

High Efficiency Commercial HVAC and Refrigeration Equipment



Save energy with this high efficiency commercial HVAC, refrigeration and plug loads program. Incentives are provided to reduce the cost difference between standard efficiency and high efficiency equipment.

People. Power. Possibilities.

Central Hudson

A FORTIS COMPANY



High Efficiency Commercial HVAC and Refrigeration Equipment

C&I Prescriptive HVAC and Refrigeration Requirements

Program Details & Instructions

Central Hudson Gas & Electric's (CHGE) Commercial/Industrial Electric and Gas Programs are designed to help non-residential customers replace aging, inefficient equipment and systems with energy-efficient technologies by providing rebates and technical assistance that will facilitate the installation of premium efficiency equipment.

Details of the program, including rebate levels and technical requirements, are subject to change without prior notice.

Visit CentralHudson.com/Incentives to review the most current program information, or call 800-515-5353.

Eligible Participants

Rebates are available to non-residential, commercial, industrial, government, institutional and non-profit electric and gas service customers within the CHGE service territory. All applications must be submitted through a participating Trade Ally.

Eligible Equipment

Eligible equipment and rebate amounts are listed on the following pages of this measure list. These measures are subject to the associated technical eligibility criteria.

All equipment must be new; used or refurbished equipment is not eligible. Equipment and services must be installed after Jan. 1, 2021, through Dec. 31, 2021, or while funding for rebates for this program is still available.

Customers cannot have received incentives from any other programs for the same equipment where a rebate is being requested in this application.

Pre-Approval Requirements

Projects with total rebates less than or equal to \$10,000 do not require pre-approval from CHGE. The applicant must purchase the qualifying equipment and submit a completed application form and supporting documentation within 90 days of the invoice date.

Projects with total rebates greater than \$10,000 require pre-approval from CHGE prior to purchasing and installing any equipment to guarantee rebate availability. After the application has been pre-approved by CHGE, the applicant will be notified in writing, assigned a project identification number, and given any specific instructions. The applicant may then purchase and install the pre-approved equipment.

Terms & Conditions

Please review and sign the program Terms and Conditions on the last page of this application.

Participation Instructions

Step 1

Review program materials to confirm your proposed equipment meets program requirements.

For questions, visit the program website at CentralHudson.com/Incentives or contact us at 800-515-5353.

Step 2

Trade Allies are directed to visit the Application Center to submit an online application on behalf of their customer. Refer to the Application Checklist on page 9 to verify that all required information and documentation is included for submission to CHGE. Applications not requiring pre-approval should also include proof of purchase in the form of detailed invoices, manufacturer specification sheets or other documentation required to demonstrate compliance with eligibility requirements, and a Federal W9 form completed by the applicant.

All elements of a completed application must be uploaded to the Application Center by a valid Trade Ally. Trade Allies in need of credentials for the online application site should contact CHGEPrograms@icfi.com.

All applications will be reviewed for eligibility and completeness. Completed applications will be reviewed in the order they are received. Applicants who submit incomplete applications will be notified of deficiencies by a flaw letter describing the documentation or information needed to complete the application. CHGE may require a pre-installation inspection. CHGE will notify customers if an inspection of the facility is necessary.

Please indicate if the rebate payment should be made payable to the customer of record or a third party, such as the installation contractor. All rebate payments require authorization from the customer of record.

Step 3

Applications not requiring pre-approval (rebate ≤ \$10,000) will be processed for payment, subject to post-installation inspection.

Applications requiring pre-approval (rebate > \$10,000) will be processed, and CHGE will notify the applicant in writing when the review is complete and funds have been reserved.

Upon receipt of program pre-approval, participants may purchase and install their energy-efficient equipment.

CHGE will notify applicant if an inspection of the facility is necessary prior to pre-approval.

Any changes in the proposed equipment, quantities or operating conditions must be approved by CHGE prior to implementation.

Step 4

Upon project completion, review the pre-approved application and note any changes to the project that occurred during installation.

Submit the pre-approval letter with the authorized customer signature, proof of purchase for rebate payment, specification sheets and a completed Federal W9 form.

CHGE will notify applicant if an inspection of the facility is necessary prior to final payment processing.

