

Income Qualified Multi-Family and Public Housing Impact Evaluation Report

Energy Efficiency Plan: Program Year 2025

(01/01/2025-12/31/2025)

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Prepared by:

Katie Dolan
EcoMetric

Swapnil Lotake
EcoMetric

Fahman Khan
EcoMetric

Mike Frischmann
EcoMetric



Submitted to:

Nicor Gas Company
1844 Ferry Road
Naperville, IL 60563

Submitted by:

Guidehouse Inc.
167 N. Green Street
12th Floor
Chicago, IL 60607

Contact:

Charles Maglione, Partner
202.481.7352
cmaglione@guidehouse.com

Jeff Erickson, Director
608.616.4962
jeff.erickson@guidehouse.com

Laura Agapay-Read, Associate Director
312.583.4178
laura.agapay.read@guidehouse.com

Charles Ampong, Associate Director
608.616.4922
charles.ampong@guidehouse.com

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1 Introduction

This report presents the results of the impact evaluation of the Nicor Gas 2025 Income Qualified Multi-Family (IQ Multi-Family) and Public Housing Energy Savings (PHES) programs. The report is separated into two sections. The IQ Multi-Family section includes the Retrofits, Assessment, Illinois Home Weatherization Assistance Program (IHWAP), and Healthy Homes (HH) programs. The second section presents results for the PHES program. This report presents a summary of the energy impacts for the total programs and is broken out by relevant measure and program structure details. Appendices present the impact analysis methodology and the cost effectiveness analysis input. Program year 2025 covers January 1 to December 31, 2025.

2 Income Qualified Multi-Family Program

2.1 Program Description

The Nicor Gas IQ Multi-Family program offers products and energy saving measures for income-qualified customers in multi-family dwellings within the Nicor Gas service territory. The 2025 Retrofits, Assessments, IHWAP, and Healthy Homes includes direct installation of water efficiency measures (faucet aerators, showerheads, shower timers, controls for domestic hot water), HVAC efficiency measures (advanced thermostats, programmable and reprogrammable thermostats, furnace, boiler controls, steam traps, boiler and furnace tune-ups, pipe insulation, boiler pipe insulation), and building shell measures (air sealing, attic insulation, basement insulation, duct insulation and sealing, wall insulation).

The program had 279 participants in 2025 and completed 3,091 projects as shown in Table 1.

Table 1. 2025 Volumetric Findings Detail – IQ Multi-Family

Participation	Retrofits	IHWAP	Healthy Homes	Total
Participants *	275	2	2	279
Installed Projects †	3,073	16	2	3,091
Measure Types Installed ‡	21	7	6	25

* Participants are defined as distinct counts of building account numbers.

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

‡ Measure Types Installed are the distinct count of Nicor Gas measures; total reflects unique measures across paths.

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. 2025 Installed Measure Quantities – IQ Multi-Family

Program Path	Measure	Quantity Unit	Installed Quantity
Retrofits	Air Filter Replacement	Unit	82
	Air Sealing	LN FT	532,548
	Attic Insulation	SQ FT	719,734
	Basement/Sidewall Insulation	Unit	805
	Boiler Reset Controls	Unit	1
	Boiler Tune Up	Unit	105
	Boilers	Unit	1
	Commercial Gas Heat Pump	Unit	4
	Controls for Domestic Hot Water	Unit	628
	Cover and Gap Sealers for AC	Unit	234
	Duct Insulation	Unit	682
	Duct Sealing	Unit	29,927
	Furnace Tune-Up	Unit	1
	Low Flow Aerator (IU)	Unit	1,946
	Low Flow Showerheads (IU)	Unit	1,437
	Pipe Insulation	LN FT	22,147
	Programmable Thermostats	Unit	431
	Shower Timer	Unit	2,601
	Steam Boiler Averaging Controls	Unit	72
	Steam Trap	Unit	318
	Storage Tank Insulation	SQ FT	191
IHWAP	Air Sealing	LN FT	4,262
	Attic Insulation	SQ FT	19,084
	High Efficiency Furnace (IU)	Unit	48
	Low Flow Aerator (IU)	Unit	47
	Low Flow Showerheads (IU)	Unit	17
	Programmable Thermostats	Unit	48
	Wall Insulation	SQ FT	22,848
Healthy Homes	Advanced Thermostats	Unit	1
	Air Filter Replacement	Unit	1
	Air Purifier/Cleaner	Unit	2
	Air Sealing	LN FT	230
	Duct Sealing	Unit	1
	Furnace Tune-Up	Unit	1

Source: Nicor Gas tracking data and evaluation team analysis.

