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| Income Eligible Single Family Impact Evaluation Report  Energy Efficiency Plan: Program Year 2024  (1/1/2024-12/31/2024) | | | | | | | |
| Prepared for:  Nicor Gas Company  DRAFT  March 27, 2025 | | | | | | | |
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# Introduction

This report presents the results of the impact evaluation of the Nicor Gas 2024 Income Eligible Single Family (SFIE) program. This report presents the results of the impact evaluation for the measures installed through the program as well as relevant measure and program structure details. The appendices present the impact analysis methodology and Illinois total resource cost (TRC) inputs. Program year 2024 covers January 1, 2024, through December 31, 2024.

# Program Description

The SFIE program has three implementation paths that are offered jointly by Nicor Gas and ComEd: (1) Illinois Home Weatherization Assistance Program (IHWAP), (2) Home Energy Assessment (HEA), and (3) Retrofits (contractor channel). These paths include installation of water heating measures (faucet aerators, showerheads, gas water heaters); advanced and programmable thermostats; air sealing, attic, duct, and rim insulation; and high efficiency boilers and furnaces:

* The IHWAP program path provides retrofits to single family households in Nicor Gas service areas with incomes at or below 80% of the area median income.
* Home Energy Assessment (HEA)
* The Retrofit program path offers assessments, direct installation of energy efficiency measures, replacement of inefficient equipment, technical assistance, and educational information for customers to further save money on energy bills.

Two additional program implementation paths are administered by Nicor Gas with 100% therm allocation to Nicor Gas:

* Joint Ameren Illinois and Nicor Gas Energy Efficiency Offering (EEO), consisting of Ameren-Nicor Gas service area measures.
* Healthy Homes (HH), which was a new program Nicor Gas had launched since 2023.

These paths include installation of water heating efficiency measures (faucet aerators, showerheads, gas water heaters); advanced and programmable thermostats; air sealing, attic, duct, and rim insulation; and high efficiency boilers and furnaces.

The program had 1,356 participants in 2024 and completed 3,737 projects as shown in the following table.

Table 1. 2024 Volumetric Findings Detail

| Participation | Ameren Nicor (EEO) | HH | IHWAP | Retrofits | HEA | Total |
| --- | --- | --- | --- | --- | --- | --- |
| Participants \* | 25 | 20 | 93 | 158 | 1,053 | 1,349 |
| Installed Projects † | 70 | 44 | 203 | 449 | 2,950 | 3,716 |

\* Participants are defined as unique site addresses.

† Installed projects are defined as unique vendor project IDs.

Source: Nicor Gas tracking data and evaluation team analysis.

