|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Income Eligible Single Family Impact Evaluation Report  Energy Efficiency Plan: Program Year 2024  (1/1/2024-12/31/2024) | | | |
|  | Prepared for:  Peoples Gas and North Shore Gas  DRAFT  March 27, 2025 | | | |
|  | Prepared by: | |  | |
|  | Yeab Lakew  Guidehouse | | Aidan Lewis  Guidehouse | |
| **guidehouse.com** |  |  |  |  |

**Submitted to:**

Peoples Gas

North Shore Gas

200 East Randolph Street

Chicago, IL 60601

**Submitted by:**

Guidehouse

150 N. Riverside Plaza, Suite 2100

Chicago, IL 60606

**Contact:**

|  |  |  |
| --- | --- | --- |
| Ed Balbis  Partner  561.644.9407  [**ebalbis@guidehouse.com**](mailto:ebalbis@guidehouse.com)  Charles Ampong Associate Director  608.446.3172  [**charles.ampong@guidehouse.com**](mailto:charles.ampong@guidehouse.com) | Jeff Erickson  Director  802.526.5113  [jeff.erickson@guidehouse.com](mailto:jeff.erickson@guidehouse.com) | Laura Agapay-Read  Associate Director  312.583.4178  **laura.agapay.read@guidehouse.com** |

Disclaimer: This report was prepared by Guidehouse for Peoples Gas Light and Coke Company (“PGL”) and North Shore Gas Company (“NSG”) based upon information provided by PGL and NSG and from other sources. Use of this report by any other party for whatever purpose should not, and does not, absolve such party from using due diligence in verifying the report’s contents. Neither Guidehouse nor any of its subsidiaries or affiliates assumes any liability or duty of care to such parties, and hereby disclaims any such liability.

.

Table of Contents

[Introduction 2](#_Toc189832321)

[Program Description 2](#_Toc189832322)

[Program Savings Detail 5](#_Toc189832323)

[Program Savings by Measure 6](#_Toc189832324)

[Impact Analysis Findings and Recommendations 10](#_Toc189832325)

[Impact Parameter Estimates 10](#_Toc189832326)

[Findings and Recommendations 12](#_Toc189832327)

[Appendix A. Impact Analysis Methodology 15](#_Toc189832328)

[Appendix B. Program Specific Inputs for the Illinois TRC 16](#_Toc189832329)

List of Tables, Figures, and Equations

[Table 1. 2024 Volumetric Summary for PGL 2](#_Toc189750712)

[Table 2. 2024 Installed Measure Quantities for PGL 3](#_Toc189750713)

[Table 3. 2024 Volumetric Summary for NSG 4](#_Toc189750714)

[Table 4. 2024 Installed Measure Quantities for NSG 5](#_Toc189750715)

[Table 5. 2024 Annual Energy Savings Summary for PGL 6](#_Toc189750716)

[Table 6. 2024 Annual Energy Savings Summary for NSG 6](#_Toc189750717)

[Table 7. 2024 Annual Energy Savings by Measure for PGL 6](#_Toc189750718)

[Table 8. 2024 Annual Energy Savings by Measure for NSG 9](#_Toc189750719)

[Table 9. Verified Gross Savings Parameters 10](#_Toc189750720)

[Table B‑1. Verified Cost Effectiveness Inputs – PGL 17](#_Toc193886862)

[Table B‑2. Verified Cost Effectiveness Inputs – NSG 21](#_Toc193886863)

# Introduction

This report presents the results of the impact evaluation of the Peoples Gas (PGL) and North Shore Gas (NSG) 2024 Income Eligible Single Family (SFIE) programs. It presents a summary of the energy impacts for the total program and broken out by relevant measure and program structure details. The appendix presents the impact analysis methodology. Program year 2024 covers January 1, 2024 through December 31, 2024.

# Program Description

The SFIE program offers installation of energy efficiency measures for qualifying homeowners with a household income at or below 80% of the area median income (AMI). Eligible measures include programmable and advanced thermostats, water efficiency devices, weatherization measures, pipe insulation, heating and cooling equipment, and custom energy-saving measures for eligible properties. The program also offers installation of health and safety measures including vents, electrical repairs, and asbestos and mold remediation.

The SFIE program has three paths:

* The SFIE Retrofits program component offers direct install products and no-cost weatherization services for customers. The PGL and NSG program is delivered jointly with ComEd through approved agencies or partners (e.g., Chicago Bungalow Association) that perform outreach and intake.
* The Single Family – Illinois Home Weatherization Assistance Program (IHWAP) path is administered by ComEd, PGL, and Nicor Gas. Weatherization services are provided to low-income residents through local community action agencies or not for profit agencies.
* The Home Energy Assessment (HEA) program path is administered by ComEd, Nicor Gas, PGL, and NSG. The HEA program offers energy-saving products installed in homes at no-cost to the customer. Homeowners can reduce their energy and water use with the installation of products available to owners of single-family homes, two-flats, and individually metered condos and townhomes. Renters are also eligible with permission from their landlords.

The program had 2,579 participants in 2024 and completed 2,574 projects as shown in the following table.

Table 1. 2024 Volumetric Summary for PGL

| Participation | HEA | IHWAP | Retrofit | Total |
| --- | --- | --- | --- | --- |
| Participants \* | 2,226 | 61 | 292 | 2,579 |
| Installed Projects † | 2,205 | 61 | 308 | 2,574 |

\* Participants are defined as unique site addresses.

† Installed Projects are defined as unique project IDs.

Source: Peoples Gas tracking data and Guidehouse evaluation team analysis.

Table 2 summarizes the installed measure quantities that are the basis for verified energy savings.

