Appendix D

Demand Side Management

Cascade Natural Gas Corporation

Integrated Resource Plan 2016

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CASCADE NATURAL GAS CORPORATION
A Subsidiary of MDU Resources Group, Inc.
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Cascade Natural Gas Conservation Incentive Program Existing & New Homes Incentives

New & Existing Homes

Energy-Saving Measure	Basic Specifications	Incentive
High-Efficiency Natural Gas Furnace[1]	95% + AFUE	$250
High-Efficiency Natural Gas Hearth (Fireplace)	70% + FE (Fireplace Efficiency)[2] 80% + AFUE (Annual Fuel Utilization Efficiency)	$150 $250
High-Efficiency Combination Domestic Hot Water and Hydronic Space Heating System using pre-approved Tankless Water Heater[3]	90% + AFUE	$825
Condensing High-Efficiency Natural Gas Tankless Water Heater	0.91 + EF	$150
Conventional High-Efficiency Natural Gas Water Heater	0.67 + EF	$45
High-Efficiency Exterior Entry (not sliding) Door[1]	U ≤ 0.21	$50

Existing Homes Incentives

Energy-Saving Measure	Basic Specifications	Incentive
Floor Insulation[1&4]	Equal to or greater than R-30 or to fill cavity[5], prior condition must not exceed R-11	$0.30/sq.ft.
Wall Insulation[1&4]	Equal to or greater than R-11 or to fill cavity, prior condition must not exceed R-4	$0.35/sq.ft.
Ceiling or Attic Insulation[1&4]	Equal to or greater than R-38, prior condition must not exceed R-18	$0.30/sq.ft.
Whole House Residential Air Sealing[1&4]	Minimum 400 CFM50 reduction using pre and post blower door testing[6]	$100

Efficient New Home Packages

Energy-Saving Measure	Basic Specifications	Incentive
ENERGY STAR® Certified Home[1&7]	National Program Requirements Version 3.1 (Rev. 08)	$600
Built Green Certified Home[1&7]	Requires Built Green Certification	$600

1. *Home must be heated by natural gas.*
2. *Must use intermittent ignition device.*
3. *Water must be heated with a tankless system. Pre-approval from CNGC required. Boilers do not qualify.*
4. *All insulation and air sealing must be performed by a CNGC qualified Trade Ally in order to be eligible for a rebate through the Conservation Incentive Program. Attic insulation cannot be filled to cavity.*
5. *Minimum of R-19 or higher to fill cavity.*
6. *Requires WA Department of Commerce Combustion Safety Test Report Exhibit 5.3.1A. Whole House Residential Air Sealing must comply with Washington State Energy Code section 502.4.5*
7. *These incentives are only applicable to new homes, not available to existing homes.They may not be combined with any other measure except Hearths.*

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Cascade Natural Gas Conservation Incentive Program Existing & New Homes Incentives

Eligibility Requirements

- Applications must be received within 90 days of install date.
- Applicant must be a Washington customer of Cascade Natural Gas on residential rate schedule 502 or 503 (see your gas bill).
- Fuel for the home's primary heat source must be provided by Cascade Natural Gas for all heating incentives.
- Water-heating fuel must be provided by Cascade Natural Gas for all water-heating incentives.
- Customer **must not use a heat pump** for heating and/or cooling with a natural gas furnace back-up for the furnace, door, insulation and air sealing measures.
- All equipment installation and service measures must be performed by a Washington State licensed contractor.
- All insulation and air sealing measures must be performed by a CNGC qualified Trade Ally in order to be eligible for a rebate through the Conservation Incentive Program. Visit us online for a list of qualified Trade Allies in your area.
- Appliances and building materials specified by Washington state code are not eligible for Cascade Natural gas incentives.
- ENERGY STAR homes must be approved by an ENERGY STAR verifier. Built Green Homes must present Built Green Certification.
- Incentives may be subject to change and are only applicable for tariff approved measures in place at the time of installation.
- Review all terms and conditions for the program at http://www.cngconserve.com/homes-rebate-application.

How to qualify for Cascade Natural Gas incentives:

1. Establish your eligibility. Call 866.626.4479 or visit **www.cngc.com/conservation** for program requirements.
2. Install energy-efficient home improvements. Contact a participating Trade Ally contractor or Washington licensed contractor to install eligible measures. Please visit **www.cngc.com/conservation** for a list of qualified trade allies. Note: if installing insulation or air sealing you must use a CNGC qualified Trade Ally.
3. Get the right incentive application online at **www.cngc.com/conservation** or call 866.626.4479.
4. Complete, sign and submit application along with a copy of your equipment or service's invoices to:

Mail: Cascade Natural Gas
Energy Efficiency Admin
1600 Iowa Street
Bellingham, WA 98229

Fax: 360.788.2396

Upon receipt of completed applications, please allow up to twelve weeks for processing.

Home Energy Savings Kit

Water-saving shower heads and faucet aerators available upon request.
Please call 866.626.4479 for details or apply online at:
www.cngc.com/conservation.

For questions or more information, please visit us online at www.cngc.com/conservation or call 866.626.4479.

Last Updated 09/2016

Cascade Natural Gas Corporation
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WASHINGTON RESIDENTIAL REBATE APPLICATION

Must be postmarked within 90 days of installation

1. CUSTOMER INFORMATION

Cascade Natural Gas account #		Property occupied by Owner Tenant For Assignment of Funds, see page 2 of this application	
Occupant's name		Owner's name (if different than Occupant)	
Installation address		Owner's mailing address (if different from installation address)	
City	Zip	City, State	Zip
Occupant's email	Occupant's phone	Owner's email	Owner's phone

How did you hear about the CNG rebate program?

☐ Equipment Dealer/Installer ☐ Radio ☐ Newspaper ☐ Community Event ☐ CNG Website ☐ CNG Bill

2. BUILDING INFORMATION

Is natural gas from CNG the:	primary source of space heat in your home?	Yes	No
	primary source of water heating fuel?	Yes	No
Do you use an Electric Heat Pump to cool and/or heat your home?		Yes	No

PLEASE ANSWER THESE QUESTIONS - REQUIRED FOR ELIGIBILITY

Not sure what an electric heat pump looks like? http://visual.merriam-webster.com/house/heating/heat-pump_2.php

Type of Home	Single Family	Duplex	Triplex	Fourplex	Apartment/Condo/Townhome/Row House	Manufactured / Mobile

YEAR HOME WAS BUILT _____ **SQUARE FOOTAGE** _____

3. SELECT YOUR REBATE

INSULATION	NATURAL GAS HOME HEATING	NATURAL GAS WATER HEAT
☐ Attic/Ceiling Cavity - ($0.30/sq ft)	☐ Furnace - ($250)	☐ Natural Gas Tankless - ($150)
☐ Floor - ($0.30/sq ft)	☐ Fireplace/Hearth - ($150 or $250)	☐ Natural Gas Storage - ($45)
☐ Wall - ($0.35/sq ft)	☐ Combination Space & Water Heat - ($825)	
DOOR	**WHOLE HOUSE AIR SEALING**	**NEW HOME**
☐ Exterior Entry (not sliding) - ($100)	☐ Minimum 400 CFM reduction - ($100)	☐ ENERGY STAR® Certified - ($600)
		☐ Built Green® Certified - ($600)

4. ATTACH A COPY OF YOUR FINAL INVOICE OR RECIEPT

Your invoice or receipt must include:

For EQUIPMENT	Installation date, brand, model and serial number
For INSULATION and AIR SEALING*	Installation date, Pre R value, Post R value, Square Footage installed ***CNG Trade Ally required**
For NEW HOMES	ENERGY STAR verifier database #, ENERGY STAR Certificate or Built Green Certificate

5. ACCEPTANCE OF TERMS & CONDITIONS

By signing below, Participant agrees to the terms and conditions available at: www.cngconserve.com/homes-rebate-application. Participant represents to CNGC that all energy-saving measures have been completed satisfactorily and Participant meets the eligibility requirements shown under the "general qualifications" section. CNGC and/or its representatives may request access to the property on which energy-saving measures have been completed and/or installed in order to do quality control inspections. Customer understands that CNGC and/or its representatives may review and evaluate the project during and after completion. Participants agree to provide access to the property for the purpose described above.

Signature **Date**

6. SUBMIT YOUR COMPLETE APPLICATION AND INVOICE OR RECIEPT

On line: http://www.cngconserve.com/homes-rebate-application

Fax: 360-788-2396

By Mail: CNGC Energy Efficiency
Rebate Processing
1600 Iowa St
Bellingham WA 98229

If you have questions about this application or the CNG program you can Email: conserve@cngc.com

Not sure if you qualify? Call 866-626-4479 to speak with a CNG Energy Efficiency Administrator

GENERAL QUALIFICATIONS

- Rebate application must be postmarked within 90 days of installation
- All qualifying natural gas equipment and measures must be installed in Washington by a Washington state licensed contractor
- Insulation and air sealing must be installed by a CNGC Trade Ally, view directory here: https://www.cngc.com/conservation-corner1/trade-ally/
- Rebates are subject to change and are only applicable for tariff-approved measures in place at the time of installation
- Installation must comply with all federal, state and local code requirements
- Call 866-626-4479 or visit www.cngc.com/conservation or Email conserve@cngc.com to review qualifications and eligibility

ASSIGNMENT OF FUNDS

If you are requesting this rebate and you are not the account holder, then authorize payment here:

☐ Yes, I have a Landlord Agreement with CNG, here is my Landlord Account Number: _____

☐ No, I do not have a Landlord Agreement with CNG; here is my authorization from the account holder so I can receive the rebate:

Assignment of Incentive Payment Authorization allows the account holder to transfer the incentive to a third party such as a landlord or property manager. To release the incentive payment to an individual other than account holder, account holder must print name and sign below.

Authorization _____ _____

Print Name | Signature

PROJECT SPECIFICATIONS and REQUIREMENTS

ATTIC/CEILING CAVITY INSULATION

Attic/Ceiling insulation must be installed by a CNG Trade Ally

Final insulation must be equal to or greater than R-38

Prior ceiling cavity/attic insulation must not exceed R-18

FLOOR INSULATION

Floor insulation must be installed by a CNG Trade Ally

Final insulation minimum R-30 or the cavity must be filled

Prior floor insulation must not exceed R-11

WALL INSULATION

Wall insulation must be installed by a CNG Trade Ally

Final insulation must be minimum R-11 or the cavity must be filled

Prior wall insulation must not exceed R-4

NATURAL GAS FURNACE

Minimum 95% AFUE or better

Natural Gas furnace be the primary source of heat

No existing or new electric heat pump in the home

Any natural gas furnace installed with a heat pump is not eligible

NATURAL GAS FIREPLACE/HEARTH

Minimum 70% FE ($150)

Minimum 80% AFUE ($250)

NATURAL GAS STORAGE WATER HEATER

Minimum 0.67 EF

Energy Factor (EF): A measure of water heater overall efficiency

WHOLE HOUSE AIR SEALING

Whole House Air Sealing must be complete by CNG Trade Ally

Minimum 400 CFM reduction using pre and post blower door testing

Requires WA Department of Commerce Combustion Safety Testing Form Exhibit 5.3.1A

NATURAL GAS COMBINATION SPACE AND WATER HEAT

REQUIRES PRE-APPROVAL, call 866-626-4479 or email conserve@cngc.com

Must use a tankless natural gas condensing water heater

Btu Output per Hour not to exceed 199,999 - BOILERS DO NOT QUALIFY

Minimum system efficiency 90% AFUE

NATURAL GAS TANKLESS WATER HEATER

Must install a tankless natural gas condensing water heater

Minimum 0.91 EF

ENERGY STAR CERTIFIED HOME

Applicable only to new homes

Minimum 95% AFUE furnace

Window glazing specification U value 0.28 or less

Requires ENERGY STAR verifier database ID#

Requires ENERGY STAR Certification

Cannot be combined with other CNG incentives except Fireplace/Hearth

BUILT GREEN CERTIFIED HOME

Applicable only to new homes

Minimum 95% AFUE furnace

Three-star minimum

Requires Built Green Certification

Cannot be combined with other CNG incentives except Fireplace/Hearth

EXTERIOR ENTRY DOOR

Applicable only to existing homes

U value of door equal to or less than 0.21

Sliding glass doors do not qualify

ENERGY SAVINGS KIT

Must heat water with natural gas provided in WA by CNGC - one kit per household

Energy Savings Kit #1: One showerhead, one bath and one kitchen aerator

Energy Savings Kit #2: Two showerheads, two bath and one kitchen aerator

To apply for an Energy Savings Kit, visit: https://cngc.dsmcentral.com/traksmart4/public/registration.do or call 866-626-4479

CASCADE NATURAL GAS CORPORATION®
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Commercial/Industrial Standard Incentives

Warm Air Furnaces - $3.00/kBtu/hr High Efficiency Condensing Furnace—Min 91% AFUE	**Motion Control Faucet[3] - $105** Maximum flow rate of 1.8 gpm WaterSense® Certified and Below Deck Mixing Valve
HVAC Unit Heater - $1.50/kBtu/hr High Efficiency Non-Condensing Min—86% AFUE	**Clothes Washer[3] - $180** Commercial gas washer—1.8 MEF
HVAC Unit Heater - $3.00/kBtu/hr High Efficiency Condensing Min—92% AFUE	**Gas Convection Oven - $450** ENERGY STAR® ≥42% Cooking Eff/ ≤13,000 Btu/hr Idle Rate
Radiant Heating - $6.95/kBtu/hr Direct fired radiant heating	**Gas Griddle - $350** ENERGY STAR® ≥38% Cooking Eff/ ≤2650 Btu/hr sq ft Idle Rate
Boiler - $4.00/kBtu/hr High Efficiency Condensing Boiler Min 90% Thermal Eff & 300 kBtu input	**Gas Conveyor Oven - $600** Greater than 42% tested baking efficiency
Boiler Vent Damper - $1,000 Min 1,000 kBtu input	**Connectionless 3 Pan Gas Steamer - $850** ENERGY STAR® or CEE/FSTC Qualified ≥38% Cooking Eff / ≤2,083 Btu/hr/pan Idle Rate
Boiler Steam Trap[1] - $125 Min 300 kBtu in; steam pressure at 7psig or >	**Connectionless 6 Pan Gas Steamer - $1,200** ENERGY STAR® or CEE/FSTC Qualified ≥38% Cooking Eff / ≤2,083 Btu/hr/pan Idle Rate
Domestic Hot Water Tanks[3] - $2.50/kBtu/hr Condensing tank, Min 91% Thermal Eff	**Double Rack Oven - $2,000** FSTC Qualified ≥50% Cooking Eff/ ≤3,500 Btu/hr/Idle Rate D Rack
Domestic Hot Water Tankless Water Heater[3] - $60/gpm ENERGY STAR® .82 EF	**ENERGY STAR® Gas Fryer - $600**
Attic Insulation - (retrofit only) **Tier 1:** Min R-30 - **$0.50/sq ft** **Tier 2:** Min R-45 - **$0.65/sq ft**	**Door Type Dishwasher Low Temp Gas[3] - $650** ENERGY STAR® ≤.6 kw Idle Rate/ ≤1.18 gallon/rack
Roof Insulation - (retrofit only) **Tier 1:** Min R-21 - **$0.60/sq ft** **Tier 2:** Min R-30 - **$0.80/sq ft**	**Multi-Tank Conveyor Low Temp Dishwasher[3] - $1,000** Gas Main w/Electric Booster ENERGY STAR® ≤2.0 kw Idle Rate; ≤ 0.50 gallons/rack
Wall Insulation[2] - (retrofit only) **Tier 1:** Min R-11 - **$0.50/sq ft** **Tier 2:** Min R-19 - **$0.56/sq ft**	**Recirculation Controls[3] - $100** Continuous Operation DHW Pump **Pre-Approval required.**
Energy Savings Kits[3] - FREE **A:** Kitchen Pre Rinse Spray Valve & Bath Aerators **B:** Low Flow Showerhead	**Demand Control Ventilation[4] - $12/nominal ton** 5 tons ≤ Unit Cooling Capacity ≤ 20 tons. Pre-Approval Required.
Ozone Injection Laundry[3] - $2,500 Venturi injection or bubble diffusion - Min 125 lb. total washer/extractor capacity. **Pre-approval required.**	

If you are planning equipment or building upgrades that do not fit within the standard incentives, but significantly reduce natural gas consumption, please call 866.450.0005 to learn about custom project opportunities.

Mixed purpose facilities that include buildings on both Residential Rate Schedule 503 **and** qualifying Rate Schedules 504, 505, 511, 570, and 577 as part of the same Cascade Natural Gas customer account shall also be eligible for custom conservation incentives.

[1] This measure will only be allowed where the customer agrees to regular trap maintenance and replacement every seven (7) years.

[2] Minimum value of R-11 applies only where existing walls have no internal insulation cavities.

[3] Incentive eligibility contingent upon use of natural gas fired domestic hot water serving the specified measure equipment or fixture.

[4] For Existing Packaged HVAC Units equipped with Gas Fired Furnace and Direct Expansion Cooling Sections. DCV Unit Controller must meet Joint Utility Advanced Rooftop Control Guidelines

Who is eligible to participate?

- Must be a new or existing commercial or industrial customer of CNGC on one of five qualifying rate schedules: 504, 505, 511, 570 or 577.
- Incentives apply on qualified high-efficiency natural gas equipment such as heating, insulation, water heating systems, cooking equipment installed as replacement, retrofit as well as new installation in place of standard efficiency equipment. If the equipment installation, replacement, or retrofit provides significant increase over existing high-efficiency equipment, and is not listed here please contact program representative for potential custom incentive.
- Insulation must be installed in an existing building, heated by natural gas, without functional insulation.
- Eligible measures installed are subject to the available incentives coinciding with the date of the installation as outlined in CNGC's tariff.
- Customers requesting incentives for site-specific energy efficiency measures must submit estimated costs and natural gas savings associated with the project. Natural gas savings are to be calculated using standard engineering practices. CNGC will review the natural gas savings calculations, and reserves the right to modify energy savings estimates.

How to qualify for Cascade Natural Gas incentives

1. Establish your eligibility. Call 1.866.450.0005 or visit www.cngc.com/conservation for program requirements.
2. Install energy-efficient upgrades. Contact a participating Trade Ally contractor or licensed contractor to install eligible measures.
3. Get the application, available online at www.cngc.com/conservation.
4. Sign and submit the following forms:

C&I Standard Incentive application • W9 form •
Invoice/Quote for equipment installation • Manufacturer's spec sheet

Send forms to:
Mail: Cascade Natural Gas Corporation, c/o Lockheed Martin Energy and Environmental Services
22121 20th Avenue SE, Bothell, WA 98021
Fax: 1.877.671.2998

Upon receipt of completed application, please allow six weeks for processing and payment.

Get started today!

To apply for an incentive, apply online or download a PDF application at www.cngc.com/conservation and return it by fax or mail.

Questions on food service, lodging or health care projects? Call Bill Prillaman, 503.278.3078

Cascade Natural Gas Conservation Incentive Program Commercial/Industrial Incentive Application

Who is eligible to participate?

- New or existing commercial or industrial customer of Cascade Natural Gas Corporation (CNGC) on one of five qualifying rate schedules: 504, 505, 511, 570 or 577.
- Customers installing space heating equipment or insulation in buildings without functional insulation, using natural gas as the primary heat source.
- Customers installing qualified high-efficiency natural gas equipment such as heating, water heating systems and cooking equipment installed as replacement, retrofit or new installation in place of standard efficiency equipment. If the equipment installation, replacement, or retrofit provides significant increase over existing high-efficiency equipment, please contact program representative for potential custom incentive.
- Customers installing measures that coincide with the current CNGC tariff.
- Customers who have submitted estimated cost, project details and/or natural gas savings with a site specific (custom) project. (Natural gas savings are to be calculated using standard engineering practices. CNGC will review the natural gas savings calculations, and reserves the right to modify energy savings estimates.)

Customer Information

Company name_____ Project no._____

Contact name_____ Title_____

Mailing address_____

Telephone_____ Cell_____ Fax_____

Email_____ Website_____

Project/Facility Information

Gas use type: Heat ☐ Water ☐ Other_____

Is the site heated by an electric heat pump with natural gas backup? Yes ☐ No ☐

(If so this is considered an dual fuel system and does not qualify for a CNGC incentive.)

Square footage_____ # of Floors_____ Electric utility_____

CNGC account #_____ Rate schedule_____

Eligible Rate Schedules: 504, 505, 511, 570, 577

Project name_____ County_____

Site address_____

Building Use Type

Education ☐ Lodging ☐ Restaurant ☐ Warehouse ☐ Grocery ☐ Manufacturing ☐

Retail ☐ Agriculture ☐ Healthcare ☐ Office ☐ Service ☐ Other_____

Hours of Operation

Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total Weekly Hours	Total Annual Hours

How did you hear about the program?

Contractor/installer ☐ Event ☐ Letter or mail ☐ Newspaper ☐
Electric utility ☐ Website ☐ Trade association ☐ Other_____

Contractor name_____ Contractor company_____

Please fill in the incentive(s) you are applying for.

EQUIPMENT

Equipment Type	Model	Serial No.	Size	New, Retrofit or Replacement?	Incentive	Quantity	Incentive Amount

Existing equipment being replaced_____ Model #_____ Estimated efficiency_____

New equipment install date_____ Total equipment incentive_____

***Existing equipment being replaced cannot already be high-efficiency**

DEMAND CONTROL VENTILATION

HVAC Unit #	HVAC Unit Manufac-turer	Model #	Age	Cooling Capacity (tons)	DCV Unit Controller (Make/Model #)	Incentive @$12/ton

INSULATION

Insulation Type (bats/rolls, foam, rigid, loose fill)	Area Insulated (wall, attic, roof)	Roof Type (pitched, flat or both)	R-Value	Size of Area (sq ft)	Incentive ($/sq ft)	Incentive Amount

Insulation Project Requirements

- Insulation projects in spaces with existing, functional insulation do not quality for incentives. Call 1.866.450.0005 for details.
- If existing insulation is damaged to the point of ineffectiveness or applied in spotty coverage, the insulation must be removed and the condition leading to its damage/ineffectiveness corrected before an incentive will be considered.
- Insulation R value must meet specifications of current CNGC tariff.
- The building or space within which the insulation is installed must be heated by natural gas purchased from CNGC.

I understand the above requirements for insulation projects (initial)_____

Insulation Install Date _____ Total Insulation Incentive _____

Application Checklist

To ensure prompt payment, be sure you have completed the application checklist below:

- ☐ Completed Standard Incentive Application
- ☐ W-9 form
- ☐ Installer invoice (must include model number and unit price)
- ☐ Manufacturer's spec sheet (verification of equipment efficiency)

Terms and Conditions

Application: This Standard Incentive Request and any additional required documentation must be filled out completely, truthfully and accurately. Only Washington customers of Cascade Natural Gas Corporation ("CNGC") served on rate schedule 504,505, 511, 570 and 577 are eligible for this program. Customers are advised to retain a copy of this application and any other documentation submitted to CNGC under this program. CNGC will not be responsible for lost documentation pertaining to the rebate request. Work must be installed no later than December 31st of the current calendar year to receive program incentives. All completed incentive requests must be post-marked within the current calendar year to be processed. Please allow six weeks for incentive processing.

