

2022 BUSINESS OFFERINGS



HVAC/PLUMBING



focus on energy®

Partnering with Wisconsin utilities

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ABOUT FOCUS ON ENERGY®

Focus on Energy works with eligible Wisconsin residents and businesses to install cost-effective energy efficiency and renewable energy projects. Focus on Energy information, resources and financial incentives help to implement projects that otherwise would not get completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses manage rising energy costs, promote in-state economic development, protect our environment and control the state's growing demand for electricity and natural gas.

**For more information,
call 800.762.7077
or visit focusonenergy.com**



HOW TO APPLY

NEED HELP? Call 800.762.7077

FOCUS ON ENERGY® makes saving energy and money easy for Wisconsin businesses. Use the information below to help guide your way to savings. For electronic copies of the forms, visit focusenergy.com/catalogs.

STEP 1

BEFORE YOU APPLY:

Verify customer and product eligibility:

- Confirm your gas and/or electric utilities participate in Focus on Energy at focusenergy.com/utilities.
- Read product requirements, both general and technology-specific, in your equipment's corresponding incentive catalog.
- Review the Participation Requirements page.
- Review the Terms and Conditions at focusenergy.com/terms.
- View the qualified product lists at focusenergy.com/qpls.
- Applications exceeding \$10,000 can request preapproval. Requests received on or before December 7, 2022 will be pre-approved at 2022 incentive rates. Applications not pre-approved may not receive incentive payment if program funds have been exhausted. Pre-approval is considered complete once an incentive agreement is signed by the customer and returned to Focus on Energy.

Qualifying products must be installed by December 31, 2022.

STEP 2

WHAT YOU'LL NEED:

- Incentive Application & Equipment Incentive Catalog(s)
 - Gas & Electric Utility Account Numbers
 - Tax ID Number
 - Invoice **MUST include:**
 - Trade Ally name, address and phone number
 - Itemized list of each product along with manufacturer name, model number, and quantity
 - Itemized purchase price of product/installation
 - Job Site Address
- Reminder: Incentives are capped at 100% of equipment cost unless otherwise noted. Equipment cost is the amount paid by the customer for qualifying equipment, excluding any Focus on Energy incentive credit, shipping and sales tax. Like-for-like equipment replacement due to recall, warranty replacement, etc. is not eligible for an incentive.**
- Manufacturer specifications (when required) — **MUST include:**
 - Full model number
 - Energy performance information
 - Additional documentation (when required)

STEP 3

COMPLETE THIS APPLICATION:

- All fields on application are required. Incomplete application(s) cannot be processed.
- Complete SECTION 7 with all product information. Use the Incentive Product Information Sheet found at focusenergy.com/catalogs if you need additional lines.
- Include project completion date (date of the last product installed). If project is new construction, use the occupancy date. Project is considered complete when products are installed and operational.
- Complete the catalog-specific Supplemental Data Sheet for applicable measures. An asterisk (*) next to the code indicates when this is needed. Read the measure requirements in your catalog for directions.
- The utility ratepayer** must sign and date SECTION 8.
- Ensure supporting documents are attached, including itemized invoice(s).
- Make a copy of the application and supporting documents for your records.

STEP 4

SUBMIT YOUR APPLICATION:

Mail or email your application and all supporting documentation. **Applications must be submitted within 60 calendar days of completed project installation**, no later than January 31, 2023.

MAIL: Focus on Energy
725 W. Park Avenue
Chippewa Falls, WI 54729

E-MAIL: business@focusenergy.com

PARTICIPATION REQUIREMENTS

NEED HELP? Call 800.762.7077



Use the eligibility requirements below to see if your business qualifies for program incentives. You can also visit [focusonenergy.com](https://www.focusonenergy.com) to find savings opportunities specific to your business.

CUSTOMER ELIGIBILITY

All non-residential customers (agriculture, commercial, government, industrial, multifamily, and schools) located in a participating utility territory are eligible to receive Focus on Energy incentives. To see if your utility participates, go to [focusonenergy.com/participating-utilities](https://www.focusonenergy.com/participating-utilities). Typical facility types include:

- School facilities (e.g., public and private K-12, technical colleges, colleges, universities)
- Commercial facilities (e.g., banks, hotels, offices, convenience stores/gas stations, manufacturing, breweries, restaurants)
- Healthcare facilities (e.g., nursing homes/skilled nursing, Community-Based Residential Facilities (CBRF), hospitals)
- Multifamily residential properties with four or more dwelling units under one roof (e.g., apartment/condominium buildings, student housing). Common areas of multifamily buildings such as hallways, exercise rooms, or laundry rooms, along with central HVAC systems are eligible for business incentives included in this catalog. For in-unit efficiency incentives and offerings, refer to [focusonenergy.com/residential](https://www.focusonenergy.com/residential).

NEW CONSTRUCTION & MAJOR RENOVATIONS

Qualifying projects are new, stand-alone commercial, industrial and multifamily residential facilities, additions to existing facilities, and major renovations due to a change in the use of space (e.g., a warehouse to office).

Available incentives include Whole Building Design incentives and prescriptive incentives included in this catalog. Reach out to an Energy Advisor from Focus on Energy to help identify what is best for your project.

CUSTOM INCENTIVES

Does your project not fit in one of our prescriptive offers? Custom project incentives are calculated on a case-by-case basis for non-standard technologies and are based on estimated first-year energy savings. Whether you operate a large industrial facility, a chain store or franchise, an office, school or municipal building, a farm, or anything in between, we can show you how to be more energy efficient — and how to save on the cost of making improvements.

Before purchasing equipment or proceeding with upgrades, you must contact an Energy Advisor from Focus on Energy. Your Energy Advisor will help you determine if your project qualifies for a Focus on Energy custom incentive and will help you obtain necessary pre-approval. Refer to the green 'Custom Project Idea' boxes throughout the catalog for ideas.

To get started with your custom project, download and complete the Custom Incentive Guide at [focusonenergy.com/custom](https://www.focusonenergy.com/custom).

INFORMATION AND REQUIREMENTS

Before you start your project, make sure you are familiar with participation requirements, program information and Terms and Conditions.

General Terms and Conditions

Review the Focus on Energy Terms and Conditions at [focusonenergy.com/terms](https://www.focusonenergy.com/terms) or call 800.762.7077 to request a copy.

Incentive Limits

Incentives are limited to \$300,000 per project and \$400,000 per customer per calendar year for all Focus on Energy incentives (prescriptive and custom).

Depending on the business tax classification of the payee, the entity receiving the incentive payment may receive IRS form 1099 for incentives totaling over \$600 in a calendar year.

Trade Ally Information

A Trade Ally represents the company who provided/installed the equipment for a project or performed the service for which a Customer is seeking an incentive. Trade Allies who have signed an agreement with Focus on Energy are allowed to enjoy certain program benefits, one of which is to receive direct payment of incentives at the Trade Ally's request. Incentives can only be paid directly to a registered Trade Ally who has a W-9 on file with Focus on Energy. For more information on becoming a registered Trade Ally, visit [focusonenergy.com/tradeally](https://www.focusonenergy.com/tradeally).

New Construction & Major Renovations measures and incentives will appear in a **grey table**, while Equipment Upgrades & Retrofits measures and incentives will appear in a **blue table**. If a measure does not have a grey table, New Construction & Major Renovations incentives are not offered for that measure.

Multifamily new construction projects should pursue incentives through the Multifamily Product and Equipment Performance offering. Refer to [focusonenergy.com/MultifamilyPEP](https://www.focusonenergy.com/MultifamilyPEP) for details.

The Federal Employer Identification Number (FEIN) and Business Classification of the Trade Ally is required IF the incentive is paid directly to the Trade Ally. In this scenario, the credit must be clearly labeled as the Focus on Energy incentive and deducted from the amount due on the Customer's invoice.

If your project was completed by more than one Trade Ally (example, equipment was purchased from one Trade Ally but installed by another Trade Ally) and the incentive is being paid to you the Customer, enter the information of the Trade Ally who installed your equipment in Section 4: Trade Ally Information. If the equipment was self-installed, enter the information of the Trade Ally from whom you purchased the equipment.

Assignment of Incentives to Other Payee

The Customer for the project site listed on the application may assign their right to participate and receive incentives to Other Payee. The Customer must sign Section 8 and identify the Other Payee in Section 5.

INCENTIVE APPLICATION

FOR PROJECTS COMPLETED BY 12/31/2022

Complete all sections. Incomplete applications cannot be processed and will delay payment of incentives. **Applications must be submitted within 60 days of completed project installation, no later than January 31, 2023.** For additional copies of this form, visit focusenergy.com/catalogs.

SECTION 1

ACCOUNT AND CUSTOMER INFORMATION

Tax Identification Number (Check one) FEIN **or** SSN

If you use a Social Security Number (SSN) as your Tax Identification Number, **do not provide it below.** You will be contacted by the Program via email to provide a copy of your W-9 using a secure online portal, if it is not already on file. **You must list an email address in Section 3.**

FEIN

BUSINESS CLASSIFICATION OF CUSTOMER

(Check one. Required for all businesses, including non-profits.)

- Sole Proprietorship Individual Single-Member LLC
- C Corporation S Corporation Partnership
- Limited Liability Company - C Corp
- Limited Liability Company - S Corp
- Limited Liability Company - Partnership
- Other _____

OWNER NAME (REQUIRED IF SSN IS USED AS TAX IDENTIFICATION NUMBER)

COMPANY NAME

LEGAL ADDRESS (AS SHOWN ON COMPANY W-9)

CITY STATE ZIP

WHO DID YOU WORK WITH FROM FOCUS ON ENERGY ON THIS PROJECT? (CONTACT NAME)

How did you hear about us? (Check one.)

- Community Association/Agency Distributor/Supplier
- Focus Direct Mail/Postcard Focus Email Focus Event
- Focus Staff/Energy Advisor Focus Website Internet Search
- Manufacturer National Rebate Administrator Newspaper
- Past Participation Radio Social Media
- Trade Ally/Contractor Trade Show/Fair TV
- Utility Bill Insert/Direct Mail Utility Contact Utility Email
- Utility Website Word of Mouth - Referral
- Other: _____

SECTION 2

JOB SITE INFORMATION

(Refer to your utility bills for account numbers below.)

JOB SITE BUSINESS NAME

ELECTRIC UTILITY AT JOB SITE ELECTRIC ACCOUNT #

GAS UTILITY AT JOB SITE GAS ACCOUNT #

- Job Site Address is same as Legal Address
- Job Site Address is different (complete below)

JOB SITE ADDRESS

CITY STATE ZIP

SECTION 3

CUSTOMER CONTACT INFORMATION

JOB SITE CUSTOMER CONTACT NAME

PRIMARY PHONE # E-MAIL ADDRESS

I opt in to receive program updates via text message.
Preferred method of contact: Call E-mail Text
If Focus on Energy has a question about this application, we should contact:

Customer Trade Ally Other _____

SECTION 4

TRADE ALLY INFORMATION



TRADE ALLY CONTACT NAME

PRIMARY PHONE # E-MAIL ADDRESS

TRADE ALLY COMPANY NAME

ADDRESS

CITY STATE ZIP

SECTION 5

BUSINESS PAYMENT INFORMATION

Make incentive check payable to:

- Customer Trade Ally (complete item A)
- Other Payee (complete item B)

Payee is responsible for any associated tax consequences.

Mail check to: Customer Address Job Site Address

Trade Ally Address Alternate Address or Other Payee (complete below)

COMPANY NAME

ADDRESS

CITY STATE ZIP

ATTENTION TO (OPTIONAL)

A. For Trade Ally Payee

To receive payment, a Trade Ally must be registered with a current W-9 on file. Provide the Trade Ally's Tax Identification Number. If you use a Social Security Number as the company Tax ID, **do not provide it here.**

FEIN

B. For Other Payee

1. Individual Contact Information:

NAME EMAIL ADDRESS

2. Specify relationship to utility account holder (this is required if check is payable to someone other than the Customer or Trade Ally):
 Tenant Building Owner Other (specify) _____

3. Select your business classification. (Check one. Required for all businesses, including non-profits.)

- Sole Proprietorship Individual Single-Member LLC
- C Corporation S Corporation Partnership
- LLC - C Corp LLC - S Corp LLC - Partnership
- Other _____

4. A representative of Focus on Energy will reach out to you via email with a method to securely provide a copy of your W-9. This is required to receive payment. Provide the email address (if different than the one provided above):

2022 HVAC/PLUMBING INCENTIVE CATALOG SUPPLEMENTAL DATA SHEET

THIS FORM MUST BE ATTACHED TO COMPLETED INCENTIVE APPLICATION AND SUBMITTED TOGETHER. FOR PROJECTS INSTALLED BY 12/31/2022. NEED HELP? CALL 800.762.7077.

HOW TO FILL OUT THIS FORM

Please refer to:

- The **HVAC/Plumbing Incentive Catalog** for measure requirements and information.
- Complete the table corresponding to the measure in the catalog.

Attach this form to a completed **Incentive Application** and submit together.