2.2 Program Savings Detail

Table 3 summarizes the energy savings the IQ Multi-Family program achieved by path in 2025.

Table 3. 2025 Annual Energy Savings Summary – IQ Multi-Family

Program Category	Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Private	Retrofits	817,877	100%	818,660	1.00	818,660
	IHWAP	23,630	100%	23,630	1.00	23,630
	Healthy Homes	569	100%	569	1.00	569
Total		842,075	100%	842,858	1.00	842,858

Note: Savings and realization rates presented in this table are rounded and may not sum precisely to the totals.

** 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-2025/>.

Source: Evaluation team analysis.

2.3 Program Savings by Measure

The program includes 25 measures as shown in Table 4. Air Sealing and Pipe Insulation measures contributed the most savings.

Table 4. 2025 Annual Energy Savings by Measure – IQ Multi-Family

Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Retrofits	Air Filter Replacement	829	100%	829	1.00	829
	Air Sealing	221,131	101%	221,734	1.00	221,734
	Attic Insulation	163,082	100%	163,083	1.00	163,083
	Basement/Sidewall Insulation	664	100%	664	1.00	664
	Boiler Reset Controls	798	100%	798	1.00	798
	Boiler Tune Up	22,630	100%	22,630	1.00	22,630
	Boilers	170	100%	170	1.00	170
	Commercial Gas Heat Pump	7,033	103%	7,238	1.00	7,238
	Controls for Domestic Hot Water	39,376	100%	39,376	1.00	39,376
	Cover and Gap Sealers for AC	1,689	100%	1,689	1.00	1,689
	Duct Insulation	402	100%	402	1.00	402
	Duct Sealing	40,872	100%	40,872	1.00	40,872
	Furnace Tune-Up	16	100%	16	1.00	16
	Low Flow Aerator	13,271	100%	13,271	1.00	13,271
	Low Flow Showerheads (IU)	19,565	100%	19,559	1.00	19,559
	Pipe Insulation	188,136	100%	188,115	1.00	188,115
	Programmable Thermostats	17,473	100%	17,473	1.00	17,473
	Shower Timer	10,807	100%	10,807	1.00	10,807
	Steam Boiler Averaging Controls	4,398	100%	4,398	1.00	4,398
	Steam Trap	64,387	100%	64,387	1.00	64,387
	Storage Tank Insulation	1,148	110%	1,148	1.00	1,148
	Retrofits Subtotal	817,877	100%	818,660	1.00	818,660
IHWAP	Air Sealing	2,373	100%	2,373	1.00	2,373
	Attic Insulation	1,777	100%	1,777	1.00	1,777

Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
	High Efficiency Furnace (IU)	15,362	100%	5,362	1.00	15,362
	Low Flow Aerator	299	100%	299	1.00	299
	Low Flow Showerheads (IU)	75	100%	75	1.00	75
	Programmable Thermostats	1,944	100%	1,944	1.00	1,944
	Wall Insulation	1,800	100%	1,800	1.00	1,800
	IHWAP Subtotal	23,630	100%	12,457	1.00	23,630
Healthy Homes	Advanced Thermostats	67	100%	67	1.00	67
	Air Filter Replacement	8	100%	8	1.00	8
	Air Purifier/Cleaner	-	-	-	1.00	-
	Air Sealing	96	100%	96	1.00	96
	Duct Sealing	310	100%	310	1.00	310
	Furnace Tune-Up	89	100%	89	1.00	89
	Healthy Homes Subtotal	569	100%	569	1.00	569
Total		842,075	100%	842,858	1.00	842,858

Note: Savings and realization rates presented in this table are rounded and may not sum precisely to the totals.

* 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-2025/>.

Source: Evaluation team analysis.