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

Table 2. 2024 Installed Measure Quantities

|  |  |  |  |
| --- | --- | --- | --- |
| Program Path | Measure | Quantity Unit | Installed Quantity |
| Ameren Nicor (EEO) | Advanced Thermostat (DI) - Blended | Each | 4 |
| Air Filter Replacement | Each | 3 |
| Air Sealing | Project | 53 |
| Air Sealing - Door Sweep | Each | 9 |
| Attic Insulation | Sq. ft. | 15,552 |
| Bathroom Aerator SF (DI) | Each | 14 |
| DHW Pipe Insulation | Ln. ft. | 81 |
| Duct Sealing | Each | 54 |
| Floor Insulation Above Crawlspace | Sq. ft. | 11,628 |
| Furnace Tune Up | Each | 1 |
| Furnace, >95% AFUE | Each | 1 |
| Handheld Showerhead (DI) SF | Each | 13 |
| Kitchen Aerator SF (DI) | Each | 15 |
| Rim/Band Joist Insulation | Sq. ft. | 273 |
| Showerhead (DI) SF | Each | 8 |
| Storage Water Heater, >0.67 EF | Each | 2 |
| Wall Insulation | Sq. ft. | 875 |
| HH | Advanced Thermostat (DI) - Manual | Each | 21 |
| Advanced Thermostat (DI) - Programmable | Each | 1 |
| Air Filter Replacement | Each | 10 |
| Air Sealing | Project | 24 |
| Air Sealing - Door Sweep | Each | 2 |
| Attic Insulation | Sq. ft. | 22,428 |
| Basement/Sidewall Insulation | Sq. ft. | 692 |
| Bathroom Aerator SF (DI) | Each | 16 |
| Boilers, >95% AFUE <300 MBH | Each | 1 |
| DHW Pipe Insulation | Ln. ft. | 122 |
| Duct Sealing | Each | 26 |
| Floor Insulation Above Crawlspace | Sq. ft. | 1,950 |
| Furnace Tune Up | Each | 11 |
| Furnace, >95% AFUE | Each | 1 |
| Handheld Showerhead (DI) SF | Each | 6 |
| Residential Energy Recovery Ventilator (ERV) | Each | 65 |
| Kitchen Aerator SF (DI) | Each | 7 |
| Rim/Band Joist Insulation | Sq. ft. | 554 |
| Showerhead (DI) SF | Each | 13 |
| Storage Water Heater, >0.67 EF | Each | 1 |
| Wall Insulation | Sq. ft. | 1,122 |
| IHWAP | Advanced Thermostat (DI) - Manual | Each | 35 |
| Advanced Thermostat (DI) - Programmable | Each | 7 |
| Air Sealing | Project | 192 |
| Air Sealing - Door Sweep | Each | 6 |
| Air Sealing - Sealing Tape - DI | Each | 42 |
| Attic Insulation | Sq. ft. | 172,352 |
| Basement/Sidewall Insulation | Sq. ft. | 14,503 |
| Bathroom Aerator SF (DI) | Each | 122 |
| Boilers, >95% AFUE <300 MBH | Each | 5 |
| DHW Pipe Insulation | Ln. ft. | 1,532 |
| Duct Sealing | Each | 7 |
| Floor Insulation Above Crawlspace | Sq. ft. | 5,909 |
| Furnace Tune Up | Each | 20 |
| Furnace, >95% AFUE | Each | 156 |
| Handheld Showerhead (DI) SF | Each | 26 |
| Kitchen Aerator SF (DI) | Each | 15 |
| Programmable Thermostat (DI) | Each | 64 |
| Rim/Band Joist Insulation | Sq. ft. | 9,427 |
| Showerhead (DI) SF | Each | 39 |
| Storage Water Heater, >0.67 EF | Each | 89 |
| Wall Insulation | Sq. ft. | 34,843 |
| Retrofit | AC Cover and Gap Sealer (DI) | Each | 2 |
| Advanced Thermostat (DI) - Manual | Each | 22 |
| Advanced Thermostat (DI) - Programmable | Each | 63 |
| Air Sealing | Project | 243 |
| Air Sealing - Door Sweep | Each | 72 |
| Air Sealing - Door Sweep - DI | Each | 26 |
| Air Sealing - Gasket - DI | Each | 75 |
| Air Sealing - Sealing Tape - DI | Each | 18,643 |
| Air Sealing - Weatherstripping - DI | Each | 1,653 |
| Attic Insulation | Sq. ft. | 257,567 |
| Basement/Sidewall Insulation | Sq. ft. | 33,128 |
| Bathroom Aerator SF (DI) | Each | 31 |
| Boiler Tune Up, Space Heating | Each | 10 |
| Boilers, >95% AFUE <300 MBH | Each | 3 |
| DHW Pipe Insulation | Ln. ft. | 365 |
| Duct Sealing | Each | 123 |
| Floor Insulation Above Crawlspace | Sq. ft. | 4,315 |
| Furnace Tune Up | Each | 151 |
| Furnace, >95% AFUE | Each | 71 |
| Handheld Showerhead (DI) SF | Each | 11 |
| Kitchen Aerator SF (DI) | Each | 9 |
| Programmable Thermostat (DI) | Each | 15 |
| Rim/Band Joist Insulation | Sq. ft. | 16,744 |
| Showerhead (DI) SF | Each | 30 |
| Storage Water Heater, >0.67 EF | Each | 17 |
| Wall Insulation | Sq. ft. | 189,774 |
| HEA | Advanced Thermostat (DI) - Blended | Each | 40 |
| Advanced Thermostat (DI) - Manual | Each | 396 |
| Advanced Thermostat (DI) - Programmable | Each | 485 |
| Air Filter Replacement | Each | 1,975 |
| Air Sealing - Door Sweep | Each | 1,412 |
| Air Sealing - Door Sweep - DI | Each | 290 |
| Bathroom Aerator SF (DI) | Each | 1,211 |
| Boiler Pipe Insulation | Ln. ft. | 80 |
| DHW Pipe Insulation | Ln. ft. | 3,968 |
| Handheld Showerhead (DI) SF | Each | 885 |
| Kitchen Aerator SF (DI) | Each | 522 |
| Programmable Thermostat (DI) | Each | 223 |
| Shower Flow Reducer | Each | 125 |
| Showerhead (DI) SF | Each | 665 |
| Thermostat Education (DI) | Each | 213 |

Source: Nicor Gas tracking data and evaluation team analysis.

# Program Savings Detail

Table 3 summarizes the energy savings the SFIE Program achieved by path in 2024.

Table 3. 2024 Annual Energy Savings Summary

| Program Path | Ex Ante Gross Savings (Therms) | Verified Gross RR\* | Verified Gross Savings (Therms) | NTG† | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- |
| Ameren Nicor (EEO) | 31,314 | 1.00 | 31,314 | 1.00 | 31,324 |
| HH | 23,237 | 1.01 | 23,363 | 1.00 | 23,363 |
| IHWAP | 101,967 | 1.00 | 101,954 | 1.00 | 101,976 |
| Retrofit | 146,276 | 1.00 | 146,273 | 1.00 | 146,244 |
| HEA | 158,572 | 1.00 | 159,194 | 1.00 | 159,194 |
| **Total** | **461,366** | **1.00** | **462,098** | **1.00** | **462,098** |

\* 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.

# Program Savings by Measure

The program includes 36 measures as shown in the following table. The Attic Insulation and Advanced Thermostats contributed the most savings, outside of the SEEK and ESK Kits.