CUSTOMER INFORMATION

JOB SITE BUSINESS NAME _____

JOB SITE ADDRESS _____

TRADE ALLY NAME _____

A DIRECT-FIRED MAKE-UP AIR UNITS – INCENTIVE CODE: H5081 PAGE 16

EQUIP #	OUTSIDE AIR FLOW (CFM)	DISCHARGE AIR TEMP (°F)	WEEKDAY START TIME	WEEKDAY END TIME	SATURDAY START TIME	SATURDAY END TIME	SUNDAY START TIME	SUNDAY END TIME
(Example) MAU 1	5,000	65	7 AM	10 PM	8 AM	2 PM	Off	Off

B1 AIR CONDITIONING SPLIT AND PACKAGED SYSTEMS (≥ 5.42 TONS) – INCENTIVE CODE: H4368, H4369, H4370, H4371 PAGE 18

EQUIP #	(A) AHRI RATED CAPACITY (tons, 2 decimals)	(B) AHRI RATED PART LOAD EFFICIENCY (IEER, 2 decimals)	(C) PART LOAD EFF TO QUALIFY (IEER) (from Measure Description pg 21)	(D) DELTA EFFICIENCY (B - C)	(E) ADDITIONAL INCENTIVE (D x \$/ton)	(F) BASE INCENTIVE (\$/ton)	(G) INCENTIVE RATE (\$/ton) (E + F)	REQUESTED INCENTIVE* (A x G)
(Example) AC 1	15.00	13.60	13.00	0.60	\$3	\$25	\$28	\$420

B2 SPLIT SYSTEM AIR CONDITIONING - CONDENSING UNIT ONLY – INCENTIVE CODE: H3909 PAGE 19

EQUIP #	(A) AHRI RATED CAPACITY (tons, 2 decimals)	(B) AHRI RATED FULL LOAD EFFICIENCY (EER, 2 decimals)	(C) FULL LOAD EFF TO QUALIFY (EER) (from Measure Description pg 22)	(D) DELTA EFFICIENCY (B - C)	(E) ADDITIONAL INCENTIVE (D x \$/ton)	(F) BASE INCENTIVE (\$/ton)	(G) INCENTIVE RATE (\$/ton) (E + F)	REQUESTED INCENTIVE* (A x G)
(Example) AC 1	15.00	11.60	11.10	0.50	\$2.50	\$20	\$22.50	\$337.50

C1 CHILLERS (BUILDING COOLING LOAD) – INCENTIVE CODE: H4712, H4713, H4714, H4715, H4716, H4717, H4718, H4719, H4720, H4721, H4722, H4723, H4724, H4725, H4726, H4727, H4728, H4729, H4730, H4731, H4732, H4733, H4734, H4735 PAGE 20-22

EQUIP TYPE	BUILDING/SPACE DESIGN COOLING LOAD (tons)	BASE OR TRIM CHILLER?	CHILLER LOCKOUT TEMPERATURE (°F)	CODE COMPLIANCE PATH: A OR B
(Example) Air-Cooled	90.00	Base	53 °F	Path A

*Focus on Energy may adjust total incentive based on project caps. See measure requirements and Terms and Conditions for more information.

C2 CHILLERS (EQUIPMENT PERFORMANCE) – INCENTIVE CODE: H4712, H4713, H4714, H4715, H4716, H4717, H4718, H4719, H4720, H4721, H4722, H4723, H4724, H4725, H4726, H4727, H4728, H4729, H4730, H4731, H4732, H4733, H4734, H4735										
EQUIP #	(A) AHRI RATED CAPACITY (tons, 3 decimals)	(B) MAX FULL LOAD (kW/ton) (from Measure Description pg 21-23)	(C) AHRI RATED FULL LOAD EFFICIENCY (kW/ton, 3 decimals)	(D) MAX PART LOAD (IPLV) (kW/ton) (from Measure Description pg 21-23)	(E) AHRI RATED PART LOAD EFFICIENCY (IPLV) (kW/ton, 3 decimals)	(F) DELTA EFFICIENCY: ((B - C) + (D - E))	(G) ADDITIONAL INCENTIVE (\$/ton)	(H) BASE INCENTIVE (\$/ton)	(I) INCENTIVE RATE (\$/ton) (G + H)	REQUESTED INCENTIVE* (A x I)
(Example) Chiller 1	95.000	1.160	1.120	0.880	0.840	0.080	\$10	\$8	\$18	\$1,710

D ENERGY RECOVERY VENTILATOR (ERV) – INCENTIVE CODE: H2314, H5082						
EQUIP #	HOURS OF OPERATION (hrs/wk)	SUPPLY AIRFLOW (AHRI listed CFM)	AHRI NET TOTAL WINTER EFFECTIVENESS %	AHRI NET TOTAL SUMMER EFFECTIVENESS %	HEATING SYSTEM EFFICIENCY (%)	COOLING SYSTEM EFFICIENCY (kW/ton or EER, 2 decimals)
(Example) ERV 1	60 hrs/wk	2,000	81%	77%	80%	1.20 kW/ton

E ECONOMIZERS – INCENTIVE CODE: H3066				
EQUIP #	RTU RATED CAPACITY (tons)	RTU COOLING EFFICIENCY (EER, if known)	ECONOMIZER CHANGEOVER TEMP (°F)	AHU CONTROLS (no setback or EMS/T-stat)
(Example) Economizer 1	10.00	10.30	60 °F	T-stat

F ADVANCED ROOFTOP UNIT CONTROLLERS – INCENTIVE CODE: H3964							
EQUIP #	NOMINAL COOLING CAPACITY (tons)	HEATER TYPE (Natural gas or Electric)	FAN HP	ECONOMIZER OPERATIONAL (Yes/No)?	WEEKDAY OPEN / CLOSE TIMES	SATURDAY OPEN / CLOSE TIMES	SUNDAY OPEN / CLOSE TIMES
(Example) RTU 1	15.00	Natural gas	5	Yes	7 AM / 9 PM	8 AM / 10 PM	11 AM / 7 PM
					/	/	/
					/	/	/

G1 DEMAND CONTROLLED VENTILATION (DCV) – INCENTIVE CODE: H2853 (DCV FOR MULTIPLE ZONE)								
EQUIP #	SPACE COOLING (Y/N)	SPACE HEATING EFF (%)	AREA SERVED TYPE	AHU COOLING SIZE (tons)	HOURS OF OPERATION/ WEEK	(A) EXISTING MIN OUTSIDE AIR FLOW (CFM)	(B) NEW MIN OUTSIDE AIR FLOW RATE (CFM)	OUTSIDE AIR FLOW RATE REDUCED (CFM) (A-B)
(Example) DCV 1	Yes	83%	Office	12.00	60	5,000	3,000	2,000

G2 DEMAND CONTROLLED VENTILATION (DCV) – INCENTIVE CODE: H3266 (DCV FOR SINGLE ZONE)						
EQUIP #	SPACE COOLING (Y/N)	AREA SERVED TYPE	AHU COOLING SIZE (tons)	AREA SERVED (sq ft)	EXISTING ECONOMIZER (DB, ENTH)	EXISTING AHU CONTROLS (no setback, EMS/T-stat)
(Example) DCV 1	Yes	Office	12.00	10,000	DB	T-stat

H GUEST ROOM ENERGY MANAGEMENT CONTROLS – INCENTIVE CODE: H2374							
HVAC SYSTEM TYPE	# OF ROOMS	COOLING EFFICIENCY W/ UNITS	COOLING SYSTEM SOURCE	COOLING CAPACITY PER ROOM (tons)	HEATING EFFICIENCY W/ UNITS	HEATING SYSTEM SOURCE	HEATING CAPACITY PER ROOM (MBh)
(Example) Fan Coil Unit	10	1.2 kW/ton	Air-Cooled Chiller	0.75	90%	Boiler	10

*Focus on Energy may adjust total incentive based on project caps. See measure requirements and Terms and Conditions for more information.

I VARIABLE FREQUENCY DRIVES – PAGE 29

INCENTIVE CODE: H2640, H2641, H2643, H2644, H2646, H2726

VFD #	VFD APPLICATION	CONTROLS BEFORE VFD	EQUIPMENT OPERATING HOURS (2,000 hr/yr min)	HP CONTROLLED BY VFD	QUANTITY	REQUESTED INCENTIVE* (qty X HP X \$/HP)
(Example) AHU-1a	HVAC Fan	Inlet Guide Vanes	2,500	10	3	\$1,050

J MODULATING DRYER CONTROLS – INCENTIVE CODE: H4902, H4903, H4904, H4905 PAGE 30

DRYER MANUFACTURER	DRYER MODEL	# OF DRYERS	BURNER SIZE (Btu/hr)	DRYER CAPACITY (lbs)	AVG LOADS PER DAY (per dryer)	DAYS OF OPERATION (per year)	AVERAGE DRYING TIME (minutes)
(Example) ABC Manufacturing	XYZ123	1	60,000	25	5	250	35

K HIGH-USE COMMERCIAL WATER HEATERS – INCENTIVE CODE: P5083, P3045, P5084, P4942 PAGE 31

BLDG TYPE	EXISTING SYSTEM FUEL TYPE	EXISTING WATER HEATER TYPE	EXISTING EFFICIENCY (% or EF)	WATER HEATER SUPPLY TEMPERATURE (°F)	ANNUAL OPERATION (days/year)	ACTUAL USAGE (See page 38 for units of measure)	NEW SYSTEM EFFICIENCY (% or EF)	INDIRECT WATER HEATERS ONLY	
								STORAGE TANK DIMENSIONS (HT X DIA)	STORAGE TANK R-VALUE
(Example) Cafeteria	Gas	Gas Storage	82%	125 °F	350	400 meals/day	95%	60" x 24"	14

*Focus on Energy may adjust total incentive based on project caps. See measure requirements and Terms and Conditions for more information.

HEATING SYSTEMS

BOILERS

General Requirements: Only natural gas equipment is eligible for incentives. Boilers fueled by electric, propane or oil are NOT eligible for incentives. Redundant or backup boilers do not qualify. Condensing boilers ($\geq 90\%$ AFUE or thermal efficiency) will provide maximum efficiency only if the return water temperature is cool enough to condense flue gases. If the heating system configuration cannot provide necessary operating conditions to the boiler, selection of a non-condensing or near-condensing boiler may be more appropriate.



HOT WATER BOILERS

Requirements:

- Boiler incentives are only available for equipment used in space heating applications. Boilers used for only domestic hot water heating and industrial or process heating are not eligible for this incentive but may qualify for a DHW or custom incentive.
- Space heating boilers also used for DHW may be eligible for indirect DHW incentives but are subject to requirements.
 - In plant systems, boilers are eligible for incentives for their primary use only.
 - A boiler replacing a space heating and indirect DHW system will use the capacity of the existing space heating and DHW systems to estimate the split of incentives.
 - Boilers that only serve DHW are not eligible for the space heating incentives.
- Boiler efficiency will be verified using the AHRI database (see ahridirectory.org). If the boiler is not listed in the AHRI database, provide a boiler specification sheet with boiler input and output ratings and either AFUE or thermal efficiency as appropriate for boiler size.**
- Steam boilers are not eligible for this incentive but may qualify for a custom incentive.
- $\geq 90\%$ AFUE or thermal efficiency boilers:
 - If the heating system configuration is such that the boiler needs to operate at a high hot water temperature which prevents the flue gases from condensing (as described above in the General Requirements), then the boiler is not eligible for H2218 or H3276.
- Hot Water Boilers < 300 MBh:
 - Must be a sealed combustion unit and $\geq 90\%$ AFUE.
 - Condensing boilers must modulate their firing rate and include outdoor-air reset control.
- Hot Water Boilers ≥ 300 MBh:
 - Boilers must be capable of capacity modulation.
- Do not round AHRI capacity to a whole number.

EQUIPMENT UPGRADES AND RETROFITS

Measure Description	Code	Incentive	Unit
Hot Water Boilers < 300 MBh input, $\geq 90\%$ AFUE	H2218	\$4	MBh
Hot Water Boilers ≥ 300 MBh input, $\geq 85\%$ Thermal Efficiency	H3277	\$1.50	MBh
Hot Water Boilers ≥ 300 MBh input, $\geq 90\%$ Thermal Efficiency	H3276	\$4	MBh

NEW CONSTRUCTION AND MAJOR RENOVATIONS

Measure Description	Code	Incentive	Unit
Hot Water Boilers < 300 MBh input, $\geq 90\%$ AFUE	N-H2218	\$4	MBh
Hot Water Boilers ≥ 300 MBh input, $\geq 85\%$ Thermal Efficiency	N-H3277	\$1.50	MBh
Hot Water Boilers ≥ 300 MBh input, $\geq 90\%$ Thermal Efficiency	N-H3276	\$4	MBh

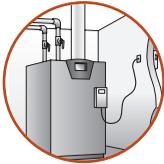
CUSTOM PROJECT IDEA

Talk to your Energy Advisor about custom incentives that may be available for reducing energy waste by **installing a supply air reset program** to your AHU to better match building load and minimize simultaneous heating and cooling.

**For more information,
call 800.762.7077
or visit focusonenergy.com**

BOILER CONTROLS AND BURNERS

General Requirements: Only natural gas equipment is eligible for incentives. Equipment added to boilers fueled by electric, propane or oil is NOT eligible for incentives. Equipment added to redundant or backup boilers does not qualify.



OUTSIDE AIR RESET/CUTOUT CONTROLS

Requirements:

- Outside air temperature boiler reset and cutout control incentives are for retrofit projects only. New boilers equipped with these controls do not qualify.
- System must have an outdoor temperature sensor installed in a shaded location on the north side of the building.
- System must be set up so the minimum temperature is less than 10 °F above boiler manufacturer’s recommended minimum return temperature (unless unusual circumstances require a higher setting).
- For controls on multiple boilers to qualify, control strategy must stage the lag boiler(s) only after the first boiler stage(s) fail to maintain the water temperature called for by the reset control.
- Provide input capacity of boilers (in MBh) controlled with outside air reset and cutout controls per the example below.

