



Received: _____ Project # _____ ___ Pre-App ___ Final App

(Applicant: Please include this cover page, which IMEA will complete.)

ILLINOIS MUNICIPAL ELECTRIC AGENCY ELECTRIC EFFICIENCY PROGRAM

INCENTIVES FOR IMEA MEMBER COMMERCIAL / INDUSTRIAL and PUBLIC SECTOR ENTITIES

Refrigeration Measures

May 2024

**Program Year FY 2024-25
May 1, 2024 – April 15, 2025**

NOTE TO APPLICANTS ABOUT PROGRAM FUNDING AND PROJECT START DATES:

Cities have limited funding. You may want to contact the program administrator to check on funding availability before making a pre-application.

Projects that hope to receive an incentive should not begin until they have:

- a) submitted a pre-application;
- b) received a Notice to Proceed from the city and/or IMEA, and;
- c) had a pre-inspection (if required by the city).

Program Contact:

Rodd Whelpley
Program & Communications Administrator
Illinois Municipal Electric Agency
3400 Conifer Drive
Springfield, IL 62711
Ph: 217-789-4632 or 800-243-4632
FAX: 217-789-4642
rwhelpley@imea.org

A SUMMARY OF HOW THIS PROGRAM WORKS

NOTE: Applicants who want to receive an incentive for an electric efficiency project should not begin the project until they have received a Notice to Proceed (see item 5 and 6 below). **Pre-approval is required for all projects.**

1. The applicant fills out this application (Pre-Application) and gathers the additional required materials that constitute a complete application (see the checklist on page 3). **Before filing an application, IMEA suggests contacting the program administrator, Rodd Whelpley (217-789-4632 or rwhelpley@imea.org), to check on a city's funding availability.** Funds are limited and go fast in several IMEA cities.
2. The applicant sends all materials constituting a pre-application to Rodd Whelpley at the Illinois Municipal Electric Agency (rwhelpley@imea.org), **as a single PDF file. No more than one application per e-mail.**
3. Rodd Whelpley will review the pre-application and make any necessary adjustments or corrections. Once it is in order, he will pass the pre-application to the IMEA Board Member or other designated official representing the applicant's municipality.
4. City officials will review the pre-application (and may make any necessary adjustments or corrections). City officials will determine the incentive amount they will offer. **This amount may be between \$0 up to the amount for which the project qualifies.** They will communicate their decision to Rodd Whelpley at IMEA. *City officials may set additional caps, limits and rules that are in addition to those listed in this general IMEA application.*
5. Rodd Whelpley will send the applicant a Notice to Proceed. The Notice to Proceed sets aside funding solely for this project. Also with the Notice to Proceed, Rodd will communicate any instructions from the city concerning pre-inspections. (In most cases, IMEA does not require a pre-inspection, but some member cities require them.)
6. **NOTE:** Applicants who want to receive an incentive for an electric efficiency project should not begin the project until they have received a Notice to Proceed and have had a pre-inspection (if required). **Pre-approval is required for all projects.**
7. The applicant does the project (and, if necessary, has a post-inspection).
8. The applicant gathers the necessary materials that constitute a complete final application (see the checklist on page 4) and sends that to Rodd Whelpley (rwhelpley@imea.org) **as a single PDF file.** GENERALLY, for projects that don't change from how they were described in the pre-application, we make a short cut, and the final application is comprised only of sending copies of all final and paid, itemized bills associated with the project preferably as a single PDF file.
9. Rodd Whelpley reviews the final application and makes any necessary adjustments or corrections.
10. IMEA deposits the incentive funds into an account designated on the applicant/payee's Automated Clearing House Payment Authorization form.

IMEA ELECTRIC EFFICIENCY PROGRAM PRE-APPLICATION CHECKLIST AND SUBMISSION REQUIREMENTS

A Complete Pre-Approval Application must include:

- Completed Pre-Approval Application (found at <http://www.imea.org/EE%20Incentives.asp>).
- Signed Certification (**page 6** of this application).
- A signed letter of assignment, if the incentive will go to any entity other than the local applicant or the national headquarters of the local applicant.
- A project budget (not a single Total Project Cost figure reported on page 5). (Vendor bids may constitute a budget.)
- Manufacturer spec sheets for new equipment.
- Copy of applicant's electric bill.