Table 4. 2024 Annual Energy Savings by Measure

| Program Path | Savings Category | Ex Ante Gross Savings (Therms) | Verified Gross RR\* | Verified Gross Savings (Therms) | NTG† | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- |
| EEO | Advanced Thermostat (DI) - Blended | 280 | 1.00 | 280 | 1.00 | 280 |
| Air Filter Replacement | 20 | 1.00 | 20 | 1.00 | 20 |
| Air Sealing | 5,922 | 1.00 | 5,922 | 1.00 | 5,922 |
| Air Sealing - Door Sweep | 57 | 1.00 | 57 | 1.00 | 57 |
| Attic Insulation | 2,008 | 1.00 | 2,008 | 1.00 | 2,008 |
| Bathroom Aerator SF (DI) | 22 | 1.00 | 22 | 1.00 | 22 |
| DHW Pipe Insulation | 168 | 1.00 | 168 | 1.00 | 168 |
| Duct Sealing | 20,538 | 1.00 | 20,538 | 1.00 | 20,538 |
| Floor Insulation Above Crawlspace | 1,681 | 1.00 | 1,681 | 1.00 | 1,681 |
| Furnace Tune Up | 8 | 1.00 | 8 | 1.00 | 8 |
| Furnace, >95% AFUE | 143 | 1.00 | 143 | 1.00 | 143 |
| Handheld Showerhead (DI) SF | 52 | 1.00 | 52 | 1.00 | 52 |
| Kitchen Aerator SF (DI) | 125 | 1.00 | 125 | 1.00 | 125 |
| Rim/Band Joist Insulation | 31 | 1.00 | 31 | 1.00 | 31 |
| Showerhead (DI) SF | 31 | 1.00 | 31 | 1.00 | 31 |
| Storage Water Heater, >0.67 EF | 93 | 1.00 | 93 | 1.00 | 93 |
| Wall Insulation | 135 | 1.00 | 135 | 1.00 | 135 |
| HH | Advanced Thermostat (DI) - Manual | 2,103 | 1.00 | 2,103 | 1.00 | 2,103 |
| Advanced Thermostat (DI) - Programmable | 71 | 1.00 | 71 | 1.00 | 71 |
| Air Filter Replacement | 78 | 1.00 | 78 | 1.00 | 78 |
| Air Sealing | 3,188 | 1.00 | 3,188 | 1.00 | 3,188 |
| Air Sealing - Door Sweep | 15 | 1.00 | 15 | 1.00 | 15 |
| Attic Insulation | 3,148 | 1.00 | 3,148 | 1.00 | 3,148 |
| Basement/Sidewall Insulation | 340 | 1.00 | 340 | 1.00 | 340 |
| Bathroom Aerator SF (DI) | 24 | 1.00 | 24 | 1.00 | 24 |
| Boilers, >95% AFUE <300 MBH | -9 | 1.00 | -9 | 1.00 | -9 |
| DHW Pipe Insulation | 254 | 1.00 | 254 | 1.00 | 254 |
| Duct Sealing | 11,772 | 1.01 | 11,906 | 1.00 | 11,906 |
| Floor Insulation Above Crawlspace | 341 | 1.00 | 341 | 1.00 | 341 |
| Furnace Tune Up | 761 | 0.99 | 753 | 1.00 | 753 |
| Furnace, >95% AFUE | 346 | 1.00 | 346 | 1.00 | 346 |
| Handheld Showerhead (DI) SF | 25 | 1.00 | 25 | 1.00 | 25 |
| Residential Energy Recovery Ventilator (ERV) | 150 | 1.00 | 150 | 1.00 | 150 |
| Kitchen Aerator SF (DI) | 100 | 1.00 | 100 | 1.00 | 100 |
| Rim/Band Joist Insulation | 87 | 1.00 | 87 | 1.00 | 87 |
| Showerhead (DI) SF | 67 | 1.00 | 67 | 1.00 | 67 |
| Storage Water Heater, >0.67 EF | 220 | 1.00 | 220 | 1.00 | 220 |
| Wall Insulation | 156 | 1.00 | 156 | 1.00 | 156 |
| IHWAP | Advanced Thermostat (DI) - Manual | 3,573 | 1.00 | 3,573 | 1.00 | 3,573 |
| Advanced Thermostat (DI) - Programmable | 499 | 1.00 | 499 | 1.00 | 499 |
| Air Sealing | 14,434 | 1.00 | 14,434 | 1.00 | 14,434 |
| Air Sealing - Door Sweep | 44 | 1.00 | 44 | 1.00 | 44 |
| Air Sealing - Sealing Tape - DI | 17 | 1.00 | 17 | 1.00 | 17 |
| Attic Insulation | 21,523 | 1.00 | 21,523 | 1.00 | 21,523 |
| Basement/Sidewall Insulation | 5,068 | 1.00 | 5,068 | 1.00 | 5,068 |
| Bathroom Aerator SF (DI) | 109 | 1.00 | 109 | 1.00 | 109 |
| Boilers, >95% AFUE <300 MBH | 2,038 | 1.00 | 2,038 | 1.00 | 2,038 |
| DHW Pipe Insulation | 3,141 | 1.00 | 3,141 | 1.00 | 3,141 |
| Duct Sealing | 607 | 1.00 | 607 | 1.00 | 607 |
| Floor Insulation Above Crawlspace | 717 | 1.00 | 717 | 1.00 | 717 |
| Furnace Tune Up | 813 | 0.98 | 800 | 1.00 | 800 |
