



ENERGY SAVINGS FOR BUSINESS

Investing to keep businesses competitive

An Overview of Refrigeration Measures



About ERA

MANDATE

Reduce GHG emissions and grow Alberta's economy by accelerating the development and adoption of innovative technology solutions.

VISION

Alberta has competitive industries that deliver sustainable environmental outcomes, attract investment, and are building a diversified, lower carbon economy.

STRATEGIC PRIORITIES

- 1 ACCELERATE TECHNOLOGY
- 2 DRIVE COMMERCIALIZATION
- 3 MAXIMIZE IMPACT













Measure Categories

Compressed air

Solar PV

Lighting systems and controls

Motors and drives

Combined heat and power (CHP)

Refrigeration

Geothermal

HVAC

Water Heating

Process Heating

Building Envelope and Windows

COMING SOON

Food service







- If a pre-project application is submitted, but is not approved, it does not hold a place in the line for the incentive reservation
- The incentive is only reserved after the pre-project application is approved
- It is important to submit good-quality applications with complete documentation or the review cannot occur comprehensively; this delays the review and approval process



Eligible Measures Types

Automatic Door Closer

Evaporator Fan Control

Strip Curtain

Anti-Sweat Heater Controls

Night Covers





Automatic Door Closer

 Applicable for commercial heavy-duty insulated opaque walk-in cooler or freezer doors

 Hydraulic-type door closer presses the door against the seal and reduces the flow of warm air



SOURCE: Wikimedia



Automatic Door Closer

Program Eligibility

- ☐ Must be for an existing walk-in cooler or freezer
- ☐ Door closer must be either hydraulic or spring-loaded

- Must provide the specification sheets
- Must provide the doorway dimensions
- Must provide the volume of refrigerated space







- Controller reduces air flow of evaporator fans when there is no refrigerant flow
- Running fans at lower speeds will achieve energy savings
- There is less waste heat within the system





Program Eligibility

- ☐ Must be for an existing walk-in cooler or freezer
- ☐ Control must reduce fan speed and the air flow rate during the compressor's off-cycle

- ☐ Must provide the specification sheets
- ☐ Must specify the areas served by the evaporators
- ☐ Must provide the age of the evaporators
- ☐ Must provide the HP of evaporator motors







- Strip curtains slow down heat transfer from warm and humid spaces into the walk-in units
- Act as a barrier between rooms
- Saves refrigeration compressor runtime



SOURCE: Unsplash



Strip Curtain

Program Eligibility

Must be for an existing walk-in cooler or freezer that does not have an existing barrier or has ineffective curtains

- ☐ Must provide the specification sheets
- ☐ Must provide the doorway dimensions
- ☐ Must provide the volume of the refrigerated space
- ☐ Must provide the age of compressors







- Prevents condensation on refrigerated display cases
- ASH controllers regulate the heaters according the surrounding conditions
- Uses just the right amount of electricity



SOURCE: Unsplash





Program Eligibility

- ☐ All display cases are eligible for this measure
- ☐ Must include humidity sensors for controls

- Must provide the specification sheets
- ☐ Must provide the kW Rating for existing heaters
- ☐ Must specify the type of display case door
- ☐ Must provide the age of the cooler or freezer display case







- Fitted covers on open-type display cases
- Reduces the transfer of convective and conductive heat into a refrigerated space
- Saves electricity by reducing compressor runtime



Night Covers

Program Eligibility

- ☐ Eligible for existing open-type freezer or cooler display cases that currently do not use night covers
- ☐ Must be in use at least 25% per day

- ☐ Must provide the specification sheet
- ☐ Must provide the age of refrigerated case
- ☐ Must provide the hours per day the case will be covered
- ☐ Must specify if it is a low temperature or high temperature case
- Must specify the case length (ft)
- ☐ Must specify if it is a horizontal or vertical case

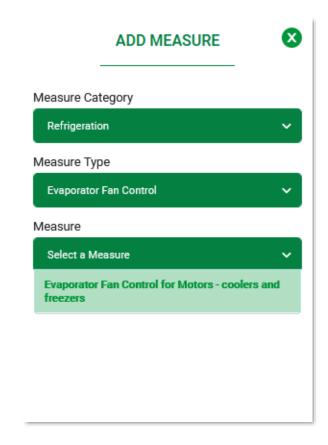






STEP 1

Select the type of heating measure to be added to the application.



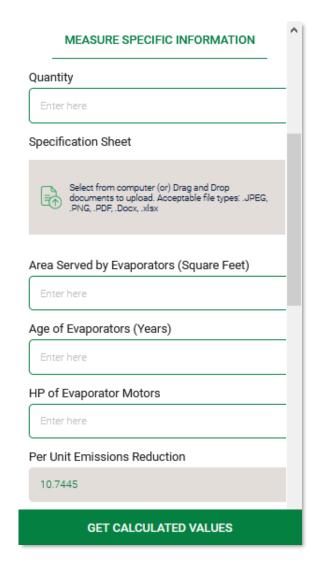




Application: Refrigeration

STEP 2

Provide the required measure specific required information.









Application: Emissions and Costs

STEP 3

The emissions reduction estimates are automatically calculated. Review all costs to ensure they have been accurately recorded. They will be compared to the cost quote(s) uploaded in the application. The incentive is capped to 50% of the total cost.

NOTE: Installation costs should be included in the labour costs. All other costs should be included in the design costs.

Per Unit Emissions Reduction	
0.193	
Total Emissions Reduction	
Equipment & Material Costs (i)	
Enter here	
Labour Cost (i)	
Enter here	
Design Cost (i)	
Enter here	

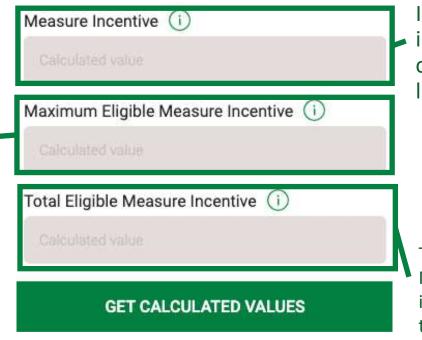


Application: Calculated Incentives

STEP 4

Review the calculated values.

Maximum Eligible
Measure Incentive
is the calculated
incentive cap
relative to the total
eligible project
cost.



Measure Incentive is the incentive based on the measures list.

The Total Eligible Measure Incentive is the lower of the two above values.



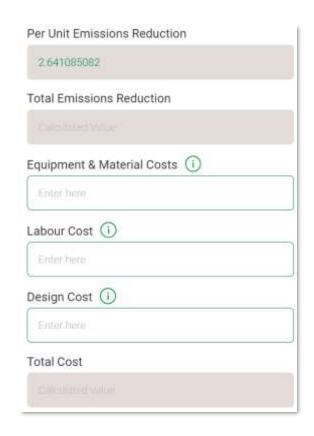




Example of Incentive Consideration

A grocery store is looking to install Anti-Sweat Heater Controllers on their cooler and freezer display cases.

- Cost per door: \$375.00
- Labour per door: \$250.00







Example of Incentive Consideration

Total Cost of ASH Controller (equipment + labour) = \$625.00

Potential Measure Incentive = \$400/door Maximum Eligible
Measure Incentive
\$625.00 x 50%
= \$312.50

Total Eligible Measure Incentive = \$312.50









Support Team

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By chat on the ERA website and program portal