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| Multi-Family Market Rate Impact Evaluation ReportEnergy Efficiency Plan: Program Year 2024 (1/1/2024-12/31/2024) |
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# Introduction

This report presents the results of the impact evaluation of the Nicor Gas 2024 Multi-Family Market Rate Program and a summary of the energy impacts for the total program, as well as 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 Multi-Family Program is delivered through four paths:

* The **Direct Installation (DI) path** is offered jointly with ComEd and provides free assessment and no-cost direct installation (DI) in-unit (IU) of measures in residential multi-family buildings with three or more living units.
* The **Prescriptive path** offers incentives to multi-family decision-makers to install energy saving measures in common areas (CA) of multi-family buildings.
* The **Centralized Plant Optimization Program (CPOP)** path where program-approved contractors provide free central plant upgrades, including boiler tune-ups, boiler controls, pipe and tank insulation, and steam trap testing and repair.
* The **Air Sealing and Insulation (ASI) path** focuses on weatherization and shell measures, such as attic insulation and air sealing, to improve comfort and reduce overall heating loads.

The program had 624 participants in 2024 and completed 1,795 projects as shown in the following table.

Table 1. 2024 Volumetric Findings Detail

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Participation | ASI | CPOP | Direct Install | Prescriptive | Total |
| Participants \* | 378 | 199 | 10 | 37 | 624 |
| Installed Projects † | 418 | 186 | 1,173 | 18 | 1,795 |
| Measures Installed ‡ | 5 | 20 | 11 | 5 | 41 |

\* Participants are defined as distinct count of addresses.

† Installed Projects are defined as distinct count of project ID.

‡ Measure Types Installed are defined as distinct count of Nicor measure names

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 |
| --- | --- | --- | --- |
| Air Sealing and Insulation (ASI) | Air Sealing | Unit | 106,062 |
| Attic Insulation | Unit | 7,090 |
| Duct Sealing | Unit | 188 |
| Air Sealing – DAC | Unit | 114,176 |
| Attic Insulation – DAC | Unit | 4,640 |
| Duct Sealing – DAC | Unit | 210 |
| Centralized Plant Optimization Program (CPOP)  | Pipe Insulation | LN FT | 15,756 |
| Tank Insulation | SQ FT | 784 |
| Controls for Domestic Hot Water | Unit | 615 |
| Assessment/No Savings | Unit | 398 |
| Boiler Tune Up | Unit | 229 |
| Steam Trap | Unit | 118 |
| DHW Boiler Tune Up | Unit | 67 |
| Pipe Insulation - Valve/Fitting | Unit | 55 |
| Boiler Reset Controls | Unit | 12 |
| Steam Boiler Averaging Controls | Unit | 11 |
| Pipe Insulation – DAC | LN FT | 930 |
| Controls for Domestic Hot Water – DAC | Unit | 160 |
| Boiler Tune Up – DAC | Unit | 55 |
| DHW Boiler Tune Up – DAC | Unit | 26 |
| Boiler Reset Controls – DAC | Unit | 2 |
| Steam Boiler Averaging Controls – DAC | Unit | 2 |
| Direct Install (DI) | Assessment/No Savings | Unit | 1,165 |
| Shower Timer | Unit | 915 |
| Programmable Thermostat | Unit | 816 |
| Low Flow Showerheads (IU) | Unit | 473 |
| Reprogrammable Thermostat | Unit | 218 |
| Advanced Thermostat | Unit | 110 |
| Low Flow Aerator - Bathroom (IU) | Unit | 4 |
| Domestic Hot Water Pipe Insulation – DAC | LN FT | 132 |
| Assessment/No Savings – DAC | Unit | 8 |
| Low Flow Aerator - Kitchen (IU) – DAC | Unit | 6 |
| Low Flow Showerheads (IU) – DAC | Unit | 6 |
| Programmable Thermostat – DAC | Unit | 4 |
| Prescriptive | Pipe Insulation | LN FT | 146 |
| Boiler Tune Up | Unit | 5 |
| High Efficiency Boiler | Unit | 5 |
| High Efficiency Furnace | LN FT | 5 |
| Boiler Tune Up – DAC | Unit | 1 |

Source: Nicor Gas tracking data and evaluation team analysis.