To Submit a Pre-Application

- 1. Gather materials listed above.**
- 2. Put them into a single PDF file.**
- 3. E-mail application in a single PDF file to Rodd Whelpley at rwhelpley@imea.org. **No more than one application per e-mail.****

NOTE: Applications comprised of multiple files delay processing and will very likely be returned to the applicant un-opened.

If you have questions, e-mail Rodd Whelpley or call 217-789-4632.

IMEA ELECTRIC EFFICIENCY PROGRAM FINAL APPLICATION CHECKLIST AND SUBMISSION REQUIREMENTS

A Complete Final Application must include:

- Completed Final Application (found at <http://www.imea.org/EE%20Incentives.asp>).
- Signed Certification (**page 6** of this application).
- A signed letter of assignment, if the incentive will go to any entity other than the local applicant or the national headquarters of the local applicant. *If the incentive is assigned, then the final customer billing must provide documentation (usually in the form of a bill credit) showing that the city's retail electric customer received the benefit of the incentive.*
- Copies of all PAID invoices and receipts related to the project.
- Manufacturer spec sheets for new equipment.
- Copy of applicant's electric bill.
- "Before" and "after" images, if requested by Program Administrator (see requirements listed in your Notice to Proceed).

To Submit a Final Application

- 1. Gather materials listed above.**
- 2. Put them into a single PDF file.**
- 3. E-mail application in a single PDF file to Rodd Whelpley at rwhelpley@imea.org. **No more than one application per e-mail.****

NOTE: Applications comprised of multiple files delay processing and will very likely be returned to the applicant un-opened. Also, see your Notice to Proceed e-mail for instructions for a possible streamlined final application process.

If you have questions, e-mail Rodd Whelpley or call 217-789-4632.

APPLICANT AND PROJECT INFORMATION

Check one: **Pre-approval** **Final Application**

Name of Applicant – Company Name		
Proposed Start Date:		Planned Completion Date:
Address where measures installed:		
Address:	City:	Zip:
Facility/Business Type: _____ Confirm this is a retrofit project: _ yes _ no (if no, then use a custom application) Heating Fuel Type (check one): _ Gas _ Electric Resistance _ Heat pump _ Unconditioned/Exterior Hours of Operation (list Opening and Closing Times): Monday: _____ Friday: _____ Tuesday: _____ Saturday: _____ Wednesday: _____ Sunday: _____ Thursday: _____ Weeks per year of Operation: _____ Weeks		
Project Manager:		
Telephone #:	Fax #:	Email Address:
IMEA Electric Efficiency Incentive Requested \$ _____ (Calculated in the Application – See instructions on page 7 and tables on pages 8-14. The amount on the line above is the total amount on Table 7, page 14.)		Contractor Information (if known) Contact Name: Company: Phone: Email Address:
Other Incentive Funds		
Specify Source of Other Incentive Funds		
Total Project Cost \$ _____		

APPLICANT CERTIFICATIONS

NOTE: If this project is approved and completed, then IMEA will send an Automated Clearing House (ACH) Payment Authorization Form to the applicant listed on this page. The incentive will be deposited into the account specified on the ACH form.

IF THE REBATE INCENTIVE SHOULD GO TO ANY ENTITY OTHER THAN THE LOCAL APPLICANT OR ITS NATIONAL HEADQUARTERS, then you must include a signed letter of assignment. In that case, upon completion of the project, the designated payee will file the ACH form and receive the incentive. *If the incentive is assigned, then the final customer billing must provide documentation (usually in the form of a bill credit) showing that the city's retail electric customer received the benefit of the incentive.*

Applicant hereby certifies and understands that:

- The project site receives wholesale electric service from IMEA or electric delivery service from an IMEA member municipal electric system.
- All authorizations required to perform the project described in this application have either been obtained or will be obtained no later than 90 days following the project beginning date set forth in the Notice to Proceed Letter issued by the IMEA.
- It has not been barred from contracting with a unit of state or local government as a result of a violation of Section 33E-3 or 33E-4 of the Criminal Code of 1961 (720 ILCS 5/33 E-3 and 5/33 E-4).
- The Illinois Prevailing Wage Act (820 ILCS 130/0.01) may apply and that incentive recipients are responsible for determining if their projects will trigger compliance.
- As of the submittal date, the information provided in its application is accurate, and the individuals signing below are authorized to submit this application.
- Replaced equipment will be disposed of – not placed in storage.
- The applicant, by accepting an incentive for this electric efficiency project, acknowledges and agrees that any rights or abilities arising from kW savings that result from the execution of this project and that may be bid or sold into a Regional Transmission Operator market as energy efficiency or demand response or otherwise shall belong solely to IMEA.