Table 2. 2024 Installed Measure Quantities for PGL

| Program Path | Measure | Quantity Unit | Installed Quantity |
| --- | --- | --- | --- |
| HEA | Advanced Thermostat (DI) - Blended | Each | 12 |
| Advanced Thermostat (DI) - Manual | Each | 303 |
| Advanced Thermostat (DI) - Programmable | Each | 300 |
| Advanced Thermostat (Non-DI) - Programmable | Each | 2 |
| Air Handler Filter Replacement (VA) | Each | 1584 |
| Air Sealing - Door Sweep (DI) | Each | 1676 |
| Air Sealing - Door Sweep (VA) | Each | 43 |
| Bathroom Aerator SF (DI) | Each | 550 |
| Bathroom Aerator SF (VA) | Each | 24 |
| Boiler Pipe Insulation | Ln. ft. | 210 |
| DHW Pipe Insulation | Ln. ft. | 3022 |
| Handheld Showerhead (DI) SF | Each | 756 |
| Kitchen Aerator SF (DI) | Each | 526 |
| Kitchen Aerator SF (VA) | Each | 12 |
| Programmable Thermostat (DI) | Each | 235 |
| Re-Program Thermostat (DI) | Each | 156 |
| Shower Flow Reducer (DI) SF | Each | 110 |
| Showerhead (DI) MH | Each | 2 |
| Showerhead (DI) SF | Each | 486 |
| Showerhead (VA) SF | Each | 22 |
| IHWAP | Advanced Thermostat (DI) - Manual | Each | 14 |
| Advanced Thermostat (DI) - Programmable | Each | 2 |
| Air Sealing | Project | 58 |
| Air Sealing - Door Sweep (DI) | Each | 3 |
| Air Sealing - Sealing Tape - DI | Each | 24 |
| Attic Insulation | Sq. ft. | 34556 |
| Basement/Sidewall Insulation | Sq. ft. | 519 |
| Bathroom Aerator SF (DI) | Each | 17 |
| Boilers, >95% AFUE <300 MBH | Each | 10 |
| DHW Pipe Insulation | Ln. ft. | 622 |
| Duct Sealing | Each | 2 |
| Floor Insulation Above Crawlspace | Sq. ft. | 5879 |
| Furnace Tune-Up | Each | 3 |
| Furnace, >95% AFUE | Each | 34 |
| Handheld Showerhead (DI) SF | Each | 8 |
| Kitchen Aerator SF (DI) | Each | 3 |
| Programmable Thermostat (DI) | Each | 12 |
| Rim Joist Insulation | Sq. ft. | 612 |
| Showerhead (DI) SF | Each | 10 |
| Storage Water Heater, >0.67 EF | Each | 26 |
| Wall Insulation SF | Sq. ft. | 49833 |
| Retrofit | Advanced Thermostat (DI) - Manual | Each | 29 |
| Advanced Thermostat (DI) - Programmable | Each | 49 |
| Air Sealing | Project | 122 |
| Air Sealing - Door Sweep (DI) | Each | 401 |
| Air Sealing - Gasket - DI | Each | 290 |
| Air Sealing - Sealing Tape - DI | Each | 73026 |
| Air Sealing - Weatherstripping - DI | Each | 6369 |
| Air Sealing - Window Film - DI | Each | 24 |
| Attic Insulation | Sq. ft. | 219689 |
| Basement/Sidewall Insulation | Sq. ft. | 7271 |
| Bathroom Aerator SF (DI) | Each | 5 |
| Boiler Tune-Up | Each | 29 |
| Boilers, >95% AFUE <300 MBH | Each | 10 |
| DHW Pipe Insulation | Ln. ft. | 961 |
| Duct Sealing | Each | 40 |
| Duct Sealing - Modified Blower Door Subtraction | Each | 5 |
| Floor Insulation Above Crawlspace | Sq. ft. | 3069 |
| Furnace Tune-Up | Each | 132 |
| Furnace, >95% AFUE | Each | 15 |
| Handheld Showerhead (DI) SF | Each | 2 |
| Kitchen Aerator SF (DI) | Each | 1 |
| Programmable Thermostat (DI) | Each | 54 |
| Rim Joist Insulation | Sq. ft. | 1237 |
| Showerhead (DI) SF | Each | 9 |
| Storage Water Heater, >0.67 EF | Each | 12 |
| Wall Insulation SF | Sq. ft. | 305281 |

Source: Peoples Gas tracking data and evaluation team analysis.

The NSG program had 190 participants in 2024 and completed 187 projects as shown in the following table.

Table 3. 2024 Volumetric Summary for NSG

| Participation | HEA | Retrofit | Total |
| --- | --- | --- | --- |
| Participants \* | 168 | 22 | 190 |
| Installed Projects † | 166 | 21 | 187 |

\* Participants are defined as unique site addresses.

† Installed Projects are defined as unique project IDs.

Source: North Shore Gas tracking data and evaluation team analysis.

Table 4 summarizes the installed measure quantities that are the basis for verified energy savings.

Table 4. 2024 Installed Measure Quantities for NSG

| Program Path | Measure | | Quantity Unit | | Installed Quantity | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| HEA | | Advanced Thermostat (DI) - Manual | | Each | | 23 |
| Advanced Thermostat (DI) - Programmable | | Each | | 21 |
| Air Handler Filter Replacement (VA) | | Each | | 83 |
| Air Sealing - Door Sweep (DI) | | Each | | 81 |
| Air Sealing - Door Sweep (VA) | | Each | | 4 |
| Bathroom Aerator SF (DI) | | Each | | 80 |
| Bathroom Aerator SF (VA) | | Each | | 11 |
| Boiler Pipe Insulation | | Ln. ft. | | 18 |
| DHW Pipe Insulation | | Ln. ft. | | 94 |
| Handheld Showerhead (DI) SF | | Each | | 21 |
| Kitchen Aerator SF (DI) | | Each | | 28 |
| Kitchen Aerator SF (VA) | | Each | | 3 |
| Programmable Thermostat (DI) | | Each | | 11 |
| Re-Program Thermostat (DI) | | Each | | 11 |
| Shower Flow Reducer (DI) SF | | Each | | 8 |
| Showerhead (DI) SF | | Each | | 28 |
| Showerhead (VA) SF | | Each | | 3 |
| Retrofit | | Advanced Thermostat (DI) - Manual | | Each | | 2 |
| Advanced Thermostat (DI) - Programmable | | Each | | 1 |
| Air Sealing | | Project | | 19 |
| Attic Insulation | | Sq. ft. | | 19213 |
| Basement/Sidewall Insulation | | Sq. ft. | | 2569 |
| DHW Pipe Insulation | | Ln. ft. | | 24 |
| Duct Sealing | | Each | | 2 |
| Duct Sealing - Modified Blower Door Subtraction | | Each | | 6 |
| Furnace, >95% AFUE | | Each | | 5 |
| Handheld Showerhead (DI) SF | | Each | | 1 |
| Rim Joist Insulation | | Sq. ft. | | 1438 |
| Storage Water Heater, >0.67 EF | | Each | | 2 |
| Wall Insulation SF | | Sq. ft. | | 2482 |

Source: North Shore Gas tracking data and Guidehouse evaluation team analysis

# Program Savings Detail

Table 5 summarizes the energy savings the PGL SFIE Program achieved by path in 2024.