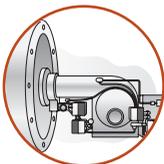
EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Outside Air Reset/Cutout Controls	H2221	\$60	Control

EXAMPLE

Outside Air Reset/Cutout Controls Example

Use this example when applying for outside air reset/cutout controls which also requires boiler capacity in MBh. Reference this table when filling out SECTION 7 on the Incentive Application.

INCENTIVE CODE	MANUFACTURER NAME	MODEL #	UNIT MEASURE	# OF UNITS (A)	INCENTIVE PER UNIT (B)	TOTAL INCENTIVE (A X B)
H2221	ABC Controls	OA1234	Control	1	\$60	\$60
-----	-----	Boiler Capacity	MBh	500	-----	-----



BOILER COMBUSTION UPGRADES

Requirements:

- Boiler must be natural gas-fired, forced-draft boiler used for space heating that operates a minimum of 4,000 hours per year.
- Installation on redundant or backup boilers does not qualify for an incentive.
- Boiler input capacity must be entered in boiler horsepower (BHP). To convert, use 1 BHP = 33.476 MBh. High turndown burner must be able to provide efficient combustion at a 10:1 turndown ratio or greater. The turndown ratio must be clearly shown on a manufacturer’s spec sheet or similar documentation.
- High turndown burner incentives (H2203 and H5237) are eligible on boilers ≤ 1,000 BHP. Boilers > 1,000 BHP may be eligible for custom incentives.
- **Invoices must be attached and include the manufacturer name and model number of linkageless controls, O₂ trim and high turndown burner equipment.**

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Linkageless Controls	H2205	\$15	BHP
O ₂ Trim Controls	H2206	\$5	BHP
High Turndown Burner, Retrofit on Existing Boiler	H2203	\$10	BHP
High Turndown Burner, New Boiler Replacement	H5237	\$10	BHP

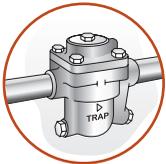
Incentive amount is limited to 50% of the project cost, including equipment and external labor (internal labor eligible for schools and government customers).

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
High Turndown Burner, New Construction	N-H5237	\$10	BHP

Incentive amount is limited to 50% of the project cost, including equipment and external labor (internal labor eligible for schools and government customers).

HOT WATER AND STEAM DISTRIBUTION SYSTEMS

General Requirements: Only systems with steam and hot water produced by natural gas equipment (and electric equipment if specifically allowed in the requirements below) are eligible for incentives. Systems with equipment fueled by propane or oil are NOT eligible for incentives. Municipal steam systems (i.e., “city steam”) are not a qualifying utility.



STEAM TRAP MAINTENANCE AND REPAIR

Requirements:

- Repair incentive is only available for the repair or replacement of traps that have malfunctioned and are leaking steam. Repair incentive is not available for traps that are failed closed or are plugged.
- For industrial process steam traps, use the Process Systems Incentive Catalog.
- Surveys are optional. A customer may apply for the repair incentive only to repair or replace known failed steam traps. Repairs do not need to be made at one time, but only one repair incentive per trap can be applied for in a heating season. Survey incentives are available only once per heating season per steam system. Survey cost must be shown on the invoice.
- To qualify for the survey incentive, customer must repair or replace one trap for every five traps surveyed. If less than one trap per every five traps surveyed is identified as failed, then all failed traps must be repaired or replaced. In the case where all identified failed traps must be repaired or replaced, customer may provide written explanation for a trap that cannot be repaired or replaced and may still qualify for an incentive.
- Mass replacement of traps can be completed without condition assessment. Focus on Energy will assume 20% of traps were leaking and pay a repair incentive for 20% of the total traps replaced (rounded to the nearest whole number) and no survey incentive.
- For projects that don't complete a steam trap survey, provide the nominal steam pressure (psig) on the application or in other supporting documentation provided with the incentive application.
- Steam trap survey and repair work must be recorded in a log sheet and attached to the application in order to be eligible for the survey incentive. Trade Ally must create and fill in the log as work is completed. Required fields (minimum):

- | | | |
|--------------------------|--|--|
| • ID Tag Number | • Indicate Condition for Each Steam Trap (chose one of the following): | • Survey Date/Repair Date |
| • Location Description | • Functioning Properly | • Survey/Repair Technician Name |
| • Nominal Steam Pressure | • Malfunctioning Not Leaking Steam | • Orifice Size (if repaired or replaced) |
| • Trap Type | • Malfunctioning Leaking Steam | • Notes |

EQUIPMENT UPGRADES AND RETROFITS				
Measure Description	Code	Incentive	Unit	
Steam Trap Survey	H2225	\$4	Steam Trap	
< 10 psig General Heating Steam Trap, ≤ 7/32" Orifice	H4004	\$30	Steam Trap	
< 10 psig General Heating Steam Trap, 1/4" Orifice	H4005	\$30	Steam Trap	
< 10 psig General Heating Steam Trap, 5/16" Orifice	H4006	\$30	Steam Trap	
< 10 psig General Heating Steam Trap, ≥ 3/8" Orifice	H4007	\$30	Steam Trap	
10-49 psig General Heating Steam Trap, ≤ 7/32" Orifice	H4008	\$50	Steam Trap	
10-49 psig General Heating Steam Trap, 1/4" Orifice	H4009	\$50	Steam Trap	
10-49 psig General Heating Steam Trap, 5/16" Orifice	H4010	\$50	Steam Trap	
10-49 psig General Heating Steam Trap, ≥ 3/8" Orifice	H4011	\$50	Steam Trap	
50-124 psig General Heating Steam Trap, ≤ 7/32" Orifice	H4012	\$75	Steam Trap	
50-124 psig General Heating Steam Trap, 1/4" Orifice	H4013	\$75	Steam Trap	
50-124 psig General Heating Steam Trap, 5/16" Orifice	H4014	\$75	Steam Trap	
50-124 psig General Heating Steam Trap, ≥ 3/8" Orifice	H4015	\$75	Steam Trap	
≥ 125 psig General Heating Steam Trap, ≤ 7/32" Orifice	H4944	\$125	Steam Trap	
≥ 125 psig General Heating Steam Trap, 1/4" Orifice	H4945	\$125	Steam Trap	
≥ 125 psig General Heating Steam Trap, 5/16" Orifice	H4946	\$125	Steam Trap	
≥ 125 psig General Heating Steam Trap, ≥ 3/8" Orifice	H4947	\$125	Steam Trap	



STEAM SYSTEM INSULATION

Requirements:

- This incentive is for adding insulation to uninsulated steam piping and/or fittings (including traps).
- Insulation for fittings must be removable and reusable.
- For businesses: steam piping insulation must be ≥ 1.5 inches for pipes < 1.5 inches in diameter and ≥ 3 inches for pipes > 1.5 inches in diameter.
- For multifamily buildings: steam piping insulation must be ≥ 1.5 inches, and incentive is not to exceed material cost.
- Steam system being insulated must be used for space heating applications. Industrial process applications may be eligible for a custom incentive.

EQUIPMENT UPGRADES AND RETROFITS				
Measure Description		Code	Incentive	Unit
Insulation for Steam Fittings, Natural Gas		H2429	\$8	Fitting
Insulation for Steam Pipe, Natural Gas		H2430	\$2	Foot of Pipe

FORCED AIR AND RADIANT HEAT

General Requirements: Only natural gas equipment is eligible for incentives (and electric equipment if specifically allowed in the requirements below). Equipment fueled by propane or oil is NOT eligible for incentives. Incentives are only available for equipment used in space heating applications. Equipment serving process or other loads does not qualify.



FURNACES

Requirements:

- Eligibility for furnace measures is based on customer having both an eligible electric and natural gas provider.
- Furnaces must meet the minimum efficiency requirements listed and be a sealed combustion unit. Efficiency ratings will be verified using the AHRI database (ahridirectory.org).
- Furnaces must have an electronically commutated motor (ECM). Permanent split capacitor (PSC) motors are not eligible. Air handlers with an ECM are not eligible.
- Furnaces must have a multi-stage burner and have at least two firing stages.
- **Provide a manufacturer's specification sheet to document the required features.**
- Provide input capacity of furnace (in MBh) on the Incentive Application per the example below.
- Furnaces listed on the Focus on Energy residential furnace qualified products list does not guarantee the furnace has all features required for business incentives.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Furnace with ECM, ≥95%+ AFUE, 2 stages of heat, NG	H3491	\$220	Furnace
Furnace with ECM, ≥90%+ AFUE, 2 stages of heat, NG	H3492	\$100	Furnace

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Furnace with ECM, ≥95%+ AFUE, 2 stages of heat, NG	N-H3491	\$180	Furnace
Furnace with ECM, ≥90%+ AFUE, 2 stages of heat, NG	N-H3492	\$80	Furnace

EXAMPLE

Furnace Example

Additional system strategies include variable speed fans and compressor controls to more effectively use the refrigerant and modulate the temperature and amount of cooled air supplied to the space. See economizers, demand controlled ventilation (DCV) and smart thermostats for additional savings opportunities.

INCENTIVE CODE	MANUFACTURER NAME	MODEL #	UNIT MEASURE	# OF UNITS (A)	INCENTIVE PER UNIT (B)	TOTAL INCENTIVE (A X B)
H3492	XYZ Furnaces	F987A	Furnace	2	\$100	\$200
-----	-----	Furnace Input Capacity	MBh	60	-----	-----



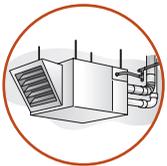
INFRARED HEATERS

Requirements:

- Both low-intensity and high-intensity heaters are eligible.
- Must have electronic ignition.
- Must be vented per manufacturer's requirements.
- Low-intensity heaters must use outside non-conditioned combustion air.
- Excludes outdoor patio heating applications.
- Replacement of an existing infrared heater does not qualify.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Infrared Heater	H2422	\$1.50	MBh

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Infrared Heater	N-H2422	\$1	MBh



UNIT HEATERS

Requirements:

- Unit heater must be an upgrade from a standard efficiency (typically 80%-84% thermal efficiency) unit heater.
- Steam or hot water coils/systems are not eligible. Natural gas fired only.
- Must be vented and condensate drained per manufacturer specifications.
- Direct fired rooftop units/make-up air units are not eligible for this incentive.
- Must replace an existing non-condensing unit heater or be installed instead of a non-condensing unit heater.
- **Provide a manufacturer's specification sheet to document the features and efficiency level of the unit heater.**

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 70°F	H4753	\$2	MBh
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 65°F	H4754	\$2	MBh
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 60°F	H4755	\$2	MBh
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 55°F	H4756	\$2	MBh

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 70°F	N-H4753	\$1	MBh
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 65°F	N-H4754	\$1	MBh
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 60°F	N-H4755	\$1	MBh
Unit Heater, ≥90% Thermal Efficiency, Heating Setpoint = 55°F	N-H4756	\$1	MBh



PACKAGED TERMINAL HEAT PUMPS (PTHP)

Requirements:

- **Unit must be AHRI listed as a Commercial PTHP.**
- Eligibility for PTHP measures is based on customer having an eligible electric provider.
- Must replace or be instead of a Packaged Terminal Air Conditioner (PTAC). Replacement of existing PTHP does NOT qualify.
- Window and through-the-wall air conditioners/heat pumps do not qualify.
- The equipment size category (BTUh) is the cooling capacity value of the unit.
- Must meet both heating and cooling specifications for the equipment size category.
- All efficiency ratings will be verified using the AHRI database (ahridirectory.org).

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
PTHP <8,000 BTUh, ≥10.7 EER and ≥3.1 COP	H2699	\$75	PTHP
PTHP 8,000-9,999 BTUh, ≥10.4 EER and ≥3.0 COP	H2702	\$75	PTHP
PTHP 10,000-12,999 BTUh, ≥9.9 EER and ≥2.9 COP	H2701	\$75	PTHP
PTHP ≥13,000 BTUh, ≥9.3 EER and ≥2.9 COP	H2700	\$75	PTHP

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
PTHP <8,000 BTUh, ≥12.7 EER and ≥3.1 COP	N-H2699	\$65	PTHP
PTHP 8,000-9,999 BTUh, ≥12.1 EER and ≥3.0 COP	N-H2702	\$65	PTHP
PTHP 10,000-12,999 BTUh, ≥10.9 EER and ≥2.9 COP	N-H2701	\$65	PTHP
PTHP ≥13,000 BTUh, ≥10.3 EER and ≥2.9 COP	N-H2700	\$65	PTHP



DIRECT-FIRED MAKE-UP AIR UNITS

Requirements:

- **Complete Table A of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
- Only constant air volume systems are eligible; variable air volume systems may be eligible for a custom incentive.
- Incentive is available for upgrading (or installing instead of) indirect fired make-up air units or rooftop units which are approximately 80% efficient.
- Replacement of an existing direct-fired make-up air unit is not eligible.
- Replacement of electric or hydronically heated make-up air is not eligible.
- Intended for spaces with high ventilation or exhaust loads.
- Installation and operation must follow all applicable building code requirements.