Authorized Official (signature*)

Telephone

Typed/Printed Name

Fax

Title

Date

Authorized Signature Address

Authorized Signature City, 9 Digit Zip (find 9-Digit Zip at <http://zip4.usps.com/zip4/welcome.jsp>)

Authorized Signature E-mail Address

*Electronic signatures not acceptable. Please supply Certifications (this page) with original signature via mail, fax or electronically (scanned document)

CALCULATION OF ELIGIBLE INCENTIVE
(To be reported on page 5)

A Two-Step Summary of How to Calculate Your Eligible Incentive

1. Use the tables on pages 8 – 13 to calculate the IMEA Electric Efficiency Incentive Requested on page 5 of this application. Fill out only the Tables (1 - 6) that pertain to your project. (You likely won't use them all.)
2. Then use Table 7 (on page 14) to add up your eligible incentive and report that on page 5.

NOTE: The qualifying efficient measures and the assumptions of existing conditions described in this application seek to comport with the Illinois Statewide Technical Reference Manual (TRM) Version 12.0 Volume 2 Commercial and Industrial Measures. Applicants who want a more extensive and authoritative description of qualified measures may access the TRM at: https://icc.illinois.gov/api/web-management/documents/downloads/public/il-trm-12/IL-TRM_Effective_010124_v12.0_Vol_2_C_and_I_09222023_FINAL_clean.pdf

If you have questions, contact Rodd Whelpley at rwhelpley@imea.org or call at 217-789-4632.

Table 1 Commercial Solid-Door and Glass-Door Refrigerators & Freezers

This measure relates to the installation of a new reach-in commercial refrigerator or freezer meeting ENERGY STAR efficiency standards. See page 16 for a complete qualification description. Eligible incentive = \$45/refrigerator; \$100 to \$200/freezer.

Solid Door Refrigerators			(4) Total Measure Incentive (add all Col. 3 totals for each measure)
(1) Quantity of New Refrigerators	(2) Cubic Feet of Chilled Compartment – New Refrigerators	(3) Incentive [Col. 1 x \$45]	
Total Incentive for Solid Door Refrigerators (total of all column 3 figures above)			
Total Incentive for Solid Door Refrigerators (move total of column 3 figures to column 4)			
Glass Door Refrigerators			
(1) Quantity of New Refrigerators	(2) Cubic Feet of Chilled Compartment – New Refrigerators	(3) Incentive [Col. 1 x \$45]	
Total Incentive for Glass Door Refrigerators (total of all column 3 figures above)			
Total Incentive for Glass Door Refrigerators (move total of column 3 figures to column 4)			
Solid Door Freezers			
(1) Quantity of New Freezers	(2) Cubic Feet of Chilled Compartment – New Freezers	(3) Incentive [Col. 1 x \$100]	
Total Incentive for Solid Door Freezers (total of all column 3 figures above)			
Total Incentive for Solid Door Freezers (total of column 3 figures to column 4)			
Glass Door Freezers			
(1) Quantity of New Freezers	(2) Cubic Feet of Chilled Compartment – New Freezers	(3) Incentive [Col. 1 x \$200]	
Total Incentive for Solid Door Freezers (total of all column 3 figures above)			
Total Incentive for Solid Door Freezers (move total of column 3 figures to column 4)			
TOTAL INCENTIVE for Refrigerators & Freezers (total of column 4 – to Table 7 Page 14)			

Table 2 Automatic Door Closers for Walk-In Coolers and Freezers

This measure is for installing an auto-closer to the main insulated opaque door(s) of a walk-in cooler or freezer. The auto-closer must firmly close the door when it is within 1 inch of full closure. See page 17 for a complete qualification description. The eligible incentive is \$180 per closer.