Table 5. 2024 Annual Energy Savings Summary for PGL

| Program Path | Ex Ante Gross Savings (Therms) | Verified  Gross RR\* | Verified Gross Savings (Therms) | NTG† | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- |
| HEA | 129,531 | 1.00 | 129,523 | 1.00 | 129,523 |
| IHWAP | 40,587 | 0.93 | 37,936 | 1.00 | 37,936 |
| Retrofit | 179,401 | 1.00 | 180,056 | 1.00 | 180,056 |
| **Total** | **349,519** | **0.99** | **347,515** | **1.00** | **347,515** |

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† NTG, Net to Gross is the deemed value available on the SAG website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2024/>.

Source: Evaluation team analysis.

Table 6 summarizes the energy savings the NSG SFIE Program achieved by path in 2024.

Table 6. 2024 Annual Energy Savings Summary for NSG

| Program Path | Ex Ante Gross Savings (Therms) | Verified  Gross RR\* | Verified Gross Savings (Therms) | NTG† | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- |
| HEA | 7,211 | 1.00 | 7,209 | 1.00 | 7,209 |
| Retrofits | 10,133 | 1.10 | 11,111 | 1.00 | 11,111 |
| **Total** | **17,344** | **1.06** | **18,320** | **1.00** | **18,320** |

Source: Evaluation team analysis.

# Program Savings by Measure

The PGL program includes 20 measures as shown in the following table. The Attic Insulation and Air Sealing contribute the most savings.

Table 7. 2024 Annual Energy Savings by Measure for PGL

| Program Path | Savings Category | Ex Ante Gross Savings (Therms) | Verified Gross RR\* | Verified Gross Savings (Therms) | NTG† | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- |
| HEA | Advanced Thermostat (DI) - Blended | 1,025 | 1.00 | 1,025 | 1.00 | 1,025 |
| Advanced Thermostat (DI) - Manual | 30,935 | 1.00 | 30,935 | 1.00 | 30,935 |
| Advanced Thermostat (DI) - Programmable | 21,190 | 1.00 | 21,190 | 1.00 | 21,190 |
| Advanced Thermostat (Non-DI) - Programmable | 71.36 | 1.00 | 71.00 | 1.00 | 71.00 |
| Air Handler Filter Replacement (VA) | 12,531 | 1.00 | 12,531 | 1.00 | 12,531 |
| Air Sealing - Door Sweep (DI) | 12,242 | 1.00 | 12,242 | 1.00 | 12,242 |
| Air Sealing - Door Sweep (VA) | 214 | 1.00 | 214 | 1.00 | 214 |
| Bathroom Aerator SF (DI) | 471 | 0.98 | 463 | 1.00 | 463 |
| Bathroom Aerator SF (VA) | 7.70 | 1.00 | 8.00 | 1.00 | 8.00 |
| Boiler Pipe Insulation | 91.76 | 0.99 | 91.00 | 1.00 | 91.00 |
| DHW Pipe Insulation | 5,712 | 1.00 | 5,712 | 1.00 | 5,712 |
| Handheld Showerhead (DI) SF | 5,676 | 1.00 | 5,671 | 1.00 | 5,671 |
| Kitchen Aerator SF (DI) | 4,108 | 1.00 | 4,116 | 1.00 | 4,116 |
| Kitchen Aerator SF (VA) | 35.37 | 1.00 | 35.00 | 1.00 | 35.00 |
| Programmable Thermostat (DI) | 18,424 | 1.00 | 18,424 | 1.00 | 18,424 |
| Re-Program Thermostat (DI) | 11,523 | 1.00 | 11,523 | 1.00 | 11,523 |
| Shower Flow Reducer (DI) SF | 1,018 | 1.00 | 1,018 | 1.00 | 1,018 |
| Showerhead (DI) MH | 43.96 | 1.00 | 44.00 | 1.00 | 44.00 |
| Showerhead (DI) SF | 4,135 | 1.00 | 4,133 | 1.00 | 4,133 |
| Showerhead (VA) SF | 77.43 | 1.00 | 77.00 | 1.00 | 77.00 |
| IHWAP | Advanced Thermostat (DI) - Manual | 1,333 | 1.00 | 1,333 | 1.00 | 1,333 |
| Advanced Thermostat (DI) - Programmable | 143 | 1.00 | 143 | 1.00 | 143 |
| Air Sealing | 5,755 | 1.00 | 5,755 | 1.00 | 5,755 |
| Air Sealing - Door Sweep (DI) | 21.91 | 1.00 | 22.00 | 1.00 | 22.00 |
| Air Sealing - Sealing Tape - DI | 9.98 | 1.00 | 10.00 | 1.00 | 10.00 |
| Attic Insulation | 8,318 | 1.00 | 8,318 | 1.00 | 8,318 |
| Basement/Sidewall Insulation | 37.56 | 1.00 | 38.00 | 1.00 | 38.00 |
| Bathroom Aerator SF (DI) | 17.05 | 1.00 | 17.00 | 1.00 | 17.00 |
| Boilers, >95% AFUE <300 MBH | 6,000 | 0.52 | 3,147 | 1.00 | 3,147 |
| DHW Pipe Insulation | 1,254 | 1.00 | 1,254 | 1.00 | 1,254 |
| Duct Sealing | 53.78 | 1.00 | 54.00 | 1.00 | 54.00 |
| Floor Insulation Above Crawlspace | 851 | 1.00 | 851 | 1.00 | 851 |
| Furnace Tune-Up | 96.10 | 1.00 | 96.00 | 1.00 | 96.00 |
| Furnace, >95% AFUE | 9,337 | 1.00 | 9,337 | 1.00 | 9,337 |
| Handheld Showerhead (DI) SF | 21.39 | 1.00 | 21.00 | 1.00 | 21.00 |
| Kitchen Aerator SF (DI) | 39.16 | 1.00 | 39.00 | 1.00 | 39.00 |
| Programmable Thermostat (DI) | 868 | 1.00 | 868 | 1.00 | 868 |
| Rim Joist Insulation | 59.76 | 1.00 | 60.00 | 1.00 | 60.00 |
| Showerhead (DI) SF | 28.51 | 1.00 | 29.00 | 1.00 | 29.00 |
| Storage Water Heater, >0.67 EF | 1,214 | 1.17 | 1,415 | 1.00 | 1,415 |
| Wall Insulation SF | 5,129 | 1.00 | 5,129 | 1.00 | 5,129 |
| Retrofit | Advanced Thermostat (DI) - Manual | 2,817 | 1.00 | 2,817 | 1.00 | 2,817 |
| Advanced Thermostat (DI) - Programmable | 3,282 | 1.00 | 3,282 | 1.00 | 3,282 |
| Air Sealing | 25,788 | 1.00 | 25,788 | 1.00 | 25,788 |
| Air Sealing - Door Sweep (DI) | 2,929 | 1.00 | 2,929 | 1.00 | 2,929 |
| Air Sealing - Gasket - DI | 109 | 1.00 | 109 | 1.00 | 109 |
| Air Sealing - Sealing Tape - DI | 30,379 | 1.00 | 30,379 | 1.00 | 30,379 |
| Air Sealing - Weatherstripping - DI | 3,108 | 1.00 | 3,108 | 1.00 | 3,108 |
| Air Sealing - Window Film - DI | 3.51 | 1.00 | 4.00 | 1.00 | 4.00 |
| Attic Insulation | 46,953 | 1.00 | 46,953 | 1.00 | 46,953 |
| Basement/Sidewall Insulation | 750 | 0.99 | 746 | 1.00 | 746 |
| Bathroom Aerator SF (DI) | 4.96 | 1.00 | 5.00 | 1.00 | 5.00 |
| Boiler Tune-Up | 1,424 | 0.85 | 1,218 | 1.00 | 1,218 |
| Boilers, >95% AFUE <300 MBH | 1,892 | 1.00 | 1,896 | 1.00 | 1,896 |
| DHW Pipe Insulation | 1,938 | 1.00 | 1,938 | 1.00 | 1,938 |
| Duct Sealing | 6,017 | 1.00 | 6,017 | 1.00 | 6,017 |
| Duct Sealing - Modified Blower Door Subtraction | 849 | 1.10 | 930 | 1.00 | 930 |
| Floor Insulation Above Crawlspace | 407 | 1.00 | 407 | 1.00 | 407 |
| Furnace Tune-Up | 4,723 | 1.00 | 4,723 | 1.00 | 4,723 |
| Furnace, >95% AFUE | 2,559 | 1.31 | 3,364 | 1.00 | 3,364 |
| Handheld Showerhead (DI) SF | 6.08 | 1.00 | 6.00 | 1.00 | 6.00 |
| Kitchen Aerator SF (DI) | 9.11 | 1.00 | 9.00 | 1.00 | 9.00 |
| Programmable Thermostat (DI) | 3,889 | 1.00 | 3,889 | 1.00 | 3,889 |
| Rim Joist Insulation | 146 | 1.00 | 146 | 1.00 | 146 |
| Showerhead (DI) SF | 28.42 | 1.00 | 28.00 | 1.00 | 28.00 |
| Storage Water Heater, >0.67 EF | 327 | 0.92 | 303 | 1.00 | 303 |
| Wall Insulation SF | 39,062 | 1.00 | 39,062 | 1.00 | 39,062 |
| **Total** | | **349,704** | **0.99** | **347,515** | **1.00** | **347,515** |

