Guidehouse

Multi-Family Market Rate Impact Evaluation Report

Energy Efficiency Plan: Program Year 2024 (1/1/2024-12/31/2024)

Prepared for:

Nicor Gas Company

FINAL

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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 Table 1.

Table 1. 2024 Volumetric Findings Detail

Participation	ASI	CPOP	Direct Install	Prescriptive	Total
Participants *	366	180	6	13	565
Installed Projects †	418	197	1,173	18	1,806
Measures Installed ‡	5	20	11	5	41
Total Number of Units in Buildings	716	4,713	247,170	-	252,599

* 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

Program Path	Measure	Quantity Unit	Installed Quantity
	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%	280,971	0.93	1.048	273,848
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%	11,945	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%	53,246	1.00	N/A	53,246
Direct Install (DI) – DAC	526	102%	536	1.01	1.048	544
Prescriptive – DAC**	249	100%	249	1.00	N/A	249
Total	**586,458**	**100%**	**588,770**			**579,667**

* 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 Table 4. 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

Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NSPO‡	Verified Net Savings (Therms)
	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%	129,298	0.93	1.048	126,021
	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%	32,418	1.00	N/A	32,418
	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%***	***334,218***	***0.94***		***327,094***
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	100%	283	1.01	N/A	284
	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

Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	NSPO‡	Verified Net Savings (Therms)
	Direct Install Subtotal	***54,579***	***104%***	***56,840***	***0.97***		***57,496***
Prescriptive	High Efficiency Boiler	7,411	100%	7,411	0.93	1.048	7,223
	High Efficiency Furnace	3,264	100%	3,264	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%**	**588,770**	**0.95**		**579,667**

* 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%. 1.1.1.1Appendix 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*

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	Data Source(s)
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	Varies	100%	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

Finding 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.

Recommendation 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)

Finding 2. 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]. 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.

Recommendation 2. 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)

Finding 3. For three (MEA-2024.08.29-766084, MEA-2024.09.05-768858, MEA-2024.09.05-768859) 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.

Recommendation 3. Ensure that savings are calculated based on the inputs recorded in the program tracking data.

Finding 4. For 6 out of 284 measures instance for the measure *Boiler Tune-up – MF, IE,* the tracking data reported EFLH from the residential section of the IL-TRM. The evaluation team used EFLH from the commercial section of the IL-TRM to calculate verified savings consistent with the ex ante savings.

Recommendation 4. Ensure that inputs used to calculate savings are recorded accurately in the tracking data.

Direct Install

Finding 5. 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.

Recommendation 5. Ensure that NTG factors are not applied to gross savings.

Finding 6. 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

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

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.

Recommendation 6. Ensure that ex ante net savings are calculated and reported in accordance with the guidance in Policy Manual 3.0.

Finding 7. For all the two measure instances for *HW Pipe Insulation (1 ft.) DI IU MF*, ex ante calculations used Bare Pipe Heat Loss as 90.663 Btu/hr-ft and 50.9 Btu/hr-ft, Insulated Pipe Heat Loss as 18.489 Btu/hr-ft and 12.783 Btu/hr-ft, and Equivalent Full Load Hours as 4,963 hours. The program data reported Bare Pipe Heat Loss as 35.888 Btu/hr-ft, Insulated Pipe Heat Loss as 8.778 Btu/hr-ft, and Equivalent Full Load Hours as 8766 hours for both instances. The evaluation team used inputs from a MF MR Supplemental File provided by Nicor, which evaluation found to be reasonable to use to calculate verified savings.

Recommendation 7. Ensure that inputs used to calculate savings are recorded accurately in the tracking data. Nicor Gas and the implementer should improve the data collection and documentation process to improve the tracking data quality.

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	129,298	126,021
	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

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)
Direct Install (DI)	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	32,418	32,418
	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
	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	283	284

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)
Prescriptive	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	-	-	-	-
	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	3,264	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**	**588,770**	**579,667**

Source: Evaluation team analysis.