Pre-Approval and Verification: Equipment installations may be selected for a post-installation inspection or verification. Should a customer's equipment be chosen for a post-installation inspection, satisfactory completion of that inspection must occur before payment is issued. This inspection is for the purpose of incentive payment only. No warranty is implied.

Tax Liability: CNGC is not responsible for any tax liability which may be imposed on the customer as a result of payment of any incentives. CNGC is not providing any tax advice, and any communication by CNGC is not intended or written to be used, and cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code (W9).

No Endorsement: CNGC does not endorse any particular manufacturer, contractor or product in promoting the Program. The fact that the names of particular manufacturers, contractors, products or systems may appear on this application does not constitute an endorsement. Manufacturers, contractors, products or systems not mentioned are not implied to be unsuitable or defective in any way.

Safety and Building Codes: Customer is responsible for insuring that all equipment installed and work performed complies with all federal, state, and local safety, building and environmental codes, and any manufacturer instructions.

Property Rights: Customer represents that it has the right to install the energy saving equipment on the property on which the equipment is installed and that any necessary consents have been obtained.

Disclaimer/No Liability: Customer understands that, while CNGC may have provided funding for approved equipment, CNGC is not supervising work performed for Customer, nor is CNGC responsible in any way for proper completion of that work or proper performance of any equipment purchased. Customer assumes the risk of any loss or damage(s) that Customer may suffer in connection with the installation of the Equipment. CNGC does not guarantee any particular energy savings results by its approval of this application, or by any other of its actions.

Eligible Products: Incentives are available to approved customers who reside within CNGC service territory and are commercial or industrial customers. Equipment must meet CNGC energy specifications. These specifications may be found on the web at www.cngc.com and are subject to change. If you, or your contractor, are not sure of the specifications, please feel free to contact CNGC's Conservation Department before proceeding.

Proof of Purchase: The invoice documentation accompanying the application must itemize the products purchased and/or work performed. This proof of purchase must show (a) the date of purchase and an itemized price paid per item, (b) the size, type, make, model or part number for the products, (c) a description of any installation or other labor charges.

Payment: Incentive will be paid after: (a) installation of the energy saving equipment, verification of the installation of the Equipment, and (b) submission of all required documentation of equipment within the current calendar year.

Incentive Amount: Incentives for energy saving equipment installed as set forth in documentation accompanying this application are limited to the amounts provided on CNGC tariff 302. Such amounts are subject to change. Current incentive amounts are identified on CNGC's website at www.cngc.com. Please contact CNGC with any questions.

Facsimile/Scanned Signatures: Facsimile transmission of an original document, or a scanned original document transmitted to CNGC as an attachment via electronic mail, shall be the same as delivery of the original signed document. At the request of CNGC, customer shall confirm documents with a facsimile transmitted signature or a scanned signature by providing an original document.

Important note on steam traps – Please read and initial your agreement:

CNGC provides incentives on steam traps based on customer's agreement to conduct regular maintenance on the steam system, and to replace steam traps every seven (7) years or as recommended by a trained professional.

Please initial your agreement to this requirement_____

Payment information – A completed W-9 form is required

Checks will be made payable to the Legal Business Entity Name or DBA name listed on the W-9. Payee may be responsible for any tax liabilities that may be associated with the incentive/rebate.

Customer Signature

By signing below, Customer agrees to the above terms and conditions. Customer represents to Cascade Natural Gas Corporation that all equipment has been installed satisfactorily. Customer certifies that natural gas is the primary heating fuel and authorizes access to energy usage data for the project's specified accounts at the site address of the project as listed for purposes of energy saving calculations.

Consent to Release of Customer Information: Customer consents to the release of its customer information (including name, service and mailing addresses, phone number, and account number) by CNGC for purposes of regulatory reporting and to its designated internal or third-party representatives for the purposes of (1) issuing applicable conservation, efficiency, and/or low-income rebates; (2) verifying completion and/or installation of qualified energy savings equipment.

CNGC and/or its representatives may request access to the property on which energy saving equipment has been installed and may review and evaluate the project during and after completion. Customer agrees to provide access to the property for the described purpose herein.

To be eligible for an incentive I understand that I must be a customer of Cascade Natural Gas (CNG) with an active meter serviced by CNG. I understand that if I am installing products at more than one facility, I must identify each individual address and Account number on the application form. All uses herein of the words "install," "installation," or similar phrases shall mean complete installation such that the subject products are fully functional and operational.

As a business customer, I agree to remain on a qualified rate schedule for the rated life of the product(s) for which I have received an incentive. I agree that if I cease to be a core customer of CNG on rate schedules 504, 505, 511, 570 or 577 during the duration of the measure, I shall refund a prorated amount of incentive dollars based on the time installed for the rated life of the product(s) from receipt of the incentive.

Participant Signature_____ Date_____

Submit incentive application and all necessary paperwork by mail or fax to:

Mail: Cascade Natural Gas Corporation, c/o Lockheed Martin Energy and Environmental Services
22121 20th Avenue SE, Bothell, WA 98021

Fax: 1.877.671.2998

? For questions or more information, please visit us online at www.cngc.com/conservation or call 1.866.450.0005

Residential Forecasts			
Year	Tech	Econ	Achievable
2017	1,153,065	960,841	323,878
2018	1,169,903	973,256	331,357
2019	1,184,300	985,292	340,468
2020	1,204,222	1,001,899	352,843
2021	1,213,571	1,009,714	363,984
2022	1,228,391	1,022,078	378,657
2023	1,243,366	1,034,568	395,111
2024	1,263,873	1,051,638	414,680
2025	1,273,121	1,059,334	431,139
2026	1,288,080	1,071,785	449,272
2027	1,302,901	1,084,093	466,452
2028	1,323,802	1,101,481	484,478
2029	1,332,855	1,108,992	496,550
2030	1,346,751	1,120,426	508,657
2031	1,360,395	1,131,650	519,158
2032	1,380,170	1,147,991	530,765
2033	1,387,405	1,153,884	536,512
2034	1,400,722	1,164,845	545,271
2035	1,414,005	1,175,781	552,472
2036	1,435,386	1,193,634	561,700

Commercial/Industrial Forecasts			
Year	Tech	Econ	Achievable
2017	3,399,034	1,854,613	515,998
2018	3,452,896	1,885,068	545,217
2019	3,502,105	1,911,548	580,973
2020	3,565,442	1,946,157	626,755
2021	3,604,272	1,967,465	675,894
2022	3,657,915	1,996,713	735,221
2023	3,710,809	2,025,969	800,558
2024	3,780,448	2,064,006	872,792
2025	3,819,939	2,085,799	938,231
2026	3,875,030	2,116,061	1,004,324
2027	3,928,224	2,145,386	1,064,697
2028	3,999,479	2,184,484	1,123,630
2029	4,036,383	2,204,858	1,166,051
2030	4,090,945	2,234,827	1,207,197
2031	4,143,535	2,263,714	1,242,185
2032	4,211,920	2,301,211	1,277,411
2033	4,247,266	2,320,633	1,299,065
2034	4,300,942	2,350,312	1,325,558
2035	4,351,743	2,378,098	1,350,379
2036	4,428,426	2,420,644	1,379,572

Total Conservation Forecasts			
Year	Technical	Economic	Achievable
2017	4,552,099	2,815,454	839,876
2018	4,622,799	2,858,324	876,574
2019	4,686,406	2,896,840	921,441
2020	4,769,664	2,948,056	979,599
2021	4,817,844	2,977,179	1,039,878
2022	4,886,307	3,018,791	1,113,877
2023	4,954,176	3,060,537	1,195,669
2024	5,044,322	3,115,644	1,287,472
2025	5,093,061	3,145,133	1,369,370
2026	5,163,110	3,187,846	1,453,596
2027	5,231,124	3,229,479	1,531,149
2028	5,323,281	3,285,965	1,608,109
2029	5,369,238	3,313,850	1,662,601
2030	5,437,697	3,355,253	1,715,853
2031	5,503,930	3,395,364	1,761,343
2032	5,592,090	3,449,201	1,808,177
2033	5,634,670	3,474,518	1,835,577
2034	5,701,664	3,515,157	1,870,829
2035	5,765,748	3,553,879	1,902,851
2036	5,863,812	3,614,278	1,941,272

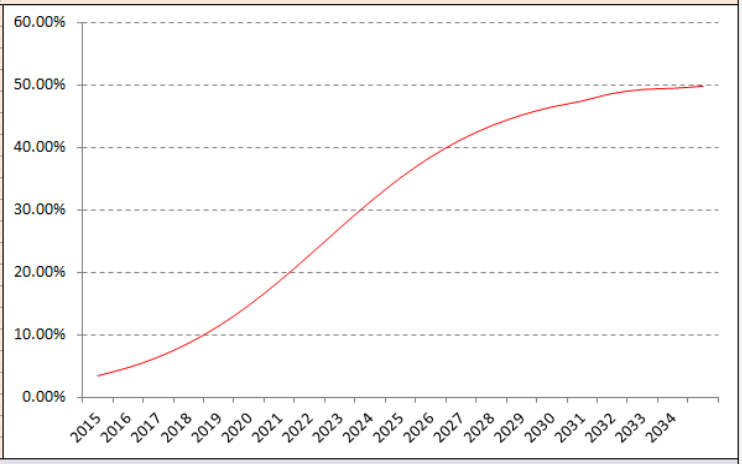
Commercial Forecasts			
Year	Tech	Econ	Achievable
2017	3,178,361	1,726,527	468,479
2018	3,228,640	1,755,071	496,521
2019	3,275,345	1,780,082	530,929
2020	3,335,788	1,812,997	575,035
2021	3,372,961	1,833,333	622,516
2022	3,424,468	1,861,331	679,805
2023	3,475,362	1,889,417	742,897
2024	3,542,475	1,925,981	812,585
2025	3,580,683	1,947,024	875,725
2026	3,633,982	1,976,240	939,436
2027	3,685,422	2,004,543	997,584
2028	3,754,384	2,042,306	1,054,356
2029	3,790,238	2,062,067	1,095,213
2030	3,843,214	2,091,112	1,134,886
2031	3,894,232	2,119,085	1,168,627
2032	3,960,462	2,155,328	1,202,616
2033	3,994,967	2,174,260	1,223,571
2034	4,047,168	2,203,081	1,249,084
2035	4,096,585	2,230,060	1,273,176
2036	4,171,528	2,271,522	1,301,660

Industrial Forecasts			
Year	Tech	Econ	**Achievable**
2017	220,673	128,086	47,520
2018	224,256	129,997	48,695
2019	226,760	131,466	50,045
2020	229,654	133,160	51,720
2021	231,311	134,131	53,378
2022	233,448	135,382	55,416
2023	235,447	136,552	57,661
2024	237,973	138,025	60,207
2025	239,256	138,776	62,506
2026	241,048	139,821	64,888
2027	242,802	140,844	67,113
2028	245,094	142,178	69,274
2029	246,146	142,791	70,838
2030	247,731	143,715	72,311
2031	249,302	144,629	73,558
2032	251,458	145,883	74,796
2033	252,299	146,374	75,494
2034	253,774	147,231	76,474
2035	255,158	148,038	77,203
2036	256,898	149,123	77,911

Adoption Curve for Each Achievable Scenario and Incentive Level

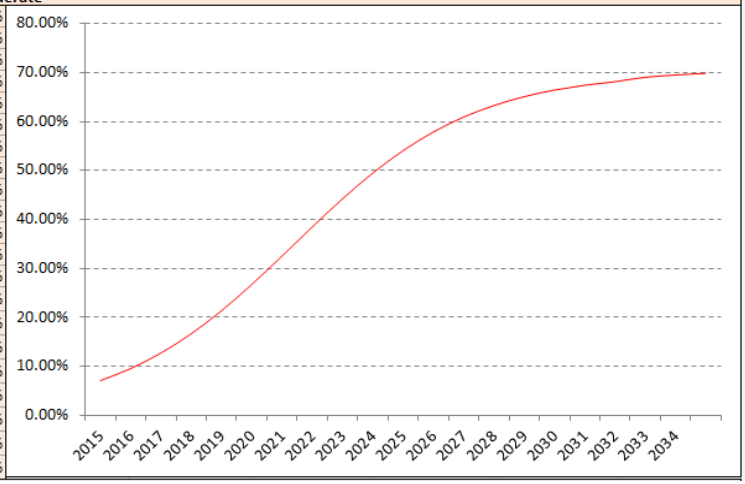
Achievable 1 - Adoption Curve for 30% of Incremental Costs Incentive Level

Name:	Achievable Base
2015	3.46%
2016	4.76%
2017	6.47%
2018	8.69%
2019	11.46%
2020	14.80%
2021	18.64%
2022	22.84%
2023	27.16%
2024	31.36%
2025	35.20%
2026	38.54%
2027	41.31%
2028	43.53%
2029	45.24%
2030	46.54%
2031	47.50%
2032	48.72%
2033	49.35%
2034	49.54%
	49.88%



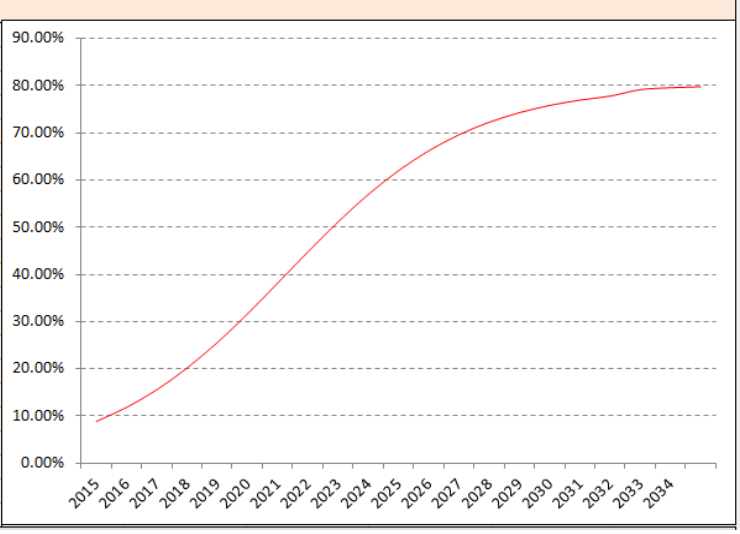
Achievable 2 - Adoption Curve for 50% of Incremental Costs Incentive Level

Name:	Achievable Moderate
2015	7.07%
2016	9.56%
2017	12.73%
2018	16.67%
2019	21.37%
2020	26.74%
2021	32.55%
2022	38.50%
2023	44.25%
2024	49.51%
2025	54.08%
2026	57.89%
2027	60.93%
2028	63.30%
2029	65.10%
2030	66.44%
2031	67.43%
2032	68.16%
2033	69.05%
2034	69.52%
	69.88%



Achievable 3 - Adoption Curve for 75% of Incremental Costs Incentive Level

Name:	Achievable High
2015	8.83%
2016	11.80%
2017	15.55%
2018	20.13%
2019	25.53%
2020	31.62%
2021	38.14%
2022	44.76%
2023	51.13%
2024	56.94%
2025	61.99%
2026	66.21%
2027	69.60%
2028	72.25%
2029	74.29%
2030	75.82%
2031	76.96%
2032	77.79%
2033	79.17%
2034	79.57%
	79.78%



Description	Vintage	Segment	Climate Zone	B/c Ratio
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Mfg_CZ1	1	0.8208
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Mfg_CZ2	2	0.8208
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Mfg_CZ3	3	0.8208
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Multi_CZ1	1	0.6785
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Multi_CZ2	2	0.6785
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Multi_CZ3	3	0.6785
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Single_CZ1	1	0.8158
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Single_CZ2	2	0.8158
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Early Retirement	Single_CZ3	3	0.8158
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Mfg_CZ1	1	1.1811
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Mfg_CZ2	2	1.1811
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Mfg_CZ3	3	1.1811
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Multi_CZ1	1	1.0145
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Multi_CZ2	2	1.0145
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Multi_CZ3	3	1.0145
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Single_CZ1	1	1.1769
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Single_CZ2	2	1.1769
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	New	Single_CZ3	3	1.1769
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Mfg_CZ1	1	1.1811
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Mfg_CZ2	2	1.1811
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Mfg_CZ3	3	1.1811
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Multi_CZ1	1	1.0145
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Multi_CZ2	2	1.0145
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Multi_CZ3	3	1.0145
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Single_CZ1	1	1.1769
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Single_CZ2	2	1.1769
40 Gallon High Efficiency Natural Gas Water Heater (0.67 EF)	Turnover	Single_CZ3	3	1.1769
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Mfg_CZ1	1	0.7894
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Mfg_CZ2	2	0.7719
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Mfg_CZ3	3	0.7918
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Multi_CZ1	1	0.7220
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Multi_CZ2	2	0.7059
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Multi_CZ3	3	0.7245
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Single_CZ1	1	0.9702
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Single_CZ2	2	0.9504
Condensing boiler with 96% estimated seasonal efficiency	Early Retirement	Single_CZ3	3	0.9730
Condensing boiler with 96% estimated seasonal efficiency	New	Mfg_CZ1	1	1.0154
Condensing boiler with 96% estimated seasonal efficiency	New	Mfg_CZ2	2	0.9958
Condensing boiler with 96% estimated seasonal efficiency	New	Mfg_CZ3	3	1.0190
Condensing boiler with 96% estimated seasonal efficiency	New	Multi_CZ1	1	0.9369
Condensing boiler with 96% estimated seasonal efficiency	New	Multi_CZ2	2	0.9174
Condensing boiler with 96% estimated seasonal efficiency	New	Multi_CZ3	3	0.9400
Condensing boiler with 96% estimated seasonal efficiency	New	Single_CZ1	1	1.2205
Condensing boiler with 96% estimated seasonal efficiency	New	Single_CZ2	2	1.1992
Condensing boiler with 96% estimated seasonal efficiency	New	Single_CZ3	3	1.2240
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Mfg_CZ1	1	1.0154
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Mfg_CZ2	2	0.9958
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Mfg_CZ3	3	1.0190
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Multi_CZ1	1	0.9369
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Multi_CZ2	2	0.9174
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Multi_CZ3	3	0.9400

Description	Vintage	Segment	Climate Zone	B/c Ratio
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Single_CZ1	1	1.2205
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Single_CZ2	2	1.1992
Condensing boiler with 96% estimated seasonal efficiency	Turnover	Single_CZ3	3	1.2240
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Mfg_CZ1	1	0.8121
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Mfg_CZ2	2	0.8121
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Mfg_CZ3	3	0.8121
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Multi_CZ1	1	0.6648
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Multi_CZ2	2	0.6648
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Multi_CZ3	3	0.6648
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Single_CZ1	1	0.8072
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Single_CZ2	2	0.8072
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Early Retirement	Single_CZ3	3	0.8072
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Mfg_CZ1	1	0.7929
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Mfg_CZ2	2	0.7929
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Mfg_CZ3	3	0.7929
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Multi_CZ1	1	0.6478
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Multi_CZ2	2	0.6478
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Multi_CZ3	3	0.6478
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Single_CZ1	1	0.7887
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Single_CZ2	2	0.7887
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	New	Single_CZ3	3	0.7887
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Mfg_CZ1	1	0.7929
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Mfg_CZ2	2	0.7929
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Mfg_CZ3	3	0.7929
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Multi_CZ1	1	0.6478
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Multi_CZ2	2	0.6478
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Multi_CZ3	3	0.6478

Description	Vintage	Segment	Climate Zone	B/c Ratio
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Single_CZ1	1	0.7887
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Single_CZ2	2	0.7887
Condensing High Efficiency Natural Gas Tankless Water Heater (0.91 EF)	Turnover	Single_CZ3	3	0.7887
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Mfg_CZ1	1	0.7068
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Mfg_CZ2	2	0.7068
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Mfg_CZ3	3	0.7068
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Multi_CZ1	1	0.5799
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Multi_CZ2	2	0.5799
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Multi_CZ3	3	0.5799
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Single_CZ1	1	0.7024
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Single_CZ2	2	0.7024
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Early Retirement	Single_CZ3	3	0.7024
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Mfg_CZ1	1	0.8017
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Mfg_CZ2	2	0.8017
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Mfg_CZ3	3	0.8017
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Multi_CZ1	1	0.6645
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Multi_CZ2	2	0.6645
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Multi_CZ3	3	0.6645
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Single_CZ1	1	0.7972
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Single_CZ2	2	0.7972
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	New	Single_CZ3	3	0.7972
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Mfg_CZ1	1	0.8017
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Mfg_CZ2	2	0.8017
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Mfg_CZ3	3	0.8017
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Multi_CZ1	1	0.6645
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Multi_CZ2	2	0.6645
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Multi_CZ3	3	0.6645
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Single_CZ1	1	0.7972
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Single_CZ2	2	0.7972
Condensing Natural Gas Water Heater (0.90 EF), 40 gallon	Turnover	Single_CZ3	3	0.7972
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Mfg_CZ1	1	0.9800
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Mfg_CZ2	2	0.9600
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Mfg_CZ3	3	0.9828
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Multi_CZ1	1	0.9038
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Multi_CZ2	2	0.8854
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Multi_CZ3	3	0.9068
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Single_CZ1	1	1.1770
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Single_CZ2	2	1.1562
High Efficiency Boiler, 90% AFUE or greater.	Early Retirement	Single_CZ3	3	1.1805
High Efficiency Boiler, 90% AFUE or greater.	New	Mfg_CZ1	1	1.4110
High Efficiency Boiler, 90% AFUE or greater.	New	Mfg_CZ2	2	1.3896
High Efficiency Boiler, 90% AFUE or greater.	New	Mfg_CZ3	3	1.4146
High Efficiency Boiler, 90% AFUE or greater.	New	Multi_CZ1	1	1.3243
High Efficiency Boiler, 90% AFUE or greater.	New	Multi_CZ2	2	1.3031
High Efficiency Boiler, 90% AFUE or greater.	New	Multi_CZ3	3	1.3269
High Efficiency Boiler, 90% AFUE or greater.	New	Single_CZ1	1	1.6250
High Efficiency Boiler, 90% AFUE or greater.	New	Single_CZ2	2	1.6027
High Efficiency Boiler, 90% AFUE or greater.	New	Single_CZ3	3	1.6285