\* Realization Rate (RR) is the ratio of verified gross savings to ex ante gross savings, based on evaluation research findings.

† NTG, Net to Gross is the deemed value available on the SAG website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2024/>.

Source: Evaluation team analysis.

The NSG program includes16 measures as shown in the following table. The Community and School Kits contributed the most savings.

Table 8. 2024 Annual Energy Savings by Measure for NSG

| Program Path | Savings Category | Ex Ante Gross Savings (Therms) | Verified Gross RR\* | | Verified Gross Savings (Therms) | NTG† | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| HEA | Advanced Thermostat (DI) - Manual | 2,556 | 1.00 | 2,556 | | 1.00 | 2,556 |
| Advanced Thermostat (DI) - Programmable | 1,356 | 1.00 | 1,356 | | 1.00 | 1,356 |
| Air Handler Filter Replacement (VA) | 658 | 1.00 | 658 | | 1.00 | 658 |
| Air Sealing - Door Sweep (DI) | 592 | 1.00 | 592 | | 1.00 | 592 |
| Air Sealing - Door Sweep (VA) | 19.87 | 1.00 | 20.00 | | 1.00 | 20.00 |
| Bathroom Aerator SF (DI) | 79.78 | 1.00 | 79.00 | | 1.00 | 79.00 |
| Bathroom Aerator SF (VA) | 3.53 | 1.00 | 4.00 | | 1.00 | 4.00 |
| Boiler Pipe Insulation | 7.77 | 1.00 | 8.00 | | 1.00 | 8.00 |
| DHW Pipe Insulation | 170 | 1.00 | 170 | | 1.00 | 170 |
| Handheld Showerhead (DI) SF | 232 | 0.99 | 231 | | 1.00 | 231 |
| Kitchen Aerator SF (DI) | 231 | 1.00 | 231 | | 1.00 | 231 |
| Kitchen Aerator SF (VA) | 8.84 | 1.00 | 9.00 | | 1.00 | 9.00 |
| Programmable Thermostat (DI) | 494 | 1.00 | 494 | | 1.00 | 494 |
| Re-Program Thermostat (DI) | 498 | 1.00 | 498 | | 1.00 | 498 |
| Shower Flow Reducer (DI) SF | 47.62 | 1.00 | 48.00 | | 1.00 | 48.00 |
| Showerhead (DI) SF | 245 | 1.00 | 245 | | 1.00 | 245 |
| Showerhead (VA) SF | 10.56 | 1.00 | 11.00 | | 1.00 | 11.00 |
| Retrofit | Advanced Thermostat (DI) - Manual | 103 | 1.00 | 103 | | 1.00 | 103 |
| Advanced Thermostat (DI) - Programmable | 71.36 | 1.00 | 71.00 | | 1.00 | 71.00 |
| Air Sealing | 2,700 | 1.00 | 2,700 | | 1.00 | 2,700 |
| Attic Insulation | 4,722 | 1.00 | 4,722 | | 1.00 | 4,722 |
| Basement/Sidewall Insulation | 639 | 1.03 | 658 | | 1.00 | 658 |
| DHW Pipe Insulation | 48.38 | 1.00 | 48.00 | | 1.00 | 48.00 |
| Duct Sealing | 48.47 | 1.00 | 48.00 | | 1.00 | 48.00 |
| Duct Sealing - Modified Blower Door Subtraction | 483 | 1.01 | 487 | | 1.00 | 487 |
| Furnace, >95% AFUE | 652 | 2.46 | 1,602 | | 1.00 | 1,602 |
| Handheld Showerhead (DI) SF | 2.38 | 1.00 | 2.00 | | 1.00 | 2.00 |
| Rim Joist Insulation | 231 | 1.00 | 231 | | 1.00 | 231 |
| Storage Water Heater, >0.67 EF | 74.34 | 1.08 | 80.00 | | 1.00 | 80.00 |
| Wall Insulation SF | 358 | 1.00 | 358 | | 1.00 | 358 |
| **Total** | | **17,344** | **1.06** | | **18,320** | **1.00** | **18,320** |