| Furnace, >95% AFUE | 36,032 | 1.00 | 36,032 | 1.00 | 36,032 |
| Handheld Showerhead (DI) SF | 57 | 1.00 | 57 | 1.00 | 57 |
| Kitchen Aerator SF (DI) | 117 | 1.00 | 117 | 1.00 | 117 |
| Programmable Thermostat (DI) | 3,836 | 1.00 | 3,836 | 1.00 | 3,836 |
| Rim/Band Joist Insulation | 1,278 | 1.00 | 1,278 | 1.00 | 1,278 |
| Showerhead (DI) SF | 109 | 1.00 | 109 | 1.00 | 109 |
| Storage Water Heater, >0.67 EF | 3,861 | 1.00 | 3,861 | 1.00 | 3,861 |
| Wall Insulation | 4,094 | 1.00 | 4,094 | 1.00 | 4,094 |
| Retrofit | AC Cover and Gap Sealer (DI) | 14.48 | 0.81 | 11.90 | 1.00 | 11.90 |
| Advanced Thermostat (DI) - Manual | 2,149 | 1.00 | 2,149 | 1.00 | 2,149 |
| Advanced Thermostat (DI) - Programmable | 4,439 | 1.00 | 4,439 | 1.00 | 4,439 |
| Air Sealing | 22,595 | 1.00 | 22,595 | 1.00 | 22,595 |
| Air Sealing - Door Sweep | 528 | 1.00 | 528 | 1.00 | 528 |
| Air Sealing - Door Sweep - DI | 190 | 1.00 | 190 | 1.00 | 190 |
| Air Sealing - Gasket - DI | 28 | 1.00 | 28 | 1.00 | 28 |
| Air Sealing - Sealing Tape - DI | 7,789 | 1.00 | 7,789 | 1.00 | 7,789 |
| Air Sealing - Weatherstripping - DI | 809 | 1.00 | 809 | 1.00 | 809 |
| Attic Insulation | 40,186 | 1.00 | 40,186 | 1.00 | 40,186 |
| Basement/Sidewall Insulation | 5,925 | 1.00 | 5,925 | 1.00 | 5,925 |
| Bathroom Aerator SF (DI) | 34 | 1.00 | 34 | 1.00 | 34 |
| Boiler Tune Up, Space Heating | 1,075 | 1.00 | 1,075 | 1.00 | 1,075 |
| Boilers, >95% AFUE <300 MBH | 580 | 1.00 | 580 | 1.00 | 580 |
| DHW Pipe Insulation | 742 | 1.00 | 742 | 1.00 | 742 |
| Duct Sealing | 16,009 | 1.00 | 16,009 | 1.00 | 16,009 |
| Floor Insulation Above Crawlspace | 547 | 1.00 | 547 | 1.00 | 547 |
| Furnace Tune Up | 9,200 | 1.00 | 9,200 | 1.00 | 9,200 |
| Furnace, >95% AFUE | 11,616 | 1.00 | 11,616 | 1.00 | 11,616 |
| Handheld Showerhead (DI) SF | 31 | 1.00 | 31 | 1.00 | 31 |
| Kitchen Aerator SF (DI) | 78 | 1.00 | 78 | 1.00 | 78 |
| Programmable Thermostat (DI) | 975 | 1.00 | 975 | 1.00 | 975 |
| Rim/Band Joist Insulation | 1,934 | 1.00 | 1,934 | 1.00 | 1,934 |
| Showerhead (DI) SF | 96 | 1.00 | 96 | 1.00 | 96 |
| Storage Water Heater, >0.67 EF | 537 | 1.00 | 537 | 1.00 | 537 |
| Wall Insulation | 18,170 | 1.00 | 18,170 | 1.00 | 18,170 |
| HEA | Advanced Thermostat (DI) - Blended | 1,111 | 1.00 | 1,111 | 1.00 | 1,111 |
| Advanced Thermostat (DI) - Manual | 40,570 | 1.00 | 40,570 | 1.00 | 40,570 |
| Advanced Thermostat (DI) - Programmable | 34,161 | 1.00 | 34,161 | 1.00 | 34,161 |
| Air Filter Replacement | 15,635 | 1.00 | 15,635 | 1.00 | 15,635 |
| Air Sealing - Door Sweep | 10,241 | 1.00 | 10,241 | 1.00 | 10,241 |
| Air Sealing - Door Sweep - DI | 2,089 | 1.00 | 2,089 | 1.00 | 2,089 |
| Bathroom Aerator SF (DI) | 1,054 | 1.00 | 1,054 | 1.00 | 1,054 |
| Boiler Pipe Insulation | 35 | 1.00 | 35 | 1.00 | 35 |
| DHW Pipe Insulation | 7,476 | 1.00 | 7,476 | 1.00 | 7,476 |
| Handheld Showerhead (DI) SF | 7,226 | 1.00 | 7,226 | 1.00 | 7,226 |
| Kitchen Aerator SF (DI) | 3,578 | 1.00 | 3,578 | 1.00 | 3,578 |
| Programmable Thermostat (DI) | 14,930 | 1.03 | 15,441 | 1.00 | 15,441 |
| Shower Flow Reducer | 1,143 | 1.00 | 1,143 | 1.00 | 1,143 |
| Showerhead (DI) SF | 5,602 | 1.00 | 5,602 | 1.00 | 5,602 |
| Thermostat Education (DI) | 13,723 | 1.01 | 13,833 | 1.00 | 13,833 |
| **Total** | | **461,366** | **1.00** | **462,098** | **1.00** | **462,098** |