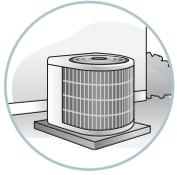
EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Direct Fired Make-up Air Unit	H5081*	\$0.20	CFM
* Supplemental Data Sheet needed			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Direct Fired Make-up Air Unit	N-H5081*	\$0.15	CFM
* Supplemental Data Sheet needed			

COOLING SYSTEMS

DIRECT EXPANSION (DX) SYSTEMS

General Requirements: For equipment <63.33 tons, efficiencies will be verified using the AHRI database (ahridirectory.org). For equipment ≥ 63.33 tons, provide manufacturer performance data sheet indicating that ratings are “at AHRI conditions”. New Construction DX systems are only eligible for incentives up to 450 tons per building. Equipment installed in existing multifamily living units is not eligible for Business incentives; visit focusonenergy.com/residential for incentives that are available. Mini-split/ductless systems that are pre-discounted by Focus on Energy at distributor locations are not eligible for the incentives below; visit focusonenergy.com/midstream for a list of these locations.

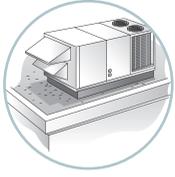


AIR CONDITIONING (A/C) SPLIT AND PACKAGED SYSTEMS < 5.42 TONS

Requirements:

- Incentive is for the installation of efficient A/C equipment < 5.42 tons (65,000 BTU/hr). AHRI efficiency must meet/exceed SEER & HSPF below.
- AHRI verified cooling capacity, SEER, and HSPF will be used to calculate the incentive.
- Systems qualified in the following AHRI Directories are eligible: ‘Air Conditioners and Air Conditioner Coils’, ‘Heat Pumps’, and ‘Variable-Speed Mini-Split and Multi-Split Air Conditioners’ (see ahridirectory.org).
- Incentives for qualifying systems in the ‘Variable-Speed Mini-Split and Multi-Split Heat Pumps’ AHRI directory are available through Focus on Energy Midstream Solution. Visit focusonenergy.com/midstream or contact Focus on Energy for more information.
- Incentives are for standard HVAC applications only. Rooftop units and split system A/C used for industrial process cooling, ice rinks and refrigerated warehouses may qualify for a custom incentive.
- When used in data centers, rooftop units and split system air conditioners < 5.42 tons and may be eligible; refer to cooling equipment measures in the Data Center and Telecom Facilities section of the Process Systems catalog.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
16 SEER Split System A/C, < 5.42 tons	H4737	\$40	A/C Unit
17 SEER Split System A/C, < 5.42 tons	H4738	\$60	A/C Unit
18 SEER Split System A/C, < 5.42 tons	H4739	\$80	A/C Unit
19 SEER Split System A/C, < 5.42 tons	H5069	\$100	A/C Unit
20 SEER Split System A/C, < 5.42 tons	H5070	\$120	A/C Unit
16 SEER Single Package A/C, < 5.42 tons	H4741	\$40	A/C Unit
17 SEER Single Package A/C, < 5.42 tons	H4742	\$60	A/C Unit
18 SEER Single Package A/C, < 5.42 tons	H4743	\$80	A/C Unit
19 SEER Single Package A/C, < 5.42 tons	H5071	\$100	A/C Unit
20 SEER Single Package A/C, < 5.42 tons	H5072	\$120	A/C Unit
16 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	H4745	\$65	A/C Unit
17 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	H4746	\$85	A/C Unit
18 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	H4747	\$105	A/C Unit
19 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	H5073	\$125	A/C Unit
20 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	H5074	\$145	A/C Unit
NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
16 SEER Split System A/C, < 5.42 tons	N-H4737	\$30	A/C Unit
17 SEER Split System A/C, < 5.42 tons	N-H4738	\$40	A/C Unit
18 SEER Split System A/C, < 5.42 tons	N-H4739	\$50	A/C Unit
19 SEER Split System A/C, < 5.42 tons	N-H5069	\$60	A/C Unit
20 SEER Split System A/C, < 5.42 tons	N-H5070	\$70	A/C Unit
16 SEER Single Package A/C, < 5.42 tons	N-H4741	\$30	A/C Unit
17 SEER Single Package A/C, < 5.42 tons	N-H4742	\$40	A/C Unit
18 SEER Single Package A/C, < 5.42 tons	N-H4743	\$50	A/C Unit
19 SEER Single Package A/C, < 5.42 tons	N-H5071	\$60	A/C Unit
20 SEER Single Package A/C, < 5.42 tons	N-H5072	\$70	A/C Unit
16 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	N-H4745	\$45	A/C Unit
17 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	N-H4746	\$55	A/C Unit
18 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	N-H4747	\$65	A/C Unit
19 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	N-H5073	\$75	A/C Unit
20 SEER and 9.0 HSPF Heat Pump, < 5.42 tons	N-H5074	\$85	A/C Unit



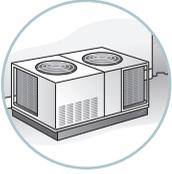
AIR CONDITIONING (A/C) SPLIT AND PACKAGED SYSTEMS ≥ 5.42 TONS

Requirements:

- **Complete Table B1 of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “Part Load Eff. To Qualify” column, use the IEER value listed in the Measure Description below. Example: for a 7.50 ton unit, the “Part Load Eff. To Qualify” would be 13.8 IEER.
 - For the “Delta Efficiency” column, use “AHRI Rated Part Load Efficiency – Part Load Eff. To Qualify.”
 - For the “Incentive Rate” column, use “Additional Incentive + Base Incentive.”
 - For the “Total Incentive” column, use “AHRI Rated Capacity x Incentive Rate.”
 - Only complete one line of supplemental data sheet if multiple of the exact same model number were installed.
 - Provide capacity and performance values to two decimal places.
- Incentive is for the installation of high-efficiency packaged rooftop units and split system air conditioning equipment ≥ 5.42 tons (65,000 BTU). The base incentive rate for meeting the minimum efficiency is \$25/ton (existing building) or \$20/ton (new construction), with an additional \$5/ton (existing building) or \$3/ton (new construction) for each 1.0 IEER that the cooling system exceeds the minimum efficiency.
- For assistance with determining equipment eligibility and incentive rate, look for the Cooling Eligibility Screening Tool at focusenergy.com/catalogs.
- Incentives are for standard HVAC applications only. Rooftop units and split system air conditioners used for industrial process cooling, data centers, ice rinks and refrigerated warehouses may qualify for a custom incentive.
- Rated AHRI efficiency must meet or exceed minimum ratings shown for EER and IEER. AHRI-verified cooling capacity and IEER will be used to calculate the incentive.
 - Equipment > 63.33 tons is not listed in ahridirectory.org. For this equipment, provide a manufacturer performance that indicates ratings are “at AHRI conditions”.
- For multiple of the exact same model number, complete the Incentive Application as follows: enter qty @ tons each in the # of Units column (example: 3 @ 11.50).
- For split systems:
 - Performance data must be for the “Matched Air Handler” or “Complete System” that includes the condensing unit, evaporator coil, and supply fan. If this data is not available in ahridirectory.org, the manufacturer or Trade Ally must provide modeled or calculated performance data at AHRI conditions for the “complete system”, including expected capacity and EER, to be eligible for this measure.
 - “Condensing Unit Only” performance data is not acceptable to qualify for this incentive. If only the condensing unit is replaced or the “condensing unit only” performance data is all that is available, use Split System Air Conditioning - Condensing Unit Only incentive (H3909).
 - Both the condenser and evaporator coils must be replaced. Refrigerant line diameters must meet manufacturer specifications.
 - Must include evaporator coil model number.

EQUIPMENT UPGRADES AND RETROFITS				
Measure Description	Code	Incentive	Unit	
DX Cooling ≥ 5.42 to < 11.25 tons, Min. Eff. = 12.0 EER and 13.8 IEER (additional incentive on IEER)	H4368*	\$25/ton + \$5/ton per 1.0 IEER over min.	Ton	
DX Cooling ≥ 11.25 to < 20.00 tons, Min. Eff. = 12.0 EER and 13.0 IEER (additional incentive on IEER)	H4369*	\$25/ton + \$5/ton per 1.0 IEER over min.	Ton	
DX Cooling ≥ 20.00 to < 63.33 tons, Min. Eff. = 10.3 EER and 12.1 IEER (additional incentive on IEER)	H4370*	\$25/ton + \$5/ton per 1.0 IEER over min.	Ton	
DX Cooling ≥ 63.33 tons, Min. Eff. = 9.7 EER and 11.4 IEER (additional incentive on IEER)	H4371*	\$25/ton + \$5/ton per 1.0 IEER over min.	Ton	
* Supplemental Data Sheet needed				

NEW CONSTRUCTION AND MAJOR RENOVATIONS				
Measure Description	Code	Incentive	Unit	
DX Cooling ≥ 5.42 to < 11.25 tons, Min. Eff. = 12.0 EER and 13.8 IEER (additional incentive on IEER)	N-H4368*	\$20/ton + \$3/ton per 1.0 IEER over min.	Ton	
DX Cooling ≥ 11.25 to < 20.00 tons, Min. Eff. = 12.0 EER and 13.0 IEER (additional incentive on IEER)	N-H4369*	\$20/ton + \$3/ton per 1.0 IEER over min.	Ton	
DX Cooling ≥ 20.00 to < 63.33 tons, Min. Eff. = 10.3 EER and 12.1 IEER (additional incentive on IEER)	N-H4370*	\$20/ton + \$3/ton per 1.0 IEER over min.	Ton	
DX Cooling ≥ 63.33 tons, Min. Eff. = 9.7 EER and 11.4 IEER (additional incentive on IEER)	N-H4371*	\$20/ton + \$3/ton per 1.0 IEER over min.	Ton	
* Supplemental Data Sheet needed				



SPLIT SYSTEM AIR CONDITIONING – CONDENSING UNIT ONLY

Requirements:

- **Complete Table B2 of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “Min. Eff. To Qualify” column, use the value listed in the Measure Description below (11.1 EER).
 - For the “Delta Efficiency” column, use “AHRI Rated Full Load Efficiency” – “Min. Eff. To Qualify.”
 - For the “Incentive Rate” column, use “Additional Incentive” + “Base Incentive.”
 - For the “Total Incentive” column, use “AHRI Rated Capacity” x “Incentive Rate.”
 - Only complete one line of supplemental data sheet if multiple of the exact same model number were installed.
- Incentive is for the installation of high-efficiency condensing units for use in split system air conditioning systems. The base incentive rate for meeting the minimum efficiency is \$20/ton (existing building) or \$15/ton (new construction), with an additional \$5/ton incentive (existing building) or \$3/ton (new construction) for each 1.0 EER that the cooling system exceeds the minimum efficiency. For example, a 15.00 ton, 11.7 EER condensing unit for an existing building would be eligible for a \$20/ton + (0.6 EER over minimum x \$5/ton) = \$23/ton incentive.
- For assistance with determining equipment eligibility and incentive rate, look for the Cooling Eligibility Screening Tool at focusonenergy.com/catalogs.
- Incentives are for standard HVAC applications only. Condensing units used for industrial process cooling, data centers, ice rinks and refrigerated warehouses may qualify for a custom incentive.
- Rated AHRI efficiency must meet or exceed minimum ratings shown for EER. AHRI-verified cooling capacity and EER will be used to calculate the incentive.
 - Equipment ≥ 20.83 tons is not listed in the ahridirectory.org. For this equipment, provide manufacturer performance data sheet that indicates ratings are “at AHRI conditions”.
- For multiple of the exact same model number, complete the Incentive Application as follows: enter qty @ tons each in the # of Units column (example: 3 @ 11.50).
- Condensing units may be included in the Split and Packaged Systems Incentives (H4368, H4369, H4370, H4371) or the Condensing Unit Only Incentives (H3909), but not both.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Split System A/C Condensing Unit Only, ≥ 11.25 tons, ≥ 11.1 EER	H3909*	\$20/ton + \$5/ton per 1.0 EER over min.	Ton
* Supplemental Data Sheet needed			

PRO TIP

Additional system strategies include variable speed fans and compressor controls to more effectively use the refrigerant and modulate the temperature and amount of cooled air supplied to the space. See economizers, demand controlled ventilation (DCV) and smart thermostats for additional savings opportunities.

CHILLERS



General Requirements: Chillers purchased or installed for backup or redundant systems are not eligible. Chiller components, such as motors and variable frequency drives (VFD), are incented as part of the chiller package and are not independently eligible for prescriptive incentives during a chiller replacement.