# Program Savings Detail

Table 3 summarizes the energy savings the Multi-Family Market Rate 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† | NSPO‡ | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- |
| Centralized Plant Optimization Program (CPOP)  |  280,310  | 100% |  280,736  |  0.93  |  1.048  |  273,617  |
| Air Sealing and Insulation (ASI) |  91,516  | 100% |  91,477  |  0.93  |  1.048  |  89,157  |
| Direct Install (DI) |  54,053  | 104% |  56,304  |  Varies  |  1.048  |  56,953  |
| Prescriptive |  11,945  | 100% |  11,931  |  0.93  |  1.048  |  11,628  |
| Air Sealing and Insulation (ASI) – DAC\*\* |  94,613  | 99% |  94,042  |  1.00  |  N/A  |  94,042  |
| Centralized Plant Optimization Program (CPOP) – DAC\*\* |  53,246  | 100% |  53,151  |  1.00  |  N/A  |  53,151  |
| Direct Install (DI) – DAC |  526  | 92% |  481  |  1.01  |  1.048  |  489  |
| Prescriptive – DAC\*\* |  249  | 100% |  249  |  1.00  |  N/A  |  249  |
| **Total** |  **586,458**  | **100%** |  **588,370**  |  |  |  **579,285**  |

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

\*\*If deemed NTG is multiplied by 1.048 Non-Participant Spillover factor (NPSO) and the resulted NTG value is less than 1.00, the evaluation assigned a DAC NTG of 1.00. If the resulted NTG value is >1.00, evaluation used the >1.00 value for calculation of net savings impact.

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

‡ Non-participant spillover (NPSO) factor of 1.048 applied.

Source: Evaluation team analysis.

# Program Savings by Measure

The program includes 23 measures as shown in the following table. The Boiler Tune Up and Duct Sealing measures contributed the most savings.

