GROCERY INCENTIVE WORKBOOK

STOCK YOUR STORE WITH SAVINGS

Boost profit margins through energy efficiency

Energy Trust of Oregon knows that reducing building energy use through energy-efficient equipment and systems is one of the best ways to raise a grocer's bottom line. Averaging one percent, profit margins in the grocery market are razor thin. This means lowering energy costs could translate directly to an increase in profits. Energy-efficient solutions can also contribute to improved employee and customer comfort and extended store product life.

Energy Trust's market solutions package for grocery stores can help you capture these benefits and earn cash incentives for energy-efficient equipment and building practices. Whether you're planning a new store or kicking off a major renovation, this package provides a simple way to pinpoint the best energy solutions for your store.

Energy Trust outreach managers can offer input and feedback as you make energy-related decisions and assist you in completing this workbook. If you have questions or need help getting started, contact the outreach manager listed here.

Name

Email

Phone number

Energy Trust of Oregon

WHAT IS THE GROCERY INCENTIVE PACKAGE?

This offering presents a flexible step-by-step process for selecting and purchasing energy-efficient systems and equipment that qualify for cash incentives. It is limited to grocery stores that have a significant amount of refrigeration equipment (refrigerated warehouses are not eligible). Qualifying grocery stores fall into two main categories: those with a food service area or commercial kitchen, and those without this feature. We have created tiered incentive options for both categories; the more equipment you install, the higher the bonus.

Category 1: Stores with no food service area

Category 1 stores DO NOT have a food service area or a commercial kitchen and do not sell hot prepared foods to customers.

	INSTALLATION REQUIREMENTS	INCENTIVE
BEST	Install **five or more** energy-efficient equipment options. Must include both lighting and refrigeration options.	Standard Incentive + 20% Bonus
BETTER	Install **four** energy-efficient equipment options. Must include both lighting and refrigeration options.	Standard Incentive + 15% Bonus
GOOD	Install **three or more** energy-efficient equipment options.	Standard Incentive + 10% Bonus

Category 2: Stores with a food service area

Category 2 stores have a food service area or commercial kitchen and sell hot prepared foods to customers.

	INSTALLATION REQUIREMENTS	INCENTIVE
BEST	Install **nine or more** energy-efficient equipment options. Must include both lighting and refrigeration options.	Standard Incentive + 20% Bonus
BETTER	Install **seven or eight** energy-efficient equipment options. Must include both lighting and refrigeration options.	Standard Incentive + 15% Bonus
GOOD	Install **seven or more** energy-efficient equipment options.	Standard Incentive + 10% Bonus

HOW TO USE THIS WORKBOOK

Use this workbook throughout the course of your project to set efficiency targets, select equipment, estimate incentives and facilitate communications and decision making. Your Energy Trust outreach manager will work with you to provide input and guidance on how to maximize the energy efficiency of your building and make the most of our incentives.

STEP 1 Meet with your Energy Trust outreach manager to discuss efficiency targets and options.

STEP 2 Determine your project's category and review the eligible equipment listed in this workbook.

STEP 3 Select equipment and provide required documentation.

Project name

Square footage

County of installation

Grocery store category

Major renovation or new construction

The following sections present the options for refrigeration, controls, HVAC and other energy-efficient grocery equipment eligible for standard and bonus incentives. Please indicate the equipment you plan to install by completing the tables below.

REFRIGERATION EQUIPMENT

Grocery stores rely on refrigeration equipment to preserve their products, which can be energy intensive and lead to high energy costs. Installing energy-efficient equipment can help you reduce energy use while continuing to meet your refrigeration needs.