Description	Vintage	Segment	Climate Zone	B/c Ratio
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Mfg_CZ1	1	1.4110
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Mfg_CZ2	2	1.3896
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Mfg_CZ3	3	1.4146
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Multi_CZ1	1	1.3243
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Multi_CZ2	2	1.3031
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Multi_CZ3	3	1.3269
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Single_CZ1	1	1.6250
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Single_CZ1	1	2.6094
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Single_CZ2	2	1.6027
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Single_CZ2	2	2.6577
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Single_CZ3	3	2.6471
High Efficiency Boiler, 90% AFUE or greater.	Turnover	Single_CZ3	3	1.6285
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Mfg_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Mfg_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Mfg_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Multi_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Multi_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Multi_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Single_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Single_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	Early Retirement	Single_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	New	Mfg_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	New	Mfg_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	New	Mfg_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	New	Multi_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	New	Multi_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	New	Multi_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	New	Single_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	New	Single_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	New	Single_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Mfg_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Mfg_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Mfg_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Multi_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Multi_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Multi_CZ3	3	1.5883
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Single_CZ1	1	1.5844
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Single_CZ2	2	1.5626
High efficiency natural gas fireplace hearth; AFUE 80%	Turnover	Single_CZ3	3	1.5883
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Mfg_CZ1	1	0.9929
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Mfg_CZ2	2	0.9887
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Mfg_CZ3	3	0.9934
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Multi_CZ1	1	1.0100
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Multi_CZ2	2	1.0059
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Multi_CZ3	3	1.0111
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Single_CZ1	1	1.0600
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Single_CZ2	2	1.0546
High-efficiency (condensing) furnace = AFUE 95	Early Retirement	Single_CZ3	3	1.0609
High-efficiency (condensing) furnace = AFUE 95	New	Mfg_CZ1	1	1.2767
High-efficiency (condensing) furnace = AFUE 95	New	Mfg_CZ2	2	1.2726
High-efficiency (condensing) furnace = AFUE 95	New	Mfg_CZ3	3	1.2773

Description	Vintage	Segment	Climate Zone	B/c Ratio
High-efficiency (condensing) furnace = AFUE 95	New	Multi_CZ1	1	1.2932
High-efficiency (condensing) furnace = AFUE 95	New	Multi_CZ2	2	1.2886
High-efficiency (condensing) furnace = AFUE 95	New	Multi_CZ3	3	1.2939
High-efficiency (condensing) furnace = AFUE 95	New	Single_CZ1	1	1.3401
High-efficiency (condensing) furnace = AFUE 95	New	Single_CZ2	2	1.3352
High-efficiency (condensing) furnace = AFUE 95	New	Single_CZ3	3	1.3413
High-efficiency (condensing) furnace = AFUE 95	Turnover	Mfg_CZ1	1	1.2767
High-efficiency (condensing) furnace = AFUE 95	Turnover	Mfg_CZ2	2	1.2726
High-efficiency (condensing) furnace = AFUE 95	Turnover	Mfg_CZ3	3	1.2773
High-efficiency (condensing) furnace = AFUE 95	Turnover	Multi_CZ1	1	1.2932
High-efficiency (condensing) furnace = AFUE 95	Turnover	Multi_CZ2	2	1.2886
High-efficiency (condensing) furnace = AFUE 95	Turnover	Multi_CZ3	3	1.2939
High-efficiency (condensing) furnace = AFUE 95	Turnover	Single_CZ1	1	1.3401
High-efficiency (condensing) furnace = AFUE 95	Turnover	Single_CZ2	2	1.3352
High-efficiency (condensing) furnace = AFUE 95	Turnover	Single_CZ3	3	1.3413
New High Efficiency Condensing Boiler for Water and Space Heating applied to MF buildings	Early Retirement	Multi_CZ3	3	1.9605
New High Efficiency Condensing Boiler for Water and Space Heating applied to MF buildings	New	Multi_CZ1	1	1.9605
New High Efficiency Condensing Boiler for Water and Space Heating applied to MF buildings	Turnover	Multi_CZ2	2	1.9605
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Mfg_CZ1	1	0.8326
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Mfg_CZ2	2	0.8229
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Mfg_CZ3	3	0.8341
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Multi_CZ1	1	0.6756
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Multi_CZ2	2	0.6662
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Multi_CZ3	3	0.6771
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Single_CZ1	1	0.4675
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Single_CZ2	2	0.4613
Tankless water heater with mean capacity of 108 MBTU/hr	Early Retirement	Single_CZ3	3	0.4684
Tankless water heater with mean capacity of 108 MBTU/hr	New	Mfg_CZ1	1	2.4795
Tankless water heater with mean capacity of 108 MBTU/hr	New	Mfg_CZ2	2	2.4717
Tankless water heater with mean capacity of 108 MBTU/hr	New	Mfg_CZ3	3	2.4806
Tankless water heater with mean capacity of 108 MBTU/hr	New	Multi_CZ1	1	2.4180
Tankless water heater with mean capacity of 108 MBTU/hr	New	Multi_CZ2	2	2.4086
Tankless water heater with mean capacity of 108 MBTU/hr	New	Multi_CZ3	3	2.4194
Tankless water heater with mean capacity of 108 MBTU/hr	New	Single_CZ1	1	2.2099
Tankless water heater with mean capacity of 108 MBTU/hr	New	Single_CZ2	2	2.2002
Tankless water heater with mean capacity of 108 MBTU/hr	New	Single_CZ3	3	2.2114
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Mfg_CZ1	1	0.8400
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Mfg_CZ2	2	0.8305
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Mfg_CZ3	3	0.8414
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Multi_CZ1	1	0.6685
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Multi_CZ2	2	0.6594
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Multi_CZ3	3	0.6699
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Single_CZ1	1	0.4421
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Single_CZ2	2	0.4363
Tankless water heater with mean capacity of 108 MBTU/hr	Turnover	Single_CZ3	3	0.4430

Description	Vintage	Segment	Climate Zone	B/c Ratio
Attic / Ceiling Insulation > R-38	Existing	Mfg_CZ1	1	1.5437
Attic / Ceiling Insulation > R-38	Existing	Mfg_CZ1	1	1.2698
Attic / Ceiling Insulation > R-38	Existing	Mfg_CZ2	2	1.4993
Attic / Ceiling Insulation > R-38	Existing	Mfg_CZ2	2	1.2329
Attic / Ceiling Insulation > R-38	Existing	Mfg_CZ3	3	1.6560
Attic / Ceiling Insulation > R-38	Existing	Mfg_CZ3	3	1.3745
Attic / Ceiling Insulation > R-38	Existing	Multi_CZ1	1	1.5437
Attic / Ceiling Insulation > R-38	Existing	Multi_CZ1	1	1.2698
Attic / Ceiling Insulation > R-38	Existing	Multi_CZ2	2	1.4993
Attic / Ceiling Insulation > R-38	Existing	Multi_CZ2	2	1.2329
Attic / Ceiling Insulation > R-38	Existing	Multi_CZ3	3	1.6560
Attic / Ceiling Insulation > R-38	Existing	Multi_CZ3	3	1.3745
Attic / Ceiling Insulation > R-38	Existing	Single_CZ1	1	1.5449
Attic / Ceiling Insulation > R-38	Existing	Single_CZ1	1	1.2709
Attic / Ceiling Insulation > R-38	Existing	Single_CZ2	2	1.5032
Attic / Ceiling Insulation > R-38	Existing	Single_CZ2	2	1.2329
Attic / Ceiling Insulation > R-38	Existing	Single_CZ3	3	1.6548
Attic / Ceiling Insulation > R-38	Existing	Single_CZ3	3	1.3726
Attic / Ceiling Insulation > R-38	New	Mfg_CZ1	1	1.4993
Attic / Ceiling Insulation > R-38	New	Mfg_CZ2	2	1.4532
Attic / Ceiling Insulation > R-38	New	Mfg_CZ3	3	1.6042
Attic / Ceiling Insulation > R-38	New	Multi_CZ1	1	1.4993
Attic / Ceiling Insulation > R-38	New	Multi_CZ2	2	1.4532
Attic / Ceiling Insulation > R-38	New	Multi_CZ3	3	1.6042
Attic / Ceiling Insulation > R-38	New	Single_CZ1	1	1.4954
Attic / Ceiling Insulation > R-38	New	Single_CZ2	2	1.4559
Attic / Ceiling Insulation > R-38	New	Single_CZ3	3	1.6065
Attic / Ceiling Insulation > R-49	Existing	Mfg_CZ1	1	2.6501
Attic / Ceiling Insulation > R-49	Existing	Mfg_CZ1	1	1.7673
Attic / Ceiling Insulation > R-49	Existing	Mfg_CZ2	2	2.6134
Attic / Ceiling Insulation > R-49	Existing	Mfg_CZ2	2	1.7238
Attic / Ceiling Insulation > R-49	Existing	Mfg_CZ3	3	2.7445
Attic / Ceiling Insulation > R-49	Existing	Mfg_CZ3	3	1.8804
Attic / Ceiling Insulation > R-49	Existing	Multi_CZ1	1	2.6501
Attic / Ceiling Insulation > R-49	Existing	Multi_CZ1	1	1.7673
Attic / Ceiling Insulation > R-49	Existing	Multi_CZ2	2	2.6134
Attic / Ceiling Insulation > R-49	Existing	Multi_CZ2	2	1.7238
Attic / Ceiling Insulation > R-49	Existing	Multi_CZ3	3	2.7445
Attic / Ceiling Insulation > R-49	Existing	Multi_CZ3	3	1.8804
Attic / Ceiling Insulation > R-49	Existing	Single_CZ1	1	2.6498
Attic / Ceiling Insulation > R-49	Existing	Single_CZ1	1	1.7673
Attic / Ceiling Insulation > R-49	Existing	Single_CZ2	2	2.6135
Attic / Ceiling Insulation > R-49	Existing	Single_CZ2	2	1.7249
Attic / Ceiling Insulation > R-49	Existing	Single_CZ3	3	2.7446
Attic / Ceiling Insulation > R-49	Existing	Single_CZ3	3	1.8804
Attic / Ceiling Insulation > R-49	New	Mfg_CZ1	1	2.6082

Description	Vintage	Segment	Climate Zone	B/c Ratio
Attic / Ceiling Insulation > R-49	New	Mfg_CZ1	1	1.7183
Attic / Ceiling Insulation > R-49	New	Mfg_CZ1	1	1.2275
Attic / Ceiling Insulation > R-49	New	Mfg_CZ2	2	2.5703
Attic / Ceiling Insulation > R-49	New	Mfg_CZ2	2	1.6756
Attic / Ceiling Insulation > R-49	New	Mfg_CZ2	2	1.3307
Attic / Ceiling Insulation > R-49	New	Mfg_CZ3	3	2.7041
Attic / Ceiling Insulation > R-49	New	Mfg_CZ3	3	1.8317
Attic / Ceiling Insulation > R-49	New	Mfg_CZ3	3	1.3307
Attic / Ceiling Insulation > R-49	New	Multi_CZ1	1	2.6082
Attic / Ceiling Insulation > R-49	New	Multi_CZ1	1	1.7183
Attic / Ceiling Insulation > R-49	New	Multi_CZ1	1	1.2275
Attic / Ceiling Insulation > R-49	New	Multi_CZ2	2	2.5703
Attic / Ceiling Insulation > R-49	New	Multi_CZ2	2	1.6756
Attic / Ceiling Insulation > R-49	New	Multi_CZ2	2	1.3307
Attic / Ceiling Insulation > R-49	New	Multi_CZ3	3	2.7041
Attic / Ceiling Insulation > R-49	New	Multi_CZ3	3	1.8317
Attic / Ceiling Insulation > R-49	New	Multi_CZ3	3	1.3307
Attic / Ceiling Insulation > R-49	New	Single_CZ1	1	2.6077
Attic / Ceiling Insulation > R-49	New	Single_CZ1	1	1.7182
Attic / Ceiling Insulation > R-49	New	Single_CZ1	1	1.2265
Attic / Ceiling Insulation > R-49	New	Single_CZ2	2	2.5706
Attic / Ceiling Insulation > R-49	New	Single_CZ2	2	1.6756
Attic / Ceiling Insulation > R-49	New	Single_CZ2	2	1.3288
Attic / Ceiling Insulation > R-49	New	Single_CZ3	3	2.7042
Attic / Ceiling Insulation > R-49	New	Single_CZ3	3	1.8307
Attic / Ceiling Insulation > R-49	New	Single_CZ3	3	1.3288
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Mfg_CZ1	1	1.4492
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Mfg_CZ2	2	1.4277
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Mfg_CZ3	3	1.4527
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Multi_CZ1	1	1.3621
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Multi_CZ2	2	1.3408
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Multi_CZ3	3	1.3660

Description	Vintage	Segment	Climate Zone	B/c Ratio
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Single_CZ1	1	1.6627
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Single_CZ2	2	1.6415
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	Existing	Single_CZ3	3	1.6662
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Mfg_CZ1	1	1.4118
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Mfg_CZ2	2	1.3892
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Mfg_CZ3	3	1.4155
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Multi_CZ1	1	1.3244
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Multi_CZ2	2	1.3021
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Multi_CZ3	3	1.3272
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Single_CZ1	1	1.6251
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Single_CZ2	2	1.6036
Boiler reset controls capable of resetting boiler supply water temp in an inverse linear fasion w/outdoor air temp	New	Single_CZ3	3	1.6288
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Mfg_CZ1	1	0.9585
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Mfg_CZ2	2	0.9363
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Mfg_CZ3	3	1.0188
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Multi_CZ1	1	0.9585
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Multi_CZ2	2	0.9363

Description	Vintage	Segment	Climate Zone	B/c Ratio
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Multi_CZ3	3	1.0188
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Single_CZ1	1	0.9585
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Single_CZ2	2	0.9363
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	Existing	Single_CZ3	3	1.0188
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Mfg_CZ1	1	0.0818
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Mfg_CZ2	2	0.0795
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Mfg_CZ3	3	0.0929
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Multi_CZ1	1	0.0818
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Multi_CZ2	2	0.0795
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Multi_CZ3	3	0.0929
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Single_CZ1	1	0.0818
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Single_CZ2	2	0.0795
Comprehensive shell air sealing / infiltration control: to achieve CFM of 1250	New	Single_CZ3	3	0.0929
Door U-Factor <0.21, Energy Star Door	Existing	Mfg_CZ1	1	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Mfg_CZ2	2	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Mfg_CZ3	3	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Multi_CZ1	1	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Multi_CZ2	2	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Multi_CZ3	3	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Single_CZ1	1	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Single_CZ2	2	1.3109
Door U-Factor <0.21, Energy Star Door	Existing	Single_CZ3	3	1.3109
Door U-Factor <0.21, Energy Star Door	New	Mfg_CZ1	1	1.3109
Door U-Factor <0.21, Energy Star Door	New	Mfg_CZ2	2	1.3109
Door U-Factor <0.21, Energy Star Door	New	Mfg_CZ3	3	1.3109
Door U-Factor <0.21, Energy Star Door	New	Multi_CZ1	1	1.3109
Door U-Factor <0.21, Energy Star Door	New	Multi_CZ2	2	1.3109
Door U-Factor <0.21, Energy Star Door	New	Multi_CZ3	3	1.3109
Door U-Factor <0.21, Energy Star Door	New	Single_CZ1	1	1.3109
Door U-Factor <0.21, Energy Star Door	New	Single_CZ2	2	1.3109
Door U-Factor <0.21, Energy Star Door	New	Single_CZ3	3	1.3109
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Mfg_CZ1	1	1.2044
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Mfg_CZ2	2	1.2044

Description	Vintage	Segment	Climate Zone	B/c Ratio
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Mfg_CZ3	3	1.2044
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Multi_CZ1	1	0.7145
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Multi_CZ2	2	0.7145
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Multi_CZ3	3	0.7145
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Single_CZ1	1	1.2044
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Single_CZ2	2	1.2044
Drain Water Heat Recovery Unit, 60% efficiency	Existing	Single_CZ3	3	1.2044
Drain Water Heat Recovery Unit, 60% efficiency	New	Mfg_CZ1	1	0.9739
Drain Water Heat Recovery Unit, 60% efficiency	New	Mfg_CZ2	2	0.9739
Drain Water Heat Recovery Unit, 60% efficiency	New	Mfg_CZ3	3	0.9739
Drain Water Heat Recovery Unit, 60% efficiency	New	Multi_CZ1	1	0.5531
Drain Water Heat Recovery Unit, 60% efficiency	New	Multi_CZ2	2	0.5531
Drain Water Heat Recovery Unit, 60% efficiency	New	Multi_CZ3	3	0.5531
Drain Water Heat Recovery Unit, 60% efficiency	New	Single_CZ1	1	0.9739
Drain Water Heat Recovery Unit, 60% efficiency	New	Single_CZ2	2	0.9739
Drain Water Heat Recovery Unit, 60% efficiency	New	Single_CZ3	3	0.9739
Exterior Wall Insulation > R11	Existing	Mfg_CZ1	1	2.6064
Exterior Wall Insulation > R11	Existing	Mfg_CZ2	2	2.5697
Exterior Wall Insulation > R11	Existing	Mfg_CZ3	3	2.7035
Exterior Wall Insulation > R11	Existing	Multi_CZ1	1	2.6064
Exterior Wall Insulation > R11	Existing	Multi_CZ2	2	2.5697
Exterior Wall Insulation > R11	Existing	Multi_CZ3	3	2.7035
Exterior Wall Insulation > R11	Existing	Single_CZ1	1	2.6066
Exterior Wall Insulation > R11	Existing	Single_CZ2	2	2.5697
Exterior Wall Insulation > R11	Existing	Single_CZ3	3	2.7033
Exterior Wall Insulation > R11	New	Mfg_CZ1	1	2.5643
Exterior Wall Insulation > R11	New	Mfg_CZ2	2	2.5257
Exterior Wall Insulation > R11	New	Mfg_CZ3	3	2.6626
Exterior Wall Insulation > R11	New	Multi_CZ1	1	2.5643
Exterior Wall Insulation > R11	New	Multi_CZ2	2	2.5257
Exterior Wall Insulation > R11	New	Multi_CZ3	3	2.6626
Exterior Wall Insulation > R11	New	Single_CZ1	1	2.5641
Exterior Wall Insulation > R11	New	Single_CZ2	2	2.5261
Exterior Wall Insulation > R11	New	Single_CZ3	3	2.6623
HERS 75	New	Single_CZ1	1	0.7706
HERS 75	New	Single_CZ2	2	0.7619
HERS 75	New	Single_CZ3	3	0.7721
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Mfg_CZ1	1	1.3176
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Mfg_CZ2	2	1.3176
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Mfg_CZ3	3	1.3176
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Multi_CZ1	1	1.2449

Description	Vintage	Segment	Climate Zone	B/c Ratio
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Multi_CZ2	2	1.2449
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Multi_CZ3	3	1.2449
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Single_CZ1	1	1.3137
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Single_CZ2	2	1.3137
Insulated hot water pipe for conventional gas storage tank-type hot water heater (R>5.3)	Existing	Single_CZ3	3	1.3137
Low Flow Showerhead (1.5 GPM max)	Existing	Mfg_CZ1	1	1.4845
Low Flow Showerhead (1.5 GPM max)	Existing	Mfg_CZ2	2	1.4845
Low Flow Showerhead (1.5 GPM max)	Existing	Mfg_CZ3	3	1.4845
Low Flow Showerhead (1.5 GPM max)	Existing	Multi_CZ1	1	1.4709
Low Flow Showerhead (1.5 GPM max)	Existing	Multi_CZ2	2	1.4709
Low Flow Showerhead (1.5 GPM max)	Existing	Multi_CZ3	3	1.4709
Low Flow Showerhead (1.5 GPM max)	Existing	Single_CZ1	1	1.4507
Low Flow Showerhead (1.5 GPM max)	Existing	Single_CZ2	2	1.4507
Low Flow Showerhead (1.5 GPM max)	Existing	Single_CZ3	3	1.4507
Low Flow Showerhead (1.5 GPM max)	New	Mfg_CZ1	1	1.3357
Low Flow Showerhead (1.5 GPM max)	New	Mfg_CZ2	2	1.3357
Low Flow Showerhead (1.5 GPM max)	New	Mfg_CZ3	3	1.3357
Low Flow Showerhead (1.5 GPM max)	New	Multi_CZ1	1	1.3094
Low Flow Showerhead (1.5 GPM max)	New	Multi_CZ2	2	1.3094
Low Flow Showerhead (1.5 GPM max)	New	Multi_CZ3	3	1.3094
Low Flow Showerhead (1.5 GPM max)	New	Single_CZ1	1	1.2717
Low Flow Showerhead (1.5 GPM max)	New	Single_CZ2	2	1.2717
Low Flow Showerhead (1.5 GPM max)	New	Single_CZ3	3	1.2717
Low Flow Showerhead (2.0 GPM max)	Existing	Mfg_CZ1	1	1.4447
Low Flow Showerhead (2.0 GPM max)	Existing	Mfg_CZ2	2	1.4447
Low Flow Showerhead (2.0 GPM max)	Existing	Mfg_CZ3	3	1.4447
Low Flow Showerhead (2.0 GPM max)	Existing	Multi_CZ1	1	1.4270
Low Flow Showerhead (2.0 GPM max)	Existing	Multi_CZ2	2	1.4270
Low Flow Showerhead (2.0 GPM max)	Existing	Multi_CZ3	3	1.4270
Low Flow Showerhead (2.0 GPM max)	Existing	Single_CZ1	1	1.4018
Low Flow Showerhead (2.0 GPM max)	Existing	Single_CZ2	2	1.4018
Low Flow Showerhead (2.0 GPM max)	Existing	Single_CZ3	3	1.4018
Low Flow Showerhead (2.0 GPM max)	New	Mfg_CZ1	1	0.8330
Low Flow Showerhead (2.0 GPM max)	New	Mfg_CZ2	2	0.8330
Low Flow Showerhead (2.0 GPM max)	New	Mfg_CZ3	3	0.8330
Low Flow Showerhead (2.0 GPM max)	New	Multi_CZ1	1	0.7893
Low Flow Showerhead (2.0 GPM max)	New	Multi_CZ2	2	0.7893
Low Flow Showerhead (2.0 GPM max)	New	Multi_CZ3	3	0.7893
Low Flow Showerhead (2.0 GPM max)	New	Single_CZ1	1	0.7327
Low Flow Showerhead (2.0 GPM max)	New	Single_CZ2	2	0.7327
Low Flow Showerhead (2.0 GPM max)	New	Single_CZ3	3	0.7327

Description	Vintage	Segment	Climate Zone	B/c Ratio
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Mfg_CZ1	1	1.3208
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Mfg_CZ2	2	1.3208
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Mfg_CZ3	3	1.3208
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Multi_CZ1	1	1.2493
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Multi_CZ2	2	1.2493
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Multi_CZ3	3	1.2493
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Single_CZ1	1	1.1627
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Single_CZ2	2	1.1627
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	Existing	Single_CZ3	3	1.1627
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Mfg_CZ1	1	1.0194
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Mfg_CZ2	2	1.0194
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Mfg_CZ3	3	1.0194
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Multi_CZ1	1	0.9283
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Multi_CZ2	2	0.9283
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Multi_CZ3	3	0.9283