(1) Quantity	(2) Measure Use the Descriptions that Match Your Conditions	(3) Incentive Column 1 x \$180
	Automatic door closers on REFRIGERATORS	
	Automatic door closers on FREEZERS	
TOTAL INCENTIVE for Automatic Door Closers (total of column 3 – to Table 7 Page 14)		

Table 3 Door Heater Controls (aka Anti-Sweat Heater Controls) for Cooler or Freezers

This measure relates to the two commercially available control strategies that achieve “on-off” control of door heaters based on either (1) the relative humidity of the air in the store or (2) the “conductivity” of the door (which drops when condensation appears). In order to receive an incentive, the efficient equipment must be a door heater control on a commercial glass door cooler or refrigerator utilizing humidity or conductivity control. See page 17 for a complete qualification description.

The eligible incentive is \$62.50 per refrigerator controlled.

(1) Quantity	(2) Measure Use the Descriptions that Match Your Conditions	(3) Incentive Column 1 x \$62.50
	Reach-In Refrigerator: 0-20 °F (for such items as meat, milk, dairy, etc.)	
	Reach-In Refrigerator: 20-45 °F (for items such as floral, produce and meat prep)	
	Reach-In Freezer: -35-0 °F (for such items as frozen pizza, ice cream etc.)	
TOTAL INCENTIVE for Door Heater Controls (total of column 3 – to Table 7 Page 14)		

Table 4 Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers / Freezers

This measure is applicable to the replacement of an existing, uncontrolled, and continuously operating standard-efficiency shaded-pole evaporator fan motor in refrigerated display cases or fan coil in walk-ins. The replacement unit must be an electronically commutated motor (ECM) with a minimum efficiency of 66%. See page17 for a complete qualification description.

The eligible incentive is \$45 per ECM for installed in reach-in coolers or freezers and \$90 per ECM installed in walk-in coolers or freezers.

Reach-In Freezer or Coolers		
(1) Quantity	(2) ECM Evaporating Fan Motor Rating Use the description that best matches your conditions	(3) Incentive Column 1 x \$45
	16W	
	1/15 - 1/20HP	
	1/5HP	
	1/3HP	
	1/2HP	
	3/4HP	
Total Incentive for ECMs in Reach-in Freezers or Coolers		
Walk-In Freezers or Coolers		
(1) Quantity	(2) ECM Evaporating Fan Motor Rating Use the description that best matches your conditions	(3) Incentive Column 1 x \$90
	16W	
	1/15 - 1/20HP	
	1/5HP	
	1/3HP	
	1/2HP	
	3/4HP	
Total Incentive for ECMs in Walk-in Freezers or Coolers		
TOTAL INCENTIVE for ECMs (to Table 7 Page 14)		

**(4)
Total Incentive for ECMs**

(The Total Incentive for ECMs in Reach-In Coolers or Freezers + the Total Incentive for ECMs in Walk-In Coolers or Freezers)

Table 5 Evaporator Fan Control for Electrically Commutated Motors

This measure is for the installation of controls for Electronically Commutated Motors in existing medium temperature walk-in coolers. The measure must control a minimum of 1/20 HP where fans operate continuously at full speed. The measure also must reduce fan motor power by at least 75% during the off cycle. This measure is not applicable if any of the following conditions apply:

- The compressor runs more than 4,380 hours annually
- The evaporator fan does not run at full speed all the time
- The evaporator fan motor runs on poly-phase power
- Evaporator does not use off-cycle or time-off defrost.

In order for this characterization to apply, the existing condition must be a reach-in or walk-in freezer or cooler with continuously running evaporator fans driven by Electrically Commutated Motors.

See page 18 for a complete qualification description.

The eligible incentive is \$60 per Evaporated Fan Control in a walk-in cooler.