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† | NSPO‡ | Verified Net Savings (Therms) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Air Sealing and Insulation (ASI) | Duct Sealing |  50,346  | 100% |  50,346  |  0.93  |  1.048  |  49,069  |
| Air Sealing |  40,934  | 100% |  40,934  |  0.93  |  1.048  |  39,896  |
| Attic Insulation |  236  | 83% |  197  |  0.93  |  1.048  |  192  |
| Duct Sealing – DAC\*\* |  50,036  | 100% |  50,036  |  1.00  |  N/A  |  50,036  |
| Air Sealing – DAC\*\* |  43,368  | 100% |  43,368  |  1.00  |  N/A  |  43,368  |
| Attic Insulation – DAC\*\* |  1,209  | 53% |  638  |  1.00  |  N/A  |  638  |
|  | ***ASI Subtotal*** |  ***186,129***  | ***100%*** |  ***185,519***  |  ***0.97***  |  |  ***183,199***  |
| Centralized Plant Optimization Program (CPOP)  | Boiler Tune Up |  129,298  | 100% |  129,062  |  0.93  |  1.048  |  125,789  |
| Pipe Insulation |  59,358  | 101% |  60,020  |  0.93  |  1.048  |  58,498  |
| Controls for Domestic Hot Water |  38,561  | 100% |  38,561  |  0.93  |  1.048  |  37,583  |
| Steam Trap |  20,130  | 100% |  20,130  |  0.93  |  1.048  |  19,619  |
| Steam Boiler Averaging Controls |  20,011  | 100% |  20,011  |  0.93  |  1.048  |  19,503  |
| Boiler Reset Controls |  4,417  | 100% |  4,417  |  0.93  |  1.048  |  4,305  |
| Tank Insulation |  3,816  | 100% |  3,816  |  0.93  |  1.048  |  3,719  |
| DHW Boiler Tune Up |  3,542  | 100% |  3,542  |  0.93  |  1.048  |  3,452  |
| Pipe Insulation - Valve/Fitting |  1,178  | 100% |  1,178  |  0.93  |  1.048  |  1,149  |
| Boiler Tune Up – DAC\*\* |  32,418  | 100% |  32,323  |  1.00  |  N/A  |  32,323  |
| Controls for Domestic Hot Water – DAC\*\* |  10,032  | 100% |  10,032  |  1.00  |  N/A  |  10,032  |
| Steam Boiler Averaging Controls – DAC\*\* |  5,176  | 100% |  5,176  |  1.00  |  N/A  |  5,176  |
| Pipe Insulation – DAC\*\* |  2,837  | 100% |  2,837  |  1.00  |  N/A  |  2,837  |
| Boiler Reset Controls – DAC\*\* |  2,319  | 100% |  2,319  |  1.00  |  N/A  |  2,319  |
| DHW Boiler Tune Up – DAC\*\* |  464  | 100% |  464  |  1.00  |  N/A  |  464  |
|  | ***CPOP Subtotal*** |  ***333,556***  | ***100%*** |  ***333,887***  |  ***0.94***  |  |  ***326,767***  |
| Direct Install (DI) | Programmable Thermostat |  31,728  | 104% |  33,049  |  0.96  |  1.048  |  33,250  |
| Reprogrammable Thermostat |  8,476  | 104% |  8,829  |  0.96  |  1.048  |  8,883  |
| Low Flow Showerheads (IU) |  5,612  | 104% |  5,845  |  1.01  |  1.048  |  6,187  |
| Advanced Thermostat |  4,898  | 104% |  5,102  |  0.96  |  1.048  |  5,133  |
| Shower Timer |  3,333  | 104% |  3,471  |  0.96  |  1.048  |  3,492  |
| Low Flow Aerator - Bathroom (IU) |  6  | 104% |  7  |  1.01  |  1.048  |  7  |
| Domestic Hot Water Pipe Insulation – DAC |  283  | 81% |  228  |  1.01  |  N/A  |  229  |
| Programmable Thermostat – DAC |  156  | 104% |  162  |  1.01  |  N/A  |  163  |
| Low Flow Showerheads (IU) – DAC |  71  | 104% |  74  |  1.01  |  1.048  |  78  |
| Low Flow Aerator – Kitchen (IU) – DAC |  16  | 104% |  17  |  1.01  |  1.048  |  18  |
|  | ***Direct Install Subtotal*** |  ***54,579***  | ***104%*** |  ***56,785***  |  ***0.97***  |  |  ***57,442***  |
| Prescriptive | High Efficiency Boiler |  7,411  | 100% |  7,411  |  0.93  |  1.048  |  7,223  |
| High Efficiency Furnace |  3,264  | 100% |  3,250  |  0.93  |  1.048  |  3,168  |
| Boiler Tune Up |  810  | 100% |  810  |  0.93  |  1.048  |  789  |
| Pipe Insulation |  460  | 100% |  460  |  0.93  |  1.048  |  449  |
| Boiler Tune Up – DAC\*\* |  249  | 100% |  249  |  1.00  | N/A  |  249  |
|  | ***Prescriptive Subtotal*** |  ***12,194***  | ***100%*** |  ***12,180***  |  ***0.93***  |  |  ***11,877***  |
| **Total** |  |  **586,458**  | **100%** |  **588,370**  |  **0.95**  |  |  **579,285**  |

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

\*\* If deemed NTG is multiplied by 1.048 Non-Participant Spillover factor (NPSO) and the resulted NTG value is less than 1.00, the evaluation assigned a DAC NTG of 1.00. If the resulted NTG value is >1.00, evaluation used the >1.00 value for calculation of net savings impact.

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

‡ Non-participant spillover (NPSO) factor of 1.048.
Source: Evaluation team analysis.

# Impact Analysis Findings and Recommendations

The overall realization rate for the Multi-Family Market Rate program was 100% for Therms in 2024. Many of the measures were calculated correctly, as a result, the evaluation team made minor changes during our review.