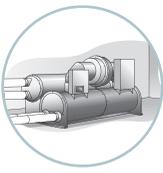
AIR-COOLED CHILLERS

Requirements:

- **Complete Table C1 and C2 of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For “Annual Hours of Chiller Operation,” enter total hours per year when chiller is enabled by control system to provide cooling for all or a portion of the building.
 - For the “Max Full Load” and “Max Part Load (IPLV)” columns, use the values listed in the Measure Description below.
 - For the “Delta Efficiency” column, use: (“Max Full Load” – “AHRI Rated Full Load Efficiency”) + (“Max Part Load (IPLV)” – “AHRI Rated Part Load Efficiency”).
 - The “Additional Incentive” is the “Delta Efficiency” x \$125/ton for existing buildings and \$90/ton for new construction. The incentive increases as the full and part load kW/ton exceed the minimum requirements.
 - The “Base Incentive” is \$8/ton for existing buildings and \$4/ton for new construction.
 - The “Incentive Rate” is: “Base Incentive” + “Additional Incentive.”
 - The “Total Incentive” is: “AHRI Rated Capacity” x “Incentive Rate.”
- Chillers must be air cooled and driven by an electric motor. Absorption chillers, engine driven and steam turbine driven chillers are not eligible for this incentive but may be eligible for a custom incentive.
- **Manufacturer specification sheets for items installed must be submitted with the completed Incentive Application.** Chiller specification sheets must include performance data, including full load efficiency in kW/ton, IPLV value in kW/ton and capacity in tons at AHRI standard rating conditions per AHRI Standard 550/590 test procedures.
- “Path A” refers to chillers that are optimized for full load applications, while “Path B” refers to chillers that are optimized for part load applications.
- Incentives are calculated based on performance data (including capacity) at AHRI standard rating conditions.
- The full product identification/model number must be shown on the AHRI specification sheets and invoices.
- Equipment must meet both full load efficiency and part load efficiency.
- Equipment must be purchased and operating prior to submitting an Incentive Application form (unless submitting for pre-approval).
- Electric chiller incentives are only available for HVAC space cooling applications. Chillers used for industrial process cooling, ice rinks, data centers and refrigerated warehouses may qualify for a custom incentive.
- Provide all kW/ton values to three decimal places and round appropriately (e.g., enter 1.1421 kW/ton as 1.142 kW/ton).
- For assistance with determining chiller eligibility and incentive rate, look for the Cooling Eligibility Screening Tool at focusonenergy.com/catalogs.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Air-Cooled <150 tons, Path A, Full Load ≤1.160 kW/ton, Part Load ≤0.880 kW/ton	H4712*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Air-Cooled ≥150 tons, Path A, Full Load ≤1.160 kW/ton, Part Load ≤0.860 kW/ton	H4713*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Air-Cooled <150 tons, Path B, Full Load ≤1.240 kW/ton, Part Load ≤0.730 kW/ton	H4714*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Air-Cooled ≥150 tons, Path B, Full Load ≤1.240 kW/ton, Part Load ≤0.720 kW/ton	H4715*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
* Supplemental Data Sheet needed			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Air-Cooled <150 tons, Path A, Full Load ≤1.160 kW/ton, Part Load ≤0.880 kW/ton	N-H4712*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Air-Cooled ≥150 tons, Path A, Full Load ≤1.160 kW/ton, Part Load ≤0.860 kW/ton	N-H4713*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Air-Cooled <150 tons, Path B, Full Load ≤1.240 kW/ton, Part Load ≤0.730 kW/ton	N-H4714*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Air-Cooled ≥150 tons, Path B, Full Load ≤1.240 kW/ton, Part Load ≤0.720 kW/ton	N-H4715*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
* Supplemental Data Sheet needed			



WATER-COOLED CHILLERS

Requirements:

- **Complete Table C1 and C2 of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For “Annual Hours of Chiller Operation,” enter total hours per year when chiller is enabled by control system to provide cooling for all or a portion of the building.
 - For the “Max Full Load” and “Max Part Load (IPLV)” columns, use the values listed in the Measure Description below.
 - For the “Delta Efficiency” column, use: (“Max Full Load” – “AHRI Rated Full Load Efficiency”) + (“Max Part Load (IPLV)” – “AHRI Rated Part Load Efficiency”).
 - The “Additional Incentive” is the “Delta Efficiency” x \$125/ton for existing buildings and \$90/ton for new construction. The incentive increases as the full and part load kW/ton exceed the minimum requirements.
 - The “Base Incentive” is listed in the incentives table below (\$8/ton for existing buildings or \$4/ton for new construction).
 - The “Incentive Rate” is: “Base Incentive” + “Additional Incentive.”
 - The “Total Incentive” is: “AHRI Rated Capacity” x “Incentive Rate.”
- Chillers must be water cooled and driven by an electric motor. Absorption chillers, engine driven and steam turbine driven chillers are not eligible for this incentive but may be eligible for a custom incentive.
- **Manufacturer specification sheets for items installed must be submitted with the completed Incentive Application.** Chiller specification sheets must include performance data, including full load efficiency in kW/ton, IPLV values in kW/ton and capacity on tons at AHRI standard rating conditions per AHRI Standard 550/590 test procedures.
- Incentives are calculated based on performance data (including capacity) at AHRI standard rating conditions.
- The full product identification/model number must be shown on the AHRI specification sheets and invoices.
- Equipment must meet both full load efficiency and part load efficiency.
- Equipment must be purchased and operating prior to submitting an Incentive Application form (unless submitting for pre-approval).
- Electric chiller incentives are only available for HVAC space cooling applications. Chillers used for industrial process cooling, ice rinks, data centers, and refrigerated warehouses may qualify for a custom incentive.
- Provide all kW/ton values to three decimal places and round appropriately (e.g., enter 0.6421 kW/ton as 0.642 kW/ton).
- For assistance with determining chiller eligibility and incentive rate, look for the Cooling Eligibility Screening Tool at focusenergy.com/catalogs.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description – Path A	Code	Incentive	Unit
Positive Displacement Water-Cooled, <75 tons, Full Load ≤0.720 kW/ton and Part Load ≤0.600 kW/ton	H4716*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥75 tons and <150 tons, Full Load ≤0.690 kW/ton and Part Load ≤0.560 kW/ton	H4717*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥150 tons and < 300 tons, Full Load ≤0.630 kW/ton and Part Load ≤0.540 kW/ton	H4718*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥300 tons and <600 tons, Full Load ≤0.580 kW/ton and Part Load ≤0.520 kW/ton	H4719*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥600 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.500 kW/ton	H4720*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, <150 tons, Full Load ≤0.580 kW/ton and Part Load ≤0.550 kW/ton	H4726*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥150 tons and <300 tons, Full Load ≤0.580 kW/ton and Part Load ≤0.550 kW/ton	H4727*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥300 tons and <400 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.520 kW/ton	H4728*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥400 tons and <600 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.500 kW/ton	H4729*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥600 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.500 kW/ton	H4730*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Measure Description – Path B	Code	Incentive	Unit
Positive Displacement Water-Cooled, <75 tons, Full Load ≤0.780 kW/ton and Part Load ≤0.470 kW/ton	H4721*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥75 tons and <150 tons, Full Load ≤0.750 kW/ton and Part Load ≤0.460 kW/ton	H4722*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥150 tons and <300 tons, Full Load ≤0.680 kW/ton and Part Load ≤0.410 kW/ton	H4723*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥300 tons and <600 tons, Full Load ≤0.625 kW/ton and Part Load ≤0.380 kW/ton	H4724*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥600 tons, Full Load ≤0.585 kW/ton and Part Load ≤0.350 kW/ton	H4725*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, <150 tons, Full Load ≤0.695 kW/ton and Part Load ≤0.410 kW/ton	H4731*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥150 tons and <300 tons, Full Load ≤0.635 kW/ton and Part Load ≤0.370 kW/ton	H4732*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥300 tons and <400 tons, Full Load ≤0.595 kW/ton and Part Load ≤0.360 kW/ton	H4733*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥400 tons and <600 tons, Full Load ≤0.585 kW/ton and Part Load ≤0.350 kW/ton	H4734*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥600 tons, Full Load ≤0.585 kW/ton and Part Load ≤0.350 kW/ton	H4735*	\$8/ton + \$125/ton per 1.0 Delta Efficiency below max.	Ton

* Supplemental Data Sheet needed

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description — Path A	Code	Incentive	Unit
Positive Displacement Water-Cooled, <75 tons, Full Load ≤0.720 kW/ton and Part Load ≤0.600 kW/ton	N-H4716*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥75 tons and <150 tons, Full Load ≤0.690 kW/ton and Part Load ≤0.560 kW/ton	N-H4717*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥150 tons and < 300 tons, Full Load ≤0.630 kW/ton and Part Load ≤0.540 kW/ton	N-H4718*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥300 tons and <600 tons, Full Load ≤0.580 kW/ton and Part Load ≤0.520 kW/ton	N-H4719*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥600 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.500 kW/ton	N-H4720*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, <150 tons, Full Load ≤0.580 kW/ton and Part Load ≤0.550 kW/ton	N-H4726*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥150 tons and <300 tons, Full Load ≤0.580 kW/ton and Part Load ≤0.550 kW/ton	N-H4727*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥300 tons and <400 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.520 kW/ton	N-H4728*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥400 tons and <600 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.500 kW/ton	N-H4729*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥600 tons, Full Load ≤0.530 kW/ton and Part Load ≤0.500 kW/ton	N-H4730*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Measure Description — Path B	Code	Incentive	Unit
Positive Displacement Water-Cooled, <75 tons, Full Load ≤0.780 kW/ton and Part Load ≤0.470 kW/ton	N-H4721*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥75 tons and <150 tons, Full Load ≤0.750 kW/ton and Part Load ≤0.460 kW/ton	N-H4722*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥150 tons and <300 tons, Full Load ≤0.680 kW/ton and Part Load ≤0.410 kW/ton	N-H4723*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥300 tons and <600 tons, Full Load ≤0.625 kW/ton and Part Load ≤0.380 kW/ton	N-H4724*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Positive Displacement Water-Cooled, ≥600 tons, Full Load ≤0.585 kW/ton and Part Load ≤0.350 kW/ton	N-H4725*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, <150 tons, Full Load ≤0.695 kW/ton and Part Load ≤0.410 kW/ton	N-H4731*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥150 tons and <300 tons, Full Load ≤0.635 kW/ton and Part Load ≤0.370 kW/ton	N-H4732*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥300 tons and <400 tons, Full Load ≤0.595 kW/ton and Part Load ≤0.360 kW/ton	N-H4733*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥400 tons and <600 tons, Full Load ≤0.585 kW/ton and Part Load ≤0.350 kW/ton	N-H4734*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton
Centrifugal Water-Cooled, ≥600 tons, Full Load ≤0.585 kW/ton and Part Load ≤0.350 kW/ton	N-H4735*	\$4/ton + \$90/ton per 1.0 Delta Efficiency below max.	Ton

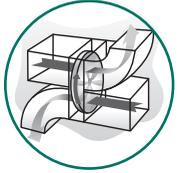
* Supplemental Data Sheet needed

PRO TIP

Chillers are typically sized for the hottest day of the year but run at much less than full capacity the majority of the time. Selecting a chiller with excellent part-load performance and good loading and unloading characteristics will help maximize energy efficiency.

VENTILATION AND CONTROLS

VENTILATION UPGRADES



ENERGY RECOVERY VENTILATORS (ERV)

Requirements:

- **Complete Table D of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - Provide efficiency of the building’s cooling and heating systems to two decimal places. This information will not affect ERV incentive. If the heating or cooling efficiency of equipment for space served by the ERV is unknown, provide the manufacturer’s name and model instead.
 - For Winter and Summer Effectiveness, use the Net Total % Effectiveness at 100% flow from AHRI database.
- Incentive intended for standard HVAC applications only; other applications such as industrial process heat recovery may be eligible for a custom incentive.
- Areas served by ERVs must be air conditioned during the periods of June through August from 1 to 4 p.m. on weekdays and heated during the winter by natural gas or electric from a participating utility. If this requirement is not met, the project may be eligible for a custom incentive.
- Replacement of existing ERV and use of ERV where required by state code does NOT qualify.
- Equipment must be AHRI certified to Standard 1060 (see ahridirectory.org). ERV design submittal and spec sheet must be provided.
- Efficiency ratings (supply airflow, summer and winter effectiveness) will be verified using the AHRI database (ahridirectory.org) when data is available. The lesser of the actual project CFM and the AHRI-rated supply CFM will be used to calculate the incentive.
- For equipment where AHRI only lists the manufacturer’s selection software, provide an output report from the software showing supply airflow and net summer/winter effectiveness at the intended project conditions.
- Custom engineered ERVs, and ERVs integral to packaged rooftop units or air handlers which use AHRI certified heat exchangers must provide documentation (supply airflow, summer and winter effectiveness, manufacturer, model number) specific to the heat exchanger component within the overall system.
- Sensible & Latent energy recovery ventilators recover both heat and moisture from the exhaust air in order to maintain the indoor air humidity levels. Sensible only energy recovery ventilators only recover heat from the exhaust air and vent the humidity to outdoors. This is commonly done for spaces like locker rooms. Sensible only ERVs can be identified on spec sheets and AHRI performance ratings since the latent and net latent effectiveness are zero.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Energy Recovery Ventilator, Sensible & Latent Heat	H2314*	\$0.75	CFM
Energy Recovery Ventilator, Sensible Heat Only	H5082*	\$0.65	CFM
* Supplemental Data Sheet needed			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Energy Recovery Ventilator, Sensible & Latent Heat	N-H2314*	\$0.60	CFM
Energy Recovery Ventilator, Sensible Heat Only	N-H5082*	\$0.50	CFM
* Supplemental Data Sheet needed			

PRO TIP

Facilities with large quantities of exhaust air or long hours of operation can use ERVs to recover between 50% and 85% of the cooling and heating energy that would otherwise be lost. An ERV designed to exchange both latent and sensible energy will precool and dehumidify outside ventilation air during the cooling season while preheating and humidifying during the heating season.

