Appendix D

Demand Side Management

UG-160453

**Table of Contents**

**Breakdown of Scenarios by Customer Class with Adoption Curves**

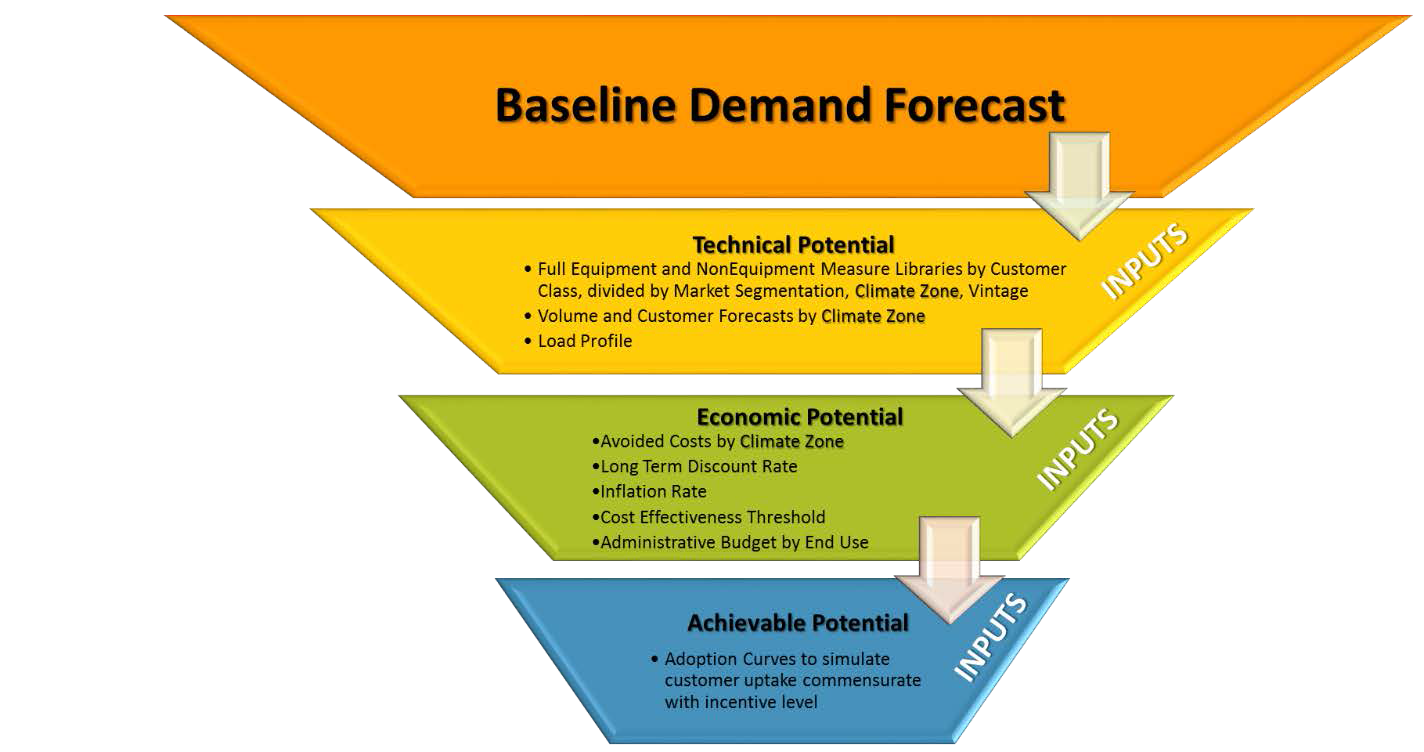
**Residential Incentive Listing Commercial-Industrial Incentive Listing Equipment and Non Equipment Libraries**

CNGC 2016 IRP

Appendix D

Demand Side Management Page 3

**TEA-Pot Inputs Flow Chart**



The above flowchart demonstrate Cascade’s DSM modeling methodology and the

inputs that effect each potential level of the forecast.

This is a simplified model that covers the inputs we collect on an ad-hoc basis (when Cascade runs the model). This does not address previous, semi-permanent Nexant researched inputs that define the Company’s unique service territory, such as the market segmentation findings, SIC coding, end-use load classification, and vintages (i.e., turnover, early retirement, new), amongst others. For a complete breakdown of the TEA-Pot model, please reference the original Nexant Potential Study, Volume II.