Equipment Type	Requirements	No. of Units	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
LED case lights for reach-in doors (low power)	Installed in lieu of fluorescent fixtures		$10/ linear ft	$11/ linear ft	$11.50/ linear ft	$12/ linear ft	• Invoices • Cutsheets • Refrigeration schedules and controls specifications (for VFDs only)
LED case lights for reach-in doors (high power)	Installed in lieu of fluorescent fixtures		$10/ linear ft	$11/ linear ft	$11.50/ linear ft	$12/ linear ft	
LED lights for open cases (low power)	Installed in lieu of fluorescent fixtures		$8/ linear ft	$8.80/ linear ft	$9.20/ linear ft	$9.60/ linear ft	
LED lights for open cases (high power)	Installed in lieu of fluorescent fixtures		$8/ linear ft	$8.80/ linear ft	$9.20/ linear ft	$9.60/ linear ft	
Occupancy sensors on LED refrigerated case lighting (low power)	Permanently installed fixture		$2/ linear ft	$2.20/ linear ft	$2.30/ linear ft	$2.40/ linear ft	
Occupancy sensors on LED refrigerated case lighting (high power)	Permanently installed fixture		$2/ linear ft	$2.20/ linear ft	$2.30/ linear ft	$2.40/ linear ft	
Anti-sweat heater controls for reach-in doors (medium temp, 1°F–35°F)	Utilize humidity, dew point or condensation sensor		$30/ linear ft	$33/ linear ft	$34.50/ linear ft	$36/ linear ft	
Anti-sweat heater controls for reach-in doors (low temp, < 0°F)	• Utilize humidity, dew point or condensation sensor • Stores less than or equal to 35,000 sq ft only		$40/ linear ft	$44/ linear ft	$46/ linear ft	$48/ linear ft	
Variable frequency drive, VFD, on condenser fan	• Add a single VFD to control a multi-fan condensing unit • Must be installed on inverter duty-rated fan motors • May not be combined with an oversized condenser		$100/ condenser fan hp	$110/ condenser fan hp	$115/ condenser fan hp	$120/ condenser fan hp	

Equipment Type	Requirements	No. of Units	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
Oversized condenser with VFD	• For air-cooled condensers, must achieve a temperature differential, TD, of 13 for medium temperature and 8 for low temperature • For evaporative condensers, must achieve a TD of 18 • Condenser capacity is limited to 150% of evaporator load		$60/ ton of condenser capacity	$66/ ton of condenser capacity	$69/ ton of condenser capacity	$72/ ton of condenser capacity	• Invoices • Cutsheets • Refrigeration schedules and controls specifications (for VFDs only)
Medium temperature case with doors (cooler doors)	New medium temperature multi-deck refrigerated case with doors		$188/ linear ft	$206.80/ linear ft	$216.20/ linear ft	$225.60/ linear ft	

Condenser Type? (check one)

☐ Air-cooled ☐ Evaporation-cooled

ENERGY-EFFICIENT WALK-IN COOLER OR FREEZER

Walk-in coolers and freezers constantly fight ambient air temperatures, causing their refrigeration units to work much harder than necessary and driving up energy use. You can combat this issue and boost your energy savings by installing an energy-efficient walk-in cooler or freezer with increased insulation and advanced controllers with floating head pressure and defrost.

Check to Select	Guidelines	Expected Incentives
☐	If you plan to install a walk-in cooler or freezer, please contact your New Buildings outreach manager for assistance calculating your incentive.	

Walk-in Cooler or Freezer?	No. of Units	Compressor Model Number	Capacity (Btu/hr)	Runtime	Condensing Temp	Compressor EER	No. of Defrost Cycles/Day	Required Documentation
Baseline System								• Invoices • Box load calculations or energy study • Incremental cost
Proposed								

Please note: projects installing walk-in coolers or freezers must provide box load calculations or an energy study to Energy Trust for review.

REFRIGERATION CONTROLS

Refrigeration controls are designed to help refrigeration systems operate more efficiently. Floating head pressure controls adjust the head pressure setpoint based on ambient conditions, and floating suction pressure controls adjust the suction pressure setpoint based on case load. Both strategies help reduce compressor energy and improve system efficiency. There is a total of two points within this category, one for single compressors and another for multiplex compressors.