**For more information,
call 800.762.7077
or visit focusonenergy.com**

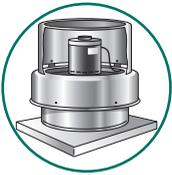


ECONOMIZERS

Requirements:

- **Complete Table E of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “AHU Controls” column, enter “No Setback,” “EMS” for energy management system or “T-Stat” for programmable thermostat.
 - Provide capacity and performance values to two decimal places.
- This incentive is for retrofitting an existing air handler that currently does not have an economizer and is not eligible on new AHUs where economizers are required by code.
- Economizers attached to RTUs or AHUs with single stage compressors should be controlled by advanced thermostats with integrated economizer controls that allow an economizer stage as the first stage.
- Economizers should be set up with a changeover point of 60 °F in order to maximize savings.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Economizer (Existing RTU or AHU Only)	H3066*	\$200	RTU/AHU
* Supplemental Data Sheet needed			



ELECTRONICALLY COMMUTATED MOTOR (ECM) HVAC FAN MOTORS

Requirements:

- This incentive is for the installation of an electronically commutated motor (ECM) ≤ 1 HP on air handling equipment such as exhaust fans, fan coil units, fan powered VAV boxes, unit heaters, and cabinet heaters.
- Furnaces with ECM and single package vertical units with ECM do not qualify for this incentive, as the ECM is already covered by the Furnace measures in the Forced Air and Radiant Heat section of this catalog.
- Choose the measure code from the table below depending on when the fan operates: “heating only” for equipment that only runs during the heating season, “cooling only” for equipment that only runs during the cooling season, “occupied ventilation” for equipment that runs during the heating and cooling season or for scheduled exhaust fans, and “24/7 ventilation” for fans that run continuously.
- New motors may be an upgrade or replace either shaded pole or permanent split capacitor motors. Replacement of an existing ECM does not qualify.
- **A manufacturer specification sheet that includes motor HP must be provided.**

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
HVAC Fan with ECM, Heating Only	H3910	\$25	Motor
HVAC Fan with ECM, Cooling Only	H3911	\$25	Motor
HVAC Fan with ECM, Occupied Ventilation	H3912	\$25	Motor
HVAC Fan with ECM, 24/7 Ventilation	H3913	\$25	Motor

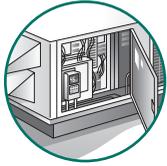
PRO TIP

Dry-bulb-type economizers can be set to 60 °F to maximize free cooling and reduce mechanical cooling run time. Enthalpy-controlled economizers can be set to 70 °F and will account for both temperature and humidity of the outside air.

CUSTOM PROJECT IDEA

Talk to your Energy Advisor about custom incentives that may be available for reducing energy waste by **reducing outside air** to meet minimum requirements for actual number of occupants.

CONTROLS



ADVANCED ROOFTOP UNIT CONTROLLERS

Requirements:

- **Complete Table F of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “Nominal Cooling Capacity” column, enter the manufacturer’s nominal capacity in tons to two decimal places.
 - For the “Fan HP” column, enter the supply fan HP. If return fan has a VFD, add return fan HP to supply fan HP for a total HP.
 - For the “Economizer Operational?” column, enter “Yes” or “No”.
 - For the “Weekday Open/Close Times”, “Saturday Open/Close Times”, and “Sunday Open/Close Times” columns, enter the time the facility opens and the time the facility closes, and include a.m. or p.m. If the facility is closed for a specific day, note that rather than entering an open and close time.
- Existing rooftop units to be controlled must be constant volume units with single speed supply fan and have direct expansion cooling with either natural gas or electric heating. Rooftop units must also have a functioning economizer, have a ≥ 1.0 HP supply fan, and have ≥ 7 nominal tons of cooling.
- The existing rooftop unit must serve a space occupied (open for business) for at least 1,500 hours per year.
- Advanced rooftop unit controllers must provide:
 - Multispeed or variable speed control of the supply fan
 - Modulating outdoor air damper control to maintain proper ventilation rates according to Wisconsin Commercial Building Code under different fan speeds
 - Demand control ventilation (DCV) to modulate outdoor air supplied to the building
 - Integrated economizer functionality (stages on and off as needed)
- Projects installing advanced rooftop unit controllers cannot also apply for the prescriptive incentives for DCV and variable frequency drives.
- Incentive is available for installation of advanced rooftop unit controllers on existing units or for new replacement rooftop units on existing buildings. Advanced rooftop unit controllers are not eligible when installed on a new replacement rooftop unit if the old rooftop unit had advanced rooftop unit controls.
- **A list of qualified advanced rooftop unit controllers can be found on focusenergy.com/qpls. If a proposed advanced rooftop unit controller solution is not on the qualified products list, contact Focus on Energy prior to initiating the project to confirm the solution will qualify.**
- Eligibility for advanced rooftop unit measure is based on customer having both an eligible electric and natural gas utility, unless applying for rooftop units with electric heat, in which case only an eligible electric utility is required. Customers with only an eligible natural gas utility or an eligible electric utility (without electric heat rooftop units) may qualify for custom incentives.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Advanced Rooftop Unit Controllers	H3964*	\$90	Ton
* Supplemental Data Sheet needed			

CUSTOM PROJECT IDEA

Talk to your Energy Advisor about custom incentives that may be available for **adjusting your schedule** to reduce energy waste from better aligning equipment run time with occupied hours.



DEMAND CONTROL VENTILATION (DCV)

Requirements:

- **Complete Table G of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “Space Cooling Type” column, enter “DX,” “Air-Cooled Chiller,” “Water-Cooled Chiller,” “None” or other type of cooling system as appropriate.
 - For the “Space Heating Type” column, enter “Gas,” “Hot Water,” “Steam,” “Electric Resistance,” “Electric Heat Pump” or other type of heating system as appropriate. For “Steam,” steam must be on-site generated.
 - For the “Area Served Type” column, enter a short descriptor of the space type, such as office, retail, school classrooms, gym, etc.
 - For the “Economizer” column, enter “DB” for dry bulb or “Enthalpy.”
 - For the “AHU Controls” column, enter “No Setback,” “EMS” for energy management system or “T-Stat” for programmable thermostat.
- For air handling unit (AHU) and rooftop units (RTU), DCV controls must measure CO₂ levels in the conditioned space and provide the “code” required “minimum” level of outside air (actual occupant portion) without over-ventilating. Sensors should be wall-mounted at an appropriate height within the space. Sensors may be installed in return air ductwork only if space mounting is not possible and the return duct serves a single zone.
- Spaces controlled by DCV must be heated with natural gas or electricity from a participating utility, but are not required to be air conditioned. DCV installations required by code are not eligible.
- DCV for AHU measure is intended for central air handling units which have multiple individually controlled spaces and will require a CO₂ sensor in each occupied zone served by the AHU. Unit ventilators may be eligible for the multiple zone incentive (MMID 2853) as long as all other requirements are met, including a functioning economizer.
- Single zone RTUs must apply using the DCV for Single Zone RTU measure (H3266) and are not eligible under the DCV for AHU measure (H2853).
- All installations must comply with code requirements for ventilation.
- Multiple zone AHU/RTU incentive is per CFM of occupant portion of the minimum outside air reduced when not in economizer mode, not total CFM provided by the AHU or RTU. At a minimum, the occupant portion of the outside airflow should be set to the average number of occupants in the zones served by the AHU/RTU multiplied by 7.5 CFM per occupant (current code minimum). See Chapter SPS 364, Heating, Ventilating and Air Conditioning at https://docs.legis.wisconsin.gov/code/admin_code/sps/safety_and_buildings_and_environment/361_366/364.
- DCV installations are expected to provide additional ventilation air when sensing high CO₂ levels during occupied modes of operation (including heating, cooling, and ventilation only modes).
- If system is custom-built using a CO₂ sensor and the buildings existing automation system, provide a copy of the control sequence that was programmed into the building automation system.
- For new construction, not eligible for incentives where required by state code.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
DCV for Multiple Zone RTU/AHU/Unit Ventilator	H2853*	\$0.20	CFM Reduced
DCV for Single Zone RTU/AHU	H3266*	\$350	RTU/AHU
* Supplemental Data Sheet needed Incentive amount is limited to 50% of the project cost, including equipment and external labor (internal labor eligible for schools and government customers).			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
DCV for AHU	N-H2853*	\$0.20	CFM Reduced
DCV for Single Zone RTU/AHU	N-H3266*	\$350	RTU/AHU
* Supplemental Data Sheet needed Incentive amount is limited to 50% of the project cost, including equipment and external labor (internal labor eligible for schools and government customers).			

PRO TIP

Spaces with large variations in occupancy are great candidates for DCV. Controls allow the HVAC system to determine the proper level of ventilation without creating unnecessary heating and cooling loads.

PRO TIP

CO₂ sensors with a 2% accuracy rating are recommended for long term reliability.



DEMAND CONTROLLED KITCHEN VENTILATION SYSTEMS

Requirements:

- **Exhaust Fan Requirements:**
 - Equipment must slow down the exhaust fan during idle or non-cooking periods when full-speed ventilation is not needed.
 - A temperature sensing device must sense the duct temperature.
 - An optical sensing device must detect the presence of smoke or cooking effluent.
 - Incentive unit is based on the size of the exhaust fan motor.
- **Make-up Air Fan Incentives:**
 - Only available for projects where Temperature Sensing or Temperature & Optical Sensing exhaust fan control incentive is also being applied for.
 - Must modulate the speed of the fan motor based on inputs from a temperature sensor mounted in the exhaust duct or the hood.
 - Incentive is based on the size of the MAU fan motor.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Temperature Sensing Controlling Exhaust Fan	K2623	\$200	HP Controlled
Add-on MAU Fan Controls (Temperature Sensing Only)	K2621	\$40	HP Controlled
Temperature & Optical Sensing Controlling Exhaust Fan	K2627	\$600	HP Controlled
Add-on MAU Fan Controls (Temperature & Optical Sensing)	K2625	\$80	HP Controlled



GUEST ROOM ENERGY MANAGEMENT

Requirements:

- **If the heating/cooling system is Packaged Terminal Air Conditioner (PTAC) units with electric resistance heating or PTHP, no supplemental data is needed. If the heating/cooling system is anything else, then complete Table H of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “HVAC System Type” column, enter a brief description of the in-room HVAC system, such as “PTAC with hot water heat,” “water source heat pump” or “fan coil.”
 - For “Cooling Efficiency w/Units,” enter both cooling efficiency value and the units (kW/ton, EER, COP).
 - For the “Cooling System Source,” enter “Air-Cooled Chiller,” “Water-Cooled Chiller,” etc.
 - For “Cooling Capacity per Room,” enter the cooling capacity of the in-room HVAC in tons.
 - For “Heating Capacity per Room,” enter the heater capacity of the in-room HVAC in MBh.
 - For the “Heating Efficiency w/Units,” enter both heating efficiency value and the units (% efficient, COP, etc.).
 - For the “Heating System Source,” enter “Hot Water Boiler,” “Steam Boiler,” etc.
- Must be a lodging business.
- The incentive is for occupancy-based guest room energy management controls.
- Occupancy control may be key-activated or sensed due to motion or body heat and must control the HVAC system serving the room.
- All other HVAC systems: Both the heating source and cooling source need to be served by an eligible utility (i.e., no city steam, propane heat, eligible gas provider but non-participating electric provider, etc.).
 - If there are multiple combinations of cooling and heating capacities, list each on a separate line with associated number of rooms at that capacity.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Guest Room Energy Management (PTAC w/electric heat)	H2373	\$40	Room
Guest Room Energy Management (PTHP)	H4748	\$40	Room
Guest Room Energy Management (all other HVAC systems)	H2374*	\$40	Room
* Supplemental Data Sheet needed			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Guest Room Energy Management (PTAC w/electric heat)	N-H2373	\$40	Room
Guest Room Energy Management (PTHP)	N-H4748	\$40	Room
Guest Room Energy Management (all other HVAC systems)	N-H2374*	\$40	Room
* Supplemental Data Sheet needed			



SMART THERMOSTATS

Requirements:

- Smart thermostats must replace a standard (manual) or programmable thermostat.
- **Smart thermostats must be certified as an ENERGY STAR® Smart Thermostat or listed on the Focus on Energy qualified products list at focusonenergy.com/business/qpls.**
- For thermostats controlling natural gas boilers and unit heaters, provide capacity controlled by the thermostat (MBh) per the example below.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Smart Thermostat, Natural Gas Boiler	H4375	\$50	T-Stat
Smart Thermostat, Natural Gas Furnace	H4376	\$50	T-Stat
Smart Thermostat, Rooftop Unit with AC and Natural Gas Heat	H4377	\$50	T-Stat
Smart Thermostat, Unit Heater, Standard Efficiency	H5079	\$50	T-Stat
Smart Thermostat, Unit Heater, ≥90% TE	H5080	\$50	T-Stat

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Smart Thermostat, Natural Gas Boiler	N-H4375	\$50	T-Stat
Smart Thermostat, Natural Gas Furnace	N-H4376	\$50	T-Stat
Smart Thermostat, Rooftop Unit with AC and Natural Gas Heat	N-H4377	\$50	T-Stat
Smart Thermostat, Unit Heater, Standard Efficiency	N-H5079	\$50	T-Stat
Smart Thermostat, Unit Heater, ≥90% TE	N-H5080	\$50	T-Stat

EXAMPLE

Smart Thermostat for Natural Gas Boiler Example

INCENTIVE CODE	MANUFACTURER NAME	MODEL #	UNIT MEASURE	# OF UNITS (A)	INCENTIVE PER UNIT (B)	TOTAL INCENTIVE (A X B)
H4375	XYZ Boilers	B199	T-Stat	1	\$50	\$50
-----	Boiler Capacity Controlled		MBh	55	-----	-----

VARIABLE FREQUENCY DRIVES (VFDS)

General Requirements: The system controlled must have significant load diversity that will result in savings through motor speed variation. Units installed only to allow soft starts are not eligible. Redundant or backup units do not qualify. Replacement of an existing variable frequency drive (VFD) does not qualify.