## 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) |
| --- | --- | --- | --- | --- | --- |
| Advanced Thermostat | Unit | 44.53 | 46.38 | 104% | Illinois TRM, v12.0†, Section 5.3.16 and PTD\* |
| Air Sealing | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 5.6.1 and PTD\* |
| Assessment/No Savings | Unit | - | - | - | - |
| Attic Insulation | Unit | Varies | Varies | 58% | Illinois TRM, v12.0†, Section 5.6.5 and PTD\* |
| Boiler Reset Controls | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.4.4 and PTD\* |
| Boiler Tune Up | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.4.2 and PTD\* |
| Controls for Domestic Hot Water | Unit | 62.70 | 62.70 | 100% | Illinois TRM, v12.0†, Section 4.3.8 and PTD\* |
| DHW Boiler Tune Up | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.3.10 and PTD\* |
| Domestic Hot Water Pipe Insulation | LN FT | Varies | 1.73 | 81% | Illinois TRM, v12.0†, Section 5.4.1 and PTD\* |
| Duct Sealing | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 5.3.4 and PTD\* |
| High Efficiency Boiler | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.4.10 and PTD\* |
| High Efficiency Furnace | LN FT | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 5.3.7 and PTD\* |
| Low Flow Aerator – Bathroom (IU) | Unit | 1.62 | 1.69 | 104% | Illinois TRM, v12.0†, Section 5.4.4 and PTD\* |
| Low Flow Aerator – Kitchen (IU) | Unit | 2.71 | 2.82 | 104% | Illinois TRM, v12.0†, Section 5.4.4 and PTD\* |
| Low Flow Showerheads (IU) | Unit | 11.87 | 12.36 | 104% | Illinois TRM, v12.0†, Section 5.4.5 and PTD\* |
| Pipe Insulation | LN FT | Varies | Varies | 101% | Illinois TRM, v12.0†, Section 4.4.14 and PTD\* |
| Pipe Insulation - Valve/Fitting | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.4.14 and PTD\* |
| Programmable Thermostat | Unit | 38.88 | 40.50 | 104% | Illinois TRM, v12.0†, Section 5.3.11 and PTD\* |
| Reprogrammable Thermostat | Unit | 38.88 | 40.50 | 104% | Illinois TRM, v12.0†, Section 5.3.11 and PTD\* |
| Shower Timer | Unit | 3.64 | 3.79 | 104% | Illinois TRM, v12.0†, Section 5.4.9 and PTD\* |
| Steam Boiler Averaging Controls | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.4.36 and PTD\* |
| Steam Trap | Unit | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.4.16 and PTD\* |
| Tank Insulation | SQ FT | Varies | Varies | 100% | Illinois TRM, v12.0†, Section 4.3.12 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

The evaluation team developed several findings and recommendations based on the 2024 evaluation. The findings and recommendations are organized by path type in the following sections. The overall impact of these findings on the program is small, as the program achieved a 100% realization rate.

### Cross Cutting Measures

1. For all projects in DAC areas, ex-ante calculations considered a Net-to-Gross (NTG) ratio of 1.0 and applied a Non-Participant Spillover (NPSO) factor of 1.048 to calculate Net Therms savings. The evaluation team calculated verified Net Therms savings for projects in DAC areas following the guidance in Policy Manual 3.0, such that measures having deemed NTG greater than 1.0 will use the deemed value instead of 1.0.
	1. If a measure has a deemed NTG value greater than 1.0 and it’s in a DAC area, the ex-ante net savings reported should use the deemed NTG value instead of 1.0, in accordance with the Policy Manual 3.0.

### Air Sealing and Insulation (ASI)

1. For the Attic Insulation measure, the ex-ante savings did not include the minimum value of R-3 for uninsulated assemblies in the Pre and Post R-values. The evaluation team added the minimum value of R–3 to the Pre and Post R-values to be consistent with the Illinois Statewide Technical Reference Manual v12.0 (IL-TRM)[[1]](#footnote-2). This measure accounts for 0.45% of ASI component’s verified gross Therms savings and the impact of this adjustment resulted in a RR of 57% for this measure.
	1. Review the savings algorithm for attic insulation and ensure the inputs used in the savings calculation are consistent with the IL-TRM (Section 5.6.5).

### Centralized Plant Optimization Program (CPOP)

1. For three out of 49 measure instances for the measure *Pipe Insulation, DHW Medium 1.26-2"*, the evaluation team was unable to replicate ex ante savings. The evaluation team calculated verified savings using the reported inputs in the program data. This measure accounts for 4.83% of Retrofit component’s verified gross Therms savings and the impact of this adjustment resulted in a RR of 107% for this measure.
	1. Ensure that savings are calculated based on the inputs recorded in the program tracking data.