Description	Vintage	Segment	Climate Zone	B/c Ratio
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Single_CZ1	1	0.7988
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Single_CZ2	2	0.7988
One kitchen aerator at 1.5 gpm, and two additional aerators at 1.0 gpm = 1.17 gpm weighted average.	New	Single_CZ3	3	0.7988
Programmable Thermostat	Existing	Mfg_CZ1	1	1.1257
Programmable Thermostat	Existing	Mfg_CZ2	2	1.1055
Programmable Thermostat	Existing	Mfg_CZ3	3	1.1728
Programmable Thermostat	Existing	Multi_CZ1	1	1.1257
Programmable Thermostat	Existing	Multi_CZ2	2	1.1055
Programmable Thermostat	Existing	Multi_CZ3	3	1.1728
Programmable Thermostat	Existing	Single_CZ1	1	1.5350
Programmable Thermostat	Existing	Single_CZ2	2	1.5261
Programmable Thermostat	Existing	Single_CZ3	3	1.5570
Programmable Thermostat	New	Mfg_CZ1	1	1.3285
Programmable Thermostat	New	Mfg_CZ2	2	1.3155
Programmable Thermostat	New	Mfg_CZ3	3	1.3666
Programmable Thermostat	New	Multi_CZ1	1	1.3285
Programmable Thermostat	New	Multi_CZ2	2	1.3155
Programmable Thermostat	New	Multi_CZ3	3	1.3666
Programmable Thermostat	New	Single_CZ1	1	1.6217
Programmable Thermostat	New	Single_CZ2	2	1.6162
Programmable Thermostat	New	Single_CZ3	3	1.6359
R-13 Basement Insulation added to a basement or crawl space	Existing	Mfg_CZ1	1	3.4134
R-13 Basement Insulation added to a basement or crawl space	Existing	Mfg_CZ2	2	3.3967
R-13 Basement Insulation added to a basement or crawl space	Existing	Mfg_CZ3	3	3.4547
R-13 Basement Insulation added to a basement or crawl space	Existing	Multi_CZ1	1	3.4134
R-13 Basement Insulation added to a basement or crawl space	Existing	Multi_CZ2	2	3.3967
R-13 Basement Insulation added to a basement or crawl space	Existing	Multi_CZ3	3	3.4547
R-13 Basement Insulation added to a basement or crawl space	Existing	Single_CZ1	1	3.4134
R-13 Basement Insulation added to a basement or crawl space	Existing	Single_CZ2	2	3.3967
R-13 Basement Insulation added to a basement or crawl space	Existing	Single_CZ3	3	3.4547

Description	Vintage	Segment	Climate Zone	B/c Ratio
R-13 Basement Insulation added to a basement or crawl space	New	Mfg_CZ1	1	3.3943
R-13 Basement Insulation added to a basement or crawl space	New	Mfg_CZ2	2	3.3775
R-13 Basement Insulation added to a basement or crawl space	New	Mfg_CZ3	3	3.4373
R-13 Basement Insulation added to a basement or crawl space	New	Multi_CZ1	1	3.3943
R-13 Basement Insulation added to a basement or crawl space	New	Multi_CZ2	2	3.3775
R-13 Basement Insulation added to a basement or crawl space	New	Multi_CZ3	3	3.4373
R-13 Basement Insulation added to a basement or crawl space	New	Single_CZ1	1	3.3943
R-13 Basement Insulation added to a basement or crawl space	New	Single_CZ2	2	3.3775
R-13 Basement Insulation added to a basement or crawl space	New	Single_CZ3	3	3.4373
R-30 insulation added to basement or crawl space floor	Existing	Mfg_CZ1	1	1.1602
R-30 insulation added to basement or crawl space floor	Existing	Mfg_CZ2	2	1.1256
R-30 insulation added to basement or crawl space floor	Existing	Mfg_CZ3	3	1.2550
R-30 insulation added to basement or crawl space floor	Existing	Multi_CZ1	1	1.1603
R-30 insulation added to basement or crawl space floor	Existing	Multi_CZ2	2	1.1252
R-30 insulation added to basement or crawl space floor	Existing	Multi_CZ3	3	1.2548
R-30 insulation added to basement or crawl space floor	Existing	Single_CZ1	1	1.1598
R-30 insulation added to basement or crawl space floor	Existing	Single_CZ2	2	1.1253
R-30 insulation added to basement or crawl space floor	Existing	Single_CZ3	3	1.2548
R-30 insulation added to basement or crawl space floor	New	Mfg_CZ1	1	1.2002
R-30 insulation added to basement or crawl space floor	New	Mfg_CZ2	2	1.1653
R-30 insulation added to basement or crawl space floor	New	Mfg_CZ3	3	1.2971
R-30 insulation added to basement or crawl space floor	New	Multi_CZ1	1	1.2002
R-30 insulation added to basement or crawl space floor	New	Multi_CZ2	2	1.1655

Description	Vintage	Segment	Climate Zone	B/c Ratio
R-30 insulation added to basement or crawl space floor	New	Multi_CZ3	3	1.2970
R-30 insulation added to basement or crawl space floor	New	Single_CZ1	1	1.2005
R-30 insulation added to basement or crawl space floor	New	Single_CZ2	2	1.1652
R-30 insulation added to basement or crawl space floor	New	Single_CZ3	3	1.2971
R-5 Slab Insulation (4ft)	Existing	Mfg_CZ1	1	1.5041
R-5 Slab Insulation (4ft)	Existing	Mfg_CZ2	2	1.4642
R-5 Slab Insulation (4ft)	Existing	Mfg_CZ3	3	1.6205
R-5 Slab Insulation (4ft)	Existing	Multi_CZ1	1	1.5969
R-5 Slab Insulation (4ft)	Existing	Multi_CZ2	2	1.5560
R-5 Slab Insulation (4ft)	Existing	Multi_CZ3	3	1.7157
R-5 Slab Insulation (4ft)	Existing	Single_CZ1	1	1.2912
R-5 Slab Insulation (4ft)	Existing	Single_CZ2	2	1.2520
R-5 Slab Insulation (4ft)	Existing	Single_CZ3	3	1.3987
R-5 Slab Insulation (4ft)	New	Mfg_CZ1	1	1.8482
R-5 Slab Insulation (4ft)	New	Mfg_CZ2	2	1.8056
R-5 Slab Insulation (4ft)	New	Mfg_CZ3	3	1.9708
R-5 Slab Insulation (4ft)	New	Multi_CZ1	1	1.7319
R-5 Slab Insulation (4ft)	New	Multi_CZ2	2	1.6899
R-5 Slab Insulation (4ft)	New	Multi_CZ3	3	1.8532
R-5 Slab Insulation (4ft)	New	Single_CZ1	1	1.4800
R-5 Slab Insulation (4ft)	New	Single_CZ2	2	1.4380
R-5 Slab Insulation (4ft)	New	Single_CZ3	3	1.5942
Residential Energy Star Home [HERS Score: 75: base Home (as described in assumptions below) with the following alternates: R-44 Ceiling Insulation, 92AFUE furnace, 0.62 EF water heater, 0.46 ACH] plus the following additional savings: efficient dishwasher, clothes washer, duct insulation, and water faucets.	New	Single_CZ1	1	0.7753
Residential Energy Star Home [HERS Score: 75: base Home (as described in assumptions below) with the following alternates: R-44 Ceiling Insulation, 92AFUE furnace, 0.62 EF water heater, 0.46 ACH] plus the following additional savings: efficient dishwasher, clothes washer, duct insulation, and water faucets.	New	Single_CZ2	2	0.7666

Description	Vintage	Segment	Climate Zone	B/c Ratio
Residential Energy Star Home [HERS Score: 75: base Home (as described in assumptions below) with the following alternates: R-44 Ceiling Insulation, 92AFUE furnace, 0.62 EF water heater, 0.46 ACH] plus the following additional savings: efficient dishwasher, clothes washer, duct insulation, and water faucets.	New	Single_CZ3	3	0.7766
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Mfg_CZ1	1	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Mfg_CZ2	2	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Mfg_CZ3	3	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Multi_CZ1	1	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Multi_CZ2	2	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Multi_CZ3	3	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Single_CZ1	1	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Single_CZ2	2	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	Existing	Single_CZ3	3	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Mfg_CZ1	1	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Mfg_CZ2	2	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Mfg_CZ3	3	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Multi_CZ1	1	1.8163

Description	Vintage	Segment	Climate Zone	B/c Ratio
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Multi_CZ2	2	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Multi_CZ3	3	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Single_CZ1	1	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Single_CZ2	2	1.8163
Ventilation system meeting ASHRAE 62.2-2007 requirements using an Energy Star qualified air-to-air heat recovery ventilator	New	Single_CZ3	3	1.8163
Wall Insulation, R-13	Existing	Mfg_CZ1	1	2.6757
Wall Insulation, R-13	Existing	Mfg_CZ2	2	2.6397
Wall Insulation, R-13	Existing	Mfg_CZ3	3	2.7684
Wall Insulation, R-13	Existing	Multi_CZ1	1	2.6757
Wall Insulation, R-13	Existing	Multi_CZ2	2	2.1889
Wall Insulation, R-13	Existing	Multi_CZ3	3	2.7684
Wall Insulation, R-13	Existing	Single_CZ1	1	2.6753
Wall Insulation, R-13	Existing	Single_CZ2	2	3.0115
Wall Insulation, R-13	Existing	Single_CZ3	3	2.7687
Wall Insulation, R-13	New	Mfg_CZ1	1	2.6341
Wall Insulation, R-13	New	Mfg_CZ2	2	2.5969
Wall Insulation, R-13	New	Mfg_CZ3	3	2.7293
Wall Insulation, R-13	New	Multi_CZ1	1	2.6341
Wall Insulation, R-13	New	Multi_CZ2	2	2.1402
Wall Insulation, R-13	New	Multi_CZ3	3	2.7293
Wall Insulation, R-13	New	Single_CZ1	1	2.6339
Wall Insulation, R-13	New	Single_CZ2	2	2.9782
Wall Insulation, R-13	New	Single_CZ3	3	2.7293

Description	Vintage	Segment	Climate Zone	B/c Ratio
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Education	All	1.3363
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Grocery	All	0.1795
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Healthcare	All	0.8592
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Lodging	All	2.4627
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Misc.	All	0.0189
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Office	All	0.0700
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Restaurant	All	0.6449
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Retail	All	0.0427
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Early Retirement	Warehouse	All	0.0331
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Education	All	1.3363
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Grocery	All	0.1795
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Healthcare	All	0.8592
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Lodging	All	2.4627
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Misc.	All	0.0189
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Office	All	0.0700
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Restaurant	All	0.6449
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Retail	All	0.0427
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	New	Warehouse	All	0.0331
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Education	All	1.3363
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Grocery	All	0.1795
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Healthcare	All	0.8592
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Lodging	All	2.4627
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Misc.	All	0.0189
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Office	All	0.0700
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Restaurant	All	0.6449
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Retail	All	0.0427
1 32SF Solar Collector, Glazed. Thermodynamics G32 (<2012)	Turnover	Warehouse	All	0.0331
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Education	All	0.0399
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Grocery	All	0.2307
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Healthcare	All	0.0339
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Lodging	All	0.0385
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Misc.	All	0.0087
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Office	All	0.0035
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Restaurant	All	0.1296
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Retail	All	0.0127
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Early Retirement	Warehouse	All	0.0000
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Education	All	0.2157
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Grocery	All	1.1203
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Healthcare	All	0.1842
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Lodging	All	0.2085
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Misc.	All	0.0481

Description	Vintage	Segment	Climate Zone	B/c Ratio
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Office	All	0.0191
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Restaurant	All	0.6655
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Retail	All	0.0696
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	New	Warehouse	All	0.0000
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Education	All	0.2157
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Grocery	All	1.1203
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Healthcare	All	0.1842
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Lodging	All	0.2085
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Misc.	All	0.0481
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Office	All	0.0191
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Restaurant	All	0.6655
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Retail	All	0.0696
Combination convection with steam oven cooking efficiency ≥ 38% and convection mode cooking efficiency ≥ 44%	Turnover	Warehouse	All	0.0000
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Education	All	0.4139
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Grocery	All	1.9275
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Healthcare	All	0.3548
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Lodging	All	0.4004
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Misc.	All	0.0944
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Office	All	0.0377
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Restaurant	All	1.2077
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Retail	All	0.1361
Energy Star Convection Oven with cooking efficiency ≥ 44%	Early Retirement	Warehouse	All	0.0000
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Education	All	5.4951
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Grocery	All	7.0122
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Healthcare	All	5.2542
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Lodging	All	5.4448
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Misc.	All	2.8436
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Office	All	1.4653
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Restaurant	All	6.7103
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Retail	All	3.5180
Energy Star Convection Oven with cooking efficiency ≥ 44%	New	Warehouse	All	0.0010
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Education	All	5.4951
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Grocery	All	7.0122
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Healthcare	All	5.2542
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Lodging	All	5.4448
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Misc.	All	2.8436
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Office	All	1.4653
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Restaurant	All	6.7103
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Retail	All	3.5180
Energy Star Convection Oven with cooking efficiency ≥ 44%	Turnover	Warehouse	All	0.0010
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Education	All	0.5035

Description	Vintage	Segment	Climate Zone	B/c Ratio
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Grocery	All	1.1822
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Healthcare	All	0.2633
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Lodging	All	0.7514
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Misc.	All	0.0864
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Office	All	0.0288
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Restaurant	All	1.8599
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Retail	All	0.0742
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Early Retirement	Warehouse	All	0.0000
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Education	All	2.9913
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Grocery	All	4.7318
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Healthcare	All	1.8878
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Lodging	All	3.7931
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Misc.	All	0.7310
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Office	All	0.2583
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Restaurant	All	5.6149
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Retail	All	0.6353
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	New	Warehouse	All	0.0001
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Education	All	2.9913
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Grocery	All	4.7318
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Healthcare	All	1.8878
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Lodging	All	3.7931
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Misc.	All	0.7310
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Office	All	0.2583
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Restaurant	All	5.6149
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Retail	All	0.6353
ENERGY STAR® qualified with 38% minimum cooking energy efficiency at heavy load (potato) cooking capacity for gas steam cookers.	Turnover	Warehouse	All	0.0001
Heat Pump Water Heater, 1.55 COP	Early Retirement	Education	All	0.8635
Heat Pump Water Heater, 1.55 COP	Early Retirement	Grocery	All	0.2106
Heat Pump Water Heater, 1.55 COP	Early Retirement	Healthcare	All	0.7647
Heat Pump Water Heater, 1.55 COP	Early Retirement	Lodging	All	1.8487

Description	Vintage	Segment	Climate Zone	B/c Ratio
Heat Pump Water Heater, 1.55 COP	Early Retirement	Misc.	All	0.0472
Heat Pump Water Heater, 1.55 COP	Early Retirement	Office	All	0.0800
Heat Pump Water Heater, 1.55 COP	Early Retirement	Restaurant	All	2.0567
Heat Pump Water Heater, 1.55 COP	Early Retirement	Retail	All	0.0598
Heat Pump Water Heater, 1.55 COP	Early Retirement	Warehouse	All	0.0316
Heat Pump Water Heater, 1.55 COP	New	Education	All	0.9285
Heat Pump Water Heater, 1.55 COP	New	Grocery	All	0.2281
Heat Pump Water Heater, 1.55 COP	New	Healthcare	All	0.8232
Heat Pump Water Heater, 1.55 COP	New	Lodging	All	1.9666
Heat Pump Water Heater, 1.55 COP	New	Misc.	All	0.0513
Heat Pump Water Heater, 1.55 COP	New	Office	All	0.0868
Heat Pump Water Heater, 1.55 COP	New	Restaurant	All	2.1830
Heat Pump Water Heater, 1.55 COP	New	Retail	All	0.0648
Heat Pump Water Heater, 1.55 COP	New	Warehouse	All	0.0343
Heat Pump Water Heater, 1.55 COP	Turnover	Education	All	0.9285
Heat Pump Water Heater, 1.55 COP	Turnover	Grocery	All	0.2281
Heat Pump Water Heater, 1.55 COP	Turnover	Healthcare	All	0.8232
Heat Pump Water Heater, 1.55 COP	Turnover	Lodging	All	1.9666
Heat Pump Water Heater, 1.55 COP	Turnover	Misc.	All	0.0513
Heat Pump Water Heater, 1.55 COP	Turnover	Office	All	0.0868
Heat Pump Water Heater, 1.55 COP	Turnover	Restaurant	All	2.1830
Heat Pump Water Heater, 1.55 COP	Turnover	Retail	All	0.0648
Heat Pump Water Heater, 1.55 COP	Turnover	Warehouse	All	0.0343
Low Intensity Gas Fired Radiant Heater	Early Retirement	Education	All	5.6123
Low Intensity Gas Fired Radiant Heater	Early Retirement	Grocery	All	4.6467
Low Intensity Gas Fired Radiant Heater	Early Retirement	Healthcare	All	4.2724
Low Intensity Gas Fired Radiant Heater	Early Retirement	Lodging	All	4.2630
Low Intensity Gas Fired Radiant Heater	Early Retirement	Misc.	All	2.2212
Low Intensity Gas Fired Radiant Heater	Early Retirement	Office	All	3.3720
Low Intensity Gas Fired Radiant Heater	Early Retirement	Restaurant	All	2.2273
Low Intensity Gas Fired Radiant Heater	Early Retirement	Retail	All	3.4082
Low Intensity Gas Fired Radiant Heater	Early Retirement	Warehouse	All	2.9874
Low Intensity Gas Fired Radiant Heater	New	Education	All	8.0360
Low Intensity Gas Fired Radiant Heater	New	Grocery	All	7.3361
Low Intensity Gas Fired Radiant Heater	New	Healthcare	All	7.0246
Low Intensity Gas Fired Radiant Heater	New	Lodging	All	7.0164
Low Intensity Gas Fired Radiant Heater	New	Misc.	All	4.7245
Low Intensity Gas Fired Radiant Heater	New	Office	All	6.1577
Low Intensity Gas Fired Radiant Heater	New	Restaurant	All	4.7334
Low Intensity Gas Fired Radiant Heater	New	Retail	All	6.1963
Low Intensity Gas Fired Radiant Heater	New	Warehouse	All	5.7261
Low Intensity Gas Fired Radiant Heater	Turnover	Education	All	8.0360
Low Intensity Gas Fired Radiant Heater	Turnover	Grocery	All	7.3361
Low Intensity Gas Fired Radiant Heater	Turnover	Healthcare	All	7.0246
Low Intensity Gas Fired Radiant Heater	Turnover	Lodging	All	7.0164
Low Intensity Gas Fired Radiant Heater	Turnover	Misc.	All	4.7245
Low Intensity Gas Fired Radiant Heater	Turnover	Office	All	6.1577
Low Intensity Gas Fired Radiant Heater	Turnover	Restaurant	All	4.7334
Low Intensity Gas Fired Radiant Heater	Turnover	Retail	All	6.1963
Low Intensity Gas Fired Radiant Heater	Turnover	Warehouse	All	5.7261
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Education	All	0.0207
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Grocery	All	0.1217
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Healthcare	All	0.0176
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Lodging	All	0.0200
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Misc.	All	0.0045
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Office	All	0.0018

Description	Vintage	Segment	Climate Zone	B/c Ratio
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Restaurant	All	0.0678
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Retail	All	0.0066
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Early Retirement	Warehouse	All	0.0000
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Education	All	0.2772
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Grocery	All	1.4402
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Healthcare	All	0.2367
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Lodging	All	0.2680
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Misc.	All	0.0619
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Office	All	0.0246
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Restaurant	All	0.8555
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Retail	All	0.0895
Natural gas conveyor oven with a tested baking energy efficiency > 42%	New	Warehouse	All	0.0000
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Education	All	0.2772
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Grocery	All	1.4402
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Healthcare	All	0.2367
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Lodging	All	0.2680
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Misc.	All	0.0619
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Office	All	0.0246
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Restaurant	All	0.8555
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Retail	All	0.0895
Natural gas conveyor oven with a tested baking energy efficiency > 42%	Turnover	Warehouse	All	0.0000
Natural gas fired ENERGY STAR fryer	Early Retirement	Education	All	1.9924
Natural gas fired ENERGY STAR fryer	Early Retirement	Grocery	All	3.6269
Natural gas fired ENERGY STAR fryer	Early Retirement	Healthcare	All	1.1610
Natural gas fired ENERGY STAR fryer	Early Retirement	Lodging	All	2.6888
Natural gas fired ENERGY STAR fryer	Early Retirement	Misc.	All	0.4161
Natural gas fired ENERGY STAR fryer	Early Retirement	Office	All	0.1427
Natural gas fired ENERGY STAR fryer	Early Retirement	Restaurant	All	2.8587
Natural gas fired ENERGY STAR fryer	Early Retirement	Retail	All	0.3594
Natural gas fired ENERGY STAR fryer	Early Retirement	Warehouse	All	0.0001
Natural gas fired ENERGY STAR fryer	New	Education	All	2.8175
Natural gas fired ENERGY STAR fryer	New	Grocery	All	4.5609
Natural gas fired ENERGY STAR fryer	New	Healthcare	All	1.7528
Natural gas fired ENERGY STAR fryer	New	Lodging	All	3.6107
Natural gas fired ENERGY STAR fryer	New	Misc.	All	0.6687
Natural gas fired ENERGY STAR fryer	New	Office	All	0.2349
Natural gas fired ENERGY STAR fryer	New	Restaurant	All	3.7923
Natural gas fired ENERGY STAR fryer	New	Retail	All	0.5805
Natural gas fired ENERGY STAR fryer	New	Warehouse	All	0.0001
Natural gas fired ENERGY STAR fryer	Turnover	Education	All	2.8175
Natural gas fired ENERGY STAR fryer	Turnover	Grocery	All	4.5609
Natural gas fired ENERGY STAR fryer	Turnover	Healthcare	All	1.7528
Natural gas fired ENERGY STAR fryer	Turnover	Lodging	All	3.6107
Natural gas fired ENERGY STAR fryer	Turnover	Misc.	All	0.6687
Natural gas fired ENERGY STAR fryer	Turnover	Office	All	0.2349
Natural gas fired ENERGY STAR fryer	Turnover	Restaurant	All	3.7923
Natural gas fired ENERGY STAR fryer	Turnover	Retail	All	0.5805
Natural gas fired ENERGY STAR fryer	Turnover	Warehouse	All	0.0001
Natural gas fired ENERGY STAR griddle	Early Retirement	Education	All	0.2321
Natural gas fired ENERGY STAR griddle	Early Retirement	Grocery	All	0.5754
Natural gas fired ENERGY STAR griddle	Early Retirement	Healthcare	All	0.1191
Natural gas fired ENERGY STAR griddle	Early Retirement	Lodging	All	0.3532
Natural gas fired ENERGY STAR griddle	Early Retirement	Misc.	All	0.0386
Natural gas fired ENERGY STAR griddle	Early Retirement	Office	All	0.0128
Natural gas fired ENERGY STAR griddle	Early Retirement	Restaurant	All	0.3302
Natural gas fired ENERGY STAR griddle	Early Retirement	Retail	All	0.0331