I. ELECTRIC HVAC MEASURES AND REBATES

| Size Category (BTU/hr) | Sub-Category | Minimum Requirement | Rebates |
|---|---|---|--------------------|
| Capacity for Air Conditioners comes from Cooling Capacity (Btuh) | | | |
| Air Conditioners – Water Cooled | | | |
| < 65,000 (5.42 tons) | Split System and Single Package | ≥ 13.1 EER, ≥ 15 IEER | \$100/ton |
| ≥ 65,000 (5.42 tons) and < 135,000 (11.25 tons) | Split System and Single Package | ≥ 12.6 EER, ≥ 13.3 IEER | \$40/ton |
| ≥ 135,000 (11.25 tons) and < 240,000 (20 tons) | Split System and Single Package | ≥ 13.5 EER, ≥ 14 IEER | \$40/ton |
| ≥ 240,000 (20 tons) and < 760,000 (63.3 tons) | Split System and Single Package | ≥ 13.4 EER, ≥ 13.6 IEER | \$40/ton |
| ≥ 760,000 (63.3 tons) | Split System and Single Package | ≥ 13.2 EER, ≥ 13.4 IEER | \$40/ton |
| Air Conditioners – Evaporative Cooled | | | |
| < 65,000 (5.42 tons) | Split System and Single Package | ≥ 13.1 EER, ≥ 15 IEER | \$40/ton |
| ≥ 65,000 (5.42 tons) and < 135,000 (11.25 tons) | Split System and Single Package | ≥ 12.6 EER, ≥ 13.3 IEER | \$40/ton |
| ≥ 135,000 (11.25 tons) and < 240,000 (20 tons) | Split System and Single Package | ≥ 13.5 EER, ≥ 14 IEER | \$40/ton |
| ≥ 240,000 (20 tons) and < 760,000 (63.3 tons) | Split System and Single Package | ≥ 13.4 EER, ≥ 13.6 IEER | \$40/ton |
| ≥ 760,000 (63.3 tons) | Split System and Single Package | ≥ 13.2 EER, ≥ 13.4 IEER | \$40/ton |
| Air Conditioners – Unitary | | | |
| < 65,000 (5.42 tons) | Split System and Single Package | ≥ 15.0 SEER, ≥ 12 EER, ≥ 8.5 HSPF | \$40/ton |
| ≥ 65,000 (5.4 tons) and < 135,000 (11.25 tons) | Split System and Single Package | ≥ 12.0 EER, ≥ 12.4 IEER, ≥ 3.4 COP | \$40/ton |
| ≥ 135,000 (11.25 tons) and < 240,000 (20 tons) | Split System and Single Package | ≥ 12.0 EER, ≥ 12.4 IEER, ≥ 3.4 COP | \$40/ton |
| ≥ 240,000 (20 tons) and < 760,000 (63.3 tons) | Split System and Single Package | ≥ 10.9 EER, ≥ 12.0 IEER, ≥ 3.4 COP | \$40/ton |
| ≥ 760,000 (63.3 tons) | Split System and Single Package | ≥ 10.5 EER, ≥ 11.0 IEER, ≥ 3.3 COP | \$40/ton |
| Air Conditioners – Packaged Terminal (PTAC) | | | |
| < 9,000 (.75 tons) | Single Package | ≥ 11.8 EER | \$25/ton |
| ≥ 9,000 (.75 tons) and < 12,000 (1 ton) | Single Package | ≥ 11.0 EER | \$25/ton |
| ≥ 12,000 (1 ton) | Single Package | ≥ 10.3 EER | \$25/ton |
| Capacity for chillers is listed in tons rather than BTU/hr | | | |
| Chiller – Air Cooled | | | |
| | Path A – Constant Speed | Path B – Variable Speed | |
| < 150 tons | ≤ 0.830 IPLV kW/ton ≤ 1.13 Full Load kW/ton | ≤ 0.720 IPLV kW/ton ≤ 1.18 Full Load kW/ton | \$19.52/ton |
| ≥ 150 tons | ≤ 0.815 IPLV kW/ton ≤ 1.13 Full Load kW/ton | ≤ 0.707 IPLV kW/ton ≤ 1.18 Full Load kW/ton | \$19.52/ton |