Source: Evaluation team analysis.

# Impact Analysis Findings and Recommendations

## Impact Parameter Estimates

Table 5 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%. Appendix A. provides a description of the impact analysis methodology.

Table 5. Verified Gross Savings Parameters

| Measure | Unit Basis | Ex Ante Gross (therms/unit) | Verified Gross (therms/unit) | Realization Rate | Data Source(s) |
| --- | --- | --- | --- | --- | --- |
| AC Cover and Gap Sealer (DI) | Each | 7.24 | 5.90 | 81% | Illinois TRM, v12.0†, Section 4.4.38 and Nicor Gas Program Tracking Data (PTD\*) |
| Advanced Thermostat (DI) - Blended | Each | 31.61 | 31.61 | 100% | Section 5.3.16 and PTD |
| Advanced Thermostat (DI) - Manual | Each | 102.1 | 102.1 | 100% | Section 5.3.16 and PTD |
| Advanced Thermostat (DI) - Programmable | Each | 70.45 | 70.45 | 100% | Section 5.3.16 and PTD |
| Air Filter Replacement | Each | 7.91 | 7.91 | 100% | Section 5.3.21 and PTD |
| Air Sealing | Project | 90.12 | 90.12 | 100% | Section 5.6.1 and PTD |
| Air Sealing - Door Sweep | Each | 7.25 | 7.25 | 100% | Section 5.6.1 and PTD |
| Air Sealing - Door Sweep - DI | Each | 7.21 | 7.21 | 100% | Section 5.6.1 and PTD |
| Air Sealing - Gasket - DI | Each | 0.38 | 0.38 | 100% | Section 5.6.1 and PTD |
| Air Sealing - Sealing Tape - DI | Each | 0.42 | 0.42 | 100% | Section 5.6.1 and PTD |
| Air Sealing - Weatherstripping - DI | Each | 0.49 | 0.49 | 100% | Section 5.6.1 and PTD |
| Attic Insulation | Sq. ft. | 0.14 | 0.14 | 100% | Section 5.6.5 and PTD |
| Basement/Sidewall Insulation | Sq. ft. | 0.23 | 0.23 | 100% | Section 5.6.2 and PTD |
| Bathroom Aerator SF (DI) | Each | 0.89 | 0.89 | 100% | Section 5.4.4 and PTD |
| Boiler Pipe Insulation | Ln. ft. | 0.43 | 0.43 | 100% | Section 5.3.2 and PTD |
| Boiler Tune Up, Space Heating | Each | 107.46 | 107.46 | 100% | Section 4.4.2 and PTD |
| Boilers, >95% AFUE <300 MBH | Each | 289.83 | 289.83 | 100% | Section 5.3.6 and PTD |
| DHW Pipe Insulation | Ln. ft. | 1.94 | 1.94 | 100% | Section 5.4.1 and PTD |
| Duct Sealing | Each | 232.98 | 233.27 | 100% | Section 5.3.4 and PTD |
| Floor Insulation Above Crawlspace | Sq. ft. | 0.14 | 0.14 | 100% | Section 5.6.3 and PTD |
| Furnace Tune Up | Each | 58.92 | 59.03 | 100% | Section 5.3.13 and PTD |
| Furnace, >95% AFUE | Each | 210.2 | 210.17 | 100% | Section 5.3.7 and PTD |
| Handheld Showerhead (DI) SF | Each | 7.85 | 7.85 | 100% | Section 5.4.5 and PTD |
| Residential Energy Recovery Ventilator (ERV) | Each | 2.31 | 2.31 | 100% | Section 5.3.20 and PTD |
| Kitchen Aerator SF (DI) | Each | 7.04 | 7.04 | 100% | Section 5.4.4 and PTD |
| Programmable Thermostat (DI) | Each | 65.37 | 67.06 | 103% | Section 5.3.11 and PTD |
| Rim/Band Joist Insulation | Sq. ft. | 0.12 | 0.12 | 100% | Section 5.6.6 and PTD |
| Shower Flow Reducer | Each | 9.15 | 9.15 | 100% | Section 5.4.5 and PTD |
| Showerhead (DI) SF | Each | 7.82 | 7.82 | 100% | Section 5.4.5 and PTD |
| Storage Water Heater, >0.67 EF | Each | 43.22 | 43.22 | 100% | Section 5.4.2 and PTD |
| Thermostat Education (DI) | Each | 64.43 | 64.94 | 101% | Section 5.3.11 and PTD |
| Wall Insulation | Sq. ft. | 0.10 | 0.10 | 100% | Section 5.6.4 and PTD |

\* Program Tracking Data (PTD) provided by Nicor Gas, extract dated January 30, 2025.

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

## Findings and Recommendations

**Finding 1.** The evaluation team found that there were instances of 6 Programmable Thermostats measures and one Thermostat Education of HEA measures that had a quantity measure of 1 but had an ex ante therm savings of zero. The evaluation team used the reported quantity and savings inputs in the tracking data to determine the verified savings. The measure IDs were (MEA-2024.01.11-638282, MEA-2024.02.08-649168, MEA-2024.02.22-654456, MEA-2024.03.08-663102, MEA-2024.04.08-681712, MEA-2024.04.22-688446, MEA-2024.01.26-642487).

**Recommendation 1.** Ensure ex ante gross savings correlate to the input savings provided in the tracking data. If these thermostats should be counted but don’t have contributed savings, it should be specified in the tracking data column “Measure Notes”.

**Finding 2.** There were 11 measures of Duct Sealing – Evaluation of Distribution Efficiency with a realization rate of 51%. The evaluation team found that the Post Install Value in the tracking data (0.96) did not correspond to the Post Install Value of 0.97. The evaluation team referenced TRM v12 to determine the savings algorithm and the tracking data for savings inputs. The measure IDs were (MEA-2023.06.13-545850, MEA-2023.07.07-554557, MEA-2023.07.07-554587, MEA-2023.07.11-554971, MEA-2023.07.13-558431, MEA-2023.07.19-561461, MEA-2023.07.20-561584, MEA-2023.08.16-572592, MEA-2023.08.31-575581, MEA-2024.01.12-639400, MEA-2024.02.03-645415).