SINGLE COMPRESSOR

Equipment Controls	Requirements	Compressor Hp	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
Floating head pressure controls on single compressor	• Connect to single compressor(s) with one hp motor or larger • Replace fixed-value with adjustable-head pressure control (must be field-adjusted to pressure of 70˚F saturation temperature or lower) • Install balanced-port valve or electric expansion valve sized to meet 70˚F condensing temperature OR device to supplement refrigeration feed to each evaporator on condenser		$100/hp	$110/hp	$115/hp	$120/hp	• Invoices • Cutsheets

Temperature?	Compressor type?
☐ Low ☐ Medium	☐ Single ☐ Remote

MULTIPLEX COMPRESSOR

Equipment Controls	Requirements	Compressor Hp	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
Floating head pressure controls on multiplex compressor	• Saturated condensing temperature, SCT, control uses an ambient following temperature difference strategy, rather than fixed head pressure • The minimum programmed SCT will be less than or equal to 70˚F • Low-temperature, LT, system ambient SCT TD set at 10˚F, medium temperature, MT, set at 15˚F for air-cooled condenser. LT and MT set at 27˚F TD for evaporative condensers.		$40/hp	$44/hp	$46/hp	$48/hp	• Invoices • Cutsheets • Other supporting documentation (refrigeration schedules, controls specs, etc.)
Floating suction pressure controls, FSPC	• Add FSPC thus increasing the suction pressure when possible to reduce the load on the compressor. Suction pressure will float up to the highest point that can still maintain setpoint temperatures at monitored cases on the suction circuit.		$15/hp	$16.50/hp	$17.25/hp	$18/hp	

Compressor Type? (check one)
☐ Air-cooled ☐ Evaporation-cooled

EFFICIENT KITCHEN EQUIPMENT

ENERGY STAR® COOKING EQUIPMENT (CATEGORY 2 PROJECTS ONLY)

Most commercial kitchen equipment is energy-intensive. Selecting and installing ENERGY STAR-certified appliances from the list below can help your kitchen save energy and reduce utility bills.

Equipment Type	Requirements	No. of Units	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
Electric convection oven (full size)	ENERGY STAR		$600	$660	$690	$720	• Invoices • Cutsheets
Electric convection oven (half size)	ENERGY STAR		$600	$660	$690	$720	
Gas convection oven (full size)	ENERGY STAR		$600	$660	$690	$720	
Electric hot food holding cabinet (full size)	ENERGY STAR		$1,000	$1,100	$1,150	$1,200	
Electric hot food holding cabinet (half size)	ENERGY STAR		$500	$550	$575	$600	
Electric griddle	ENERGY STAR		$400	$440	$460	$480	
Gas griddle	ENERGY STAR		$500	$550	$575	$600	
Electric fryer	ENERGY STAR		$400	$440	$460	$480	
Gas fryer	ENERGY STAR		$800	$880	$920	$960	
Electric steam cooker	ENERGY STAR		$1,300	$1,430	$1,495	$1,560	
Gas steam cooker	ENERGY STAR		$2,600	$2,860	$2,990	$3,120	
Electric combination oven	ENERGY STAR		$750	$825	$862.50	$900	
Gas combination oven	ENERGY STAR		$750	$825	$862.50	$900	

ENERGY STAR COMMERCIAL DISHWASHERS

Commercial dishwashers that have earned an ENERGY STAR rating have been determined by the U.S. Environmental Protection Agency to be on average 40 percent more energy and water efficient than standard models. By selecting and installing one of the ENERGY STAR-certified commercial dishwashers listed below, you can help your business reduce consumption and keep costs down.