Description	Vintage	Segment	Climate Zone	B/c Ratio
Natural gas fired ENERGY STAR griddle	Early Retirement	Warehouse	All	0.0000
Natural gas fired ENERGY STAR griddle	New	Education	All	2.0435
Natural gas fired ENERGY STAR griddle	New	Grocery	All	3.6914
Natural gas fired ENERGY STAR griddle	New	Healthcare	All	1.1954
Natural gas fired ENERGY STAR griddle	New	Lodging	All	2.7486
Natural gas fired ENERGY STAR griddle	New	Misc.	All	0.4299
Natural gas fired ENERGY STAR griddle	New	Office	All	0.1477
Natural gas fired ENERGY STAR griddle	New	Restaurant	All	2.6277
Natural gas fired ENERGY STAR griddle	New	Retail	All	0.3715
Natural gas fired ENERGY STAR griddle	New	Warehouse	All	0.0001
Natural gas fired ENERGY STAR griddle	Turnover	Education	All	2.0435
Natural gas fired ENERGY STAR griddle	Turnover	Grocery	All	3.6914
Natural gas fired ENERGY STAR griddle	Turnover	Healthcare	All	1.1954
Natural gas fired ENERGY STAR griddle	Turnover	Lodging	All	2.7486
Natural gas fired ENERGY STAR griddle	Turnover	Misc.	All	0.4299
Natural gas fired ENERGY STAR griddle	Turnover	Office	All	0.1477
Natural gas fired ENERGY STAR griddle	Turnover	Restaurant	All	2.6277
Natural gas fired ENERGY STAR griddle	Turnover	Retail	All	0.3715
Natural gas fired ENERGY STAR griddle	Turnover	Warehouse	All	0.0001
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Education	All	0.4761
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Grocery	All	0.6391
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Healthcare	All	0.1907
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Lodging	All	0.2827
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Misc.	All	0.2194
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Office	All	0.1955
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Restaurant	All	0.2202
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Retail	All	0.3905
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Early Retirement	Warehouse	All	0.3239
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Education	All	0.6247
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Grocery	All	0.8348
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Healthcare	All	0.2523
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Lodging	All	0.3730
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Misc.	All	0.2900
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Office	All	0.2585
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Restaurant	All	0.2910
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Retail	All	0.5137
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	New	Warehouse	All	0.4269
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Education	All	0.6247
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Grocery	All	0.8348
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Healthcare	All	0.2523
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Lodging	All	0.3730
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Misc.	All	0.2900
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Office	All	0.2585
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Restaurant	All	0.2910
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Retail	All	0.5137
Natural Gas Heat Pump, 1.2 mimimum seasonal performance factor	Turnover	Warehouse	All	0.4269
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Education	All	0.2961
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Education	All	0.1058
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Grocery	All	0.3997
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Grocery	All	0.0175
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Healthcare	All	0.1175
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Healthcare	All	0.0683
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Lodging	All	0.1747
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Lodging	All	0.1935
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Misc.	All	0.1353
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Misc.	All	0.0038

Description	Vintage	Segment	Climate Zone	B/c Ratio
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Office	All	0.1204
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Office	All	0.0065
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Restaurant	All	0.1358
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Restaurant	All	0.1402
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Retail	All	0.1358
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Retail	All	0.0049
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Warehouse	All	0.2005
New High Efficiency Condensing Boiler for Water and Space Heating	Early Retirement	Warehouse	All	0.0068
New High Efficiency Condensing Boiler for Water and Space Heating	New	Education	All	0.3678
New High Efficiency Condensing Boiler for Water and Space Heating	New	Education	All	0.1323
New High Efficiency Condensing Boiler for Water and Space Heating	New	Grocery	All	0.4954
New High Efficiency Condensing Boiler for Water and Space Heating	New	Grocery	All	0.0219
New High Efficiency Condensing Boiler for Water and Space Heating	New	Healthcare	All	0.1465
New High Efficiency Condensing Boiler for Water and Space Heating	New	Healthcare	All	0.0854
New High Efficiency Condensing Boiler for Water and Space Heating	New	Lodging	All	0.2176
New High Efficiency Condensing Boiler for Water and Space Heating	New	Lodging	All	0.2415
New High Efficiency Condensing Boiler for Water and Space Heating	New	Misc.	All	0.1672
New High Efficiency Condensing Boiler for Water and Space Heating	New	Misc.	All	0.0048
New High Efficiency Condensing Boiler for Water and Space Heating	New	Office	All	0.1502
New High Efficiency Condensing Boiler for Water and Space Heating	New	Office	All	0.0082
New High Efficiency Condensing Boiler for Water and Space Heating	New	Restaurant	All	0.1678
New High Efficiency Condensing Boiler for Water and Space Heating	New	Restaurant	All	0.1751
New High Efficiency Condensing Boiler for Water and Space Heating	New	Retail	All	0.3012
New High Efficiency Condensing Boiler for Water and Space Heating	New	Retail	All	0.0061
New High Efficiency Condensing Boiler for Water and Space Heating	New	Warehouse	All	0.2473
New High Efficiency Condensing Boiler for Water and Space Heating	New	Warehouse	All	0.0085
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Education	All	0.3678
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Education	All	0.1323
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Grocery	All	0.4954
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Grocery	All	0.0219
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Healthcare	All	0.1465
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Healthcare	All	0.0854
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Lodging	All	0.2176
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Lodging	All	0.2415
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Misc.	All	0.1672
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Misc.	All	0.0048
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Office	All	0.1502
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Office	All	0.0082
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Restaurant	All	0.1678
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Restaurant	All	0.1751
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Retail	All	0.3012
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Retail	All	0.0061
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Warehouse	All	0.2473
New High Efficiency Condensing Boiler for Water and Space Heating	Turnover	Warehouse	All	0.0085
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Education	All	0.2979
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Grocery	All	0.4020
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Healthcare	All	0.1182
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Lodging	All	0.1758
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Misc.	All	0.1361
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Office	All	0.1212

Description	Vintage	Segment	Climate Zone	B/c Ratio
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Restaurant	All	0.1366
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Retail	All	0.2436
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Early Retirement	Warehouse	All	0.2017
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Education	All	0.3709
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Grocery	All	0.4996
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Healthcare	All	0.1478
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Lodging	All	0.2194
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Misc.	All	0.1701
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Office	All	0.1515
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Restaurant	All	0.1707
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Retail	All	0.3038
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	New	Warehouse	All	0.2517
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Education	All	0.3709
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Grocery	All	0.4996
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Healthcare	All	0.1478
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Lodging	All	0.2194
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Misc.	All	0.1701
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Office	All	0.1515
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Restaurant	All	0.1707
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Retail	All	0.3038
New High Efficiency Condensing Boiler Input Capacity >300 kBtuh and Thermal Efficiency >=90%	Turnover	Warehouse	All	0.2517
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Education	All	1.1277
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Grocery	All	1.4171
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Healthcare	All	0.9697
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Lodging	All	0.7914
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Misc.	All	1.0373
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Office	All	0.8597
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Restaurant	All	1.7281
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Retail	All	1.0484
New High Efficiency Condensing Furnace 91 AFUE	Early Retirement	Warehouse	All	0.6158
New High Efficiency Condensing Furnace 91 AFUE	New	Education	All	2.6949
New High Efficiency Condensing Furnace 91 AFUE	New	Grocery	All	3.2410
New High Efficiency Condensing Furnace 91 AFUE	New	Healthcare	All	2.3755
New High Efficiency Condensing Furnace 91 AFUE	New	Lodging	All	1.9953
New High Efficiency Condensing Furnace 91 AFUE	New	Misc.	All	2.5142

Description	Vintage	Segment	Climate Zone	B/c Ratio
New High Efficiency Condensing Furnace 91 AFUE	New	Office	All	2.1436
New High Efficiency Condensing Furnace 91 AFUE	New	Restaurant	All	3.7782
New High Efficiency Condensing Furnace 91 AFUE	New	Retail	All	2.5367
New High Efficiency Condensing Furnace 91 AFUE	New	Warehouse	All	1.5985
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Education	All	2.6949
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Grocery	All	3.2410
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Healthcare	All	2.3755
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Lodging	All	1.9953
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Misc.	All	2.5142
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Office	All	2.1436
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Restaurant	All	3.7782
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Retail	All	2.5367
New High Efficiency Condensing Furnace 91 AFUE	Turnover	Warehouse	All	1.5985
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Education	All	1.4018
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Grocery	All	1.7513
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Healthcare	All	1.2092
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Lodging	All	0.9905
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Misc.	All	1.2918
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Office	All	1.0745
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Restaurant	All	1.8803
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Retail	All	1.3053
New High Efficiency Condensing Unit Heater 92 AFUE	Early Retirement	Warehouse	All	0.7734
New High Efficiency Condensing Unit Heater 92 AFUE	New	Education	All	1.3166
New High Efficiency Condensing Unit Heater 92 AFUE	New	Grocery	All	1.6487
New High Efficiency Condensing Unit Heater 92 AFUE	New	Healthcare	All	1.1343
New High Efficiency Condensing Unit Heater 92 AFUE	New	Lodging	All	0.9278
New High Efficiency Condensing Unit Heater 92 AFUE	New	Misc.	All	1.2124
New High Efficiency Condensing Unit Heater 92 AFUE	New	Office	All	1.0070
New High Efficiency Condensing Unit Heater 92 AFUE	New	Restaurant	All	1.7716
New High Efficiency Condensing Unit Heater 92 AFUE	New	Retail	All	1.2252
New High Efficiency Condensing Unit Heater 92 AFUE	New	Warehouse	All	0.7234
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Education	All	1.3166
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Grocery	All	1.6487
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Healthcare	All	1.1343
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Lodging	All	0.9278
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Misc.	All	1.2124
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Office	All	1.0070
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Restaurant	All	1.7716
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Retail	All	1.2252
New High Efficiency Condensing Unit Heater 92 AFUE	Turnover	Warehouse	All	0.7234
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Education	All	1.1584
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Grocery	All	1.4569
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Healthcare	All	0.9957
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Lodging	All	0.8122
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Misc.	All	1.0654
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Office	All	0.8825
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Restaurant	All	1.5680
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Retail	All	1.0768
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Early Retirement	Warehouse	All	0.6317
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Education	All	0.8036
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Grocery	All	1.0205
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Healthcare	All	0.6871
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Lodging	All	0.5572
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Misc.	All	0.7368
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Office	All	0.6068
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Restaurant	All	1.1023

Description	Vintage	Segment	Climate Zone	B/c Ratio
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Retail	All	0.7450
New High Efficiency Non-Condensing Unit Heater 86 AFUE	New	Warehouse	All	0.4309
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Education	All	0.8036
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Grocery	All	1.0205
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Healthcare	All	0.6871
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Lodging	All	0.5572
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Misc.	All	0.7368
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Office	All	0.6068
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Restaurant	All	1.1023
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Retail	All	0.7450
New High Efficiency Non-Condensing Unit Heater 86 AFUE	Turnover	Warehouse	All	0.4309
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Education	All	0.6017
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Grocery	All	0.1425
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Healthcare	All	0.5305
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Lodging	All	1.3487
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Misc.	All	0.0317
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Office	All	0.0538
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Restaurant	All	1.5155
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Retail	All	0.0402
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Early Retirement	Warehouse	All	0.0212
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Education	All	1.3685
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Grocery	All	0.3529
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Healthcare	All	1.2219
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Lodging	All	2.7083
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Misc.	All	0.0803
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Office	All	0.1356
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Restaurant	All	2.9658
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Retail	All	0.1015
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	New	Warehouse	All	0.0538
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Education	All	1.3685
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Grocery	All	0.3529
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Healthcare	All	1.2219
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Lodging	All	2.7083
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Misc.	All	0.0803
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Office	All	0.1356
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Restaurant	All	2.9658
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Retail	All	0.1015
New High Efficiency Tank Condensing Water Heater, >75,000 kBtuh	Turnover	Warehouse	All	0.0538
New High Efficiency Tank Water Heater	Early Retirement	Education	All	0.8567
New High Efficiency Tank Water Heater	Early Retirement	Grocery	All	0.2088
New High Efficiency Tank Water Heater	Early Retirement	Healthcare	All	0.7587
New High Efficiency Tank Water Heater	Early Retirement	Lodging	All	1.8363
New High Efficiency Tank Water Heater	Early Retirement	Misc.	All	0.0468
New High Efficiency Tank Water Heater	Early Retirement	Office	All	0.0793
New High Efficiency Tank Water Heater	Early Retirement	Restaurant	All	2.0435
New High Efficiency Tank Water Heater	Early Retirement	Retail	All	0.0592
New High Efficiency Tank Water Heater	Early Retirement	Warehouse	All	0.0313
New High Efficiency Tank Water Heater	New	Education	All	0.9549
New High Efficiency Tank Water Heater	New	Grocery	All	0.2353
New High Efficiency Tank Water Heater	New	Healthcare	All	0.8469
New High Efficiency Tank Water Heater	New	Lodging	All	2.0136
New High Efficiency Tank Water Heater	New	Misc.	All	0.0529
New High Efficiency Tank Water Heater	New	Office	All	0.0895
New High Efficiency Tank Water Heater	New	Restaurant	All	2.2332
New High Efficiency Tank Water Heater	New	Retail	All	0.0669
New High Efficiency Tank Water Heater	New	Warehouse	All	0.0354

Description	Vintage	Segment	Climate Zone	B/c Ratio
New High Efficiency Tank Water Heater, EF=.10	Turnover	Office	All	0.0895
New High Efficiency Tank Water Heater, EF=.11	Turnover	Lodging	All	2.0136
New High Efficiency Tank Water Heater, EF=.12	Turnover	Misc.	All	0.0529
New High Efficiency Tank Water Heater, EF=.13	Turnover	Restaurant	All	2.2332
New High Efficiency Tank Water Heater, EF=.14	Turnover	Retail	All	0.0669
New High Efficiency Tank Water Heater, EF=.15	Turnover	Warehouse	All	0.0354
New High Efficiency Tank Water Heater, EF=.7	Turnover	Education	All	0.9549
New High Efficiency Tank Water Heater, EF=.8	Turnover	Grocery	All	0.2353
New High Efficiency Tank Water Heater, EF=.9	Turnover	Healthcare	All	0.8469
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Education	All	1.6134
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Grocery	All	0.4025
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Healthcare	All	1.4337
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Lodging	All	3.3417
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Misc.	All	0.0908
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Office	All	0.1535
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Restaurant	All	3.6924
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Retail	All	0.1148
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Early Retirement	Warehouse	All	0.0607
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Education	All	1.6134
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Grocery	All	0.4025
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Healthcare	All	1.4337
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Lodging	All	3.3417
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Misc.	All	0.0908
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Office	All	0.1535
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Restaurant	All	3.6924
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Retail	All	0.1148
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	New	Warehouse	All	0.0607
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Education	All	1.4224
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Grocery	All	0.3499
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Healthcare	All	1.2613
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Lodging	All	3.0074
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Misc.	All	0.0786
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Office	All	0.1331
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Restaurant	All	3.3372
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Retail	All	0.0995
New High Efficiency Tankless Water Heater <200,000 Mbtuh, .82 EF	Turnover	Warehouse	All	0.0526

Description	Vintage	Segment	Climate Zone	B/c Ratio
Boiler Pipe Insulation	Existing	Education	All	3.3577
Boiler Pipe Insulation	Existing	Grocery	All	4.1418
Boiler Pipe Insulation	Existing	Healthcare	All	1.5912
Boiler Pipe Insulation	Existing	Lodging	All	2.2273
Boiler Pipe Insulation	Existing	Misc.	All	1.7974
Boiler Pipe Insulation	Existing	Office	All	1.6258
Boiler Pipe Insulation	Existing	Restaurant	All	1.8028
Boiler Pipe Insulation	Existing	Retail	All	2.8882
Boiler Pipe Insulation	Existing	Warehouse	All	2.4900
Boiler Pipe Insulation	New	Education	All	3.3577
Boiler Pipe Insulation	New	Grocery	All	4.1418
Boiler Pipe Insulation	New	Healthcare	All	1.5912
Boiler Pipe Insulation	New	Lodging	All	2.2273
Boiler Pipe Insulation	New	Misc.	All	1.7974
Boiler Pipe Insulation	New	Office	All	1.6258
Boiler Pipe Insulation	New	Restaurant	All	1.8028
Boiler Pipe Insulation	New	Retail	All	2.8882
Boiler Pipe Insulation	New	Warehouse	All	2.4900
Boiler Power Burner	Existing	Education	All	0.4955
Boiler Power Burner	Existing	Grocery	All	0.6283
Boiler Power Burner	Existing	Healthcare	All	0.2213
Boiler Power Burner	Existing	Lodging	All	0.3163
Boiler Power Burner	Existing	Misc.	All	0.2517
Boiler Power Burner	Existing	Office	All	0.2264
Boiler Power Burner	Existing	Restaurant	All	0.2525
Boiler Power Burner	Existing	Retail	All	0.4194
Boiler Power Burner	Existing	Warehouse	All	0.3568
Boiler Power Burner	New	Education	All	0.4955
Boiler Power Burner	New	Grocery	All	0.6283
Boiler Power Burner	New	Healthcare	All	0.2213
Boiler Power Burner	New	Lodging	All	0.3163
Boiler Power Burner	New	Misc.	All	0.2517
Boiler Power Burner	New	Office	All	0.2264
Boiler Power Burner	New	Restaurant	All	0.2525
Boiler Power Burner	New	Retail	All	0.4194
Boiler Power Burner	New	Warehouse	All	0.3568
Boiler Repair/Maintenance	Existing	Education	All	0.1381
Boiler Repair/Maintenance	Existing	Grocery	All	0.1818
Boiler Repair/Maintenance	Existing	Healthcare	All	0.0573
Boiler Repair/Maintenance	Existing	Lodging	All	0.0840
Boiler Repair/Maintenance	Existing	Misc.	All	0.0657
Boiler Repair/Maintenance	Existing	Office	All	0.0587
Boiler Repair/Maintenance	Existing	Restaurant	All	0.0660
Boiler Repair/Maintenance	Existing	Retail	All	0.1145
Boiler Repair/Maintenance	Existing	Warehouse	All	0.0958
Boiler Repair/Maintenance	New	Education	All	0.1381
Boiler Repair/Maintenance	New	Grocery	All	0.1818
Boiler Repair/Maintenance	New	Healthcare	All	0.0573
Boiler Repair/Maintenance	New	Lodging	All	0.0840
Boiler Repair/Maintenance	New	Misc.	All	0.0657
Boiler Repair/Maintenance	New	Office	All	0.0587
Boiler Repair/Maintenance	New	Restaurant	All	0.0660
Boiler Repair/Maintenance	New	Retail	All	0.1145
Boiler Repair/Maintenance	New	Warehouse	All	0.0958
Boiler Stack Economizer	Existing	Education	All	0.6153

Description	Vintage	Segment	Climate Zone	B/c Ratio
Boiler Stack Economizer	Existing	Grocery	All	0.8224
Boiler Stack Economizer	Existing	Healthcare	All	0.2484
Boiler Stack Economizer	Existing	Lodging	All	0.3672
Boiler Stack Economizer	Existing	Misc.	All	0.2855
Boiler Stack Economizer	Existing	Office	All	0.2545
Boiler Stack Economizer	Existing	Restaurant	All	0.2865
Boiler Stack Economizer	Existing	Retail	All	0.5058
Boiler Stack Economizer	Existing	Warehouse	All	0.4203
Boiler Stack Economizer	New	Education	All	0.5468
Boiler Stack Economizer	New	Grocery	All	0.7324
Boiler Stack Economizer	New	Healthcare	All	0.2199
Boiler Stack Economizer	New	Lodging	All	0.3256
Boiler Stack Economizer	New	Misc.	All	0.2529
Boiler Stack Economizer	New	Office	All	0.2254
Boiler Stack Economizer	New	Restaurant	All	0.2538
Boiler Stack Economizer	New	Retail	All	0.4491
Boiler Stack Economizer	New	Warehouse	All	0.3728
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Education	All	2.1762
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Grocery	All	2.4755
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Healthcare	All	1.2733
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Lodging	All	1.6435
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Misc.	All	0.8489
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Office	All	1.9555
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Restaurant	All	1.4032
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Retail	All	1.9715
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Warehouse	All	1.7800
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Education	All	2.0789
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Grocery	All	2.3824
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Healthcare	All	1.1899
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Lodging	All	1.5497
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Misc.	All	0.7853
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Office	All	1.8579
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Restaurant	All	1.3154
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Retail	All	1.8739
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	New	Warehouse	All	1.6840
Boiler vent damper - min. 1000 kBtu input	Existing	Education	All	0.5710
Boiler vent damper - min. 1000 kBtu input	Existing	Grocery	All	0.7568
Boiler vent damper - min. 1000 kBtu input	Existing	Healthcare	All	0.2341
Boiler vent damper - min. 1000 kBtu input	Existing	Lodging	All	0.3444
Boiler vent damper - min. 1000 kBtu input	Existing	Misc.	All	0.2686
Boiler vent damper - min. 1000 kBtu input	Existing	Office	All	0.2398
Boiler vent damper - min. 1000 kBtu input	Existing	Restaurant	All	0.2695
Boiler vent damper - min. 1000 kBtu input	Existing	Retail	All	0.4716
Boiler vent damper - min. 1000 kBtu input	Existing	Warehouse	All	0.3933
Boiler vent damper - min. 1000 kBtu input	New	Education	All	0.5710
Boiler vent damper - min. 1000 kBtu input	New	Grocery	All	0.7568
Boiler vent damper - min. 1000 kBtu input	New	Healthcare	All	0.2341
Boiler vent damper - min. 1000 kBtu input	New	Lodging	All	0.3444
Boiler vent damper - min. 1000 kBtu input	New	Misc.	All	0.2686
Boiler vent damper - min. 1000 kBtu input	New	Office	All	0.2398
Boiler vent damper - min. 1000 kBtu input	New	Restaurant	All	0.2695
Boiler vent damper - min. 1000 kBtu input	New	Retail	All	0.4716
Boiler vent damper - min. 1000 kBtu input	New	Warehouse	All	0.3933
Boiler Waste Water Heat Exchanger	Existing	Education	All	0.0867
Boiler Waste Water Heat Exchanger	Existing	Grocery	All	0.0592