**Recommendation 2.** Ensure the Post Install Value found in Nicor’s tracking data reflects the savings inputs found in IC’s tracking data for joint measures.

**Finding 3.** There were 7 Furnace Tune-up measures that had an RR between 40%-1407%. The evaluation team found that the Equipment Efficiency (Ei) savings input did not reflect the data found in the tracking data for ComEd’s SF program. The measure IDs were (MEA-2023.11.29-613300, MEA-2024.01.10-637552, MEA-2024.02.20-652155, MEA-2024.02.20-652291, MEA-2024.03.08-663916, MEA-2024.03.15-665154, MEA-2024.09.03-767788).

**Recommendation 3.** Ensure savings input, Ei, found in Nicor’s tracking data corresponds with the savings inputs used to determine ex ante therm savings. In this instance it should reflect the IC’s tracking data for joint measures.

**Finding 4.** The evaluation team found the project measure, MEA-2024.10.01-779768, was labeled as Indoor Air Quality Services instead of Residential Energy Recovery Ventilator (ERV). The evaluation team was able to determine this measure as ERV due to the measure notes found in Nicor’s tracking data.

**Recommendation 4.** Ensure new measures such as the Residential ERV measure is labeled correctly.

**Finding 5.** AC Cover and Gap Sealer measure, MEA-2024.04.04-671426, had a realization rate of 81%. The evaluation team assumed one floor for the single-family home as this is reflected in the SFHU Savings Calculator and the savings input for this measure was blank.

**Recommendation 5.** State the specified floor number or floor length for AC Cover and Gap Sealer measures, this will help determine the deemed therms value found in the TRM.

**Finding 6.** There were six instances of Attic Insulation with an RR of 110%. The evaluation team assumed these measures were calculated with the assumption that air sealing was not installed along these attic insulation projects. However, when comparing project IDs with Attic Insulation and Air Sealing, the evaluation team found corresponding air sealing projects. The measure IDs were (MEA-2024.02.29-657828, MEA-2024.04.02-670546, MEA-2024.04.04-671476, MEA-2024.06.24-727575, MEA-2024.06.10-720707, MEA-2024.06.24-727594).

**Recommendation 6.** Ensure the tracking data is accounting for the air sealing projects associated with the attic insulation projects.

##### 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 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 shows the Total Resource Cost (TRC) cost-effectiveness analysis inputs available at the time of producing this impact evaluation report. 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