### Direct Install

1. For all measures, the reported gross Therms in the program data are multiplied by their respective NTG factors. NTG factors should not be applied to gross Therms. The evaluation team did not apply NTG factors to gross Therms. This adjustment resulted in a gross RR of 104% for the Direct Install component.
	1. Ensure that NTG factors are not applied to gross savings.
2. The program data has a Spillover Therms Savings – disadvantaged community column that is supposed to report the net savings including NPSO. However, the ex-ante values reported in this column for non-DAC projects were calculated by applying NTG factors to the gross Therms. As discussed in finding 4, the gross Therms reported in the tracking data already include a NTG factor. Hence, the net effect is that the NTG factor is being applied twice for non-DAC projects. The evaluation team calculated net savings following the guidance in Policy Manual 3.0.
	1. Ensure that ex ante net savings are calculated and reported in accordance with the guidance in Policy Manual 3.0.
3. For two measure instances for *HW Pipe Insulation (1 ft.) DI IU MF*, the evaluation team was unable to replicate ex ante savings. The evaluation team calculated verified savings using the reported inputs in the program data. This measure accounts for 0.40% of Retrofit component’s verified gross Therms savings and the impact of this adjustment resulted in an RR of 81% for this measure.
	1. Ensure that savings for *HW Pipe Insulation (1 ft.) DI IU MF* are calculated based on the inputs recorded in the program tracking data.

##### Appendix A. Impact Analysis Methodology

The evaluation team used the same impact methodology for each component. Verified gross savings were determined for each program measure by:

* Reviewing the savings algorithm inputs in the measure workbook for agreement with the IL-TRM v12.0 and IL-TRM Errata, where applicable.
* Validating the savings algorithm was applied correctly.
* Cross-checking per-unit savings values in the program tracking data with the verified values in the measure workbook or in Guidehouse’s calculations if the workbook did not agree with the IL-TRM v12.0.
* Multiplying the verified per-unit savings value by the quantity reported in the tracking data. The team calculated verified net savings by multiplying the verified gross savings estimates by an NTG ratio. In Program Year 2024, NTG estimates used to calculate the net verified savings were based on past evaluation research and defined by a consensus process through the Illinois SAG.
* Guidehouse sourced methodologies and assumptions from the Illinois IL-TRM v12.0 and the final 2024 tracking data.
* For DAC project, if deemed NTG is multiplied by 1.048 Non-Participant Spillover factor (NPSO) and the resulted NTG value is less than 1.00, the evaluation assigned a DAC NTG of 1.00. If the resulted NTG value is >1.00, evaluation used the >1.00 value for calculation of net savings impact.