(1) Quantity	(2) ECM Evaporating Fan Motor Rating Use the description that best matches your conditions	(3) Incentive Column 1 x \$60
	16W	
	1/15 - 1/20HP	
	1/5HP	
	1/3HP	
	1/2HP	
	3/4HP	
TOTAL INCENTIVE for ECM Evaporating Fan Motor Rating (total of column 3 – to Table 7 Page 14)		

Table 6 Strip Curtains for Walk-In Coolers and Freezers

This measure pertains to the installation of infiltration barriers (strip curtains) on walk-in coolers or freezers. The curtain must be 0.06 inches thick and added to a walk-in cooler or freezer. The new strip curtain must cover the entire area of the doorway when the door is opened. The baseline assumption is a walk-in cooler or freezer that previously had either no strip curtain installed or an old, ineffective strip curtain installed. See page 18 for a complete qualification description.

The eligible incentive is \$20 per strip curtain installed in a walk-in cooler and \$200 per strip curtain installed in a walk-in freezer or at a refrigerated warehouse.

Strip Curtains in Coolers			(4) Total Incentive for Strip Curtains (The Total Incentive for Strip Curtains in Coolers + the Total Incentive for Strip Curtains in Freezers or Refrigerated Warehouses)
(1) Quantity	(2) Measure Use the descriptions that best match your conditions	(3) Incentive Column 1 x \$20	
	Replacement Curtains at a Supermarket		
	New Curtains at a Supermarket		
	Replacement Curtains at a Convenience Store		
	New Curtains at a Convenience Store		
	Replacement Curtains at a Restaurant		
	New Curtains at a Restaurant		
Total Incentive for Curtains in Coolers			
Strip Curtains in Freezers or Refrigerated Warehouses			
(1) Quantity	(2) Measure Use the descriptions that best match your condition	(3) Incentive Column 1 x \$200	
	Replacement Curtains at a Supermarket		
	New Curtains at a Supermarket		
	Replacement Curtains at a Convenience Store		
	New Curtains at a Convenience Store		
	Replacement Curtains at a Restaurant		
	New Curtains at a Restaurant		
	Replacement Curtains at a Refrigerated Warehouse		
	New Curtains at a Refrigerated Warehouse		
Total Incentive for Curtains in Freezers or Refrigerated Warehouses			
TOTAL INCENTIVE for Strip Curtains (to Table 7 Page 14)			

TABLE 7 TOTAL ELEGIBLE INCENTIVE FOR THIS APPLICATION

Note: Applicants bring incentives calculated on the tables on pages 8-13 to calculate a total eligible incentive amount on this table.

Measure	Eligible Incentive As Calculated Above
Refrigerators & Freezers – Page 8	
Automatic Door Closers – Page 9	
Door Heater Controls (aka Anti-Sweat Heater Controls) – Page 10	
Electronically Commutated Motors (ECMs) – Page 11	
Evaporator Fan Controls for ECMs – Page 12	
Strip Curtains – Page 13	
Total Eligible Incentive for this Application (to page 5)	

GENERAL ELIGIBILITY

This Electric Efficiency program is available to the membership (and members' retail customers) of the Illinois Municipal Electric Agency (IMEA). It is administered and funded through IMEA. FY2024-25 of the program runs from May 1, 2024 through April 30, 2025. Funds are allocated to IMEA members based on a prorated share of their electric purchases from the IMEA. Commercial/ industrial and public-sector facilities served by members can apply for funds using this form from May 1, 2024 until this form is superseded by a subsequent revision or until the program ceases to accept pre-applications on April 15, 2025.

Eligible projects must be located in Illinois and receive electric service from the IMEA or an IMEA member. Projects must produce electricity savings through efficiency improvements in commercial, industrial or public-sector buildings, equipment, or processes. Ineligible projects include repairs of existing equipment, fuel switching, new electric generation or those projects solely related to demand response or demand control. Project paybacks must occur before the projected end of the equipment life.

Incentive Awards. The total incentive cannot exceed 75 percent of the total project cost. But IMEA cities are free to impose their own incentive caps. IMEA reserves the right to review applications, withhold funding, cancel funding or negotiate incentive levels. Bid prices must be in line with current market conditions for similar projects/conditions.

Payment Schedule/Reporting and Project Monitoring. The Notice to Proceed (sent upon approval of the pre-application) will specify the conditions of payment and the payment schedule. Incentive recipients will allow officials from the IMEA member municipality and IMEA officials access to their site to verify project issues. Energy savings numbers will be shared with IMEA (for public release unless specifically noted as confidential or proprietary).

Ownership/Use of Equipment. Equipment must remain in place for at least the lesser of five years or "useful life."