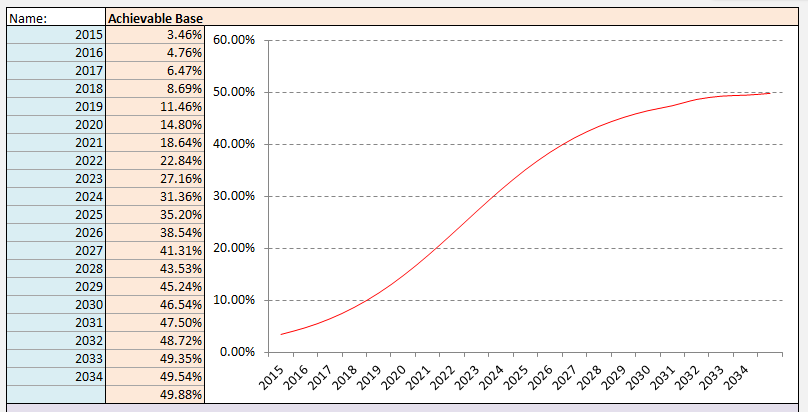
CNGC 2016 IRP

Appendix D

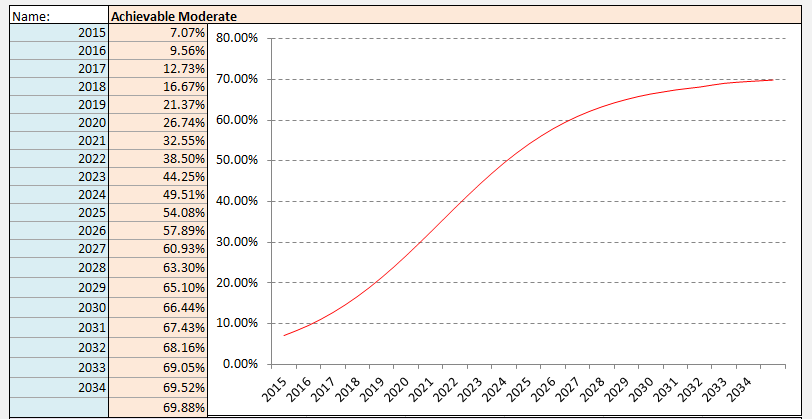
Demand Side Management Page 4

**Adoption Curve for Each Achievable Scenario and Incentive Level**

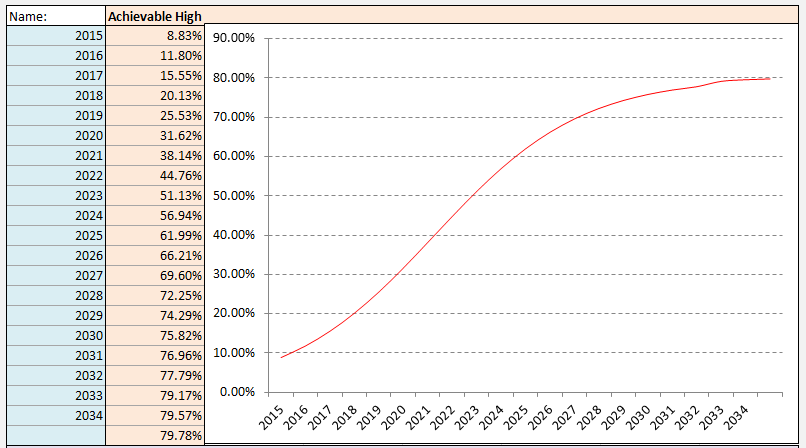
**Achievable 1 - Adoption Curve for 30% of Incremental Costs Incentive Level**



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



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



CNGC 2016 IRP

Appendix D

Demand Side Management Page 5

Total Forecasted Potential Therm Savings by Customer Class, Program, and Combined (therms)

|  |  |  |  |
| --- | --- | --- | --- |
| **Residential Forecasts (therms)** | | | |
| **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 (therms)** | | | |
| **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 (therms)** | | | |
| **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 (therms)** | | | |
| **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 (therms)** | | | |
| **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 |

**Note**: These incentives demonstrate the Company’s CIP portfolio at the time of writing of this IRP.

**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 Heater3** | 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 Insulation1&4** | Equal to or greater than R-30 or to fill cavity5, prior condition must not exceed R-11 | $0.30/sq.ft. |
| **Wall Insulation1&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 Insulation1&4** | Equal to or greater than R-38, prior condition must not exceed R-18 | $0.30/sq.ft. |
| **Whole House Residential Air Sealing1&4** | Minimum 400 CFM50 reduction using pre and post blower door testing6 | $100 |

Efficient New Home Packages

|  |  |  |
| --- | --- | --- |
| **Energy-Saving Measure** | **Basic Specifications** | **Incentive** |
| **ENERGY STAR® Certifi Home 1&7** | National Program Requirements Version 3.1 (Rev. 08) | $600 |
| **Built Green Certifi Home1&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 qualifi Trade Ally in order to be eligible for a rebate through the Conservation Incentive Program. Attic insulation cannot be fi 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.*