2.4 Impact Analysis Findings and Recommendations

2.4.1 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 a 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 – IQ Multi-Family

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	IL-TRM v13.0 Section†
Advanced Thermostats	Unit	Varies	Varies	101%	5.3.16
Air Filter Replacement	Unit	Varies	Varies	100%	5.3.21

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	IL-TRM v13.0 Section†
Air Sealing	LN FT	Varies	Varies	100%	5.6.1
Attic Insulation	SQ FT	Varies	Varies	100%	5.6.5
Basement/Sidewall Insulation	Unit	Varies	Varies	100%	5.6.2
Boiler Reset Controls	Unit	798.34	798.34	100%	5.4.4
Boiler Tune Up	Unit	Varies	Varies	100%	4.4.2
Boilers	Unit	169.71	169.71	100%	4.4.10
Commercial Gas Heat Pump	Unit	1,758.25	1,809.42	103%	4.4.55
Controls for Domestic Hot Water	Unit	62.70	62.70	100%	4.3.8
Cover and Gap Sealers for AC	Unit	Varies	Varies	100%	4.4.38
Duct Insulation	Unit	0.59	0.59	100%	5.3.4
Duct Sealing	Unit	Varies	Varies	100%	5.3.4
Furnace Tune-Up	Unit	Varies	Varies	100%	5.3.13
High Efficiency Furnace (IU)	Unit	320.04	320.04	100%	5.3.7
Low Flow Aerator (IU)	Unit	Varies	Varies	100%	5.4.4
Low Flow Showerheads (IU)	Unit	Varies	Varies	100%	5.4.5
Pipe Insulation	LN FT	Varies	Varies	100%	4.4.14
Programmable Thermostats	Unit	Varies	Varies	104%	5.3.11
Shower Timer	Unit	4.16	4.16	100%	5.4.9
Steam Boiler Averaging Controls	Unit	61.09	61.09	100%	4.4.36
Steam Trap	Unit	Varies	Varies	100%	4.4.16
Storage Tank Insulation	SQ FT	6.02	6.02	100%	4.3.12
Wall Insulation	SQ FT	0.08	0.08	100%	5.6.4

† State of Illinois Technical Reference Manual version 13.0 from <http://www.ilsag.info/technical-reference-manual.html>.

Source: Nicor Gas tracking data and evaluation team analysis

2.4.2 Findings and Recommendations

The evaluation team developed findings and recommendations based on the 2025 evaluation. The findings and recommendations are organized by path type in the following sections.

2.4.2.1 Retrofits

Finding 1. In eleven instances of the *Air Filter Replacement* measure, ex ante calculations used Gas Heating Consumption as 1,052 Therms, corresponding to the Rockford climate zone. However, tracking data reported 1,005 Therms, corresponding to the Chicago climate zone. The evaluation team used installation address to verify the climate zone and applied Gas Heating Consumption as 1,052 Therms for Rockford climate zone, consistent with IL-TRM v13.0. This measure accounts for 0.1% of Retrofit component's reported gross Therms savings and the realization rate is 100% for this measure.

Finding 2. For one instance of *Low Flow Aerator - Kitchen (DI) MF-IU* (MEA-2025.04.28-904848), ex ante calculations applied a Household Factor of 2.3 to calculate savings. However, the tracking data reported a Household Factor of 2.1. The evaluation team used a Household factor of 2.3, consistent with IL-TRM v13.0 to calculate verified savings.

Finding 3. For 456 instances of *Handheld Showerhead (DI) MF-IU* and 775 instances of *Showerhead (DI) MF-IU*, ex ante calculations applied a Household Factor of 2.3 to calculate savings. However, the tracking data reported a Household Factor of 2.1. The evaluation team used Household Factor of 2.3, consistent with IL-TRM v13.0, to calculate verified savings.

Finding 4. For twenty-five instances of *Duct Sealing* measure, ex ante calculations applied a Heating Input Capacity of 80 kBtu/hr to calculate savings, while the tracking data reflects a default value of 478.387 kBtu/hr. Based on supplemental information, the evaluation team applied 80 kBtu/hr to calculate verified savings.

Recommendation 1. For measures in findings 1-4, ensure inputs reported in the tracking data align with the inputs used in ex ante savings calculations and the IL-TRM v13.0.

Finding 5. For one instance of *Low Flow Showerheads (IU)* (MEA-2025.10.08-970749), and one instance of *Pipe Insulation* (MEA-2025.04.28-903592), the tracking data reported the installations were in-unit. However, the supplemental file shows that ex ante calculations used the TRM algorithm and assumptions corresponding to common area installations for these instances. The evaluation team calculated verified savings assuming common area installations consistent with the supplemental data.

Recommendation 2. Ensure consistent classification of measures as in-unit or common area in the tracking data and ex ante calculations.

Finding 6. In one instance of *Air Sealing* measure (MEA-2025.09.18-961878), ex ante calculations used an In-Service Rate (ISR) of 60%, applicable to Rope Caulk measures in Opt-in Weatherization Kits. The evaluation team applied a 100% ISR, applicable to Direct Install measures, consistent with the program delivery method. This measure accounts for 27% of Retrofit component's reported gross Therms savings and the impact of this adjustment resulted in a realization rate of 101% for this measure.