Description	Vintage	Segment	Climate Zone	B/c Ratio
Boiler Waste Water Heat Exchanger	Existing	Healthcare	All	0.0510
Boiler Waste Water Heat Exchanger	Existing	Lodging	All	0.0508
Boiler Waste Water Heat Exchanger	Existing	Misc.	All	0.0196
Boiler Waste Water Heat Exchanger	Existing	Office	All	0.0349
Boiler Waste Water Heat Exchanger	Existing	Restaurant	All	0.0197
Boiler Waste Water Heat Exchanger	Existing	Retail	All	0.0354
Boiler Waste Water Heat Exchanger	Existing	Warehouse	All	0.0292
Boiler Waste Water Heat Exchanger	New	Education	All	0.0867
Boiler Waste Water Heat Exchanger	New	Grocery	All	0.0592
Boiler Waste Water Heat Exchanger	New	Healthcare	All	0.0510
Boiler Waste Water Heat Exchanger	New	Lodging	All	0.0508
Boiler Waste Water Heat Exchanger	New	Misc.	All	0.0196
Boiler Waste Water Heat Exchanger	New	Office	All	0.0349
Boiler Waste Water Heat Exchanger	New	Restaurant	All	0.0197
Boiler Waste Water Heat Exchanger	New	Retail	All	0.0354
Boiler Waste Water Heat Exchanger	New	Warehouse	All	0.0292
Demand Controlled Ventilation	Existing	Education	All	4.2406
Demand Controlled Ventilation	Existing	Grocery	All	3.5314
Demand Controlled Ventilation	Existing	Healthcare	All	3.2543
Demand Controlled Ventilation	Existing	Lodging	All	3.2472
Demand Controlled Ventilation	Existing	Misc.	All	1.7130
Demand Controlled Ventilation	Existing	Office	All	2.5824
Demand Controlled Ventilation	Existing	Restaurant	All	1.7177
Demand Controlled Ventilation	Existing	Retail	All	2.6096
Demand Controlled Ventilation	Existing	Warehouse	All	2.2933
Demand Controlled Ventilation	New	Education	All	4.0141
Demand Controlled Ventilation	New	Grocery	All	3.3034
Demand Controlled Ventilation	New	Healthcare	All	3.0303
Demand Controlled Ventilation	New	Lodging	All	3.0234
Demand Controlled Ventilation	New	Misc.	All	1.5556
Demand Controlled Ventilation	New	Office	All	2.3783
Demand Controlled Ventilation	New	Restaurant	All	1.5600
Demand Controlled Ventilation	New	Retail	All	2.4044
Demand Controlled Ventilation	New	Warehouse	All	2.1021
Drainwater Heat Recovery	Existing	Education	All	4.1589
Drainwater Heat Recovery	Existing	Grocery	All	1.0931
Drainwater Heat Recovery	Existing	Healthcare	All	3.2094
Drainwater Heat Recovery	Existing	Lodging	All	6.5427
Drainwater Heat Recovery	Existing	Misc.	All	0.2782
Drainwater Heat Recovery	Existing	Office	All	0.4303
Drainwater Heat Recovery	Existing	Restaurant	All	5.7961
Drainwater Heat Recovery	Existing	Retail	All	0.3503
Drainwater Heat Recovery	Existing	Warehouse	All	0.5268
Drainwater Heat Recovery	New	Education	All	4.4612
Drainwater Heat Recovery	New	Grocery	All	1.2085
Drainwater Heat Recovery	New	Healthcare	All	3.4747
Drainwater Heat Recovery	New	Lodging	All	6.8597
Drainwater Heat Recovery	New	Misc.	All	0.3101
Drainwater Heat Recovery	New	Office	All	0.4789
Drainwater Heat Recovery	New	Restaurant	All	6.1202
Drainwater Heat Recovery	New	Retail	All	0.3902
Drainwater Heat Recovery	New	Warehouse	All	0.5857
Duct Sealing and Insulation	Existing	Education	All	0.6780
Duct Sealing and Insulation	Existing	Grocery	All	0.8647
Duct Sealing and Insulation	Existing	Healthcare	All	0.5784

Description	Vintage	Segment	Climate Zone	B/c Ratio
Duct Sealing and Insulation	Existing	Lodging	All	0.4678
Duct Sealing and Insulation	Existing	Misc.	All	0.6208
Duct Sealing and Insulation	Existing	Office	All	0.5099
Duct Sealing and Insulation	Existing	Restaurant	All	1.0718
Duct Sealing and Insulation	Existing	Retail	All	0.6278
Duct Sealing and Insulation	Existing	Warehouse	All	0.3608
Duct Sealing and Insulation	New	Education	All	0.6780
Duct Sealing and Insulation	New	Grocery	All	0.8647
Duct Sealing and Insulation	New	Healthcare	All	0.5784
Duct Sealing and Insulation	New	Lodging	All	0.4678
Duct Sealing and Insulation	New	Misc.	All	0.6208
Duct Sealing and Insulation	New	Office	All	0.5099
Duct Sealing and Insulation	New	Restaurant	All	1.0718
Duct Sealing and Insulation	New	Retail	All	0.6278
Duct Sealing and Insulation	New	Warehouse	All	0.3608
Faucet Aerator 2.0 gpm	Existing	Education	All	4.9455
Faucet Aerator 2.0 gpm	Existing	Grocery	All	4.8493
Faucet Aerator 2.0 gpm	Existing	Healthcare	All	4.8764
Faucet Aerator 2.0 gpm	Existing	Lodging	All	5.4110
Faucet Aerator 2.0 gpm	Existing	Misc.	All	3.0291
Faucet Aerator 2.0 gpm	Existing	Office	All	2.6048
Faucet Aerator 2.0 gpm	Existing	Restaurant	All	5.6136
Faucet Aerator 2.0 gpm	Existing	Retail	All	4.1164
Faucet Aerator 2.0 gpm	Existing	Warehouse	All	3.8018
Faucet Aerator 2.0 gpm	New	Education	All	4.4054
Faucet Aerator 2.0 gpm	New	Grocery	All	4.2641
Faucet Aerator 2.0 gpm	New	Healthcare	All	4.3036
Faucet Aerator 2.0 gpm	New	Lodging	All	5.1447
Faucet Aerator 2.0 gpm	New	Misc.	All	2.1420
Faucet Aerator 2.0 gpm	New	Office	All	1.7615
Faucet Aerator 2.0 gpm	New	Restaurant	All	5.4984
Faucet Aerator 2.0 gpm	New	Retail	All	3.2964
Faucet Aerator 2.0 gpm	New	Warehouse	All	2.9321
Floor Insulation, R-30 insulation added to floor	Existing	Education	All	0.1773
Floor Insulation, R-30 insulation added to floor	Existing	Grocery	All	0.1790
Floor Insulation, R-30 insulation added to floor	Existing	Healthcare	All	0.1501
Floor Insulation, R-30 insulation added to floor	Existing	Lodging	All	0.1138
Floor Insulation, R-30 insulation added to floor	Existing	Misc.	All	0.1527
Floor Insulation, R-30 insulation added to floor	Existing	Office	All	0.1316
Floor Insulation, R-30 insulation added to floor	Existing	Restaurant	All	0.2573
Floor Insulation, R-30 insulation added to floor	Existing	Retail	All	0.1275
Floor Insulation, R-30 insulation added to floor	Existing	Warehouse	All	0.0565
Floor Insulation, R-30 insulation added to floor	New	Education	All	0.1773
Floor Insulation, R-30 insulation added to floor	New	Grocery	All	0.1790
Floor Insulation, R-30 insulation added to floor	New	Healthcare	All	0.1501
Floor Insulation, R-30 insulation added to floor	New	Lodging	All	0.1138
Floor Insulation, R-30 insulation added to floor	New	Misc.	All	0.1527
Floor Insulation, R-30 insulation added to floor	New	Office	All	0.1316
Floor Insulation, R-30 insulation added to floor	New	Restaurant	All	0.2573
Floor Insulation, R-30 insulation added to floor	New	Retail	All	0.1275
Floor Insulation, R-30 insulation added to floor	New	Warehouse	All	0.0565
Heat Recovery	Existing	Education	All	0.3047
Heat Recovery	Existing	Grocery	All	0.3917
Heat Recovery	Existing	Healthcare	All	0.2588
Heat Recovery	Existing	Lodging	All	0.2084

Description	Vintage	Segment	Climate Zone	B/c Ratio
Heat Recovery	Existing	Misc.	All	0.2783
Heat Recovery	Existing	Office	All	0.2275
Heat Recovery	Existing	Restaurant	All	0.4898
Heat Recovery	Existing	Retail	All	0.2815
Heat Recovery	Existing	Warehouse	All	0.1600
Heat Recovery	New	Education	All	0.3047
Heat Recovery	New	Grocery	All	0.3917
Heat Recovery	New	Healthcare	All	0.2588
Heat Recovery	New	Lodging	All	0.2084
Heat Recovery	New	Misc.	All	0.2783
Heat Recovery	New	Office	All	0.2275
Heat Recovery	New	Restaurant	All	0.4898
Heat Recovery	New	Retail	All	0.2815
Heat Recovery	New	Warehouse	All	0.1600
High Efficiency Commercial Gas Clothes Washer	Existing	Education	All	2.6043
High Efficiency Commercial Gas Clothes Washer	Existing	Grocery	All	0.6103
High Efficiency Commercial Gas Clothes Washer	Existing	Healthcare	All	2.0322
High Efficiency Commercial Gas Clothes Washer	Existing	Lodging	All	3.3908
High Efficiency Commercial Gas Clothes Washer	Existing	Misc.	All	0.0717
High Efficiency Commercial Gas Clothes Washer	Existing	Office	All	0.2559
High Efficiency Commercial Gas Clothes Washer	Existing	Restaurant	All	1.6872
High Efficiency Commercial Gas Clothes Washer	Existing	Retail	All	0.1591
High Efficiency Commercial Gas Clothes Washer	Existing	Warehouse	All	0.1242
High Efficiency Commercial Gas Clothes Washer	New	Education	All	4.1620
High Efficiency Commercial Gas Clothes Washer	New	Grocery	All	2.4508
High Efficiency Commercial Gas Clothes Washer	New	Healthcare	All	3.9258
High Efficiency Commercial Gas Clothes Washer	New	Lodging	All	4.3790
High Efficiency Commercial Gas Clothes Washer	New	Misc.	All	0.4870
High Efficiency Commercial Gas Clothes Washer	New	Office	All	1.4055
High Efficiency Commercial Gas Clothes Washer	New	Restaurant	All	3.7288
High Efficiency Commercial Gas Clothes Washer	New	Retail	All	0.9716
High Efficiency Commercial Gas Clothes Washer	New	Warehouse	All	0.7903
Hot Water Pipe Insulation	Existing	Education	All	4.9236
Hot Water Pipe Insulation	Existing	Grocery	All	5.2665
Hot Water Pipe Insulation	Existing	Healthcare	All	4.6806
Hot Water Pipe Insulation	Existing	Lodging	All	4.3363
Hot Water Pipe Insulation	Existing	Misc.	All	4.7907
Hot Water Pipe Insulation	Existing	Office	All	4.4787
Hot Water Pipe Insulation	Existing	Restaurant	All	5.5373
Hot Water Pipe Insulation	Existing	Retail	All	4.8077
Hot Water Pipe Insulation	Existing	Warehouse	All	3.8922
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Education	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Grocery	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Healthcare	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Lodging	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Misc.	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Office	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Restaurant	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Retail	All	0.0000
Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Stat	New	Warehouse	All	0.0000
Hot Water Temperature Reset	Existing	Education	All	0.9897
Hot Water Temperature Reset	Existing	Grocery	All	1.2534
Hot Water Temperature Reset	Existing	Healthcare	All	0.8475
Hot Water Temperature Reset	Existing	Lodging	All	0.6884
Hot Water Temperature Reset	Existing	Misc.	All	0.9082

Description	Vintage	Segment	Climate Zone	B/c Ratio
Hot Water Temperature Reset	Existing	Office	All	0.7492
Hot Water Temperature Reset	Existing	Restaurant	All	1.4021
Hot Water Temperature Reset	Existing	Retail	All	0.9182
Hot Water Temperature Reset	Existing	Warehouse	All	0.5332
Hot Water Temperature Reset	New	Education	All	0.9897
Hot Water Temperature Reset	New	Grocery	All	1.2534
Hot Water Temperature Reset	New	Healthcare	All	0.8475
Hot Water Temperature Reset	New	Lodging	All	0.6884
Hot Water Temperature Reset	New	Misc.	All	0.9082
Hot Water Temperature Reset	New	Office	All	0.7492
Hot Water Temperature Reset	New	Restaurant	All	1.4021
Hot Water Temperature Reset	New	Retail	All	0.9182
Hot Water Temperature Reset	New	Warehouse	All	0.5332
Hot Water Temperature Setback	Existing	Education	All	3.2278
Hot Water Temperature Setback	Existing	Grocery	All	2.5059
Hot Water Temperature Setback	Existing	Healthcare	All	3.1496
Hot Water Temperature Setback	Existing	Lodging	All	3.2952
Hot Water Temperature Setback	Existing	Misc.	All	0.7847
Hot Water Temperature Setback	Existing	Office	All	1.7842
Hot Water Temperature Setback	Existing	Restaurant	All	3.0802
Hot Water Temperature Setback	Existing	Retail	All	1.3708
Hot Water Temperature Setback	Existing	Warehouse	All	1.1694
Hot Water Temperature Setback	New	Education	All	3.2278
Hot Water Temperature Setback	New	Grocery	All	2.5059
Hot Water Temperature Setback	New	Healthcare	All	3.1496
Hot Water Temperature Setback	New	Lodging	All	3.2952
Hot Water Temperature Setback	New	Misc.	All	0.7847
Hot Water Temperature Setback	New	Office	All	1.7842
Hot Water Temperature Setback	New	Restaurant	All	3.0802
Hot Water Temperature Setback	New	Retail	All	1.3708
Hot Water Temperature Setback	New	Warehouse	All	1.1694
HVAC Controls	Existing	Education	All	0.7570
HVAC Controls	Existing	Grocery	All	0.5344
HVAC Controls	Existing	Healthcare	All	0.4648
HVAC Controls	Existing	Lodging	All	0.4632
HVAC Controls	Existing	Misc.	All	0.1865
HVAC Controls	Existing	Office	All	0.3247
HVAC Controls	Existing	Restaurant	All	0.1871
HVAC Controls	Existing	Retail	All	0.3297
HVAC Controls	Existing	Warehouse	All	0.2742
HVAC Controls	New	Education	All	0.7570
HVAC Controls	New	Grocery	All	0.5344
HVAC Controls	New	Healthcare	All	0.4648
HVAC Controls	New	Lodging	All	0.4632
HVAC Controls	New	Misc.	All	0.1865
HVAC Controls	New	Office	All	0.3247
HVAC Controls	New	Restaurant	All	0.1871
HVAC Controls	New	Retail	All	0.3297
HVAC Controls	New	Warehouse	All	0.2742
HVAC System Commissioning	Existing	Education	All	0.2399
HVAC System Commissioning	Existing	Grocery	All	0.1672
HVAC System Commissioning	Existing	Healthcare	All	0.1449
HVAC System Commissioning	Existing	Lodging	All	0.1444
HVAC System Commissioning	Existing	Misc.	All	0.0572
HVAC System Commissioning	Existing	Office	All	0.1004

Description	Vintage	Segment	Climate Zone	B/c Ratio
HVAC System Commissioning	Existing	Restaurant	All	0.0574
HVAC System Commissioning	Existing	Retail	All	0.1020
HVAC System Commissioning	Existing	Warehouse	All	0.0845
HVAC System Commissioning	New	Education	All	0.2399
HVAC System Commissioning	New	Grocery	All	0.1672
HVAC System Commissioning	New	Healthcare	All	0.1449
HVAC System Commissioning	New	Lodging	All	0.1444
HVAC System Commissioning	New	Misc.	All	0.0572
HVAC System Commissioning	New	Office	All	0.1004
HVAC System Commissioning	New	Restaurant	All	0.0574
HVAC System Commissioning	New	Retail	All	0.1020
HVAC System Commissioning	New	Warehouse	All	0.0845
Low Flow Showerhead, 2.0 gpm	Existing	Education	All	4.7141
Low Flow Showerhead, 2.0 gpm	Existing	Grocery	All	4.6315
Low Flow Showerhead, 2.0 gpm	Existing	Healthcare	All	3.7124
Low Flow Showerhead, 2.0 gpm	Existing	Lodging	All	4.2341
Low Flow Showerhead, 2.0 gpm	Existing	Misc.	All	1.3999
Low Flow Showerhead, 2.0 gpm	Existing	Office	All	3.2485
Low Flow Showerhead, 2.0 gpm	Existing	Restaurant	All	5.7621
Low Flow Showerhead, 2.0 gpm	Existing	Retail	All	2.4748
Low Flow Showerhead, 2.0 gpm	Existing	Warehouse	All	2.1026
Low Flow Showerhead, 2.0 gpm	New	Education	All	5.3335
Low Flow Showerhead, 2.0 gpm	New	Grocery	All	5.2759
Low Flow Showerhead, 2.0 gpm	New	Healthcare	All	4.5768
Low Flow Showerhead, 2.0 gpm	New	Lodging	All	4.9871
Low Flow Showerhead, 2.0 gpm	New	Misc.	All	2.1762
Low Flow Showerhead, 2.0 gpm	New	Office	All	4.1783
Low Flow Showerhead, 2.0 gpm	New	Restaurant	All	6.0026
Low Flow Showerhead, 2.0 gpm	New	Retail	All	3.4310
Low Flow Showerhead, 2.0 gpm	New	Warehouse	All	3.0284
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Education	All	3.1507
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Grocery	All	2.1552
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Healthcare	All	3.0301
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Lodging	All	3.2575
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Misc.	All	0.9092
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Office	All	1.9471
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Restaurant	All	2.9258
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Retail	All	1.5328
Low-flow Pre-Rinse Spray Valve 1.06 gpm	Existing	Warehouse	All	1.3235
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Education	All	3.2513
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Grocery	All	2.6323
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Healthcare	All	3.1867
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Lodging	All	3.3065
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Misc.	All	1.4417
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Office	All	2.4730
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Restaurant	All	3.1289
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Retail	All	2.1149
Low-flow Pre-Rinse Spray Valve 1.06 gpm	New	Warehouse	All	1.9093
Low-temp Door-Type Energy Star Dishwasher	Existing	Education	All	1.7579
Low-temp Door-Type Energy Star Dishwasher	Existing	Grocery	All	0.2479
Low-temp Door-Type Energy Star Dishwasher	Existing	Healthcare	All	1.1529
Low-temp Door-Type Energy Star Dishwasher	Existing	Lodging	All	3.0966
Low-temp Door-Type Energy Star Dishwasher	Existing	Misc.	All	0.0525
Low-temp Door-Type Energy Star Dishwasher	Existing	Office	All	0.1921
Low-temp Door-Type Energy Star Dishwasher	Existing	Restaurant	All	0.8732

Description	Vintage	Segment	Climate Zone	B/c Ratio
Low-temp Door-Type Energy Star Dishwasher	Existing	Retail	All	0.1178
Low-temp Door-Type Energy Star Dishwasher	Existing	Warehouse	All	0.0915
Low-temp Door-Type Energy Star Dishwasher	New	Education	All	3.8163
Low-temp Door-Type Energy Star Dishwasher	New	Grocery	All	0.7113
Low-temp Door-Type Energy Star Dishwasher	New	Healthcare	All	2.7731
Low-temp Door-Type Energy Star Dishwasher	New	Lodging	All	5.5299
Low-temp Door-Type Energy Star Dishwasher	New	Misc.	All	0.1570
Low-temp Door-Type Energy Star Dishwasher	New	Office	All	0.5578
Low-temp Door-Type Energy Star Dishwasher	New	Restaurant	All	2.2106
Low-temp Door-Type Energy Star Dishwasher	New	Retail	All	0.3477
Low-temp Door-Type Energy Star Dishwasher	New	Warehouse	All	0.2717
Motion Faucet Controls	Existing	Education	All	0.4414
Motion Faucet Controls	Existing	Grocery	All	0.3931
Motion Faucet Controls	Existing	Healthcare	All	0.7240
Motion Faucet Controls	Existing	Lodging	All	2.3839
Motion Faucet Controls	Existing	Misc.	All	0.0897
Motion Faucet Controls	Existing	Office	All	0.0672
Motion Faucet Controls	Existing	Restaurant	All	1.6830
Motion Faucet Controls	Existing	Retail	All	0.1963
Motion Faucet Controls	Existing	Warehouse	All	0.1541
Motion Faucet Controls, 12 s flow duration	New	Education	All	2.3895
Motion Faucet Controls, 12 s flow duration	New	Grocery	All	2.2958
Motion Faucet Controls, 12 s flow duration	New	Healthcare	All	2.7446
Motion Faucet Controls, 12 s flow duration	New	Lodging	All	3.2739
Motion Faucet Controls, 12 s flow duration	New	Misc.	All	1.0388
Motion Faucet Controls, 12 s flow duration	New	Office	All	0.8394
Motion Faucet Controls, 12 s flow duration	New	Restaurant	All	3.1631
Motion Faucet Controls, 12 s flow duration	New	Retail	All	1.6899
Motion Faucet Controls, 12 s flow duration	New	Warehouse	All	1.4766
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Education	All	1.1082
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Grocery	All	0.1413
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Healthcare	All	0.6971
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Lodging	All	2.1551
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Misc.	All	0.0295
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Office	All	0.1091
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Restaurant	All	0.5182
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Retail	All	0.0666
Multi-tank Conveyor Dishwasher - Energy Star	Existing	Warehouse	All	0.0517
Multi-tank Conveyor Dishwasher - Energy Star	New	Education	All	7.4185
Multi-tank Conveyor Dishwasher - Energy Star	New	Grocery	All	1.9795
Multi-tank Conveyor Dishwasher - Energy Star	New	Healthcare	All	5.9981
Multi-tank Conveyor Dishwasher - Energy Star	New	Lodging	All	9.2162
Multi-tank Conveyor Dishwasher - Energy Star	New	Misc.	All	0.4735
Multi-tank Conveyor Dishwasher - Energy Star	New	Office	All	1.5860
Multi-tank Conveyor Dishwasher - Energy Star	New	Restaurant	All	5.0909
Multi-tank Conveyor Dishwasher - Energy Star	New	Retail	All	1.0191
Multi-tank Conveyor Dishwasher - Energy Star	New	Warehouse	All	0.8052
Ozone injection laundry systems	Existing	Education	All	0.3074
Ozone injection laundry systems	Existing	Grocery	All	0.0375
Ozone injection laundry systems	Existing	Healthcare	All	0.1898
Ozone injection laundry systems	Existing	Lodging	All	0.6283
Ozone injection laundry systems	Existing	Misc.	All	0.0039
Ozone injection laundry systems	Existing	Office	All	0.0145
Ozone injection laundry systems	Existing	Restaurant	All	0.1399
Ozone injection laundry systems	Existing	Retail	All	0.0088