Last Updated 09/2016



CNGC 2016 IRP

Appendix D

Demand Side Management

Page 8

Commercial/Industrial

Standard Incentives

|  |
| --- |
| **Warm Air Furnaces - $3.00/kBtu/hr**  High Efficiency Condensing Furnace—Min 91% AFUE |
| **HVAC Unit Heater - $1.50/kBtu/hr**  High Efficiency Non-Condensing Min—86% AFUE |
| **HVAC Unit Heater - $3.00/kBtu/hr**  High Efficiency Condensing Min—92% AFUE |
| **Radiant Heating - $6.95/kBtu/hr**  Direct fired radiant heating |
| **Boiler - $4.00/kBtu/hr**  High Effi y Condensing Boiler  Min 90% Thermal Eff & 300 kBtu input |
| **Boiler Vent Damper - $1,000**  Min 1,000 kBtu input |
| **Boiler Steam Trap1 - $125**  Min 300 kBtu in; steam pressure at 7psig or > |
| **Domestic Hot Water Tanks3 - $2.50/kBtu/hr**  Condensing tank, Min 91% Thermal Eff |
| **Domestic Hot Water Tankless Water Heater3 - $60/gpm**  ENERGY STAR**®** .82 EF |
| **Attic Insulation -** (retrofit only) **Tier 1:** Min R-30 - **$0.50/sq ft Tier 2:** Min R-45 - **$0.65/sq ft** |
| **Roof Insulation -** (retrofit only) **Tier 1:** Min R-21 - **$0.60/sq ft Tier 2:** Min R-30 - **$0.80/sq ft** |
| **Wall Insulation2 -** (retrofit only) **Tier 1:** Min R-11 - **$0.50/sq ft Tier 2:** Min R-19 - **$0.56/sq ft** |
| **Energy Savings Kits3 - FREE**  **A:** Kitchen Pre Rinse Spray Valve & Bath Aerators  **B:** Low Flow Showerhead |
| **Ozone Injection Laundry3 - $2,500**  Venturi injection or bubble diffusion - Min 125 lb. total washer/extractor capacity. **Pre-approval required.** |

|  |
| --- |
| **Motion Control Faucet3 - $105**  Maximum flow rate of 1.8 gpm  WaterSense® Certified and Below Deck Mixing Valve |
| **Clothes Washer3 - $180**  Commercial gas washer—1.8 MEF |
| **Gas Convection Oven - $450**  ENERGY STAR**®**  ≥42% Cooking Eff/ ≤13,000 Btu/hr Idle Rate |
| **Gas Griddle - $350**  ENERGY STAR**®**  ≥38% Cooking Eff/ ≤2650 Btu/hr sq ft Idle Rate |
| **Gas Conveyor Oven - $600**  Greater than 42% tested baking efficiency |
| **Connectionless 3 Pan Gas Steamer - $850**  ENERGY STAR**®** or CEE/FSTC Qualified  ≥38% Cooking Eff / ≤2,083 Btu/hr/pan Idle Rate |
| **Connectionless 6 Pan Gas Steamer - $1,200**  ENERGY STAR**®** or CEE/FSTC Qualified  ≥38% Cooking Eff / ≤2,083 Btu/hr/pan Idle Rate |
| **Double Rack Oven - $2,000**  FSTC Qualified  ≥50% Cooking Eff/ ≤3,500 Btu/hr/Idle Rate D Rack |
| **ENERGY STAR® Gas Fryer - $600** |
| **Door Type Dishwasher Low Temp Gas3 - $650**  ENERGY STAR**®**  ≤.6 kw Idle Rate/ ≤1.18 gallon/rack |
| **Multi-Tank Conveyor Low Temp Dishwasher3 - $1,000**  Gas Main w/Electric Booster ENERGY STAR**®**  ≤2.0 kw Idle Rate; ≤ 0.50 gallons/rack |
| **Recirculation Controls3 - $100** Continuous Operation DHW Pump **Pre-Approval required.** |
| **Demand Control Ventilation**4 **- $12/nominal ton**  5 tons ≤ Unit Cooling Capacity ≤ 20 tons. 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

Updated 09/16

CNGC 2016 IRP

Appendix D

Demand Side Management Page 9

Outside of general cost-effectiveness calculations program implementers have a variety of ways of narrowing down the program portfolio based on viable and on-the- ground experience with the CNGC service territory. Measure selection and inclusion in the program portfolio is based on multiple variables including availability to the CNGC territory through Washington licensed contractors, feedback from contractors on quality and experience with certain equipment upgrades, lack of uptake due to a need for improvements in the technology (Natural Gas ENERGY STAR® residential dryers as an example) and a desire to concentrate administrative dollars and efforts toward those measures which have the most demand from customers and potential uptake. The Company is strategic in development of its portfolios keeping in mind the resources it has to work with to deliver the program while maintaining its integrity and quality customer experience. For reference the following lists demonstrate the full breadth of the Nexant TEA-Pot model’s equipment libraries and each measure’s benefit/cost ratio at the 30% of incremental costs incentive level.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 Sta | New | Education | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Grocery | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Healthcare | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Lodging | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Misc. | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Office | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Restaurant | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | New | Retail | All | 0.0000 |
| Hot Water Pipe Insulation 1.0" of Insulation, assuming R-4 (WA Sta | 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 |