Recommendation 3. Ensure the ISR applied in savings calculations for all air sealing measures reflects the program delivery method.

Finding 7. Capacity values reported in *Capacity New Equipment* field are not expressed using a consistent unit basis. Values are entered in a mix of kBtu/hr and Btu/hr, and in some instances appear to be converted incorrectly (e.g., dividing Btu/hr by 100 rather than 1,000).

Recommendation 4. Ensure that all values in the *Capacity New Equipment* field are reported using a consistent unit basis and that unit conversions are applied correctly.

Finding 8. For fourteen instances of *Air Sealing* measure, ex ante calculations used a quantity of 1,646 linear feet as compared to the reported quantity of 1,738. The evaluation team used the quantity of 1,646 linear feet to calculate total verified savings. This measure accounts for 27% of Retrofit component's reported gross Therms savings.

Recommendation 5. Ensure that air sealing quantities are reported consistently with the total Therm savings.

Finding 9. For all four instances of Commercial Gas Heat Pump measure the ex ante calculations used the consumption by number of people per household methodology from Section 4.3.10 of IL-TRM v13.0 to calculate the annual hot water consumption served by the measure. This methodology includes a household factor and the ex-ante calculations applied a 2.1 Household Factor, applicable to non-IQ participants. The evaluation team applied a 2.3 Household Factor, applicable to IQ participants. This measure accounts for 0.86% of Retrofit component's reported gross Therm savings and this adjustment resulted in a realization rate of 103%.

Recommendation 6. For income qualified programs, use the household factor applicable to income qualified participants from the IL-TRM.

Finding 10. For one instance of *Pipe Insulation, DHW Small ≤1.25"* measure, total ex ante savings were calculated with a quantity of 22.5. The tracking data reported a rounded quantity of 23 for this instance. For three instances of *DHW Storage Tank Insulation* measure, total ex ante savings were calculated with a quantity of 13.55, 19.25, and 13.77. The tracking data reported a rounded quantity of 14, 19 and 14 for these instances.

The evaluation team calculated total verified savings using the quantities reported in the tracking data. The pipe insulation and tank insulation measures account for 23% and 0.14% of Retrofit component's reported gross Therms savings, respectively. This adjustment resulted in a realization rate of 99.99% and 100.2% for pipe insulation and tank insulation measures, respectively.

Recommendation 7. Ensure that pipe insulation quantities are reported consistently with the total savings.

Finding 11. For two instances of *Basement/Sidewall Insulation*, (MEA-2025.04.15-895545, MEA-2025.07.17-933809), the tracking data did not report R-value of additional insulation (R_{added}), needed to calculate ex post savings. The tracking data provides existing R value for above ground and below ground, which are not used in the ex ante calculations, as it follows a simplified calculation approach from the approved measure calculator. The evaluation team used the pre and post installation values from the supplemental calculation to verify the savings. This measure accounts for 0.01% of Retrofit component's reported gross Therms savings.

Recommendation 8. Ensure that inputs used in savings calculations for Basement/Sidewall Insulation are reported in the tracking data.

Finding 12. For two instances of Pipe Insulation (MEA-2025.04.15-895547, MEA-2025.04.15-895546), ex ante calculations used value of 5,039 for EFLH, consistent with the climate zone for these projects based on the site address. However, the tracking data reports EFLH as 4,963. However, the tracking data reported an EFLH value for Chicago. Ex post calculations used an EFLH value of 5,039, corresponding to Rockford climate zone, consistent with the supplemental calculations and site address.

Recommendation 9. Ensure that EFLH reported in the tracking data is consistent with the site address.

2.4.2.2 Illinois Home Weatherization Assistance Program (IHWAP)

Finding 13. For all four instances of *Low Flow Aerator - Bath (DI) MF-IU* measure, ex ante calculations used baseline flow rate of 1.53 gpm, applicable for Bathroom Aerators to calculate savings. However, tracking data reported 1.63 gpm, applicable for Kitchen Aerators. The evaluation team used baseline flow rate of 1.53 gpm, consistent with IL-TRM v13.0 to calculate verified savings. This measure accounts for 0.2% of IHWAP component's reported gross Therms savings and the realization rate is 100% for this measure.