VFDs may not be beneficial in pump systems where static head makes up a large portion of the total system head. It is also important that the load on the system vary over time to take advantage of the savings that a VFD can provide. Be sure to understand these aspects of your system and discuss them with the equipment vendor in advance of applying VFD technology.



VARIABLE FREQUENCY DRIVE (VFD)

Requirements:

- **Complete Table I of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “VFD Application” column, enter “Chilled Water Distribution Pump”, “HVAC Heating Pump”, “Process Pump”, “Pool Pump”, “Boiler Draft Fan”, “Cooling Tower Fan,” “HVAC Fan,” or “Process Fan”.
 - For the “Controls Before VFD” column, enter “Outlet Control Valve,” “Bypass Valve,” “Discharge Damper,” “Inlet Guide Vanes,” “On/Off,” “None,” or “Other” and then describe.
- The individual motors controlled by the VFD must operate a minimum of 2,000 hours annually and may not exceed 500 horsepower. VFDs controlling motors larger than 500 HP or that run <2,000 hours annually may be eligible for a custom incentive.
- VFD speed must be automatically controlled by differential pressure, flow, temperature or other variable signal.
- VFDs added to chillers, kitchen ventilation hoods and air compressors do not qualify for this incentive. Refer to “Cooling Systems” section of this catalog if installing a chiller with a VFD, Process Systems Incentive Catalog if installing a Variable Speed Drive air compressor, or apply for a custom incentive if installing a VFD somewhere else.
- VFD must be installed on a centrifugal or axial flow pump or fan, i.e., a variable torque load.
- Staged air volume systems (using a VFD to achieve two-speed fan control on a rooftop unit) are not eligible but may be eligible for a custom incentive.
- For constant torque and variable torque VFD incentives for industrial and process uses, see the Variable Frequency Drive section of the Process Systems Incentive Catalog.
- For VFDs for agribusiness equipment, see the Agribusiness Incentive Catalog.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Variable Torque VFD, Boiler Draft Fan	H2640*	\$35	HP
Variable Torque VFD, Cooling Tower Fan	H2641*	\$35	HP
Variable Torque VFD, HVAC Fan	H2643*	\$35	HP
Variable Torque VFD, Chilled Water Distribution Pump	H2726*	\$35	HP
Variable Torque VFD, HVAC Heating Pump	H2644*	\$35	HP
Variable Torque VFD, Pool Pump Motor	H2646*	\$35	HP
* Supplemental Data Sheet needed			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Variable Torque VFD, Boiler Draft Fan	N-H2640*	\$25	HP
Variable Torque VFD, Pool Pump Motor	N-H2646*	\$25	HP
* Supplemental Data Sheet needed			

DRYER CONTROLS



DRYER CONTROLS

Requirements:

- Complete Table J of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.
 - For the “Burner Size” column, enter the nameplate burner capacity in Btu/hr of the dryer.
 - For the “Dryer Capacity” column, enter the dryer capacity in pounds of laundry. If available, provide both Burner Size and Dryer Capacity. At a minimum, one of these two values needs to be provided.
 - For “Average Drying Time,” provide the average time to dry a load of clothes (in minutes) prior to the controls being installed.
 - For “Average Loads per Day,” provide the number of loads dried per day per dryer. If loads per day varies significantly during the year, provide details to describe (such as 15 loads/day for 120 days and 7 loads/day for 245 days).
- Dryer must be a commercial natural gas dryer with 30-250 pounds capacity and used a minimum of 500 loads per year.
- Modulating gas valve control must have a minimum of two stages.
- Retrofit applications only. Not eligible for new dryers with modulating gas value controls.
- In-unit laundry applications at multifamily properties do not qualify.

EQUIPMENT UPGRADES AND RETROFITS				
Measure Description	Code	Incentive	Unit	
Modulating Commercial Dryer Controls, ≥30 to ≤100 lbs, ≥500 to ≤2500 loads/year	H4902*	\$50	Dryer	
Modulating Commercial Dryer Controls, ≥30 to ≤100 lbs, ≥2500 loads/year	H4903*	\$150	Dryer	
Modulating Commercial Dryer Controls, >100 to ≤250 lbs, ≥500 to ≤2,500 loads/year	H4904*	\$150	Dryer	
Modulating Commercial Dryer Controls, >100 to ≤250 lbs, >2,500 loads/year	H4905*	\$350	Dryer	

* Supplemental Data Sheet needed

PLUMBING

WATER HEATERS



General Requirements: Only natural gas and electric equipment are eligible for incentives. Equipment fueled by propane is NOT eligible for incentives.



HIGH USE COMMERCIAL WATER HEATERS

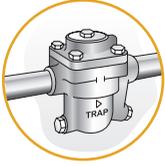
Requirements:

- **Complete Table K of the “HVAC/Plumbing Incentive Catalog Supplemental Data Sheet” for this measure.**
 - For the “Building Type” column, enter “Full-Service Restaurant,” “Fast Food,” “Cafeteria,” “Hotel/Motel,” “Nursing Home,” “Laundromat,” “Fitness Center,” “Supermarket,” “Multifamily,” “Dormitory,” “K-12 school,” “Prison,” or “Hospital”. Note these are the only eligible building types, all others do not qualify.
 - For the “Existing System Fuel Type” column, enter “Gas” or “Electric”.
 - For the “Existing System Type” column, enter the type of existing water heaters: gas storage, gas tankless, or electric storage.
 - For the “Annual Operation (days/year)” column, enter the number of days per year that the facility is open or occupied.
 - For the “Actual Usage” column, enter the actual usage that corresponds to the building type. The minimum usage requirements are as follows:
 - Restaurant, fast food and cafeteria locations must serve ≥ 300 meals/day.
 - Hotel, motel, and nursing homes must have ≥ 30 rooms or beds.
 - Laundromats must have ≥ 30 washes/day.
 - Supermarkets do not have a minimum usage requirement other than days/year.
 - Multifamily must have ≥ 10 units.
 - Dormitories must have ≥ 50 students.
 - K-12 Schools must have ≥ 600 students/building.
 - Prisons must have ≥ 50 inmates.
 - Hospitals must have ≥ 20 beds.
 - Fitness centers must be $\geq 3,000$ square feet.
- Equipment must supply all of the domestic hot water usage for one or more qualifying systems in the building type above. Systems must meet the minimum usage requirements for each qualifying system. Non-qualifying systems may be eligible for the residential type or custom incentives.
- For new construction, gas-fired water heaters, combined DHW capacity for the whole building must be $< 1,000,000$ BTU/hr.
- Boilers serving indirect water heaters must be $\geq 90\%$ Thermal Efficiency ($\geq 90\%$ AFUE allowed for < 300 MBh) and have a storage tank with at least R-12.5 insulation. Storage tank spec sheet must be submitted.
- **Equipment eligibility is verified through AHRI Directory of Certified Product Performance for Water Heating Equipment (ahridirectory.org), ENERGY STAR pre-qualified list and other reliable sources. Tankless water heaters must meet all ENERGY STAR criteria and will be verified with the current ENERGY STAR pre-qualified list.**
- Annual operation for the facility where the water heater is installed must be ≥ 300 days/year, except:
 - Annual operation for cafeterias must be ≥ 175 days/year.
 - Annual operation for schools must be ≥ 250 days/year.
 - Annual operation for dormitories must be ≥ 200 days/year.
- $\geq 90\%$ thermal efficiency gas storage water heater incentives are not for replacement of existing gas storage water heaters $\geq 90\%$ thermal efficiency.
- Water heaters used for dairy and livestock are not eligible for these incentives and must use the Agribusiness Incentive Catalog.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
K-12 School High Use Commercial Water Heater, Gas Storage $\geq 95\%$ Thermal Efficiency	P5083*	\$200	Water Heater
High Use Commercial Water Heater, Gas Storage $\geq 90\%$ Thermal Efficiency	P3045*	\$400	Water Heater
High Use Commercial Water Heater, Gas Indirect $\geq 90\%$ Thermal Efficiency	P5084*	\$400	Water Heater
High Use Commercial Water Heater, Gas Tankless $\geq 90\%$ Thermal Efficiency	P4942*	\$400	Water Heater
* Supplemental Data Sheet needed			

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
K-12 School High Use Commercial Water Heater, Gas Storage $\geq 95\%$ Thermal Efficiency	N-P5083*	\$100	Water Heater
High Use Commercial Water Heater, Gas Storage $\geq 90\%$ Thermal Efficiency	N-P3045*	\$200	Water Heater
High Use Commercial Water Heater, Gas Indirect, $\geq 90\%$ Thermal Efficiency	N-P5084*	\$200	Water Heater
High Use Commercial Water Heater, Gas Tankless $\geq 90\%$ Thermal Efficiency	N-P4942*	\$200	Water Heater
* Supplemental Data Sheet needed			

**For more information,
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COMBINATION BOILER FOR MULTIFAMILY BUILDINGS

Requirements:

- Only natural gas equipment is eligible for incentives. Boilers fueled by electric, propane or oil are NOT eligible for incentives.
- Must handle both the space heating and domestic hot water heating needs for a multifamily building.
- Must be a central plant type arrangement that serves multiple dwelling units in the multifamily building. In-unit combination boilers are not eligible, but may qualify under Focus on Energy single-family offers.
- Boiler efficiency must be 95%+ AFUE for boilers < 300 MBh or 95%+ thermal efficiency for boilers ≥ 300 MBh.
- Provide number of apartment/condo units served by the combination boiler on the Incentive Application per the example below.
- Redundant or backup boilers do not qualify.
- **Equipment eligibility is verified through AHRI Directory of Certified Product Performance (ahridirectory.org), ENERGY STAR pre-qualified list (energystar.gov) and other reliable sources.**
- Condensing boilers (≥90% AFUE or thermal efficiency) will provide maximum efficiency only if the return water temperature is cool enough to condense flue gases. If the heating system configuration cannot provide necessary operating conditions to the boiler, selection of a non-condensing or near-condensing boiler may be more appropriate.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
95%+ AFUE or TE Combination Boiler, Multifamily	H5234	\$4.50	MBh

EXAMPLE

Combination Boiler Example

INCENTIVE CODE	MANUFACTURER NAME	MODEL #	UNIT MEASURE	# OF UNITS (A)	INCENTIVE PER UNIT (B)	TOTAL INCENTIVE (A X B)
H5234	XYZ Boilers	CB250	MBh	250	\$4.50	\$1,125
-----	-----	# of Condos/ Apartments Served	Qty	5	-----	-----

BUILDING ENVELOPE

OVERHEAD DOOR MODIFICATIONS



DOOR AND RAMP SEALS

Requirements:

- These incentives are intended to reduce air infiltration at truck loading docks. Seals must effectively close all gaps between the building and semitrailer.
- To qualify, building interior space must be heated with natural gas during winter.
- Refrigerated interior spaces are not eligible but may qualify for a custom incentive.
- Dock door seals extend out to fill the gap between the dock door and the trailer, including the “hinge gap” that occurs with outwardly swinging trailer doors.
- Leveler ramp air seals reduce air infiltration from around the loading dock leveler ramp. Air seals may be attached to the exterior of the building or around the edge of the ramp and must maintain an effective seal both when ramp is in use (raised or lowered) or out of use. Brush-type or whisker-type perimeter/edge seals may be used in conjunction with air seals but do not qualify for incentive.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Dock Door Infiltration Reduction, New Install	B2300	\$150	Door Sealed
Dock Door Infiltration Reduction, Replace Existing	B2301	\$150	Door Sealed
Dock Pit/Ramp External Seal, Added to Existing "Brush" Barrier	B2302	\$75	Pit sealed
Dock Pit/Ramp External Seal, No Brush Barrier Present	B2303	\$75	Pit sealed

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Dock Pit/Ramp External Seal, No Brush Barrier Present	N-B2303	\$75	Pit sealed



SPRING-LOADED OVERHEAD DOOR HINGES

Requirements:

- These incentives are intended to reduce air infiltration at overhead doors by using spring-loaded garage door hinges that keep overhead door sections pressed tightly against the seals.
- To qualify, building interior space must be heated with only natural gas during winter. Buildings heated by waste oil burners, propane, or other fuel sources are not eligible.
- Replacement of existing spring-loaded overhead door hinges does not qualify.

EQUIPMENT UPGRADES AND RETROFITS			
Measure Description	Code	Incentive	Unit
Spring-loaded Overhead Door Hinge, Heating Setpoint = 55 °F	B3680	\$80	Per Door
Spring-loaded Overhead Door Hinge, Heating Setpoint = 60 °F	B3681	\$80	Per Door
Spring-loaded Overhead Door Hinge, Heating Setpoint = 65 °F	B3682	\$80	Per Door
Spring-loaded Overhead Door Hinge, Heating Setpoint = 70 °F	B3683	\$80	Per Door

NEW CONSTRUCTION AND MAJOR RENOVATIONS			
Measure Description	Code	Incentive	Unit
Spring-loaded Overhead Door Hinge, Heating Setpoint = 55 °F	N-B3680	\$80	Per Door
Spring-loaded Overhead Door Hinge, Heating Setpoint = 60 °F	N-B3681	\$80	Per Door
Spring-loaded Overhead Door Hinge, Heating Setpoint = 65 °F	N-B3682	\$80	Per Door
Spring-loaded Overhead Door Hinge, Heating Setpoint = 70 °F	N-B3683	\$80	Per Door

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Acronyms, abbreviations and technical terms used throughout this catalog are defined below.