I. ELECTRIC HVAC MEASURES AND REBATES

| Size Category (BTU/hr) | Sub-Category | Minimum Requirement | Rebates |
|---|---|---|--------------------|
| Chiller – Water Cooled Positive Displacement | | | |
| | Path A – Constant Speed | Path B – Variable Speed | |
| < 75 tons | ≤ 0.535 IPLV kW/ton ≤ 0.675 Full Load kW/ton | ≤ 0.450 kW/ton IPLV ≤ 0.700 Full Load kW/ton | \$15.24/ton |
| ≥ 75 tons and < 150 tons | ≤ 0.500 IPLV kW/ton ≤ .645 Full Load kW/ton | ≤ 0.440 kW/ton IPLV ≤ 0.675 Full Load kW/ton | \$15.24/ton |
| ≥ 150 tons and < 300 tons | ≤ 0.460 IPLV kW/ton ≤ .570 Full Load kW/ton | ≤ 0.395 kW/ton IPLV ≤ 0.610 Full Load kW/ton | \$15.24/ton |
| ≥ 300 tons and < 600 tons | ≤ 0.425 IPLV kW/ton ≤ .530 Full Load kW/ton | ≤ 0.369 kW/ton IPLV ≤ 0.530 Full Load kW/ton | \$15.24/ton |
| ≥ 600 tons | ≤ 0.410 IPLV kW/ton ≤ 0.500 Full Load kW/ton | ≤ 0.342 kW/ton IPLV ≤ 0.525 Full Load kW/ton | \$15.24/ton |
| Chiller – Water Cooled Centrifugal | | | |
| | Path A – Constant Speed | Path B – Variable Speed | |
| < 150 tons | ≤ 0.495 IPLV kW/ton ≤ 0.550 Full Load kW/ton | ≤ 0.395 kW/ton IPLV ≤ 0.587 Full Load kW/ton | \$6.25/ton |
| ≥ 150 tons and < 300 tons | ≤ 0.495 IPLV kW/ton ≤ 0.550 Full Load kW/ton | ≤ 0.360 kW/ton IPLV ≤ 0.565 Full Load kW/ton | \$6.25/ton |
| ≥ 300 tons and < 400 tons | ≤ 0.465 IPLV kW/ton ≤ 0.505 Full Load kW/ton | ≤ 0.350 kW/ton IPLV ≤ 0.535 Full Load kW/ton | \$6.25/ton |
| ≥ 400 tons and < 600 tons | ≤ 0.450 IPLV kW/ton ≤ 0.505 Full Load kW/ton | ≤ 0.341 kW/ton IPLV ≤ 0.526 Full Load kW/ton | \$6.25/ton |
| ≥ 600 tons | ≤ 0.450 IPLV kW/ton ≤ 0.505 Full Load kW/ton | ≤ 0.341 kW/ton IPLV ≤ 0.526 Full Load kW/ton | \$6.25/ton |

II. GAS HVAC MEASURES AND REBATES

| Size Category (BTU/hr) | Minimum Requirement | Rebates |
|---|----------------------|-------------------------------|
| AFUE = Annual Fuel Utilization Efficiency, Et = Thermal Efficiency, Ec = Combustion Efficiency | | |
| Gas Furnace | | |
| Any capacity | AFUE ≥ 90% | \$300/installed unit |
| | AFUE ≥ 95% | \$600/installed unit |
| Hydronic Boiler | | |
| < 300 | AFUE ≥ 90% | \$850/installed unit |
| ≥ 300 and < 500 | Et ≥ 90% or Ec ≥ 93% | \$1,400/installed unit |
| ≥ 500 | Et ≥ 90% or Ec ≥ 93% | \$1,800/installed unit |
| Steam Boiler | | |
| < 300 | AFUE ≥ 90% | \$850/installed unit |
| ≥ 300 and < 500 | Et ≥ 90% or Ec ≥ 93% | \$1,400/installed unit |
| ≥ 500 | Et ≥ 90% or Ec ≥ 93% | \$1,800/installed unit |