Finding 14. For all three instances of *Handheld Showerhead (DI) MF-IU* measure, ex ante calculations used Household Factor of 2.3 and ISR of 96.5% to calculate savings. However, tracking data reported 2.1 and 97% for Household Factor and ISR, respectively. The evaluation team used Household Factor of 2.3 and ISR of 96.5%, consistent with IL-TRM v13.0 to calculate verified savings. This measure accounts for 0.3% of IHWAP component's reported gross Therms savings and the realization rate is 100% for this measure.

Recommendation 10. Ensure that inputs reported in the tracking data align with inputs used in ex ante calculations and the IL-TRM v13.0.

Finding 15. For all four instances of *Wall Insulation* and *Attic Insulation* measures, the ex ante calculations used a derated equipment efficiency of 53.43%. Similarly, for all four instances of *Furnace, >95% AFUE - MF IU* measure, the ex ante calculations used a derated existing equipment efficiency of 62.85%. The tracking data reported an existing equipment efficiency of 80%. However, equipment age is not reported in the tracking data. The evaluation team used a derated equipment efficiency of 53.43% and 62.85%, based on the equipment age provided in the supplemental calculations to verify ex-ante savings. The wall insulation, attic insulation and furnace measures account for 8%, 8% and 65% of IHWAP component's reported gross Therms savings, respectively.

Recommendation 11. For early replacement scenarios where equipment age is used to derate efficiency, ensure that the age of equipment is reported in the tracking data.

Finding 16. For all four instances of *Wall Insulation* and *Attic Insulation* measures, the tracking data reported existing insulation (R_{old}) and new insulation (R_{new}) values that already include the TRM minimum insulation of R-5 for uninsulated assemblies, while other program paths report R-values excluding this minimum. For wall and attic insulation measures in IHWAP, the evaluation team treated reported R-values as total assembly R-values in calculating verified savings.

Recommendation 12. Ensure that R-values are consistently reported across all program paths.

3 Public Housing Energy Savings Program

3.1 Program Description

The Public Housing Energy Savings Program (PHES) Program works with public housing authorities (PHAs) in ComEd, Nicor Gas, Peoples Gas (PGL), and North Shore Gas (NSG) territories to achieve electric and gas savings. The PHAs themselves are the program participants, though the residents of the properties are directly affected by the program through in-unit and common area upgrades. Gas savings opportunities include both heating and water heating equipment upgrades and envelope measures (attic insulation, air sealing, duct sealing, duct insulation, cover and gap sealers for AC). The program also included gas saving measures, such as high efficiency furnace, furnace tune-up and boiler tune up.

The program had 14 participants in 2025 and completed 23 projects as shown in Table 6.

Table 6. 2025 Volumetric Findings Detail – Public Housing

Participation	Public Housing
Participants *	14
Installed Projects †	23
Measure Types Installed ‡	8

* Participants are defined as distinct counts of building account numbers.

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

‡ Measure Types Installed are the distinct count of Nicor Gas measure names

Source: Nicor Gas tracking data and evaluation team analysis.

Table 7 summarizes the installed measure quantities that are the basis for verified energy savings.

Table 7. 2025 Installed Measure Quantities – Public Housing

Program Path	Measure	Quantity Unit	Installed Quantity
Public Housing	Air Sealing	LN FT	55,308
	Attic Insulation	SQ FT	92,181
	Boiler Tune Up	Unit	4
	Cover and Gap Sealers for AC	Unit	24
	Duct Insulation	Unit	1,385
	Duct Sealing	Unit	540
	Furnace Tune-Up	Unit	471
	High Efficiency Furnace - CA	MBH Input	400

Source: Nicor Gas tracking data and evaluation team analysis.

3.2 Program Savings Detail

Table 8 summarizes the energy savings the PHES program achieved by path in 2025.

Table 8. 2025 Annual Energy Savings Summary – Public Housing

Program Path	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Public Housing	41,027	100%	41,027	1.00	41,027

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

† Net to Gross is the deemed value available on the SAG website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/>. Source: Evaluation team analysis.

3.3 Program Savings by Measure

The program includes nine measures as shown in Table 9. The Air Sealing and Furnace-Tune Up measures contributed the most savings.