COMMERCIAL DISHWASHERS

Equipment Type	Requirements	No. of Units	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
Commercial dishwasher, undercounter, (high temp)	ENERGY STAR		$600	$660	$690	$720	• Invoices • Cutsheets
Commercial dishwasher, single tank door/upright (low temp)	ENERGY STAR		$900	$990	$1,035	$1,080	
Commercial dishwasher, single tank door/upright (high temp)	ENERGY STAR		$900	$990	$1,035	$1,080	
Commercial dishwasher, single tank conveyor (low temp)	ENERGY STAR		$900	$990	$1,035	$1,080	
Commercial dishwasher, single tank conveyor (high temp)	ENERGY STAR		$900	$990	$1,035	$1,080	

Please indicate water heating fuel (check one):

☐ Electric ☐ Gas

ECONOMIZERS

HVAC equipment typically accounts for a large percentage of a commercial building's annual energy use. Install economizers to help make your HVAC system more efficient. A properly installed economizer can help you cut energy costs and save money.

ECONOMIZER

Equipment Type	Requirements	No. of Units	Standard Incentive	Good Incentive	Better Incentive	Best Incentive	Required Documentation
3 tons	Installed on a 3, 3.5 or 4 ton AC unit or heat pump		$210	$231	$241.50	$252	• Invoices • Cutsheets • Mechanical schedule and mechanical plans
3.5 tons			$210	$231	$241.50	$252	
4 tons			$210	$231	$241.50	$252	

Heat Pump Type (check one):

☐ Air to air ☐ Ground source ☐ Water source

EFFICIENT INTERIOR LIGHTING

Lighting is a major energy consumer, but it's possible to cut energy costs through energy-efficient equipment, effective controls and careful design. Limited interior lighting can also reduce heat gain, which in turn may lower your air conditioning and help improve thermal comfort.

RETAIL INTERIOR LIGHTING POWER METHOD (2014 OEESC TABLE 505.5.2(A)) FROM COMCHECK

Allowable Watts	Proposed Watts	% Better Than Code (Must be >= 10%)	Expected Incentives	Required Documentation
				• Invoices • ComCheck documentation • Lighting plans and lighting schedule or location • LED space lighting

ADDITIONAL INCENTIVES

If using the space-by-space method, installing controls beyond what is required by code, or installing exterior lighting, please use the New Buildings lighting calculator, available on our website.

Check to Select	Description	Expected Incentives	Required Documentation
☐	Space-by-space/exterior lighting		• Invoices • ComCheck documentation • Lighting plans and lighting schedule or location • LED space lighting
☐	Lighting controls		• Invoices • Lighting plans and lighting schedule or location

Please note: Energy Trust will conduct cost-effectiveness tests on lighting projects claiming a reduction in lighting power density, LPD, greater than 40 percent beyond what is required by code. As part of this process, we ask these projects to provide information on incremental costs. In addition, all projects that install LED products must submit additional documentation. Your outreach manager will facilitate this process and provide information and updates as necessary.

ADDITIONAL SPECIAL MEASURES (FORM 520SM)

Special measures refer to design features that are not defined in this workbook but may qualify for incentives. Energy Trust will assess these on a case-by-case basis. Potential special measures for grocery stores include:

- Sales floor lighting controls (where not required by code)
- Daylighting controls (where not required by code)
- Lighting controls for reach-in cases via building lighting controller/scheduler
- Others

Check to Select	Measure Description	Estimated Incentive	Required Documentation
☐			• Pertinent schedules/contract drawings • Completed 520SM • Calculation • Incremental cost • Invoices
☐			
☐			

INCENTIVE SUMMARY

Grocery Store Category	Estimated bonus incentive tier	Bonus %

Category	Selected	Estimated Incentives
Refrigeration Equipment		$
Cooking Equipment		$
Economizers		$
Lighting		$
Special measures		$
	Subtotal	$
	Bonus	$
	Total	$

Note that any incentives estimates for systems and equipment with variable savings will be provided by your outreach manager. These incentives will be evaluated and estimated by Energy Trust on a case-by-case basis.

CLEAResult
Program Management Contractor for Energy Trust of Oregon
100 SW Main St., Suite 1500, Portland, Oregon 97204 1.877.467.0930 503.961.7642 *fax* newbuildings@energytrust.org