

## Energy Saving Options for Food Retail

The following are pre-screened eligible measures applicable to the retail food sector. Technical specifications for eligibility are listed at the end of the document. Check your utility for available rebates.

### Lighting

- T-12 to T-8 retrofits, particularly in older convenience stores, small grocery stores, or in the storage areas of older restaurants
- Replace/convert incandescent exit signs to LED
- Various interior lighting changes, such as removal of incandescent bulbs or PAR38 flood/spot lights – replace with CFL or LED
- Parking lot lighting – typically sodium or perhaps metal halides. Could be converted to fluorescent, HID, or LED
- Exterior lighting bi-level controls w/override
- LED lighting for refrigeration cases
- Motion sensors to control LED lights on refrigeration cases
- Occupancy sensors in restrooms



### Refrigeration / Freezers

- Anti-sweat heater controls
- Replace air seals and curtains on coolers
- Retrofit coolers with high efficiency evaporator and condenser fan motors
- Night covers for open refrigeration cases
- Floating head pressure control
- Place units on a preventative maintenance program
- Replace timed defrost controls with adaptive defrost controls
- Refrigerator or freezer replacement



### Act now!

\$1,500 rebates available for energy assessments, plus 1.99% financing for energy savings over 20%

### HVAC and Hot Water

- Replace kitchen exhaust fans with high efficiency, variable speed exhaust fans
- Replace older rooftop AC units with high efficiency units
- Install better HVAC controls
- Re-commission & re-balance AC units and start on O&M schedule
- Add economizer to rooftop AC unit
- Boiler controls & tune up
- Regular furnace maintenance
- New high efficiency furnace or boiler
- Replace hot water heater with higher efficiency model
- Reduce hot water set point
- High efficiency sprayers
- Pipe wrap insulation



### Cooking Equipment and Other Appliances

- Fryers, griddles, ovens, steam cookers
- Ice machines
- Washers and dryers
- Hot holding cabinets



# Commercial Eligible Measures List

These measures are eligible for financing without an energy assessment. Additional measures eligible through a comprehensive energy assessment, as well as additional incentives for projects with an estimated energy savings of 20%.

	Minimum Efficiency Level	Specifications	Avg Savings (Elec)	Avg Savings (LNG)
<b>Lighting Measures</b>				
Compact Fluorescent Fixtures				
Compact Fluorescent Screw-in Lamps	Energy Star			
Exit Signs	£ 5 watt or Energy Star	Electroluminescent, T1 or LED		
High-Intensity Discharge (HID) Conversion (interior)		HID to Fluorescent, LED or Induction	450 kWh/yr	
High-Intensity Discharge (HID) Conversion (exterior)		HID to Fluorescent		
High Output Linear Fluorescents		T12 to HO T8/T5	120–170 kWh/yr	
High Performance (HP) & Reduced Wattage (RW) Linear Fluorescent w/ Electronic Ballast	CEE qualified	T12 to HP/RW T8		
Light Emitting Diode (LED) Down Lights & Fixtures	Energy Star			
Light Emitting Diode (LED) Lamps	Energy Star			
Light Tube (daylighting)				
Standard Linear Fluorescent Retrofit w/ Electronic Ballast		T12 to T8 /T5	25–200 kWh/yr	
<b>HVAC Measures</b>				
Boiler (gas)	86% AFUE	Space heating only		
Boiler Controls		Oxygen trim, modulating burner, or water reset		
Boiler Tune-Up				
Central AC (unitary & split systems)*	10.0 EER to 14.0 SEER			
Central AC (package terminal & heat pump)	12.5 EER	Though-the-wall, self-contained units, < 2 tons		
Chilled Water Reset (air cooled)				
Chilled Water Reset (water cooled)				
Chiller (air-cooled)	IPLV 1.04 kW/ton			
Chiller (water cooled)*	IPLV .49 to .57 kW/ton			
Duct Sealing				
Economizer				
Furnace (gas)	90% AFUE			
Heat Pump (air source)*	10.0 EER to 14.0 EER			
Heat Pump (ground source)	17.0 EER			
Heat Pump (water loop)	11.5 EER to 12.3 EER			
Infrared Heaters		Electric ignition and replacement for unit type heaters		
Insulation (tank)	1"		330–580 kWh/yr	13–24 thrm/ft2
Pipe Wrap	R4			
Programable Thermostat				
Room Air Conditioners	Energy Star			
Steam Trap Repair or Replacement				
Variable Frequency Drives (VFD) on HVAC Fans and HVAC Pumps				
Water Heater (electric)	.93 EF			
Water Heater (electric heat pump)	2.0 EF			
Water Heaters (gas storage)	.67 EF or 88% TE			
Water Heater (oil storage)	.82 EF			
Water Heater (tankless)	.82 EF	Power vented		
*Minimum efficiency level depends on size or capacity of unit				
<b>Food Service</b>				
Anti-Sweat Heater Controls (ASHC)				
Beverage Vending Machine Controls		Passive infrared occupancy sensor	800 kWh/yr	
ECM Motor for Refrigeration Case				
Efficient Refrigerator Condenser				
Energy Efficiency Ice Machines	CEE Tier 2			
Evaporater Fan Motor Controls			300–1100 kWh/controller	
Floating Head Pressure Controls				
Freezers	Energy Star		600–7000 kWh/unit	
Fryer	Energy Star		1100 kWh/yr	500 thrms/yr
Griddles	Energy Star		2500 kWh/yr	150 thrms/yr
Hot Holding Cabinets	Energy Star			
LED Lighting for Refrigeration Cases			460 kWh/yr	
Night Covers for Open Refrigerated Display Cases				
Occupance Sensors for LED Refrigeration Cases		35 lumens per wat & 72 CRI	195 kWh/yr	
Oven (Convection)			1800 kWh/yr	300 thrms/yr
Oven (Conveyer)				730–850 thrms/yr
Pre-rinse Sprayers	£1.6 gpm			
Refrigerators	Energy Star		270–1100 kWh/unit	
Steam Cookers	Energy Star			
Ventilation Hoods (Engineered Commerical Kitchen)				
Walk-in Cooler/Freezer Electronically Commutated (EC) Motor Replacement		Replace standard efficiency shaded pole or permanent split capacitor evaporator motor		
<b>Building Envelope</b>				
High Performance Window Glazing	SHGC <0.39 & U-value <0.57			
Insulation (attic roof)		Final insulation level must exceed R42		
Insulation (flat roof)		Final insulation level must exceed R24		
Insulation (wall)		Final insulation level must exceed R13		
Reflective Roof (metal or asphalt)	Energy Star			
Window Film	SHGC <0.39 & U-value <0.72			
<b>Building Operations</b>				
Central Lighting Controls		Automated controls with override capabilities		
Daylight Sensor Controls			1.2 kWh/ft2	
Demand Control Ventilation (DCV)				
HVAC Energy Management System				
Exterior Lighting Bi-level Controls w/Override			315 kWh/yr	
Intelligent Surge Protector		Built-in plug load detection & control capabilities	16 kWh/yr	
Lighting Occupancy Sensors		Passive infrared, ultrasonic or fixture integrated		
Plug Load Occupancy Sensor				
Switching Controls for Multi-level Lighting				