II. GAS HVAC MEASURES AND REBATES

| Size Category (BTU/hr) | Minimum Requirement | Rebates |
|------------------------------|--|-----------------------------|
| Boiler Reset Control | | |
| < 300 | Must be installed on exiting gas boiler; ineligible on install of new boiler | \$125/installed unit |
| > 300 | | \$200/installed unit |
| Indirect Water Heater | | |
| Any Capacity | Must be listed on invoice | \$250/installed unit |
| Smart Thermostat | | |
| Electric or Gas | Must be installed with qualifying measure | \$20/installed unit |

III. DUAL ENTHALPY ECONOMIZER, CONTROLS, ECM MEASURE AND REBATES

Dual Enthalpy Economizer

- Dual Enthalpy Economizer control incentives are for new or existing HVAC units meeting minimum requirements.

Hotel Room HVAC Controls

- Facility must be a lodging business.
- Rebates are for occupancy-based guest room energy management controls.
- Occupancy control may be room-key activated or sensed due to motion and/or sound and must control the HVAC system serving the room.
- Front desk control systems and new construction are not eligible.

ECM Furnace Fan

- Electrically Commutated Motor Furnace Fan must be installed on qualifying furnace.
- Must be listed on AHRI certificate.

| Size Category (BTU/hr) | Sub-Category | Minimum Requirement | Rebates |
|--|---------------------------------|---|-----------------------------|
| Dual Enthalpy Economizer | | | |
| Any Capacity (of equipment installed on) | Split System and Single Package | Must be installed on qualifying equipment | \$20/ton |
| Hotel Room HVAC Controls | | | |
| Any Capacity (of equipment installed on) | Split System and Single Package | Can be installed on existing HVAC equipment | \$25/installed unit |
| Chiller – Air Cooled | | | |
| Any Capacity (of equipment installed on) | Packaged | Must be installed on qualifying equipment | \$200/installed unit |

IV. VARIABLE FREQUENCY DRIVES MEASURE AND REBATES

Prescriptive Variable Frequency Drive

- It is good engineering practice to ensure that the application of variable frequency drives (VFDs) within a facility does not cause excessive facility harmonic distortion. See IEEE 519 for further information.
- If the cable length between a VFD and controlled motor is greater than 50 feet, additional motor winding insulation on the first few windings or the installation of an LC filter on the output of the inverter may be required.
- The VFD should be grounded in accordance with manufacturer's grounding requirements for noise as long as their requirement complies with applicable electric codes.
- The facility owner may want to consider: VFD startup by manufacturer representative, overcurrent trip protection and critical frequency lockout.
- Prescriptive rebates will be provided for the installation of variable frequency drives 2 hp and greater for ONLY the HVAC applications listed under VFD Installation Type below. Other VFD applications may be eligible under Central Hudson's Custom program.
- The following HVAC VFD applications are not eligible to use this application:
 - › Forward curve fans with inlet guide vanes
 - › Variable pitch vane-axial fans
 - › Replacement of a failed VFD
 - › VFD used solely for balancing a constant flow
 - › Control of existing 2-speed cooling tower fan
 - › 2-speed control of a fan or pump; mitigation of oversized motor installation
- For chilled water and heating pump installations, at least 75% of pump capacity must be controlled by 2-way valves.
- VFDs must be controlled by an automatic signal in response to varying air or water flow. Controlled motors must operate a minimum of 2,000 hours per year.
- Published manufacturer's information must be submitted with this application to demonstrate compliance for each of the following criteria:
 - › 15 millisecond minimum ride-through on the VFD control at full load and no inertia
 - › Auto restart
 - › Flying restart (start into rotating motor, speed search)
 - › Under voltage trip 85% or less
 - › Minimum 3% in line reactor or equivalent (choke, isolation transformer) based on drive horsepower
 - › 95% minimum drive efficiency at full load and full speed
 - › 0.95 minimum displacement power factor
- Warranty of at least one year for parts.

