor motors need to perform when pressures are low
Anti-sweat heater controls	Automatically engages heater to ensure condensation-free door
Evaporator fan EC motors	Reduces the power while maintaining temperature setpoint
ENERGY STAR certified equipment	Certified refrigerators, freezers, beverage vending machines, electric steam cookers, electric ovens, electric fryers and hot holding cabinets deliver the same or improved performance while using less energy than standard models
Retrocommissioning	Ensuring that HVAC systems are designed, installed and maintained according to operational specifications can save 10% to 15% on energy bills
Refrigeration Case LEDs	Maintains colder case temperatures

► Food retailers interested in maximizing the energy efficiency potential of their stores should contact PECO at **1-844-4BIZ-SAVE** (1-844-424-9728) or visit **PECO.com/Grocery**.

¹ https://www.energystar.gov/sites/default/files/buildings/tools/EPA_BUM_CH11_Supermarkets.pdf?elqTrackId=c2304376e2e343a994bf363eb6810194&elqaid=72&elqat=2

² <https://www.epa.gov/sites/production/files/2016-03/documents/2015-03.pdf?elqTrackId=a486270e7bc44066afd4e096c937db6a&elqaid=72&elqat=2>

³ https://fishnick.com/publications/appliancereports/refrigeration/GE_ECM_revised.pdf?elqTrackId=d8b303e4e2834a28917df1aae94f87fd&elqaid=72&elqat=2

⁴ <http://www.econofrost.com/benefits/energy-savings/?elqTrackId=a5c02ec540214563aded42abdb876e1a&elqaid=72&elqat=2>

⁵ <https://phys.org/news/2012-01-meating-solution-meat-shelf-life.html?elqTrackId=f0dc62d6ccb434fae0d4857a97d9c1b&elqaid=72&elqat=2#jCp>

⁶ http://www.promolux.com/english/retail_floral_display.php?elqTrackId=21b7c1e9e7664f1b946fc18dd40b17e5&elqaid=72&elqat=2

⁷ peco.com/InstantDiscounts