| Program Category | 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) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Private | Ameren Nicor | Advanced Thermostat (DI) - Blended | FALSE | Each | 4 | 11.00 | NO |  | 280 | 280 | 280 |
| Air Filter Replacement | FALSE | Each | 3 | 3.00 | NO |  | 20.00 | 20.00 | 20.00 |
| Air Sealing | FALSE | Project | 53 | 20.00 | NO |  | 5,922 | 5,922 | 5,922 |
| Air Sealing - Door Sweep | FALSE | Each | 9 | 20.00 | NO |  | 57.00 | 57.00 | 57.00 |
| Attic Insulation | FALSE | Sq. ft. | 15552 | 30.00 | NO |  | 2,008 | 2,008 | 2,008 |
| Bathroom Aerator SF (DI) | FALSE | Each | 14 | 10.00 | NO | 3,467 | 22.00 | 22.00 | 22.00 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 81 | 15.00 | NO |  | 168 | 168 | 168 |
| Duct Sealing | FALSE | Each | 54 | 20.00 | NO |  | 20,538 | 20,538 | 20,538 |
| Floor Insulation Above Crawlspace | FALSE | Sq. ft. | 11628 | 30.00 | NO |  | 1,681 | 1,681 | 1,681 |
| Furnace Tune Up | FALSE | Each | 1 | 3.00 | NO |  | 8.00 | 8.00 | 8.00 |
| Furnace, >95% AFUE | FALSE | Each | 1 | 20.00 | YES |  | 143 | 143 | 143 |
| Handheld Showerhead (DI) SF | FALSE | Each | 13 | 10.00 | NO | 8,801 | 52.00 | 52.00 | 52.00 |
| Kitchen Aerator SF (DI) | FALSE | Each | 15 | 10.00 | NO | 27,686 | 125 | 125 | 125 |
| Rim/Band Joist Insulation | FALSE | Sq. ft. | 273 | 30.00 | NO |  | 31.00 | 31.00 | 31.00 |
| Showerhead (DI) SF | FALSE | Each | 8 | 10.00 | NO | 4,840 | 31.00 | 31.00 | 31.00 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 2 | 13.30 | YES |  | 93.00 | 93.00 | 93.00 |
| Wall Insulation | FALSE | Sq. ft. | 875 | 30.00 | NO |  | 135 | 135 | 135 |
| Private | HH | Advanced Thermostat (DI) - Manual | FALSE | Each | 21 | 11.00 | NO |  | 2,103 | 2,103 | 2,103 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 1 | 11.00 | NO |  | 71.00 | 71.00 | 71.00 |
| Air Filter Replacement | FALSE | Each | 10 | 3.00 | NO |  | 78.00 | 78.00 | 78.00 |
| Air Sealing | FALSE | Project | 24 | 20.00 | NO |  | 3,188 | 3,188 | 3,188 |
| Air Sealing - Door Sweep | FALSE | Each | 2 | 20.00 | NO |  | 15.00 | 15.00 | 15.00 |
| Attic Insulation | FALSE | Sq. ft. | 22428 | 30.00 | NO |  | 3,148 | 3,148 | 3,148 |
| Basement/Sidewall Insulation | FALSE | Sq. ft. | 692 | 30.00 | NO |  | 340 | 340 | 340 |
| Bathroom Aerator SF (DI) | FALSE | Each | 16 | 10.00 | NO | 6,323 | 24.00 | 24.00 | 24.00 |
| Boilers, >95% AFUE <300 MBH | FALSE | Each | 1 | 25.00 | YES |  | -9 | -9 | -9 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 122 | 15.00 | NO |  | 254 | 254 | 254 |
| Duct Sealing | FALSE | Each | 26 | 20.00 | NO |  | 11,772 | 11,906 | 11,906 |
| Floor Insulation Above Crawlspace | FALSE | Sq. ft. | 1950 | 30.00 | NO |  | 341 | 341 | 341 |
| Furnace Tune Up | FALSE | Each | 11 | 3.00 | NO |  | 761 | 753 | 753 |
| Furnace, >95% AFUE | FALSE | Each | 1 | 20.00 | YES |  | 346 | 346 | 346 |
| Handheld Showerhead (DI) SF | FALSE | Each | 6 | 10.00 | NO | 4,620 | 25.00 | 25.00 | 25.00 |
| Residential Energy Recovery Ventilator (ERV) | FALSE | Each | 65 | 15.00 | NO |  | 150 | 150 | 150 |
| Kitchen Aerator SF (DI) | FALSE | Each | 7 | 10.00 | NO | 22,149 | 100 | 100 | 100 |
| Rim/Band Joist Insulation | FALSE | Sq. ft. | 554 | 30.00 | NO |  | 87.00 | 87.00 | 87.00 |
| Showerhead (DI) SF | FALSE | Each | 13 | 10.00 | NO | 12,321 | 67.00 | 67.00 | 67.00 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 1 | 13.30 | YES |  | 220 | 220 | 220 |
| Wall Insulation | FALSE | Sq. ft. | 1122 | 30.00 | NO |  | 156 | 156 | 156 |
| Private | IHWAP | Advanced Thermostat (DI) - Manual | FALSE | Each | 35 | 11.00 | NO |  | 3,573 | 3,573 | 3,573 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 7 | 11.00 | NO |  | 499 | 499 | 499 |
| Air Sealing | FALSE | Project | 192 | 20.00 | NO |  | 14,434 | 14,434 | 14,434 |
| Air Sealing - Door Sweep | FALSE | Each | 6 | 20.00 | NO |  | 44.00 | 44.00 | 44.00 |
| Air Sealing - Sealing Tape - DI | FALSE | Each | 42 | 20.00 | NO |  | 17.00 | 17.00 | 17.00 |
| Attic Insulation | FALSE | Sq. ft. | 172352 | 30.00 | NO |  | 21,523 | 21,523 | 21,523 |
| Basement/Sidewall Insulation | FALSE | Sq. ft. | 14503 | 30.00 | NO |  | 5,068 | 5,068 | 5,068 |
| Bathroom Aerator SF (DI) | FALSE | Each | 122 | 10.00 | NO | 27,795 | 109 | 109 | 109 |
| Boilers, >95% AFUE <300 MBH | FALSE | Each | 5 | 25.00 | YES |  | 2,038 | 2,038 | 2,038 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 1532 | 15.00 | NO |  | 3,141 | 3,141 | 3,141 |
| Duct Sealing | FALSE | Each | 7 | 20.00 | NO |  | 607 | 607 | 607 |
| Floor Insulation Above Crawlspace | FALSE | Sq. ft. | 5909 | 30.00 | NO |  | 717 | 717 | 717 |
| Furnace Tune Up | FALSE | Each | 20 | 3.00 | NO |  | 813 | 800 | 800 |