Description	Vintage	Segment	Climate Zone	B/c Ratio
Ozone injection laundry systems	Existing	Warehouse	All	0.0068
Ozone injection laundry systems	New	Education	All	0.3074
Ozone injection laundry systems	New	Grocery	All	0.0375
Ozone injection laundry systems	New	Healthcare	All	0.1898
Ozone injection laundry systems	New	Lodging	All	0.6283
Ozone injection laundry systems	New	Misc.	All	0.0039
Ozone injection laundry systems	New	Office	All	0.0145
Ozone injection laundry systems	New	Restaurant	All	0.1399
Ozone injection laundry systems	New	Retail	All	0.0088
Ozone injection laundry systems	New	Warehouse	All	0.0068
Pool Cover	Existing	Education	All	1.1190
Pool Cover	Existing	Grocery	All	0.1140
Pool Cover	Existing	Healthcare	All	0.3196
Pool Cover	Existing	Lodging	All	0.3565
Pool Cover	Existing	Misc.	All	0.0776
Pool Cover	Existing	Office	All	0.1344
Pool Cover	Existing	Restaurant	All	0.0229
Pool Cover	Existing	Retail	All	0.0348
Pool Cover	Existing	Warehouse	All	0.0748
Pool Cover	New	Education	All	1.1190
Pool Cover	New	Grocery	All	0.1140
Pool Cover	New	Healthcare	All	0.3196
Pool Cover	New	Lodging	All	0.3565
Pool Cover	New	Misc.	All	0.0776
Pool Cover	New	Office	All	0.1344
Pool Cover	New	Restaurant	All	0.0229
Pool Cover	New	Retail	All	0.0348
Pool Cover	New	Warehouse	All	0.0748
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Education	All	4.6010
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Grocery	All	0.4738
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Healthcare	All	1.3254
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Lodging	All	1.4778
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Misc.	All	0.3228
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Office	All	0.5582
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Restaurant	All	0.0952
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Retail	All	0.1446
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	Existing	Warehouse	All	0.3110
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Education	All	4.6010
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Grocery	All	0.4738
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Healthcare	All	1.3254
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Lodging	All	1.4778
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Misc.	All	0.3228
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Office	All	0.5582
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Restaurant	All	0.0952
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Retail	All	0.1446
Pool Spa Solar Heat, 79 sf collector area, pool is storage volume	New	Warehouse	All	0.3110
Recirculation Controls	Existing	Education	All	2.8919
Recirculation Controls	Existing	Grocery	All	0.6476
Recirculation Controls	Existing	Healthcare	All	2.0992
Recirculation Controls	Existing	Lodging	All	4.1957
Recirculation Controls	Existing	Misc.	All	0.1505
Recirculation Controls	Existing	Office	All	0.2530
Recirculation Controls	Existing	Restaurant	All	3.4759
Recirculation Controls	Existing	Retail	All	0.1899
Recirculation Controls	Existing	Warehouse	All	0.2625

Description	Vintage	Segment	Climate Zone	B/c Ratio
Recirculation Controls	New	Education	All	5.6808
Recirculation Controls	New	Grocery	All	1.9656
Recirculation Controls	New	Healthcare	All	4.7108
Recirculation Controls	New	Lodging	All	6.8401
Recirculation Controls	New	Misc.	All	0.5197
Recirculation Controls	New	Office	All	0.8495
Recirculation Controls	New	Restaurant	All	6.2540
Recirculation Controls	New	Retail	All	0.6486
Recirculation Controls	New	Warehouse	All	0.8791
Refrigeration system superheat recovery DHW	Existing	Education	All	1.4336
Refrigeration system superheat recovery DHW	Existing	Grocery	All	0.1947
Refrigeration system superheat recovery DHW	Existing	Healthcare	All	0.9260
Refrigeration system superheat recovery DHW	Existing	Lodging	All	2.6142
Refrigeration system superheat recovery DHW	Existing	Misc.	All	0.0206
Refrigeration system superheat recovery DHW	Existing	Office	All	0.0760
Refrigeration system superheat recovery DHW	Existing	Restaurant	All	0.6965
Refrigeration system superheat recovery DHW	Existing	Retail	All	0.0464
Refrigeration system superheat recovery DHW	Existing	Warehouse	All	0.0360
Refrigeration system superheat recovery DHW	New	Education	All	1.4336
Refrigeration system superheat recovery DHW	New	Grocery	All	0.1947
Refrigeration system superheat recovery DHW	New	Healthcare	All	0.9260
Refrigeration system superheat recovery DHW	New	Lodging	All	2.6142
Refrigeration system superheat recovery DHW	New	Misc.	All	0.0206
Refrigeration system superheat recovery DHW	New	Office	All	0.0760
Refrigeration system superheat recovery DHW	New	Restaurant	All	0.6965
Refrigeration system superheat recovery DHW	New	Retail	All	0.0464
Refrigeration system superheat recovery DHW	New	Warehouse	All	0.0360
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Education	All	3.1425
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Grocery	All	3.1671
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Healthcare	All	2.7449
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Lodging	All	2.1725
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Misc.	All	2.7848
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Office	All	2.4606
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Restaurant	All	4.1835
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Retail	All	2.3950
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Warehouse	All	1.1588
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Education	All	3.1425
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Grocery	All	3.1671
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Healthcare	All	2.7449
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Lodging	All	2.1725
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Misc.	All	2.7848
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Office	All	2.4606
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Restaurant	All	4.1835
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Retail	All	2.3950
Roof insulation (retrofit only) - Tier 1: Min R-30	New	Warehouse	All	1.1588
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Education	All	2.2528
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Grocery	All	2.2718
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Healthcare	All	1.9492
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Lodging	All	1.5221
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Misc.	All	1.9794
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Office	All	1.7356
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Restaurant	All	3.0759
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Retail	All	1.6868
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Warehouse	All	0.7930
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Education	All	0.0475

Description	Vintage	Segment	Climate Zone	B/c Ratio
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Grocery	All	0.0480
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Healthcare	All	0.0402
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Lodging	All	0.0304
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Misc.	All	0.0409
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Office	All	0.0352
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Restaurant	All	0.0693
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Retail	All	0.0341
Roof insulation (retrofit only) - Tier 2: Min R-45	New	Warehouse	All	0.0150
SolarWall 26ga	Existing	Education	All	0.7905
SolarWall 26ga	Existing	Grocery	All	0.7457
SolarWall 26ga	Existing	Healthcare	All	0.5646
SolarWall 26ga	Existing	Lodging	All	0.5061
SolarWall 26ga	Existing	Misc.	All	0.3681
SolarWall 26ga	Existing	Office	All	0.4404
SolarWall 26ga	Existing	Restaurant	All	0.4913
SolarWall 26ga	Existing	Retail	All	0.4937
SolarWall 26ga	Existing	Warehouse	All	0.3390
SolarWall 26ga	New	Education	All	0.7905
SolarWall 26ga	New	Grocery	All	0.7457
SolarWall 26ga	New	Healthcare	All	0.5646
SolarWall 26ga	New	Lodging	All	0.5061
SolarWall 26ga	New	Misc.	All	0.3681
SolarWall 26ga	New	Office	All	0.4404
SolarWall 26ga	New	Restaurant	All	0.4913
SolarWall 26ga	New	Retail	All	0.4937
SolarWall 26ga	New	Warehouse	All	0.3390
Steam System Efficiency Improvements	Existing	Education	All	1.0425
Steam System Efficiency Improvements	Existing	Grocery	All	0.7372
Steam System Efficiency Improvements	Existing	Healthcare	All	0.6416
Steam System Efficiency Improvements	Existing	Lodging	All	0.6393
Steam System Efficiency Improvements	Existing	Misc.	All	0.2579
Steam System Efficiency Improvements	Existing	Office	All	0.4486
Steam System Efficiency Improvements	Existing	Restaurant	All	0.2588
Steam System Efficiency Improvements	Existing	Retail	All	0.4555
Steam System Efficiency Improvements	Existing	Warehouse	All	0.3790
Steam System Efficiency Improvements	New	Education	All	1.0425
Steam System Efficiency Improvements	New	Grocery	All	0.7372
Steam System Efficiency Improvements	New	Healthcare	All	0.6416
Steam System Efficiency Improvements	New	Lodging	All	0.6393
Steam System Efficiency Improvements	New	Misc.	All	0.2579
Steam System Efficiency Improvements	New	Office	All	0.4486
Steam System Efficiency Improvements	New	Restaurant	All	0.2588
Steam System Efficiency Improvements	New	Retail	All	0.4555
Steam System Efficiency Improvements	New	Warehouse	All	0.3790
Variable Volume Air System	Existing	Education	All	1.0017
Variable Volume Air System	Existing	Grocery	All	1.2590
Variable Volume Air System	Existing	Healthcare	All	0.8612
Variable Volume Air System	Existing	Lodging	All	0.7028
Variable Volume Air System	Existing	Misc.	All	0.9214
Variable Volume Air System	Existing	Office	All	0.7635
Variable Volume Air System	Existing	Restaurant	All	1.5357
Variable Volume Air System	Existing	Retail	All	0.9312
Variable Volume Air System	Existing	Warehouse	All	0.5468
Variable Volume Air System	New	Education	All	1.0017
Variable Volume Air System	New	Grocery	All	1.2590

Description	Vintage	Segment	Climate Zone	B/c Ratio
Variable Volume Air System	New	Healthcare	All	0.8612
Variable Volume Air System	New	Lodging	All	0.7028
Variable Volume Air System	New	Misc.	All	0.9214
Variable Volume Air System	New	Office	All	0.7635
Variable Volume Air System	New	Restaurant	All	1.5357
Variable Volume Air System	New	Retail	All	0.9312
Variable Volume Air System	New	Warehouse	All	0.5468
Ventilation Hood / Makeup Air	Existing	Education	All	0.3543
Ventilation Hood / Makeup Air	Existing	Grocery	All	0.4460
Ventilation Hood / Makeup Air	Existing	Healthcare	All	0.3044
Ventilation Hood / Makeup Air	Existing	Lodging	All	0.2482
Ventilation Hood / Makeup Air	Existing	Misc.	All	0.3258
Ventilation Hood / Makeup Air	Existing	Office	All	0.2697
Ventilation Hood / Makeup Air	Existing	Restaurant	All	0.5450
Ventilation Hood / Makeup Air	Existing	Retail	All	0.3293
Ventilation Hood / Makeup Air	Existing	Warehouse	All	0.1929
Ventilation Hood / Makeup Air	New	Education	All	0.3543
Ventilation Hood / Makeup Air	New	Grocery	All	0.4460
Ventilation Hood / Makeup Air	New	Healthcare	All	0.3044
Ventilation Hood / Makeup Air	New	Lodging	All	0.2482
Ventilation Hood / Makeup Air	New	Misc.	All	0.3258
Ventilation Hood / Makeup Air	New	Office	All	0.2697
Ventilation Hood / Makeup Air	New	Restaurant	All	0.5450
Ventilation Hood / Makeup Air	New	Retail	All	0.3293
Ventilation Hood / Makeup Air	New	Warehouse	All	0.1929
Wall insulation - Tier 2: Min R-19	Existing	Education	All	3.6928
Wall insulation - Tier 2: Min R-19	Existing	Grocery	All	3.5248
Wall insulation - Tier 2: Min R-19	Existing	Healthcare	All	2.8038
Wall insulation - Tier 2: Min R-19	Existing	Lodging	All	2.5551
Wall insulation - Tier 2: Min R-19	Existing	Misc.	All	1.9340
Wall insulation - Tier 2: Min R-19	Existing	Office	All	2.2657
Wall insulation - Tier 2: Min R-19	Existing	Restaurant	All	2.4906
Wall insulation - Tier 2: Min R-19	Existing	Retail	All	2.5011
Wall insulation - Tier 2: Min R-19	Existing	Warehouse	All	1.7967
Wall insulation - Tier 2: Min R-19	New	Education	All	0.4537
Wall insulation - Tier 2: Min R-19	New	Grocery	All	0.4274
Wall insulation - Tier 2: Min R-19	New	Healthcare	All	0.3221
Wall insulation - Tier 2: Min R-19	New	Lodging	All	0.2883
Wall insulation - Tier 2: Min R-19	New	Misc.	All	0.2090
Wall insulation - Tier 2: Min R-19	New	Office	All	0.2505
Wall insulation - Tier 2: Min R-19	New	Restaurant	All	0.2798
Wall insulation - Tier 2: Min R-19	New	Retail	All	0.2812
Wall insulation - Tier 2: Min R-19	New	Warehouse	All	0.1923
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Education	All	3.4828
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Grocery	All	3.3216
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Healthcare	All	2.6326
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Lodging	All	2.3960
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Misc.	All	1.8080
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Office	All	2.1216
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Restaurant	All	2.3348
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Retail	All	2.3448
Wall insulation (Retrofit Only) - Tier 1: Min R-11	Existing	Warehouse	All	1.6785
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Education	All	3.4828
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Grocery	All	3.3216
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Healthcare	All	2.6326

Description	Vintage	Segment	Climate Zone	B/c Ratio
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Lodging	All	2.3960
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Misc.	All	1.8080
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Office	All	2.1216
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Restaurant	All	2.3348
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Retail	All	2.3448
Wall insulation (Retrofit Only) - Tier 1: Min R-11	New	Warehouse	All	1.6785
Windows - Add Argon to Vinyl Lowe	Existing	Education	All	3.2207
Windows - Add Argon to Vinyl Lowe	Existing	Grocery	All	3.8633
Windows - Add Argon to Vinyl Lowe	Existing	Healthcare	All	2.8433
Windows - Add Argon to Vinyl Lowe	Existing	Lodging	All	2.3926
Windows - Add Argon to Vinyl Lowe	Existing	Misc.	All	3.0073
Windows - Add Argon to Vinyl Lowe	Existing	Office	All	2.5685
Windows - Add Argon to Vinyl Lowe	Existing	Restaurant	All	4.4921
Windows - Add Argon to Vinyl Lowe	Existing	Retail	All	3.0338
Windows - Add Argon to Vinyl Lowe	Existing	Warehouse	All	1.9204
Windows - Add Argon to Vinyl Lowe	New	Education	All	2.7649
Windows - Add Argon to Vinyl Lowe	New	Grocery	All	3.3528
Windows - Add Argon to Vinyl Lowe	New	Healthcare	All	2.4256
Windows - Add Argon to Vinyl Lowe	New	Lodging	All	2.0259
Windows - Add Argon to Vinyl Lowe	New	Misc.	All	2.5726
Windows - Add Argon to Vinyl Lowe	New	Office	All	2.1812
Windows - Add Argon to Vinyl Lowe	New	Restaurant	All	3.9406
Windows - Add Argon to Vinyl Lowe	New	Retail	All	2.5964
Windows - Add Argon to Vinyl Lowe	New	Warehouse	All	1.6135
Windows - Add Low E and Argon to Vinyl Tint	Existing	Education	All	10.8030
Windows - Add Low E and Argon to Vinyl Tint	Existing	Grocery	All	10.5730
Windows - Add Low E and Argon to Vinyl Tint	Existing	Healthcare	All	10.9264
Windows - Add Low E and Argon to Vinyl Tint	Existing	Lodging	All	11.0639
Windows - Add Low E and Argon to Vinyl Tint	Existing	Misc.	All	10.8738
Windows - Add Low E and Argon to Vinyl Tint	Existing	Office	All	11.0114
Windows - Add Low E and Argon to Vinyl Tint	Existing	Restaurant	All	10.3198
Windows - Add Low E and Argon to Vinyl Tint	Existing	Retail	All	10.8651
Windows - Add Low E and Argon to Vinyl Tint	Existing	Warehouse	All	11.1975
Windows - Add Low E and Argon to Vinyl Tint	New	Education	All	10.8030
Windows - Add Low E and Argon to Vinyl Tint	New	Grocery	All	10.5730
Windows - Add Low E and Argon to Vinyl Tint	New	Healthcare	All	10.9264
Windows - Add Low E and Argon to Vinyl Tint	New	Lodging	All	11.0639
Windows - Add Low E and Argon to Vinyl Tint	New	Misc.	All	10.8738
Windows - Add Low E and Argon to Vinyl Tint	New	Office	All	11.0114
Windows - Add Low E and Argon to Vinyl Tint	New	Restaurant	All	10.3198
Windows - Add Low E and Argon to Vinyl Tint	New	Retail	All	10.8651
Windows - Add Low E and Argon to Vinyl Tint	New	Warehouse	All	11.1975
Windows - Add Low E to Vinyl Tint	Existing	Education	All	4.0321
Windows - Add Low E to Vinyl Tint	Existing	Grocery	All	4.7455
Windows - Add Low E to Vinyl Tint	Existing	Healthcare	All	3.6003
Windows - Add Low E to Vinyl Tint	Existing	Lodging	All	3.0714
Windows - Add Low E to Vinyl Tint	Existing	Misc.	All	3.7891
Windows - Add Low E to Vinyl Tint	Existing	Office	All	3.2795
Windows - Add Low E to Vinyl Tint	Existing	Restaurant	All	5.4180
Windows - Add Low E to Vinyl Tint	Existing	Retail	All	3.8195
Windows - Add Low E to Vinyl Tint	Existing	Warehouse	All	2.5014
Windows - Add Low E to Vinyl Tint	New	Education	All	3.3644
Windows - Add Low E to Vinyl Tint	New	Grocery	All	4.0220
Windows - Add Low E to Vinyl Tint	New	Healthcare	All	2.9761
Windows - Add Low E to Vinyl Tint	New	Lodging	All	2.5103

Description	Vintage	Segment	Climate Zone	B/c Ratio
Windows - Add Low E to Vinyl Tint	New	Misc.	All	3.1450
Windows - Add Low E to Vinyl Tint	New	Office	All	2.6924
Windows - Add Low E to Vinyl Tint	New	Restaurant	All	4.6612
Windows - Add Low E to Vinyl Tint	New	Retail	All	3.1723
Windows - Add Low E to Vinyl Tint	New	Warehouse	All	2.0200
Windows - Non-Tinted AL Code to Class 36	Existing	Education	All	1.5028
Windows - Non-Tinted AL Code to Class 36	Existing	Grocery	All	1.8791
Windows - Non-Tinted AL Code to Class 36	Existing	Healthcare	All	1.2958
Windows - Non-Tinted AL Code to Class 36	Existing	Lodging	All	1.0609
Windows - Non-Tinted AL Code to Class 36	Existing	Misc.	All	1.3846
Windows - Non-Tinted AL Code to Class 36	Existing	Office	All	1.1510
Windows - Non-Tinted AL Code to Class 36	Existing	Restaurant	All	2.2795
Windows - Non-Tinted AL Code to Class 36	Existing	Retail	All	1.3991
Windows - Non-Tinted AL Code to Class 36	Existing	Warehouse	All	0.8280
Windows - Non-Tinted AL Code to Class 36	New	Education	All	1.4319
Windows - Non-Tinted AL Code to Class 36	New	Grocery	All	1.7935
Windows - Non-Tinted AL Code to Class 36	New	Healthcare	All	1.2335
Windows - Non-Tinted AL Code to Class 36	New	Lodging	All	1.0087
Windows - Non-Tinted AL Code to Class 36	New	Misc.	All	1.3185
Windows - Non-Tinted AL Code to Class 36	New	Office	All	1.0949
Windows - Non-Tinted AL Code to Class 36	New	Restaurant	All	2.1798
Windows - Non-Tinted AL Code to Class 36	New	Retail	All	1.3324
Windows - Non-Tinted AL Code to Class 36	New	Warehouse	All	0.7864
Windows - Non-Tinted AL Code to Class 40	Existing	Education	All	2.2575
Windows - Non-Tinted AL Code to Class 40	Existing	Grocery	All	2.7712
Windows - Non-Tinted AL Code to Class 40	Existing	Healthcare	All	1.9667
Windows - Non-Tinted AL Code to Class 40	Existing	Lodging	All	1.6292
Windows - Non-Tinted AL Code to Class 40	Existing	Misc.	All	2.0921
Windows - Non-Tinted AL Code to Class 40	Existing	Office	All	1.7597
Windows - Non-Tinted AL Code to Class 40	Existing	Restaurant	All	3.2975
Windows - Non-Tinted AL Code to Class 40	Existing	Retail	All	2.1126
Windows - Non-Tinted AL Code to Class 40	Existing	Warehouse	All	1.2868
Windows - Non-Tinted AL Code to Class 40	New	Education	All	2.1835
Windows - Non-Tinted AL Code to Class 40	New	Grocery	All	2.6851
Windows - Non-Tinted AL Code to Class 40	New	Healthcare	All	1.9003
Windows - Non-Tinted AL Code to Class 40	New	Lodging	All	1.5724
Windows - Non-Tinted AL Code to Class 40	New	Misc.	All	2.0224
Windows - Non-Tinted AL Code to Class 40	New	Office	All	1.6990
Windows - Non-Tinted AL Code to Class 40	New	Restaurant	All	3.2009
Windows - Non-Tinted AL Code to Class 40	New	Retail	All	2.0423
Windows - Non-Tinted AL Code to Class 40	New	Warehouse	All	1.2404
Windows - Non-Tinted AL Code to Class 45	Existing	Education	All	1.3676
Windows - Non-Tinted AL Code to Class 45	Existing	Grocery	All	1.7157
Windows - Non-Tinted AL Code to Class 45	Existing	Healthcare	All	1.1770
Windows - Non-Tinted AL Code to Class 45	Existing	Lodging	All	0.9616
Windows - Non-Tinted AL Code to Class 45	Existing	Misc.	All	1.2586
Windows - Non-Tinted AL Code to Class 45	Existing	Office	All	1.0442
Windows - Non-Tinted AL Code to Class 45	Existing	Restaurant	All	2.0887
Windows - Non-Tinted AL Code to Class 45	Existing	Retail	All	1.2720
Windows - Non-Tinted AL Code to Class 45	Existing	Warehouse	All	0.7490
Windows - Non-Tinted AL Code to Class 45	New	Education	All	1.2970
Windows - Non-Tinted AL Code to Class 45	New	Grocery	All	1.6301
Windows - Non-Tinted AL Code to Class 45	New	Healthcare	All	1.1153
Windows - Non-Tinted AL Code to Class 45	New	Lodging	All	0.9102
Windows - Non-Tinted AL Code to Class 45	New	Misc.	All	1.1931

Description	Vintage	Segment	Climate Zone	B/c Ratio
Windows - Non-Tinted AL Code to Class 45	New	Office	All	0.9887
Windows - Non-Tinted AL Code to Class 45	New	Restaurant	All	1.9881
Windows - Non-Tinted AL Code to Class 45	New	Retail	All	1.2058
Windows - Non-Tinted AL Code to Class 45	New	Warehouse	All	0.7082
Windows - Tinted AL Code to Class 36	Existing	Education	All	1.3154
Windows - Tinted AL Code to Class 36	Existing	Grocery	All	1.6524
Windows - Tinted AL Code to Class 36	Existing	Healthcare	All	1.1313
Windows - Tinted AL Code to Class 36	Existing	Lodging	All	0.9235
Windows - Tinted AL Code to Class 36	Existing	Misc.	All	1.2101
Windows - Tinted AL Code to Class 36	Existing	Office	All	1.0031
Windows - Tinted AL Code to Class 36	Existing	Restaurant	All	2.0144
Windows - Tinted AL Code to Class 36	Existing	Retail	All	1.2231
Windows - Tinted AL Code to Class 36	Existing	Warehouse	All	0.7188
Windows - Tinted AL Code to Class 36	New	Education	All	1.0823
Windows - Tinted AL Code to Class 36	New	Grocery	All	1.3675
Windows - Tinted AL Code to Class 36	New	Healthcare	All	0.9279
Windows - Tinted AL Code to Class 36	New	Lodging	All	0.7548
Windows - Tinted AL Code to Class 36	New	Misc.	All	0.9939
Windows - Tinted AL Code to Class 36	New	Office	All	0.8210
Windows - Tinted AL Code to Class 36	New	Restaurant	All	1.6776
Windows - Tinted AL Code to Class 36	New	Retail	All	1.0048
Windows - Tinted AL Code to Class 36	New	Warehouse	All	0.5854
Windows - Tinted AL Code to Class 45	Existing	Education	All	0.3124
Windows - Tinted AL Code to Class 45	Existing	Grocery	All	0.4024
Windows - Tinted AL Code to Class 45	Existing	Healthcare	All	0.2651
Windows - Tinted AL Code to Class 45	Existing	Lodging	All	0.2132
Windows - Tinted AL Code to Class 45	Existing	Misc.	All	0.2852
Windows - Tinted AL Code to Class 45	Existing	Office	All	0.2329
Windows - Tinted AL Code to Class 45	Existing	Restaurant	All	0.5044
Windows - Tinted AL Code to Class 45	Existing	Retail	All	0.2885
Windows - Tinted AL Code to Class 45	Existing	Warehouse	All	0.1635
Windows - Tinted AL Code to Class 45	New	Education	All	0.0005
Windows - Tinted AL Code to Class 45	New	Grocery	All	0.0007
Windows - Tinted AL Code to Class 45	New	Healthcare	All	0.0004
Windows - Tinted AL Code to Class 45	New	Lodging	All	0.0003
Windows - Tinted AL Code to Class 45	New	Misc.	All	0.0005
Windows - Tinted AL Code to Class 45	New	Office	All	0.0004
Windows - Tinted AL Code to Class 45	New	Restaurant	All	0.0008
Windows - Tinted AL Code to Class 45	New	Retail	All	0.0005
Windows - Tinted AL Code to Class 45	New	Warehouse	All	0.0003