##### 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 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)** |
| ***Air Sealing and Insulation (ASI)***      | Duct Sealing | FALSE | Unit | 188 | 18.5 | NO | - | 50,346 | 50,346 | 49,069 |
| Air Sealing | FALSE | Unit | 106,062 | 20.0 | NO | - | 40,934 | 40,934 | 39,896 |
| Attic Insulation | FALSE | Unit | 7,090 | 20.0 | NO | - | 236 | 197 | 192 |
| Duct Sealing - DAC | TRUE | Unit | 210 | 18.5 | NO | - | 50,036 | 50,036 | 50,036 |
| Air Sealing - DAC | TRUE | Unit | 114,176 | 20.0 | NO | - | 43,368 | 43,368 | 43,368 |
| Attic Insulation - DAC | TRUE | Unit | 4,640 | 20.0 | NO | - | 1,209 | 638 | 638 |
| ***Centralized Plant Optimization Program (CPOP)***  | Boiler Tune Up | FALSE | Unit | 229 | 3.0 | NO | - | 129,298 | 129,062 | 125,789 |
| Pipe Insulation | FALSE | LN FT | 15,756 | 15.0 | NO | - | 59,358 | 60,020 | 58,498 |
| Controls for Domestic Hot Water | FALSE | Unit | 615 | 15.0 | NO | - | 38,561 | 38,561 | 37,583 |
| Steam Trap | FALSE | Unit | 118 | 6.0 | NO | 174,529 | 20,130 | 20,130 | 19,619 |
| Steam Boiler Averaging Controls | FALSE | Unit | 11 | 20.0 | NO | - | 20,011 | 20,011 | 19,503 |
| Boiler Reset Controls | FALSE | Unit | 12 | 16.0 | NO | - | 4,417 | 4,417 | 4,305 |
| Tank Insulation | FALSE | SQ FT | 784 | 15.0 | NO | - | 3,816 | 3,816 | 3,719 |
| DHW Boiler Tune Up | FALSE | Unit | 67 | 3.0 | NO | - | 3,542 | 3,542 | 3,452 |
| Pipe Insulation - Valve/Fitting | FALSE | Unit | 55 | 15.0 | NO | - | 1,178 | 1,178 | 1,149 |
| Assessment/No Savings | FALSE | Unit | 398 | 1.0 | NO | - | - | - | - |
| Boiler Tune Up - DAC | TRUE | Unit | 55 | 3.0 | NO | - | 32,418 | 32,323 | 32,323 |
| Controls for Domestic Hot Water - DAC | TRUE | Unit | 160 | 15.0 | NO | - | 10,032 | 10,032 | 10,032 |
| Steam Boiler Averaging Controls - DAC | TRUE | Unit | 2 | 20.0 | NO | - | 5,176 | 5,176 | 5,176 |
| Pipe Insulation - DAC | TRUE | LN FT | 930 | 15.0 | NO | - | 2,837 | 2,837 | 2,837 |
| Boiler Reset Controls - DAC | TRUE | Unit | 2 | 16.0 | NO | - | 2,319 | 2,319 | 2,319 |
| DHW Boiler Tune Up - DAC | TRUE | Unit | 26 | 3.0 | NO | - | 464 | 464 | 464 |
| ***Direct Install (DI)*** | Programmable Thermostat | FALSE | Unit | 816 | 8.0 | NO | - | 31,728 | 33,049 | 33,250 |
| Reprogrammable Thermostat | FALSE | Unit | 218 | 8.0 | NO | - | 8,476 | 8,829 | 8,883 |
| Low Flow Showerheads (IU) | FALSE | Unit | 473 | 10.0 | NO | 927,846 | 5,612 | 5,845 | 6,187 |
| Advanced Thermostat | FALSE | Unit | 110 | 11.0 | NO | - | 4,898 | 5,102 | 5,133 |
| Shower Timer | FALSE | Unit | 915 | 2.0 | NO | 555,411 | 3,333 | 3,471 | 3,492 |
| Low Flow Aerator - Bathroom (IU) | FALSE | Unit | 4 | 10.0 | NO | 1,537 | 6 | 7 | 7 |
| Assessment/No Savings | FALSE | Unit | 1,165 | 1.0 | NO | - | - | - | - |
| Domestic Hot Water Pipe Insulation - DAC | TRUE | LN FT | 132 | 15.0 | NO | - | 283 | 228 | 229 |
| Programmable Thermostat - DAC | TRUE | Unit | 4 | 8.0 | NO | - | 156 | 162 | 163 |
| Low Flow Showerheads (IU) - DAC | TRUE | Unit | 6 | 10.0 | NO | 11,770 | 71 | 74 | 78 |
| Low Flow Aerator - Kitchen (IU) - DAC | TRUE | Unit | 6 | 10.0 | NO | 3,194 | 16 | 17 | 18 |
| Assessment/No Savings - DAC | TRUE | Unit | 8 | 1.0 | NO | - | - | - | - |
| ***Prescriptive*** | High Efficiency Boiler | FALSE | Unit | 5 | 21.2 | NO | - | 7,411 | 7,411 | 7,223 |
| High Efficiency Furnace | FALSE | LN FT | 5 | 20.0 | NO | - | 3,264 | 3,250 | 3,168 |
| Boiler Tune Up | FALSE | Unit | 5 | 3.0 | NO | - | 810 | 810 | 789 |
| Pipe Insulation | FALSE | LN FT | 146 | 15.0 | NO | - | 460 | 460 | 449 |
| Boiler Tune Up - DAC | TRUE | Unit | 1 | 3.0 | NO | - | 249 | 249 | 249 |
| **Total or Weighted Average** |  |  |  | **12.3** |  | **1,674,286** | **586,458** | **588,370** | **579,285** |

Source: Evaluation team analysis.

1. In this report, unless stated otherwise, IL-TRM refers to version 11.0 (v11.0) [↑](#footnote-ref-2)