| Furnace, >95% AFUE | FALSE | Each | 156 | 20.00 | YES |  | 36,032 | 36,032 | 36,032 |
| Handheld Showerhead (DI) SF | FALSE | Each | 26 | 10.00 | NO | 10,341 | 57.00 | 57.00 | 57.00 |
| Kitchen Aerator SF (DI) | FALSE | Each | 15 | 10.00 | NO | 25,946 | 117 | 117 | 117 |
| Programmable Thermostat (DI) | FALSE | Each | 64 | 16.00 | NO |  | 3,836 | 3,836 | 3,836 |
| Rim/Band Joist Insulation | FALSE | Sq. ft. | 9427 | 30.00 | NO |  | 1,278 | 1,278 | 1,278 |
| Showerhead (DI) SF | FALSE | Each | 39 | 10.00 | NO | 20,075 | 109 | 109 | 109 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 89 | 13.30 | YES |  | 3,861 | 3,861 | 3,861 |
| Wall Insulation | FALSE | Sq. ft. | 34843 | 30.00 | NO |  | 4,094 | 4,094 | 4,094 |
| Private | Retrofit | AC Cover and Gap Sealer (DI) | FALSE | Each | 2 | 5.00 | NO |  | 14.00 | 11.34 | 11.34 |
| Advanced Thermostat (DI) - Manual | FALSE | Each | 22 | 11.00 | NO |  | 2,149 | 2,149 | 2,149 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 63 | 11.00 | NO |  | 4,439 | 4,439 | 4,439 |
| Air Sealing | FALSE | Project | 243 | 20.00 | NO |  | 22,595 | 22,595 | 22,595 |
| Air Sealing - Door Sweep | FALSE | Each | 72 | 20.00 | NO |  | 528 | 528 | 528 |
| Air Sealing - Door Sweep - DI | FALSE | Each | 26 | 20.00 | NO |  | 190 | 190 | 190 |
| Air Sealing - Gasket - DI | FALSE | Each | 75 | 20.00 | NO |  | 28.00 | 28.00 | 28.00 |
| Air Sealing - Sealing Tape - DI | FALSE | Each | 18643 | 20.00 | NO |  | 7,789 | 7,789 | 7,789 |
| Air Sealing - Weatherstripping - DI | FALSE | Each | 1653 | 20.00 | NO |  | 809 | 809 | 809 |
| Attic Insulation | FALSE | Sq. ft. | 257567 | 30.00 | NO |  | 40,186 | 40,186 | 40,186 |
| Basement/Sidewall Insulation | FALSE | Sq. ft. | 33128 | 30.00 | NO |  | 5,925 | 5,925 | 5,925 |
| Bathroom Aerator SF (DI) | FALSE | Each | 31 | 10.00 | NO | 9,007 | 34.00 | 34.00 | 34.00 |
| Boiler Tune Up, Space Heating | FALSE | Each | 10 | 3.00 | NO |  | 1,075 | 1,075 | 1,075 |
| Boilers, >95% AFUE <300 MBH | FALSE | Each | 3 | 25.00 | YES |  | 580 | 580 | 580 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 365 | 15.00 | NO |  | 742 | 742 | 742 |
| Duct Sealing | FALSE | Each | 123 | 20.00 | NO |  | 16,009 | 16,009 | 16,009 |
| Floor Insulation Above Crawlspace | FALSE | Sq. ft. | 4315 | 30.00 | NO |  | 547 | 547 | 547 |
| Furnace Tune Up | FALSE | Each | 151 | 3.00 | NO |  | 9,200 | 9,200 | 9,200 |
| Furnace, >95% AFUE | FALSE | Each | 71 | 20.00 | YES |  | 11,616 | 11,616 | 11,616 |
| Handheld Showerhead (DI) SF | FALSE | Each | 11 | 10.00 | NO | 5,729 | 31.00 | 31.00 | 31.00 |
| Kitchen Aerator SF (DI) | FALSE | Each | 9 | 10.00 | NO | 17,340 | 78.00 | 78.00 | 78.00 |
| Programmable Thermostat (DI) | FALSE | Each | 15 | 16.00 | NO |  | 975 | 975 | 975 |
| Rim/Band Joist Insulation | FALSE | Sq. ft. | 16744 | 30.00 | NO |  | 1,934 | 1,934 | 1,934 |
| Showerhead (DI) SF | FALSE | Each | 30 | 10.00 | NO | 17,848 | 96.00 | 96.00 | 96.00 |
| Storage Water Heater, >0.67 EF | FALSE | Each | 17 | 13.30 | YES |  | 537 | 537 | 537 |
| Wall Insulation | FALSE | Sq. ft. | 189774 | 30.00 | NO |  | 18,170 | 18,170 | 18,170 |
| Private | HEA | Advanced Thermostat (DI) - Blended | FALSE | Each | 40 | 11.00 | NO |  | 1,111 | 1,111 | 1,111 |
| Advanced Thermostat (DI) - Manual | FALSE | Each | 396 | 11.00 | NO |  | 40,570 | 40,570 | 40,570 |
| Advanced Thermostat (DI) - Programmable | FALSE | Each | 485 | 11.00 | NO |  | 34,161 | 34,161 | 34,161 |
| Air Filter Replacement | FALSE | Each | 1975 | 3.00 | NO |  | 15,635 | 15,635 | 15,635 |
| Air Sealing - Door Sweep | FALSE | Each | 1412 | 20.00 | NO |  | 10,241 | 10,241 | 10,241 |
| Air Sealing - Door Sweep - DI | FALSE | Each | 290 | 20.00 | NO |  | 2,089 | 2,089 | 2,089 |
| Bathroom Aerator SF (DI) | FALSE | Each | 1211 | 10.00 | NO | 273,006 | 1,054 | 1,054 | 1,054 |
| Boiler Pipe Insulation | FALSE | Ln. ft. | 80 | 15.00 | NO |  | 34.52 | 34.52 | 34.52 |
| DHW Pipe Insulation | FALSE | Ln. ft. | 3968 | 15.00 | NO |  | 7,476 | 7,476 | 7,476 |
| Handheld Showerhead (DI) SF | FALSE | Each | 885 | 10.00 | NO | 1,333,573 | 7,226 | 7,226 | 7,226 |
| Kitchen Aerator SF (DI) | FALSE | Each | 522 | 10.00 | NO | 795,917 | 3,578 | 3,578 | 3,578 |
| Programmable Thermostat (DI) | FALSE | Each | 223 | 16.00 | NO |  | 14,930 | 15,441 | 15,441 |
| Shower Flow Reducer | FALSE | Each | 125 | 10.00 | NO | 211,742 | 1,143 | 1,143 | 1,143 |
| Showerhead (DI) SF | FALSE | Each | 665 | 10.00 | NO | 1,035,575 | 5,602 | 5,602 | 5,602 |
| Thermostat Education (DI) | FALSE | Each | 213 | 2.00 | NO |  | 13,723 | 13,833 | 13,833 |
| **Total or Weighted Average** | | |  |  |  | **18.3** |  | **3,874,100** | **461,366** | **462,098** | **462,098** |

*Source: Evaluation team analysis.*