Source: Evaluation team analysis.

# Impact Analysis Findings and Recommendations

## Impact Parameter Estimates

Table 9 shows the unit therm savings and realization rate findings by measure from our review. The realization rate is the ratio of the verified savings to the ex ante savings. Following the table, we provide findings and recommendations, including discussion of all measures with realization rates above or below 100 percent. Appendix 1 provides a description of the impact analysis methodology.

Table 9. Verified Gross Savings Parameters

| Measure | Unit Basis | Ex Ante Gross (therms/unit) | Verified Gross (therms/unit) | Realization Rate | TRM Section |
| --- | --- | --- | --- | --- | --- |
| Advanced Thermostat (DI) - Blended | Each | 85.43 | 85.43 | 100% | 5.3.16 |
| Advanced Thermostat (DI) - Manual | Each | 101.73 | 101.73 | 100% | 5.3.16 |
| Advanced Thermostat (DI) - Programmable | Each | 69.82 | 69.82 | 100% | 5.3.16 |
| Advanced Thermostat (Non-DI) - Programmable | Each | 35.68 | 35.68 | 100% | 5.3.16 |
| Air Handler Filter Replacement (VA) | Each | 7.91 | 7.91 | 100% | 5.3.10 |
| Air Sealing | Project | 172.07 | 172.07 | 100% | 5.6.1 |
| Air Sealing - Door Sweep (DI) | Each | 7.3 | 7.3 | 100% | 5.6.1 |
| Air Sealing - Door Sweep (VA) | Each | 4.97 | 4.97 | 100% | 5.6.1 |
| Air Sealing - Gasket - DI | Each | 0.38 | 0.38 | 100% | 5.6.1 |
| Air Sealing - Sealing Tape - DI | Each | 0.42 | 0.42 | 100% | 5.6.1 |
| Air Sealing - Weatherstripping - DI | Each | 0.49 | 0.49 | 100% | 5.6.1 |
| Air Sealing - Window Film - DI | Each | 0.15 | 0.15 | 100% | 5.6.1 |
| Attic Insulation | Sq. ft. | 0.22 | 0.22 | 100% | 5.6.5 |
| Basement/Sidewall Insulation | Sq. ft. | 0.14 | 0.14 | 101% | 5.6.2 |
| Bathroom Aerator SF (DI) | Each | 0.88 | 0.87 | 99% | 5.4.4 |
| Bathroom Aerator SF (VA) | Each | 0.32 | 0.32 | 100% | 5.4.4 |
| Boiler Pipe Insulation | Ln. ft. | 0.44 | 0.43 | 99% | 5.3.2 |
| Boiler Tune-Up | Each | 49.12 | 41.99 | 85% | 4.4.2 |
| Boilers, >95% AFUE <300 MBH | Each | 394.6 | 252.13 | 64% | 5.3.6 |
| DHW Pipe Insulation | Ln. ft. | 1.93 | 1.93 | 100% | 5.4.1 |
| Duct Sealing | Each | 139.08 | 139.08 | 100% | 5.3.4 |
| Duct Sealing - Modified Blower Door Subtraction | Each | 121.12 | 128.83 | 106% | 5.3.4 |
| Floor Insulation Above Crawlspace | Sq. ft. | 0.14 | 0.14 | 100% | 5.6.3 |
| Furnace Tune-Up | Each | 35.69 | 35.69 | 100% | 5.3.13 |
| Furnace, >95% AFUE | Each | 232.38 | 264.86 | 114% | 5.3.7 |
| Handheld Showerhead (DI) SF | Each | 7.54 | 7.53 | 100% | 5.4.5 |
| Kitchen Aerator SF (DI) | Each | 7.86 | 7.88 | 100% | 5.4.4 |
| Kitchen Aerator SF (VA) | Each | 2.95 | 2.95 | 100% | 5.4.4 |
| Programmable Thermostat (DI) | Each | 75.88 | 75.88 | 100% | 5.3.11 |
| Re-Program Thermostat (DI) | Each | 71.98 | 71.98 | 100% | 5.3.11 |
| Rim Joist Insulation | Sq. ft. | 0.13 | 0.13 | 100% | 5.6.6 |
| Shower Flow Reducer (DI) SF | Each | 9.03 | 9.03 | 100% | 5.4.5 |
| Showerhead (DI) MH | Each | 21.98 | 21.98 | 100% | 5.4.5 |
| Showerhead (DI) SF | Each | 8.33 | 8.32 | 100% | 5.4.5 |
| Showerhead (VA) SF | Each | 3.52 | 3.52 | 100% | 5.4.5 |
| Storage Water Heater, >0.67 EF | Each | 40.39 | 44.94 | 111% | 5.4.2 |
| Wall Insulation SF | Sq. ft. | 0.12 | 0.12 | 100% | 5.6.4 |

\* Program Tracking Data (PTD) provided by Peoples Gas and North Shore Gas; extract dated January 30, 2025.

† State of Illinois Technical Reference Manual version 12.0 from <http://www.ilsag.info/technical-reference-manual.html>.

Source: Evaluation team analysis.

## Findings and Recommendations

**Finding 1.** The tracking data had a value of 0 for both Existing Insulation R-Value Above & Below Grade columns for Basement Sidewall measures. When the evaluation team compared the values found in ComEd’s data they did not correspond to PGNSG’s data. The team was able to reference ComEd’s data using project IDs to determine the existing values, expect for the listed measure which had an RR between 93%-118%, MEA-2023.12.19-629593, MEA-2024.04.02-670581, MEA-2023.11.21-611188, MEA-2024.03.20-666273, MEA-2023.12.11-623660, MEA-2024.06.11-721141, MEA-2024.10.17-789048.