IV. VARIABLE FREQUENCY DRIVES MEASURE AND REBATES

| VFD Installation Type | | | |
|-----------------------------------|---|--|---------------------------------------|
| EXH fan = Exhaust Fan | MAF = Make-up Air Fan | RAF = HVAC Return Air Fan | HW pump = Hot Water Pump |
| CT fan = Cooling Tower Fan | SAF = HVAC Supply Air Fan | CW pump = Condenser Water Pump | WLHP = Water Loop Heat Pump Circ Loop |
| CHW pump = Chilled Water Pump | Boiler FW pump = Boiler Feed-Water Pump | TF = Tower fan | |
| Size Category (Horsepower) | | Rebates | |
| ≥ 2 | | \$200/installed unit. Additional \$60/Horsepower | |

V. PLUG LOAD TECHNICAL REQUIREMENTS

“Smart” Power Strips

- Rebate applies to any plug strip that eliminates idle or stand-by power consumption of connected plug-load appliance through the use of an electric load sensor or timer.
- New construction is not eligible.

Vending Machine Control – Non-refrigerated

- Rebates are for controllers for non-refrigerated snack vending machine(s) with mechanisms that function to power down the machine if the surrounding area is vacant.

Vending Machine Control – Refrigerated

- Rebates are for controllers for glass-fronted coolers and refrigerated snack vending machines where the controller functions to power down the machine when the surrounding area is vacant (vending machine occupancy control), monitors the room temperature and re-powers the cooling system to maintain a cool product.

Computer Controls

- Computer power management software is installed on a network of computers. This software monitors and records computer and monitor usage, as well as allows centralized control of computer power management settings.
- The software is applicable on networks at least one year old that do not currently have a PC power management system installed.
- The installed software must:
 - › Allow centralized control and override of computer power management settings of workstations that include both a computer monitor and CPU (i.e., a desktop or laptop computer on a distributed network)
 - › Be able to control on/off/sleep states on both the CPU and monitor according to the Network Administrator-defined schedules and apply power management policies to network groups
 - › Have capability to allow networked workstations to be remotely wakened from power-saving mode (e.g., for system maintenance or power/setting adjustments)
 - › Have capability to detect and monitor power management performance and generate energy savings reports
 - › Have capability to produce system reports to confirm the inventory and performance of equipment on which the software is installed

| Measure Descriptions | Rebates |
|--|----------------------|
| “Smart” Power Strips | \$20/installed unit |
| Vending Machine Control – Non-refrigerated | \$75/installed unit |
| Vending Machine Control – Non-refrigerated | \$150/installed unit |
| Computer Controls | \$15/installed unit |

VI. REFRIGERATION ELIGIBILITY AND TECHNICAL REQUIREMENTS

Anti-Sweat Heat Controls

- Must install a device that senses the relative humidity in the air outside of the display case and reduces or turns off the glass door (if applicable) and frame anti-sweat heaters at low humidity conditions.
- Equivalent technologies that can reduce or turn off anti-sweat heater based on the amount of condensation formed on the inner glass pane may also qualify.
- Rebate not available for equipment in new walk-in freezers or coolers.

Walk-In Door Closers

- The auto-closer device should be applied to the glass reach-in door or a walk-in cooler (40°F) or freezer (0°F). The reach-in door must have a minimum perimeter of 16 feet.
- The auto-closer must be able to firmly close the door. Rebate not available for equipment in new freezers or coolers.

Strip Curtains for Walk-In Coolers and Freezers

- Must install new strip curtains or clear plastic swinging doors on doorways of walk-in boxes and refrigerated warehouses.
- This rebate is not available for display cases or for replacing existing strip curtains.
- Rebate is based on square footage of doorway.

ECM Motor for Walk-In Coolers

- Must be replacement of refrigerated case motors with electronically commutated (EC) motor, or retrofits of walk-in cooler or freezer motors with EC motors.

ECM Motor for Reach-In Refrigerated Cases

- Must be replacement of refrigerated case motors with electronically commutated (EC) motor, or retrofits of walk-in cooler or freezer motors with EC motors.
- Motor types must be either Permanent-Split Capacitor or Shaded-Pole.