ACRONYMS AND ABBREVIATIONS

A/C	Air Conditioner	IEER	Integrated Energy Efficiency Ratio
AFUE	Annual Fuel Utilization Efficiency	in	Inches
AHRI	Air Conditioning, Heating and Refrigeration Institute	IPLV	Integrated Part Load Value
AHU	Air Handling Unit	kW	Kilowatts
ANSI	American National Standards Institute	kWh	Kilowatt-hours
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers	LP	Liquid Petroleum or Propane
BHP	Boiler Horsepower (also Brake Horsepower – see definitions in Glossary section)	MBh	1,000 BTUh
BTU	British Thermal Units	Mfr.	Manufacturer
BTUh	British Thermal Units Per Hour	NC	New Construction
CFM	Cubic Feet Per Minute	NG	Natural Gas
CO	Carbon Monoxide	O₂	Oxygen
CO₂	Carbon Dioxide	OA	Outside Air
COP	Coefficient of Performance	PPM	Parts Per Million
CRAC	Computer Room Air Conditioner	PSC	Permanent Split Capacitor
DB	Dry Bulb	psia	Pounds Per Square Inch Absolute
DC	Direct Current	psig	Pounds Per Square Inch Gauge
DCV	Demand Controlled Ventilation	PTAC	Packaged Terminal Air Conditioner
DHW	Domestic Hot Water	PTHP	Packaged Terminal Heat Pump
DOE	Department of Energy	RA	Return Air
DX	Direct Expansion	RTU	Rooftop Unit
EA	Exhaust Air	SA	Supply Air
ECM	Electronically Commutated Motor	SCFM	Standard Cubic Feet Per Minute
EER	Energy Efficiency Ratio	SEER	Seasonal Energy Efficiency Ratio
Eff.	Efficiency or Effectiveness	sq ft	Square Feet
EMS	Energy Management System	TE	Thermal Efficiency
Enth	Enthalpy	Therm	100,000 BTU
ERV	Energy Recovery Ventilator	T-Stat	Thermostat
Ft	Foot or Feet	UEF	Uniform Energy Factor
GPM	Gallons Per Minute	VFD	Variable Frequency Drive
HP	Horsepower	VSD	Variable Speed Drive
HRV	Heat Recovery Ventilator	WSHP	Water Source Heat Pump
HSPF	Heating Seasonal Performance Factor	wk	Week
HVAC	Heating, Ventilation and Air Conditioning	Δ	Delta or Difference

GLOSSARY TERMS

Air Conditioning, Heating, and Refrigeration Institute

(AHRI) is the trade association representing manufacturers of HVACR and water heating equipment within the global industry. It includes a certification program that provides accurate and unbiased evaluation of heating, water heating, ventilation, air conditioning and commercial refrigeration equipment. AHRI develops industry-recognized performance standards for equipment.

Air Handling Unit

The part of the central air conditioning or heat system that circulates heated or cooled air through building ductwork.

Annual Fuel Utilization Efficiency

The measure of seasonal or annual efficiency of a residential heating furnace or boiler. It takes into account the cyclic on/off operation and associated energy losses of the heating unit as it responds to changes in the load, which in turn is affected by changes in weather and occupant controls.

Boiler (Condensing)

Condensing boilers heat water at higher efficiencies (greater than 90%) by using the waste heat in the flue gases to preheat the cooler water entering the boiler. The term "condensing" refers to the water vapor that collects in the boiler flue from the reduced exhaust temperatures.

Boiler (Near Condensing)

Near condensing boilers heat water at efficiencies between 85% and 89% by using the waste heat in the flue gases to preheat the cooler water entering the boiler. These boilers typically do not cool the flue exhaust enough to cause "condensing" of the water vapor in the boiler flue.

Boiler Horsepower

A measure of a boiler's capacity to produce steam. The amount of energy needed to produce 34.5 pounds of steam per hour at a temperature of 212 degrees Fahrenheit into steam at 212 degrees Fahrenheit.

Brake Horsepower

The brake horsepower is the amount of actual horsepower going to the pump or fan, not the horsepower used by the motor. The actual power delivered by a motor is measured by the use of a brake.

British Thermal Units

A measurement of energy. The amount of heat required to raise the temperature of one pound of water 1 degree Fahrenheit at or near 39.2 degrees Fahrenheit.

British Thermal Units Per Hour

The number of BTUs consumed or generated in a one-hour period.

Carbon Dioxide

A colorless, odorless noncombustible gas with the formula CO₂ that is present in the atmosphere. CO₂ is a natural by-product of respiration.

Carbon Monoxide

A colorless, odorless but poisonous combustible gas produced by incomplete combustion of fuels such as natural gas, L.P., coal, and gasoline.

Chiller (Air-Cooled)

A device that removes heat from a liquid such as water with compressors and refrigerant. Air cooled chillers are usually outside and consist of condenser coils cooled by fan driven air.

Chiller (Water-Cooled)

A device that removes heat from a liquid such as water with compressors and refrigerant. Water cooled chillers are usually inside a building, and heat from these chillers is carried by recirculating water to a heat sink such as an outdoor cooling tower.

Coefficient of Performance

Ratio of tons of refrigeration produced to energy required to operate equipment.

Combustion Efficiency

A measure of how effectively the heat content of a fuel is transferred into usable heat.

Computer Room Air Conditioner

A packaged direct expansion air conditioning unit designed specifically for computer room, data center and heat intensive spaces.

Cubic Feet Per Minute

This measurement indicates how many cubic feet of air pass by a stationary point in one minute. The higher the number, the more air that is being forced through the ductwork by the system.

Demand Controlled Ventilation

A control and sensor system that allows the HVAC system to determine the proper level of ventilation air required based on actual building occupancy. This reduces unnecessary heating and cooling loads and saves energy.

Direct Current

A type of electricity transmission and distribution by which electricity flows in one direction through the conductor: usually relatively low voltage and high current.

Direct Expansion

Air conditioning and refrigeration systems in which the cooling is obtained directly from the expansion of the liquid refrigerant into a vapor. System components include coils, compressors, evaporators and expansion valves.

Domestic Hot Water

Water heated for domestic or commercial purposes other than space heating and process requirements. Common uses include washing, bathing and cooking.

Dry Bulb

The sensible temperature of the air as measured by a standard thermometer.

Drycooler

A drycooler is similar to an air-cooled condensing unit, but utilizes a liquid solution, such as water, ethylene glycol/water or propylene glycol/water, to transfer heat in lieu of refrigerant and compressors.

Economizer

A method of operating a ventilation system to reduce refrigeration load. Whenever the outside air conditions are more favorable (lower heat content) than return air conditions, outdoor air quantity is increased.

Efficiency or Effectiveness

Typically used in reference to ERV systems. It is the ratio of energy transferred between the two air streams compared with the total energy transported through the heat exchanger.

Electronically Commutated Motor

A motor that uses a permanent magnet design to generate a rotating magnetic field. The rotating magnetic field causes the axle to rotate, spinning the fan. These motors are also referred to as brushless DC motors or Solid State Commutator (SSC) motors.

Energy Efficiency Ratio

The measure of the instantaneous energy efficiency of air conditioners; the cooling capacity in BTU/hr divided by the watts of power consumed at a specific outdoor temperature (usually 95 degrees Fahrenheit).

Energy Management System

A microprocessor-based system for controlling equipment and monitoring energy and other operating parameters in a building.

GLOSSARY TERMS, CONTINUED

Energy Recovery Ventilator

A device that captures the sensible and latent heat from the exhaust air from a building and transfers it to the supply/fresh air entering the building to preheat the air and increase overall heating efficiency.

Enthalpy

The total heat content of air expressed in units of BTU/pound. It is the sum of the sensible and latent heat.

Gallons Per Minute

A measurement of liquid flow. Indicates how many gallons of water that pass by a stationary point in one minute.

Guest Room Energy Management

Guest room energy management controls use sensors to determine when a room is unoccupied and adjust the HVAC system operations accordingly. When guests return, the system readjusts to meet guest comfort requirements.

Heat Recovery Ventilator

A device that captures the sensible heat from the exhaust air from a building and transfers it to the supply/fresh air entering the building to preheat the air and increase overall heating efficiency.

Heating Seasonal Performance Factor

A measurement of efficiency for heat pump equipment. For space heating seasons, HSPF is the ratio of total space heating delivered (in Btu) to the electrical input (in Watt-hours) if the heat pump operated exclusively in space heating only mode.

High Turndown Burner

A boiler burner mixes fuel with air to produce combustion. The turndown ratio is the maximum inlet fuel or firing rate divided by the minimum firing rate. A burner higher turndown ratio reduces burner starts, provides better load control, saves wear and tear on the burner, reduces refractory wear, reduces purge-air requirements and provides fuel savings.

Integrated Energy Efficiency Ratio

A measure that expresses cooling part-load EER efficiency for commercial unitary air conditioning and heat pump equipment on the basis of weighted operation at various load capacities. IEER replaces IPLV for some equipment.

Integrated Part-Load Value

The efficiency performance factor at part-load cooling capacity. This performance is critical due to the higher quantity of operating hours under part-load conditions than at full load.

Kilowatt-hours

A unit of measurement for electrical energy usage. One kilowatt-hour equals 1000 watts of energy used for one hour.

Kilowatts

A unit of electrical power equivalent to 1000 watts.

Linkageless Controls

Linkageless burner systems remove mechanical linkages and mod-motors and replace them with servomotors and microprocessors. These systems can better modulate O₂, CO₂, and CO to maximum efficiency across the firing rate.

O₂ Trim Controls

The oxygen trim system provides feedback to the burner controls to automatically minimize excess combustion air and optimize the air-to-fuel ratio.

Outside Air Reset/Cutout Controls

Automatic controls to adjust boiler water temperatures based on outside air temperature and actual space heating requirements.

Packaged Terminal Air Conditioner

Air conditioning units intended for mounting through the wall that have a wall sleeve and a separate unencased combination of heating and cooling assemblies. A PTAC includes refrigeration components, separable outdoor louvers, forced ventilation and a heating system that may utilize hot water, steam or electric resistance.

Packaged Terminal Heat Pump

A type of PTAC that uses a reverse cycle refrigeration system for heating and includes a supplementary heat source. These units are more efficient than standard PTAC units.

Pounds Per Square Inch Absolute

A measurement of pressure. The force exerted on a surface in a fluid or gas measured relative to the absolute zero pressure – the pressure that would occur at absolute vacuum.

Pounds Per Square Inch Gauge

A measurement of pressure. The force exerted on a surface in a fluid or gas measured by a gauge relative to the surrounding atmosphere.

Seasonal Energy Efficiency Ratio

A measure of seasonal or annual efficiency of an air conditioner or heat pump. It takes into account the variations in temperature that can occur within a season and is the average number of BTU of cooling delivered for every watt-hour of electricity used by the heat pump over a cooling season.

Standard cubic feet per minute

This measurement indicates how many cubic feet of air pass by a stationary point in one minute at standard conditions.

Steam Trap

Steam traps are automatic valves used in every steam system to remove condensate, air and other non-condensable gases while preventing or minimizing the passing of steam. If condensate is allowed to collect, it reduces the flow capacity of steam lines and the thermal capacity of heat transfer equipment.

Thermal Efficiency

A measure of the efficiency of converting a fuel to energy, heat or useful work. It is a ratio of energy output divided by fuel energy input expressed as a decimal or percentage (example: 0.95 or 95%).

Uniform Energy Factor

A performance metric developed by the DOE for rating the energy efficiency of residential water heaters. UEF ratings assign the water heater into one of four categories (bins) based on its first hour rating. A higher UEF indicates higher efficiency. Based on the bin the water heater is assigned to, a different daily usage (gallons) is applied to the water heater during the rating process.

Variable Frequency Drive

An electronic controller that adjusts the speed of an electric motor by modulating the power being delivered. Variable frequency drives provide continuous control, matching motor speed to the actual demands of the pump, fan or motor system. Motor speed fully modulates as the frequency of the alternating current is adjusted by the VFD.

Variable Speed Drive

Often used interchangeably with variable frequency drive. These drives are often used on smaller motors, direct current (DC) motors and multiple speed motors that do not need full modulation.

CONVERSIONS

Term	Description	Conversion
BHP	Boiler Horsepower	1 BHP = 33,476 BTUh; 1 BHP = 33.476 MBh
kWh	Kilowatt-hours	1 kWh = 3,413 BTU
HP	Horsepower	1 HP = 0.746 kW
kW/ton	Kilowatt per ton of cooling	kW/ton = 12 / EER
kW/ton	Kilowatt per ton of cooling	kW/ton = 12 / (COP x 3.413)
COP	Coefficient of Performance	COP = EER / 3.413
COP	Coefficient of Performance	COP = 12 / (kW/ton x 3.413)
EER	Energy Efficiency Ratio	EER = 12 / kW/ton
EER	Energy Efficiency Ratio	EER = COP x 3.413
Ton	Unit of capacity for cooling equipment	1 Ton = 12,000 BTUh
MBh	1,000 BTUh	1 MBh = 1,000 BTUh
Therm	100,000 BTU	1 Therm = 100,000 BTUh (or 100 CF or 0.1 MCF)
CF	Quantity of natural gas	1 CF = 1 cubic foot (= approximately 1,000 BTU)
CCF	Quantity of natural gas	1 CCF = 100 cubic feet
MCF	Quantity of natural gas	1 MCF = 1,000 cubic feet (or 10 CCF or 10 Therms)

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