**Recommendation 1.** Ensure the tracking data includes Existing Insulation R-Value Above Grade and Below Grade used to calculate ex ante savings.

**Finding 2.** Two Bathroom Aerator (DI) measures (MEA-2024.05.15-707479, MEA-2024.05.07-697720) had a realization rate of 27%. The evaluation team cross-referenced the tracking data for ComEd’s SF program and found that PGNSG’s household occupancy, which was 0 for all hot water measures, did not correspond to ComEd’s data. The evaluation team used the household occupancy from ComEd’s data as savings input, however the two measures listed could not be found in ComEd’s data, so the team used the TRM default 2.56. This was a mid-year finding.

**Recommendation 2.** Ensure the tracking data includes the household occupancy used to calculate ex ante savings.

**Finding 3.** Storage Water Heater measures had an RR between 37%-256%. The evaluation team assumed this was caused by household occupancy in PGNSG’s tracking data being zero, rather than the actual value used to calculate the ex ante therm savings. The team used TRM v12 default household value 2.56 since the project IDs were not found in ComEd’s tracking data. This was a mid-year finding.

**Recommendation 3.** Ensure the tracking data includes the household occupancy used to calculate ex ante savings.

**Finding 4.** The evaluation team found one Boiler Pipe Insulation measure (MEA-2024.02.23-655175) with an RR of 52%. The evaluation team referenced the SFHU Savings Calculator which includes a table of deemed therm savings per foot of insulation and varies by climate zone and whether it’s directly or virtually installed. The tracking data for the listed measure specified it was from a virtual program, so the team referenced it as such.

**Recommendation 4.** Ensure ex ante savings is using the updated deemed savings table found in the 2024 SHFU Savings Calculator.

**Finding 5.** For Boiler Tune-up, Boilers >95% AFUE, and Furnace >95% AFUE measures RR varied. The evaluation team cross-referenced ComEd’s tracking data and found that the Capacity in PGNSG’s tracking data corresponded to “Existing Heating System Capacity” in ComEd’s data, however the savings calculator references “Installed Measure Capacity” as the capacity input for these measure types. This caused realization rates to vary between 20%-776%. The evaluation team was able reference project IDs for 35/53 furnace measures but was unable to do so for all boiler measures.

**Recommendation 5.** Ensure the tracking data includes Installed Measure Capacity for HVAC Boiler and Furnace measures.

**Finding 6.** The evaluation team found that “AFUEeff” in PGNSG’s tracking data did not correspond to “Post-Installation Efficiency” in ComEd’s data for Furnace >95% AFUE. The team was able to reference projects IDs for most measures, however 19/54 measures were not found in ComEd’s data, those project IDs had an RR between 96% - 417%.

**Recommendation 6.** Ensure the “AFUEeff” in the tracking data is referencing Post-Installation Efficiency, not Existing Heating AFUE.

**Finding 7.** Four Duct Sealing – Modified Blower Door Subtraction had an RR between 113%-121%. The evaluation team was unable to find nSystem in the tracking data and used the TRM default 0.7. (MEA-2024.04.10-682531, MEA-2024.04.07-681123, MEA-2024.04.10-682533, MEA-2024.08.19-760959)

**Recommendation 7.** Ensure the tracking data includes the nSystem in the tracking data if the TRM default value is not used.

##### 

##### Appendix A. Impact Analysis Methodology

The evaluation team determined the verified gross for each program measure by the following methodology:

* Reviewing the savings algorithm inputs in the measure workbook with the IL TRM v12 and IL-TRM Errata, when applicable
* Referencing Resource Innovation’s SFHU Savings Calculator to validate the savings algorithm was applied correctly
* Cross-checking ComEd’s 2024 year-end data to validate missing data

##### 

##### Appendix B. Program Specific Inputs for the Illinois TRC

Table B‑1 and Table B‑2 show the Total Resource Cost (TRC) cost-effectiveness analysis inputs available at the time of producing this impact evaluation report. Currently, additional required cost data (e.g., measure costs, program level incentive and non-incentive costs) are not included in this table and will be provided to the evaluation team later. Guidehouse will include annual and lifetime water savings and greenhouse gas reductions in the end of year summary report.