Description	Vintage	Segment	Climate Zone	B/c Ratio
Combination Boiler and Hot Water Heater	Early Retirement	FoodMfg	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	FoodMfg	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	LumberWood	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	LumberWood	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	MetalsFab	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	MetalsFab	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	Other	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	Other	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	PaperMfg	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	PaperMfg	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	StoneClayGlass	All	0.2068
Combination Boiler and Hot Water Heater	Early Retirement	StoneClayGlass	All	0.2068
Combination Boiler and Hot Water Heater	Turnover	FoodMfg	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	FoodMfg	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	LumberWood	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	LumberWood	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	MetalsFab	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	MetalsFab	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	Other	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	Other	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	PaperMfg	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	PaperMfg	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	StoneClayGlass	All	0.2557
Combination Boiler and Hot Water Heater	Turnover	StoneClayGlass	All	0.2557
Direct Fired Radiant Heater	Early Retirement	FoodMfg	All	3.6702
Direct Fired Radiant Heater	Early Retirement	LumberWood	All	3.6702
Direct Fired Radiant Heater	Early Retirement	MetalsFab	All	3.6702
Direct Fired Radiant Heater	Early Retirement	Other	All	3.6702
Direct Fired Radiant Heater	Early Retirement	PaperMfg	All	3.6702
Direct Fired Radiant Heater	Early Retirement	StoneClayGlass	All	3.6702
Direct Fired Radiant Heater	Turnover	FoodMfg	All	8.5566
Direct Fired Radiant Heater	Turnover	LumberWood	All	8.5566
Direct Fired Radiant Heater	Turnover	MetalsFab	All	8.5566
Direct Fired Radiant Heater	Turnover	Other	All	8.5566
Direct Fired Radiant Heater	Turnover	PaperMfg	All	8.5566
Direct Fired Radiant Heater	Turnover	StoneClayGlass	All	8.5566
High Efficiency Condensing Boiler	Early Retirement	FoodMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	FoodMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	FoodMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	FoodMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	LumberWood	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	LumberWood	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	LumberWood	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	LumberWood	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	MetalsFab	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	MetalsFab	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	MetalsFab	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	MetalsFab	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	Other	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	Other	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	Other	All	0.2080

Description	Vintage	Segment	Climate Zone	B/c Ratio
High Efficiency Condensing Boiler	Early Retirement	Other	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	PaperMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	PaperMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	PaperMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	PaperMfg	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	StoneClayGlass	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	StoneClayGlass	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	StoneClayGlass	All	0.2080
High Efficiency Condensing Boiler	Early Retirement	StoneClayGlass	All	0.2080
High Efficiency Condensing Boiler	Turnover	FoodMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	FoodMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	FoodMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	FoodMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	LumberWood	All	0.2602
High Efficiency Condensing Boiler	Turnover	LumberWood	All	0.2602
High Efficiency Condensing Boiler	Turnover	LumberWood	All	0.2602
High Efficiency Condensing Boiler	Turnover	LumberWood	All	0.2602
High Efficiency Condensing Boiler	Turnover	MetalsFab	All	0.2602
High Efficiency Condensing Boiler	Turnover	MetalsFab	All	0.2602
High Efficiency Condensing Boiler	Turnover	MetalsFab	All	0.2602
High Efficiency Condensing Boiler	Turnover	MetalsFab	All	0.2602
High Efficiency Condensing Boiler	Turnover	Other	All	0.2602
High Efficiency Condensing Boiler	Turnover	Other	All	0.2602
High Efficiency Condensing Boiler	Turnover	Other	All	0.2602
High Efficiency Condensing Boiler	Turnover	Other	All	0.2602
High Efficiency Condensing Boiler	Turnover	PaperMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	PaperMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	PaperMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	PaperMfg	All	0.2602
High Efficiency Condensing Boiler	Turnover	StoneClayGlass	All	0.2602
High Efficiency Condensing Boiler	Turnover	StoneClayGlass	All	0.2602
High Efficiency Condensing Boiler	Turnover	StoneClayGlass	All	0.2602
High Efficiency Condensing Boiler	Turnover	StoneClayGlass	All	0.2602
High Efficiency Condensing Furnace	Early Retirement	FoodMfg	All	0.6556
High Efficiency Condensing Furnace	Early Retirement	LumberWood	All	0.6556
High Efficiency Condensing Furnace	Early Retirement	MetalsFab	All	0.6556
High Efficiency Condensing Furnace	Early Retirement	Other	All	0.6556
High Efficiency Condensing Furnace	Early Retirement	PaperMfg	All	0.6556
High Efficiency Condensing Furnace	Early Retirement	StoneClayGlass	All	0.6556
High Efficiency Condensing Furnace	Turnover	FoodMfg	All	1.8014
High Efficiency Condensing Furnace	Turnover	LumberWood	All	1.8014
High Efficiency Condensing Furnace	Turnover	MetalsFab	All	1.8014
High Efficiency Condensing Furnace	Turnover	Other	All	1.8014
High Efficiency Condensing Furnace	Turnover	PaperMfg	All	1.8014
High Efficiency Condensing Furnace	Turnover	StoneClayGlass	All	1.8014
High Efficiency Condensing Unit Heater 92% AFUE	Early Retirement	FoodMfg	All	0.8255
High Efficiency Condensing Unit Heater 92% AFUE	Early Retirement	LumberWood	All	0.8255
High Efficiency Condensing Unit Heater 92% AFUE	Early Retirement	MetalsFab	All	0.8255
High Efficiency Condensing Unit Heater 92% AFUE	Early Retirement	Other	All	0.8255
High Efficiency Condensing Unit Heater 92% AFUE	Early Retirement	PaperMfg	All	0.8255
High Efficiency Condensing Unit Heater 92% AFUE	Early Retirement	StoneClayGlass	All	0.8255

Description	Vintage	Segment	Climate Zone	B/c Ratio
High Efficiency Condensing Unit Heater 92% AFUE	Turnover	FoodMfg	All	0.7701
High Efficiency Condensing Unit Heater 92% AFUE	Turnover	LumberWood	All	0.7701
High Efficiency Condensing Unit Heater 92% AFUE	Turnover	MetalsFab	All	0.7701
High Efficiency Condensing Unit Heater 92% AFUE	Turnover	Other	All	0.7701
High Efficiency Condensing Unit Heater 92% AFUE	Turnover	PaperMfg	All	0.7701
High Efficiency Condensing Unit Heater 92% AFUE	Turnover	StoneClayGlass	All	0.7701
High Efficiency Non-Condensing Unit Heater	Early Retirement	FoodMfg	All	0.6691
High Efficiency Non-Condensing Unit Heater	Early Retirement	LumberWood	All	0.6691
High Efficiency Non-Condensing Unit Heater	Early Retirement	MetalsFab	All	0.6691
High Efficiency Non-Condensing Unit Heater	Early Retirement	Other	All	0.6691
High Efficiency Non-Condensing Unit Heater	Early Retirement	PaperMfg	All	0.6691
High Efficiency Non-Condensing Unit Heater	Early Retirement	StoneClayGlass	All	0.6691
High Efficiency Non-Condensing Unit Heater	Turnover	FoodMfg	All	0.4516
High Efficiency Non-Condensing Unit Heater	Turnover	LumberWood	All	0.4516
High Efficiency Non-Condensing Unit Heater	Turnover	MetalsFab	All	0.4516
High Efficiency Non-Condensing Unit Heater	Turnover	Other	All	0.4516
High Efficiency Non-Condensing Unit Heater	Turnover	PaperMfg	All	0.4516
High Efficiency Non-Condensing Unit Heater	Turnover	StoneClayGlass	All	0.4516
Process Heating: High Efficiency Furance	Early Retirement	FoodMfg	All	0.6556
Process Heating: High Efficiency Furance	Early Retirement	LumberWood	All	0.6556
Process Heating: High Efficiency Furance	Early Retirement	MetalsFab	All	0.6556
Process Heating: High Efficiency Furance	Early Retirement	Other	All	0.6556
Process Heating: High Efficiency Furance	Early Retirement	PaperMfg	All	0.6556
Process Heating: High Efficiency Furance	Early Retirement	StoneClayGlass	All	0.6556
Process Heating: High Efficiency Furance	Turnover	FoodMfg	All	1.8014
Process Heating: High Efficiency Furance	Turnover	LumberWood	All	1.8014
Process Heating: High Efficiency Furance	Turnover	MetalsFab	All	1.8014
Process Heating: High Efficiency Furance	Turnover	Other	All	1.8014
Process Heating: High Efficiency Furance	Turnover	PaperMfg	All	1.8014
Process Heating: High Efficiency Furance	Turnover	StoneClayGlass	All	1.8014

Description	Vintage	Segment	Climate Zone	B/c Ratio
Boiler Power Burner	Existing	FoodMfg	All	0.4056
Boiler Power Burner	Existing	LumberWood	All	0.4056
Boiler Power Burner	Existing	MetalsFab	All	0.4056
Boiler Power Burner	Existing	Other	All	0.4056
Boiler Power Burner	Existing	PaperMfg	All	0.4056
Boiler Power Burner	Existing	StoneClayGlass	All	0.4056
Boiler Repair/Maintenance	Existing	FoodMfg	All	0.1038
Boiler Repair/Maintenance	Existing	LumberWood	All	0.1038
Boiler Repair/Maintenance	Existing	MetalsFab	All	0.1038
Boiler Repair/Maintenance	Existing	Other	All	0.1038
Boiler Repair/Maintenance	Existing	PaperMfg	All	0.1038
Boiler Repair/Maintenance	Existing	StoneClayGlass	All	0.1038
Boiler Stack Economizer	Existing	FoodMfg	All	0.4382
Boiler Stack Economizer	Existing	LumberWood	All	0.4382
Boiler Stack Economizer	Existing	MetalsFab	All	0.4382
Boiler Stack Economizer	Existing	Other	All	0.4382
Boiler Stack Economizer	Existing	PaperMfg	All	0.4382
Boiler Stack Economizer	Existing	StoneClayGlass	All	0.4382
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	FoodMfg	All	0.2948
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	LumberWood	All	0.2948
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	MetalsFab	All	0.2948
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	Other	All	0.2948
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	PaperMfg	All	0.2948
Boiler Steam Trap - min. 300 kBtu in, pressure of 7 psig or >	Existing	StoneClayGlass	All	0.2948
Boiler vent damper - min. 1000 kBtu input	Existing	FoodMfg	All	0.4189
Boiler vent damper - min. 1000 kBtu input	Existing	LumberWood	All	0.4189
Boiler vent damper - min. 1000 kBtu input	Existing	MetalsFab	All	0.4189
Boiler vent damper - min. 1000 kBtu input	Existing	Other	All	0.4189
Boiler vent damper - min. 1000 kBtu input	Existing	PaperMfg	All	0.4189
Boiler vent damper - min. 1000 kBtu input	Existing	StoneClayGlass	All	0.4189
Demand Controlled Ventilation	Existing	FoodMfg	All	2.8553
Demand Controlled Ventilation	Existing	LumberWood	All	2.8553
Demand Controlled Ventilation	Existing	MetalsFab	All	2.8553
Demand Controlled Ventilation	Existing	Other	All	2.8553
Demand Controlled Ventilation	Existing	PaperMfg	All	2.8553
Demand Controlled Ventilation	Existing	StoneClayGlass	All	2.8553
Duct Sealing and Insulation	Existing	FoodMfg	All	0.3753
Duct Sealing and Insulation	Existing	LumberWood	All	0.3753
Duct Sealing and Insulation	Existing	MetalsFab	All	0.3753
Duct Sealing and Insulation	Existing	Other	All	0.3753
Duct Sealing and Insulation	Existing	PaperMfg	All	0.3753
Duct Sealing and Insulation	Existing	StoneClayGlass	All	0.3753
HVAC Controls	Existing	FoodMfg	All	0.2902
HVAC Controls	Existing	LumberWood	All	0.2902
HVAC Controls	Existing	MetalsFab	All	0.2902
HVAC Controls	Existing	Other	All	0.2902
HVAC Controls	Existing	PaperMfg	All	0.2902
HVAC Controls	Existing	StoneClayGlass	All	0.2902
HVAC System Commissioning	Existing	FoodMfg	All	0.8250
HVAC System Commissioning	Existing	LumberWood	All	0.8250
HVAC System Commissioning	Existing	MetalsFab	All	0.8250
HVAC System Commissioning	Existing	Other	All	0.8250
HVAC System Commissioning	Existing	PaperMfg	All	0.8250

Description	Vintage	Segment	Climate Zone	B/c Ratio
HVAC System Commissioning	Existing	StoneClayGlass	All	0.8250
Improved Process Heating Controls	Existing	FoodMfg	All	14.1105
Improved Process Heating Controls	Existing	LumberWood	All	14.1106
Improved Process Heating Controls	Existing	MetalsFab	All	14.1105
Improved Process Heating Controls	Existing	Other	All	14.1109
Improved Process Heating Controls	Existing	PaperMfg	All	14.1104
Improved Process Heating Controls	Existing	StoneClayGlass	All	14.1103
Optimized Furnace Operations/Improved O&M	Existing	FoodMfg	All	16.3786
Optimized Furnace Operations/Improved O&M	Existing	LumberWood	All	16.3789
Optimized Furnace Operations/Improved O&M	Existing	MetalsFab	All	16.3788
Optimized Furnace Operations/Improved O&M	Existing	Other	All	16.3771
Optimized Furnace Operations/Improved O&M	Existing	PaperMfg	All	16.3794
Optimized Furnace Operations/Improved O&M	Existing	StoneClayGlass	All	16.3778
Refrigeration system superheat recovery	Existing	FoodMfg	All	0.0372
Refrigeration system superheat recovery	Existing	LumberWood	All	0.0372
Refrigeration system superheat recovery	Existing	MetalsFab	All	0.0372
Refrigeration system superheat recovery	Existing	Other	All	0.0372
Refrigeration system superheat recovery	Existing	PaperMfg	All	0.0372
Refrigeration system superheat recovery	Existing	StoneClayGlass	All	0.0372
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	FoodMfg	All	1.2384
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	LumberWood	All	1.2384
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	MetalsFab	All	1.2384
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	Other	All	1.2384
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	PaperMfg	All	1.2384
Roof insulation (retrofit only) - Tier 1: Min R-30	Existing	StoneClayGlass	All	1.2384
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	FoodMfg	All	0.8357
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	LumberWood	All	0.8357
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	MetalsFab	All	0.8357
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	Other	All	0.8357
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	PaperMfg	All	0.8357
Roof insulation (retrofit only) - Tier 2: Min R-45	Existing	StoneClayGlass	All	0.8357
Space Heating O&M	Existing	FoodMfg	All	0.8088
Space Heating O&M	Existing	LumberWood	All	0.8088
Space Heating O&M	Existing	MetalsFab	All	0.8088
Space Heating O&M	Existing	Other	All	0.8088
Space Heating O&M	Existing	PaperMfg	All	0.8088
Space Heating O&M	Existing	StoneClayGlass	All	0.8088
Steam System Efficiency Improvements	Existing	FoodMfg	All	0.4009
Steam System Efficiency Improvements	Existing	LumberWood	All	0.4009
Steam System Efficiency Improvements	Existing	MetalsFab	All	0.4009
Steam System Efficiency Improvements	Existing	Other	All	0.4009
Steam System Efficiency Improvements	Existing	PaperMfg	All	0.4009
Steam System Efficiency Improvements	Existing	StoneClayGlass	All	0.4009
Wall insulation (retrofit only) - Tier 1: Min R-11	Existing	FoodMfg	All	1.8303
Wall insulation (retrofit only) - Tier 1: Min R-11	Existing	LumberWood	All	1.8303
Wall insulation (retrofit only) - Tier 1: Min R-11	Existing	MetalsFab	All	1.8303
Wall insulation (retrofit only) - Tier 1: Min R-11	Existing	Other	All	1.8303
Wall insulation (retrofit only) - Tier 1: Min R-11	Existing	PaperMfg	All	1.8303
Wall insulation (retrofit only) - Tier 1: Min R-11	Existing	StoneClayGlass	All	1.8303
Wall insulation (retrofit only) - Tier 2: Min R-19	Existing	FoodMfg	All	1.9683
Wall insulation (retrofit only) - Tier 2: Min R-19	Existing	LumberWood	All	1.9683
Wall insulation (retrofit only) - Tier 2: Min R-19	Existing	MetalsFab	All	1.9683
Wall insulation (retrofit only) - Tier 2: Min R-19	Existing	Other	All	1.9683

Description	Vintage	Segment	Climate Zone	B/c Ratio
Wall insulation (retrofit only) - Tier 2: Min R-19	Existing	PaperMfg	All	1.9683
Wall insulation (retrofit only) - Tier 2: Min R-19	Existing	StoneClayGlass	All	1.9683
Waste Water Heat Exchanger	Existing	FoodMfg	All	0.0299
Waste Water Heat Exchanger	Existing	LumberWood	All	0.0299
Waste Water Heat Exchanger	Existing	MetalsFab	All	0.0299
Waste Water Heat Exchanger	Existing	Other	All	0.0299
Waste Water Heat Exchanger	Existing	PaperMfg	All	0.0299
Waste Water Heat Exchanger	Existing	StoneClayGlass	All	0.0299
Windows - Add Argon to Vinyl Lowe	Existing	FoodMfg	All	2.1575
Windows - Add Argon to Vinyl Lowe	Existing	LumberWood	All	2.1575
Windows - Add Argon to Vinyl Lowe	Existing	MetalsFab	All	2.1575
Windows - Add Argon to Vinyl Lowe	Existing	Other	All	2.1575
Windows - Add Argon to Vinyl Lowe	Existing	PaperMfg	All	2.1575
Windows - Add Argon to Vinyl Lowe	Existing	StoneClayGlass	All	2.1575
Windows - Add Low E and Argon to Vinyl Tint	Existing	FoodMfg	All	14.3420
Windows - Add Low E and Argon to Vinyl Tint	Existing	LumberWood	All	14.3420
Windows - Add Low E and Argon to Vinyl Tint	Existing	MetalsFab	All	14.3420
Windows - Add Low E and Argon to Vinyl Tint	Existing	Other	All	14.3420
Windows - Add Low E and Argon to Vinyl Tint	Existing	PaperMfg	All	14.3420
Windows - Add Low E and Argon to Vinyl Tint	Existing	StoneClayGlass	All	14.3420
Windows - Add Low E to Vinyl Tint	Existing	FoodMfg	All	2.8975
Windows - Add Low E to Vinyl Tint	Existing	LumberWood	All	2.8975
Windows - Add Low E to Vinyl Tint	Existing	MetalsFab	All	2.8975
Windows - Add Low E to Vinyl Tint	Existing	Other	All	2.8975
Windows - Add Low E to Vinyl Tint	Existing	PaperMfg	All	2.8975
Windows - Add Low E to Vinyl Tint	Existing	StoneClayGlass	All	2.8975
Windows - Non-Tinted AL Code to Class 36	Existing	FoodMfg	All	0.8804
Windows - Non-Tinted AL Code to Class 36	Existing	LumberWood	All	0.8804
Windows - Non-Tinted AL Code to Class 36	Existing	MetalsFab	All	0.8804
Windows - Non-Tinted AL Code to Class 36	Existing	Other	All	0.8804
Windows - Non-Tinted AL Code to Class 36	Existing	PaperMfg	All	0.8804
Windows - Non-Tinted AL Code to Class 36	Existing	StoneClayGlass	All	0.8804
Windows - Non-Tinted AL Code to Class 40	Existing	FoodMfg	All	1.3997
Windows - Non-Tinted AL Code to Class 40	Existing	LumberWood	All	1.3997
Windows - Non-Tinted AL Code to Class 40	Existing	MetalsFab	All	1.3997
Windows - Non-Tinted AL Code to Class 40	Existing	Other	All	1.3997
Windows - Non-Tinted AL Code to Class 40	Existing	PaperMfg	All	1.3997
Windows - Non-Tinted AL Code to Class 40	Existing	StoneClayGlass	All	1.3997
Windows - Non-Tinted AL Code to Class 45	Existing	FoodMfg	All	0.7933
Windows - Non-Tinted AL Code to Class 45	Existing	LumberWood	All	0.7933
Windows - Non-Tinted AL Code to Class 45	Existing	MetalsFab	All	0.7933
Windows - Non-Tinted AL Code to Class 45	Existing	Other	All	0.7933
Windows - Non-Tinted AL Code to Class 45	Existing	PaperMfg	All	0.7933
Windows - Non-Tinted AL Code to Class 45	Existing	StoneClayGlass	All	0.7933
Windows - Tinted AL Code to Class 36	Existing	FoodMfg	All	0.7602
Windows - Tinted AL Code to Class 36	Existing	LumberWood	All	0.7602
Windows - Tinted AL Code to Class 36	Existing	MetalsFab	All	0.7602
Windows - Tinted AL Code to Class 36	Existing	Other	All	0.7602
Windows - Tinted AL Code to Class 36	Existing	PaperMfg	All	0.7602
Windows - Tinted AL Code to Class 36	Existing	StoneClayGlass	All	0.7602
Windows - Tinted AL Code to Class 45	Existing	FoodMfg	All	0.1684
Windows - Tinted AL Code to Class 45	Existing	LumberWood	All	0.1684
Windows - Tinted AL Code to Class 45	Existing	MetalsFab	All	0.1684

Description	Vintage	Segment	Climate Zone	B/c Ratio
Windows - Tinted AL Code to Class 45	Existing	Other	All	0.1684
Windows - Tinted AL Code to Class 45	Existing	PaperMfg	All	0.1684
Windows - Tinted AL Code to Class 45	Existing	StoneClayGlass	All	0.1684