IMEA Not Liable. Incentive recipients shall hold the IMEA Member and the IMEA harmless from any and all claims, demands, and actions based upon or arising out of any services performed by the incentive recipient or by its agents or employees.

Indemnity. The incentive recipient agrees to assume all risks of loss and to indemnify and hold the IMEA member and the IMEA, their officers, agents and employees, harmless from and against any and all liabilities, demands, claims, damages, suits, costs, fees, and expenses, incidents thereto, for injuries or death to persons and for loss of, damage to, or destruction of property because of the incentive recipient's negligence, intentional acts or omissions. In the event of any demand or claim, the IMEA may elect to defend any such demand or claim against the IMEA and will be entitled to be paid by the incentive recipient for all costs and damages.

Term and Application. Applications under this program will be accepted on an ongoing basis, subject to funding availability. Applications shall be printed or typed on the current approved forms and/or worksheets. Applications must be complete and submitted in the correct fashion (see the Pre-Application and Final Application checklists) to receive consideration.

Subject to a programmatic change enacted by the IMEA Board of Directors, approved projects will have reserved funds until April 30, 2025 or until a project expiration date as noted on a project's Notice to Proceed document or a project deadline imposed by the IMEA member municipality. Final application, reflecting the measures and equipment actually installed, must be submitted within 45 days of project completion. Project documentation, such as copies of dated and itemized invoices for the purchase and installation of the measures and/or product specification sheets, is required.

Applications will be screened by IMEA and the member community. The IMEA member will have final say as to the priority of project funding in its community. Decisions on project priority and funding awarded to any project will be communicated to the IMEA through the IMEA Board Member representing the member community.

Incentive Payments. Final application, reflecting the measures and equipment actually installed, must be submitted within 45 days of project completion. Project documentation, such as copies of dated, itemized invoices for the purchase and installation of the measures and/or product specification sheets, is required. The IMEA will review the final application. Applications that satisfy the review will be processed upon IMEA approval. The incentive will be the amount for which the project qualifies up to the amount that was obligated for the project in the project's Notice to Proceed, subject to funding availability.

MEASURE SPECIFIC REQUIREMENTS – REFRIGERATION MEASURES

This application covers six specific types of refrigeration measures. Each is described on the following pages. If your proposed refrigeration measure does not conform to one of the following descriptions, then consider applying using a Custom Projects Application found at <http://www.imea.org/EE%20Incentives.asp>.

1. Commercial Solid-Door and Glass-Door Refrigerators & Freezers (TRM 4.2.2)

This measure relates to the installation of a new reach-in commercial refrigerator or freezer meeting ENERGY STAR efficiency standards. ENERGY STAR labeled commercial refrigerators and freezers are more energy efficient because they are designed with components such as ECM evaporator and condenser fan motors, hot gas anti-sweat heaters, or high-efficiency compressors, which will significantly reduce energy consumption.

In order for this characterization to apply, the efficient equipment is assumed to be a new ENERGY STAR certified vertical closed solid or glass door refrigerator or freezer meeting energy consumption requirements as determined by door type (solid or glass) and refrigerated volume (V).

The baseline equipment is assumed to be a new vertical closed solid or glass door refrigerator or freezer that is not ENERGY STAR certified.

Incentive: \$45 per refrigerator; \$100 per solid door freezer; \$200 per glass door freezer.

2. Automatic Door Closers for Walk-In Coolers and Freezers (TRM 4.6.1)

This measure is for installing an auto-closer to the main insulated opaque door(s) of a walk-in cooler or freezer. The auto-closer must firmly close the door when it is within 1 inch of full closure.

This measure consists of the installation of an automatic, hydraulic-type door closer on main walk-in cooler or freezer doors. These closers save energy by reducing the infiltration of warm outside air into the refrigeration itself. In order for this characterization to apply, the baseline condition is assumed to be a walk in cooler or freezer without an automatic closure.

Incentive: \$180 per closer.