Table B‑1. Verified Cost Effectiveness Inputs – PGL

| Program Path | Savings Category | DAC Project | Units | Quantity | Effective Useful Life | Early Replacement Flag† | Verified Gross Annual Water Savings (Gallons) | Ex Ante Gross Savings (Therms) | Verified Gross Savings (Therms) | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| HEA | Advanced Thermostat (DI) - Blended | FALSE | Each | 12 | 11.00 | NO | 0 | 1,025 | 1,025 | 1,025 |
| Advanced Thermostat (DI) - Manual | FALSE | Each | 303 | 11.00 | NO | 0 | 30,935 | 30,935 | 30,935 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 300 | 11.00 | NO | 0 | 21,190 | 21,190 | 21,190 |
| Advanced Thermostat (Non-DI) - Programmable | FALSE | Each | 2 | 11.00 | NO | 0 | 71.36 | 71.00 | 71.00 |
| Air Handler Filter Replacement (VA) | FALSE | Each | 1584 | 3.00 | NO | 0 | 12,531 | 12,531 | 12,531 |
| Air Sealing - Door Sweep (DI) | FALSE | Each | 1676 | 20.00 | NO | 0 | 12,242 | 12,242 | 12,242 |
| Air Sealing - Door Sweep (VA) | FALSE | Each | 43 | 20.00 | NO | 0 | 214 | 214 | 214 |
| Bathroom Aerator SF (DI) | FALSE | Each | 550 | 10.00 | NO | 121,903 | 471 | 463 | 463 |
| Bathroom Aerator SF (VA) | FALSE | Each | 24 | 10.00 | NO | 2,447 | 7.70 | 8.00 | 8.00 |
| Boiler Pipe Insulation | FALSE | Ln. ft. | 210 | 15.00 | NO | 0 | 91.76 | 91.00 | 91.00 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 3022 | 15.00 | NO | 0 | 5,712 | 5,712 | 5,712 |
| Handheld Showerhead (DI) SF | FALSE | Each | 756 | 10.00 | NO | 340,594 | 5,676 | 5,671 | 5,671 |
| Kitchen Aerator SF (DI) | FALSE | Each | 526 | 10.00 | NO | 915,687 | 4,108 | 4,116 | 4,116 |
| Kitchen Aerator SF (VA) | FALSE | Each | 12 | 10.00 | NO | 9,492 | 35.37 | 35.00 | 35.00 |
| Programmable Thermostat (DI) | FALSE | Each | 235 | 16.00 | NO | 0 | 18,424 | 18,424 | 18,424 |
| Re-Program Thermostat (DI) | FALSE | Each | 156 | 2.00 | NO | 0 | 11,523 | 11,523 | 11,523 |
| Shower Flow Reducer (DI) SF | FALSE | Each | 110 | 10.00 | NO | 61,166 | 1,018 | 1,018 | 1,018 |
| Showerhead (DI) MH | FALSE | Each | 2 | 10.00 | NO | 2,640 | 43.96 | 44.00 | 44.00 |
| Showerhead (DI) SF | FALSE | Each | 486 | 10.00 | NO | 248,342 | 4,135 | 4,133 | 4,133 |
| Showerhead (VA) SF | FALSE | Each | 22 | 10.00 | NO | 4,840 | 77.43 | 77.00 | 77.00 |
| IHWAP | Advanced Thermostat (DI) - Manual | FALSE | Each | 14 | 11.00 | NO | 0 | 1,333 | 1,333 | 1,333 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 2 | 11.00 | NO | 0 | 143 | 143 | 143 |
| Air Sealing | FALSE | Project | 58 | 20.00 | NO | 0 | 5,755 | 5,755 | 5,755 |
| Air Sealing - Door Sweep (DI) | FALSE | Each | 3 | 20.00 | NO | 0 | 21.91 | 22.00 | 22.00 |
| Air Sealing - Sealing Tape - DI | FALSE | Each | 24 | 20.00 | NO | 0 | 9.98 | 10.00 | 10.00 |
| Attic Insulation | FALSE | Sq. ft. | 34556 | 30.00 | NO | 0 | 8,318 | 8,318 | 8,318 |
| Basement/Sidewall Insulation | FALSE | Sq. ft. | 519 | 30.00 | NO | 0 | 37.56 | 38.00 | 38.00 |
| Bathroom Aerator SF (DI) | FALSE | Each | 17 | 10.00 | NO | 4,487 | 17.05 | 17.00 | 17.00 |
| Boilers, >95% AFUE <300 MBH | FALSE | Each | 10 | 25.00 | YES | 0 | 6,000 | 3,147 | 3,147 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 622 | 15.00 | NO | 0 | 1,254 | 1,254 | 1,254 |
| Duct Sealing | FALSE | Each | 2 | 20.00 | NO | 0 | 53.78 | 54.00 | 54.00 |
| Floor Insulation Above Crawlspace | FALSE | Sq. ft. | 5879 | 30.00 | NO | 0 | 851 | 851 | 851 |
| Furnace Tune-Up | FALSE | Each | 3 | 3.00 | NO | 0 | 96.10 | 96.00 | 96.00 |
| Furnace, >95% AFUE | FALSE | Each | 34 | 20.00 | YES | 0 | 9,337 | 9,337 | 9,337 |
| Handheld Showerhead (DI) SF | FALSE | Each | 8 | 10.00 | NO | 3,960 | 21.39 | 21.00 | 21.00 |
| Kitchen Aerator SF (DI) | FALSE | Each | 3 | 10.00 | NO | 8,701 | 39.16 | 39.00 | 39.00 |
| Programmable Thermostat (DI) | FALSE | Each | 12 | 16.00 | NO | 0 | 868 | 868 | 868 |
| Rim Joist Insulation | FALSE | Sq. ft. | 612 | 30.00 | NO | 0 | 59.76 | 60.00 | 60.00 |
| Showerhead (DI) SF | FALSE | Each | 10 | 10.00 | NO | 5,281 | 28.51 | 29.00 | 29.00 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 26 | 13.30 | YES | 0 | 1,214 | 1,415 | 1,415 |
| Wall Insulation SF | FALSE | Sq. ft. | 49833 | 30.00 | NO | 0 | 5,129 | 5,129 | 5,129 |
| Retrofit | Advanced Thermostat (DI) - Manual | FALSE | Each | 29 | 11.00 | NO | 0 | 2,817 | 2,817 | 2,817 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 49 | 11.00 | NO | 0 | 3,282 | 3,282 | 3,282 |
| Air Sealing | FALSE | Project | 122 | 20.00 | NO | 0 | 25,788 | 25,788 | 25,788 |
| Air Sealing - Door Sweep (DI) | FALSE | Each | 401 | 20.00 | NO | 0 | 2,929 | 2,929 | 2,929 |
| Air Sealing - Gasket - DI | FALSE | Each | 290 | 20.00 | NO | 0 | 109 | 109 | 109 |
| Air Sealing - Sealing Tape - DI | FALSE | Each | 73026 | 20.00 | NO | 0 | 30,379 | 30,379 | 30,379 |
| Air Sealing - Weatherstripping - DI | FALSE | Each | 6369 | 20.00 | NO | 0 | 3,108 | 3,108 | 3,108 |
| Air Sealing - Window Film - DI | FALSE | Each | 24 | 20.00 | NO | 0 | 3.51 | 4.00 | 4.00 |
| Attic Insulation | FALSE | Sq. ft. | 219689 | 30.00 | NO | 0 | 46,953 | 46,953 | 46,953 |
| Basement/Sidewall Insulation | FALSE | Sq. ft. | 7271 | 30.00 | NO | 0 | 750 | 746 | 746 |
| Bathroom Aerator SF (DI) | FALSE | Each | 5 | 10.00 | NO | 1,305 | 4.96 | 5.00 | 5.00 |
| Boiler Tune-Up | FALSE | Each | 29 | 3.00 | NO | 0 | 1,424 | 1,218 | 1,218 |
| Boilers, >95% AFUE <300 MBH | FALSE | Each | 10 | 25.00 | YES | 0 | 1,892 | 1,896 | 1,896 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 961 | 15.00 | NO | 0 | 1,938 | 1,938 | 1,938 |
| Duct Sealing | FALSE | Each | 40 | 20.00 | NO | 0 | 6,017 | 6,017 | 6,017 |
| Duct Sealing - Modified Blower Door Subtraction | FALSE | Each | 5 | 20.00 | NO | 0 | 849 | 930 | 930 |
| Floor Insulation Above Crawlspace | FALSE | Sq. ft. | 3069 | 30.00 | NO | 0 | 407 | 407 | 407 |
| Furnace Tune-Up | FALSE | Each | 132 | 3.00 | NO | 0 | 4,723 | 4,723 | 4,723 |
| Furnace, >95% AFUE | FALSE | Each | 15 | 20.00 | YES | 0 | 2,559 | 3,364 | 3,364 |
| Handheld Showerhead (DI) SF | FALSE | Each | 2 | 10.00 | NO | 1,126 | 6.08 | 6.00 | 6.00 |
| Kitchen Aerator SF (DI) | FALSE | Each | 1 | 10.00 | NO | 2,025 | 9.11 | 9.00 | 9.00 |
| Programmable Thermostat (DI) | FALSE | Each | 54 | 16.00 | NO | 0 | 3,889 | 3,889 | 3,889 |
| Rim Joist Insulation | FALSE | Sq. ft. | 1237 | 30.00 | NO | 0 | 146 | 146 | 146 |
| Showerhead (DI) SF | FALSE | Each | 9 | 10.00 | NO | 5,263 | 28.42 | 28.00 | 28.00 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 12 | 13.30 | YES | 0 | 327 | 303 | 303 |
| Wall Insulation SF | FALSE | Sq. ft. | 305281 | 30.00 | NO | 0 | 39,062 | 39,062 | 39,062 |
| **Total or Weighted Average** | | |  |  | **19.0** |  | **1,739,262** | **349,519** | **347,515** | **347,515** |

