

Technology Profile

Food Service Equipment

Food service operations account for over 6% of electricity consumption in all commercial buildings despite only accounting for about 2% of total floorspace, making the sector one of the highest energy consumers per square foot.¹ PECO Ways to Save offers incentives for customers seeking to improve operations by using high-efficiency food service equipment.

Control Costs and Quality

Given the narrow profit margins common in many restaurants, even a 20% reduction in energy costs could translate into an additional 1% in net margin. Based on industry averages, this is the same as a 14% increase in a restaurant's overall profitability.

With incentives from PECO Ways to Save, upgrading to more energy efficient equipment can result in operational and maintenance savings with very short paybacks. New equipment can cook and recover faster, while providing improved humidity and quality control. Typically, the results are improved food quality and a better bottom line.

Incentives are available for purchasing new commercial kitchen equipment for use in both existing and newly constructed facilities. Eligible electric equipment includes refrigerators, freezers, fryers, ventilation controls and combination and convection ovens.

ENERGY STAR® Certified Cooking Equipment

Choose ENERGY STAR certified equipment to ensure your facility minimizes its electric load month after month.

- **Combination Ovens**
 - Combine the functions of hot air convection (oven mode) and saturated/superheated steam heating (steam mode) to steam, bake, roast, rethermalize and proof various foods.
 - Are about 30% more efficient than standard models.² Additional benefits include high production capacity, improved air circulation, longer product lifetimes and both faster and more uniform cooking results.
- **Refrigeration Equipment**
 - Includes comprehensive, energy-efficient technology that saves 40% more energy than standard models.³ Refrigerator and freezer components include evaporator and condenser fans with electronically commutated motors, hot gas anti-sweat heaters and high-efficiency compressors.





• Electric Fryers

- ENERGY STAR certified models are 30%–35% more energy-efficient than standard models due to advanced electrical heat transfer technologies, more accurate thermostats and fry pot insulation.⁴
- Higher production rates and shorter recovery times than conventional fryers. In some cases, can eliminate the need for a backup fryer.⁵

• Hot Food Holding Cabinets

- Keep food, but not the kitchen, hot.
- Offer a more uniform temperature inside the cabinet from top to bottom.
- Are about 40% more efficient than standard units if ENERGY STAR certified.⁶

• Steam Cookers

- Are better insulated and have a more efficient steam delivery system, making ENERGY STAR certified steam cookers 60% more efficient than standard models.
- Are able to reduce water use by over 90% if ENERGY STAR certified.⁷
- Can shorten cooking times, increase production rates and avoid heat loss.

Demand Ventilation Controls

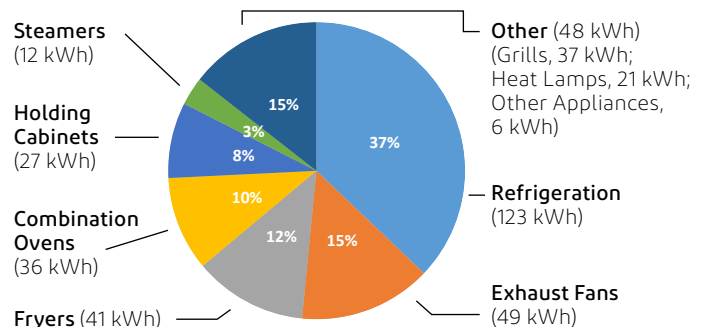
Kitchen ventilation systems are among the largest energy users in a commercial food service facility. While essential for removing smoke, fumes and odors, exhaust fans typically do not need to run at full speed throughout the day.

Use a sensor to match fan speed with exhaust needs. Demand-based exhaust controls retrofitted to existing hoods or installed on new hoods reduce a fan's energy consumption. Studies have found savings range between 20% and 50%.⁸ Kitchens with exhaust flow rates of 5,000 cubic feet per minute or higher can achieve the best return on investment.⁹

How do they work? Controls interact with temperature sensors in the hood exhaust collar. Optic sensors detect the presence of smoke or cooking. Variable-speed drives regulate fan speed based on cooking load, time of day, kitchen comfort and indoor air quality.

Controls also minimize the loss of conditioned air through kitchen hoods, reducing energy consumption for heating and air conditioning systems.

Average Daily Electricity Consumption of Commercial Kitchen Equipment¹⁰



► Contact Us Today!

For more information, visit peco.com/business or call **1-844-4BIZ-SAVE** (1-844-424-9728). PECO representatives are available to help identify energy-saving measures and to assist with the incentive application process.

¹ eia.gov/consumption/commercial/data/2012/c&e/cfm/pba4.php

² energystar.gov/products/tools_resources/commercial-ovens-factsheet

³ energystar.gov/products/tools_resources/commercial-refrigerators-and-freezers-factsheet

⁴ energystar.gov/products/tools_resources/commercial-fryers-factsheet

⁵ energy.gov/femp/purchasing-energy-efficient-commercial-fryers

⁶ energystar.gov/products/tools_resources/commercial-hot-food-holding-cabinets-%28hfcs%29-factsheet

⁷ energystar.gov/products/tools_resources/commercial-steam-cookers-factsheet

⁸ mn.gov/commerce-stat/pdfs/card-report-energy-savings-demand-control-ventilation.pdf

⁹ betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Guidance-on-Demand-Controlled-Kitchen-Ventilation.pdf

¹⁰ academic.oup.com/ijlct/article/11/1/66/2363520