3. Door Heater Controls (aka Anti-Sweat Heater Controls) for Cooler or Freezers (TRM 4.6.3)

By installing a control device to turn off door heaters when there is little or no risk of condensation, one can realize significant energy savings. There are two commercially available control strategies that achieve “on-off” control of door heaters based on either (1) the relative humidity of the air in the store or (2) the “conductivity” of the door (which drops when condensation appears). In the first strategy, the system activates your door heaters when the relative humidity in your store rises above a specific setpoint, and turns them off when the relative humidity falls below that setpoint. In the second strategy, the sensor activates the door heaters when the door conductivity falls below a certain setpoint, and turns them off when the conductivity rises above that setpoint.

In order for this characterization to apply, the efficient equipment is assumed to be a door heater control on a commercial glass door cooler or refrigerator utilizing humidity or conductivity control. The baseline condition is assumed to be a commercial glass door cooler or refrigerator with a standard heated door with no controls installed.

Incentive: \$62.50 per refrigerator or freezer controlled.

4. Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers / Freezers (TRM 4.6.4)

This measure is applicable to the replacement of an existing, uncontrolled, and continuously operating standard-efficiency shaded-pole evaporator fan motor in refrigerated display cases or fan coil in walk-ins. This measure achieves savings by installing a more efficient motor, the result of which produces less waste heat that the cooling system must reject.

If applicable, savings from this measure may be claimed in combination with the Evaporator Fan Control for Electrically Commutated Motors.

This measure applies to the replacement of an existing standard-efficiency shaded-pole evaporator fan motor in refrigerated display cases or fan coil in walk-ins. The replacement unit must be an electronically commutated motor (ECM) with a minimum efficiency of 66%. If controls are added as part of the motor upgrade to reduce annual run time, additional savings may potentially be claimed using the Evaporator Fan Control measure.

The baseline is the existing shaded-pole motor(s) with no fan control operating 8,760 hours continuously in a refrigerated display case or fan coil unit of a walk-in cooling unit.

Incentive: \$45 per ECM for installed in reach-in coolers or freezers and \$90 per ECM installed in walk-in coolers or freezers.

5. Evaporator Fan Control for Electrically Commutated Motors (TRM 4.6.6)

This measure is for the installation of controls for Electronically Commutated Motors in existing medium temperature walk-in coolers. The controller reduces airflow of the evaporator fans when there is no refrigerant flow.

This measure achieves savings by controlling the motor(s) to run at lower speeds (or shut off entirely) when there is no refrigerant flow, the result of which produces less waste heat that the cooling system must reject.

If eligible, this measure may be claimed in combination with Electronically Commutated Motors (ECM) for Walk-in and Reach-in Coolers / Freezers.

The measure must control a minimum of 1/20 HP where fans operate continuously at full speed. The measure also must reduce fan motor power by at least 75% during the off cycle. This measure is not applicable if any of the following conditions apply:

- The compressor runs more than 4,380 hours annually
- The evaporator fan does not run at full speed all the time
- The evaporator fan motor runs on poly-phase power
- Evaporator does not use off-cycle or time-off defrost.

In order for this characterization to apply, the existing condition must be a reach-in or walk-in freezer or cooler with continuously running evaporator fans driven by Electrically Commutated Motors.

Incentive: \$60 per Evaporated Fan Control in walk-in cooler.

6. Strip Curtains for Walk-In Coolers and Freezers (TRM 4.6.7)

This commercial measure pertains to the installation of infiltration barriers (strip curtains) on walk-in coolers or freezers. Strip curtains impede heat transfer from adjacent warm and humid spaces into walk-ins when the main door is opened, thereby reducing the cooling load. As a result, compressor run time and energy consumption are reduced. The engineering assumption is that the walk-in door is open for varying durations per day based on facility type, and the strip curtain covers the entire door frame. All assumptions are based on prescriptive methodologies detailed by the Regional Technical Forum, whose source calculations are outlined in ASHRAE's Refrigeration Handbook for calculating refrigeration load from infiltration by air exchange.

The efficient equipment is a strip curtain at least 0.06 inches thick added to a walk-in cooler or freezer. The new strip curtain must cover the entire area of the doorway when the door is opened.

The baseline assumption is a walk-in cooler or freezer that previously had either no strip curtain installed or an old, ineffective strip curtain installed.

Incentive: \$20 per strip curtain installed in a walk-in cooler and \$200 per strip curtain installed in a walk-in freezer or at a refrigerated warehouse.