*Source: Evaluation team analysis.*

Table B‑2. Verified Cost Effectiveness Inputs – NSG

| Program Path | Savings Category | DAC Project | Units | Quantity | Effective Useful Life | Early Replacement Flag† | Verified Gross Annual Water Savings (Gallons) | Ex Ante Gross Savings (Therms) | Verified Gross Savings (Therms) | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| HEA | Advanced Thermostat (DI) - Manual | FALSE | Each | 23 | 11.00 | NO | 0 | 2,556 | 2,556 | 2,556 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 21 | 11.00 | NO | 0 | 1,356 | 1,356 | 1,356 |
| Air Handler Filter Replacement (VA) | FALSE | Each | 83 | 3.00 | NO | 0 | 658 | 658 | 658 |
| Air Sealing - Door Sweep (DI) | FALSE | Each | 81 | 20.00 | NO | 0 | 592 | 592 | 592 |
| Air Sealing - Door Sweep (VA) | FALSE | Each | 4 | 20.00 | NO | 0 | 19.87 | 20.00 | 20.00 |
| Bathroom Aerator SF (DI) | FALSE | Each | 80 | 10.00 | NO | 20,905 | 79.78 | 79.00 | 79.00 |
| Bathroom Aerator SF (VA) | FALSE | Each | 11 | 10.00 | NO | 1,121 | 3.53 | 4.00 | 4.00 |
| Boiler Pipe Insulation | FALSE | Ln. ft. | 18 | 15.00 | NO | 0 | 7.77 | 8.00 | 8.00 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 94 | 15.00 | NO | 0 | 170 | 170 | 170 |
| Handheld Showerhead (DI) SF | FALSE | Each | 21 | 10.00 | NO | 13,861 | 232 | 231 | 231 |
| Kitchen Aerator SF (DI) | FALSE | Each | 28 | 10.00 | NO | 51,417 | 231 | 231 | 231 |
| Kitchen Aerator SF (VA) | FALSE | Each | 3 | 10.00 | NO | 2,373 | 8.84 | 9.00 | 9.00 |
| Programmable Thermostat (DI) | FALSE | Each | 11 | 16.00 | NO | 0 | 494 | 494 | 494 |
| Re-Program Thermostat (DI) | FALSE | Each | 11 | 2.00 | NO | 0 | 498 | 498 | 498 |
| Shower Flow Reducer (DI) SF | FALSE | Each | 8 | 10.00 | NO | 2,860 | 47.62 | 48.00 | 48.00 |
| Showerhead (DI) SF | FALSE | Each | 28 | 10.00 | NO | 14,741 | 245 | 245 | 245 |
| Showerhead (VA) SF | FALSE | Each | 3 | 10.00 | NO | 660 | 10.56 | 11.00 | 11.00 |
| Retrofit | Advanced Thermostat (DI) - Manual | FALSE | Each | 2 | 11.00 | NO | 0 | 103 | 103 | 103 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 1 | 11.00 | NO | 0 | 71.36 | 71.00 | 71.00 |
| Air Sealing | FALSE | Project | 19 | 20.00 | NO | 0 | 2,700 | 2,700 | 2,700 |
| Attic Insulation | FALSE | Sq. ft. | 19213 | 30.00 | NO | 0 | 4,722 | 4,722 | 4,722 |
| Basement/Sidewall Insulation | FALSE | Sq. ft. | 2569 | 30.00 | NO | 0 | 639 | 658 | 658 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 24 | 15.00 | NO | 0 | 48.38 | 48.00 | 48.00 |
| Duct Sealing | FALSE | Each | 2 | 20.00 | NO | 0 | 48.47 | 48.00 | 48.00 |
| Duct Sealing - Modified Blower Door Subtraction | FALSE | Each | 6 | 20.00 | NO | 0 | 483 | 487 | 487 |
| Furnace, >95% AFUE | FALSE | Each | 5 | 20.00 | YES | 0 | 652 | 1,602 | 1,602 |
| Handheld Showerhead (DI) SF | FALSE | Each | 1 | 10.00 | NO | 440 | 2.38 | 2.00 | 2.00 |
| Rim Joist Insulation | FALSE | Sq. ft. | 1438 | 30.00 | NO | 0 | 231 | 231 | 231 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 2 | 13.30 | YES | 0 | 74.34 | 80.00 | 80.00 |
| Wall Insulation SF | FALSE | Sq. ft. | 2482 | 30.00 | NO | 0 | 358 | 358 | 358 |
| **Total or Weighted Average** | | |  |  | **19.48** |  | **108,381** | **17,344** | **18,320** | **18,320** |

Source: Evaluation team analysis.