Evaporator Fan Controller on Existing Shaded-Pole Motor

- Must reduce airflow of evaporator fans in medium-temperature walk-in coolers when compressor(s) cycle off and there is no refrigerant flow through the evaporator.
- Must control a minimum fan load of 1/20 horsepower where the fan(s) operate continuously at full speed.
- Must reduce fan motor power by at least 75% during the compressor off-cycle.
- Do not use if any of the following conditions apply:
 - › The compressor runs all the time with high-duty cycle;
 - › The evaporator fan does not run at full speed all the time;
 - › The evaporator fan motor runs on poly-phase power;
 - › The evaporator fan motor is not shaded-pole; or
 - › The evaporator does not use off-cycle or time-off defrost.
- Rebate not available for equipment in new walk-in freezers or coolers.

| Measure Descriptions | Rebates |
|---|----------------------|
| Anti-Sweat Heat Control | \$35/installed unit |
| Walk-In Door Closers | \$50/installed unit |
| Strip Curtains for Walk-In Coolers and Freezers | \$30/installed unit |
| ECM for Walk-In Coolers | \$125/installed unit |
| ECM for Reach-In Refrigerated Cases | \$40/installed unit |
| Evaporator Fan Controller on Existing Shaded-Pole Motor | \$75/installed unit |

VII. APPLICATION CHECKLIST

Trade Allies—Please include the following items when you apply through the Application Center:

- Supporting documentation to include manufacturer's specification (cut) sheets for all equipment.
- Complete application worksheet—for retrofit projects only.
 - Meet measure code eligibility requirements.
 - Upload the completed electronic copy of the worksheet under the files tab of your project in the Application Center.
- Appropriate invoices (if no pre-approval required).
- Signed Customer Acknowledgement (if payment is to the contractor).
- Signed Terms and Conditions.
- A completed Federal W9 form.

CHGE will process applications for payment in the order received and issue incentive payment within 4–6 weeks after project completion and approval.

Applicants will be notified if post-installation inspections are required prior to final payment.

Please note that failure to provide any of the above items may delay the processing of your application.

VIII. TERMS & CONDITIONS FOR COMMERCIAL CUSTOMERS

1. Equipment and services must be purchased Jan. 1, 2021, through Dec. 31, 2021.
2. Work must be completed by a participating Central Hudson Trade Ally.
3. Incentives are available for residential gas and electric customers of Central Hudson.
4. It is the responsibility of the customer to ensure that all requirements for the rebate are met and that all required documentation is provided.
5. Rebate payments will be based on the equipment purchase date.
6. Failure to provide any of the required information will prevent processing of the application.
7. Central Hudson reserves the right to review the installations in order to ensure compliance with all program requirements. Central Hudson may choose to review locations to verify completion of the projects and to measure and verify energy savings. Such reviews will be made at a time convenient to the applicant, with advanced notice given to the applicant. Misrepresentation of installation location or measure eligibility may result in forfeiture of the incentive award.
8. Program procedures, requirements and rebate levels are subject to change or cancellation without notice.
9. One rebate check will be issued to the customer for each approved and completed application. Where applicable, a separate check will be issued to the contractor for each approved and completed application.
10. Installations must be completed in accordance with all laws, codes and other requirements applicable under federal, state and local authority.
11. The customer is urged to seek appropriate consultation concerning any tax liabilities that could be associated with the receipt of the rebate.
12. The customer verifies that they have not received any other incentives from any other state programs for the same equipment for which a rebate is being requested in this form.
13. Central Hudson is entitled to 100% of the energy benefits associated with the rebated measures, excluding the value of energy cost savings realized by the customer.
14. Central Hudson assumes no responsibility for the performance of the equipment and equipment warranty, the quality of the work, labor and/or materials supplied, and/or the acts or omissions of the Trade Ally.
15. The equipment must be purchased new and installed at the above listed customer location.
16. The customer hereby relieves and indemnifies Central Hudson of any and all liability associated with this project.
17. The customer understands that he or she may be contacted by Central Hudson via survey or questionnaire to provide feedback on his or her satisfaction with the program.

By signing this application, the customer agrees to the terms and conditions of this document. The customer hereby consents to the utilization and release of his or her energy consumption data and usage by Central Hudson and/or its designees, including program administrators and evaluation contractors. These administrators and contractors are obligated to Central Hudson to keep customer information confidential. The release and usage of data will be only for program evaluation, program eligibility determination, energy savings purposes and analysis and will be kept confidential.

Customer Signature _____ Date _____