Table 9. 2025 Annual Energy Savings by Measure – Public Housing

Program Path	Savings Category	Ex Ante Gross Savings (Therms)	Verified Gross RR*	Verified Gross Savings (Therms)	NTG†	Verified Net Savings (Therms)
Public Housing	Air Sealing	23,008	100%	23,008	1.00	23,008
	Attic Insulation	6,083	100%	6,083	1.00	6,083
	Boiler Tune Up	1,304	100%	1,304	1.00	1,304
	Cover and Gap Sealers for AC	164	100%	164	1.00	164
	Duct Insulation	817	100%	817	1.00	817
	Duct Sealing	544	100%	544	1.00	544
	Furnace Tune-Up	7,787	100%	7,787	1.00	7,787
	High Efficiency Furnace – CA	1,320	100%	1,320	1.00	1,320
Total		41,027	100%	41,027	1.00	41,027

Note: Savings and realization rates presented in this table are rounded and may not sum precisely to the totals.

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

† Net to Gross is the deemed value available on the SAG website: <https://www.ilsag.info/evaluator-ntg-recommendations-for-2025/>. Source: Evaluation team analysis.

3.4 Impact Analysis Findings and Recommendations

3.4.1 Impact Parameter Estimates

Table 10 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 10. Verified Gross Savings Parameters – Public Housing

Measure	Unit Basis	Ex Ante Gross (therms/unit)	Verified Gross (therms/unit)	Realization Rate	IL-TRM v13.0 Section†
Air Sealing	LN FT	Varies	Varies	100%	5.6.1
Attic Insulation	SQ FT	Varies	Varies	100%	5.6.5
Boiler Tune Up	Unit	Varies	Varies	100%	4.4.2
Cover and Gap Sealers for AC	Unit	Varies	Varies	100%	4.4.38
Duct Insulation	Unit	0.59	0.59	100%	5.3.4
Duct Sealing	Unit	Varies	Varies	100%	5.3.4
Furnace Tune-Up	Unit	Varies	Varies	100%	5.3.13
High Efficiency Furnace – CA	Unit	3.3	3.3	100%	4.4.11

† State of Illinois Technical Reference Manual version 13.0 from <http://www.ilsag.info/technical-reference-manual.html>.

Source: Nicor Gas program tracking data and evaluation team analysis

3.4.2 Findings and Recommendations

Finding 17. For all 471 instances of *Furnace Tune-ups*, ex ante calculations used EFLH of 1,022 and 976 for Rockford and Chicago climate zones, respectively. However, tracking data reported 1,782 EFLH for both the climate zones. The evaluation team used EFLH of 1,022 and 976 hours for Rockford and Chicago climate zones, respectively, consistent with the ex ante calculations and IL-TRM v13.0.

Recommendation 13. Ensure that deemed inputs recorded in the tracking data for Furnace Tune-ups are consistent with the values used in ex ante savings calculations and the IL-TRM v13.0.

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 v13.0 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 v13.0.
- 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. Through the ILSAG consensus process, an NTG ratio of 1.00 was established for IQ programs in Illinois.
- Guidehouse sourced methodologies and assumptions from the Illinois IL-TRM v13.0 and the final 2025 tracking data.

Appendix B. Program Specific Inputs for the Illinois TRC

Table 11 and Table 12 show the Total Resource Cost (TRC) cost-effectiveness analysis inputs available at the time of producing this impact evaluation report for IQ Multi-Family and PHES programs, respectively. 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 11. Verified Cost Effectiveness Inputs – IQ Multi-Family

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)
Retrofits	Air Filter Replacement	FALSE	Unit	82	3.0	NO	-	829	829	829
	Air Sealing	FALSE	LN FT	532,548	20.0	NO	-	221,131	221,734	221,734
	Attic Insulation	FALSE	SQ FT	719,734	30.0	NO	-	163,082	163,083	163,083
	Basement/Sidewall Insulation	FALSE	Unit	805	30.0	NO	-	664	664	664
	Boiler Reset Controls	FALSE	Unit	1	16.0	NO	-	798	798	798
	Boiler Tune Up	FALSE	Unit	105	3.0	NO	-	22,630	22,630	22,630
	Boilers	FALSE	Unit	1	16.5	NO	-	170	170	170
	Commercial Gas Heat Pump	FALSE	Unit	4	20.0	NO	-	7,033	7,238	7,238
	Controls for Domestic Hot Water	FALSE	Unit	628	15.0	NO	-	39,376	39,376	39,376
	Cover and Gap Sealers for AC	FALSE	Unit	234	5.0	NO	-	1,689	1,689	1,689
	Duct Insulation	FALSE	Unit	682	19.7	NO	-	402	402	402
	Duct Sealing	FALSE	Unit	29,927	19.7	NO	-	40,872	40,872	40,872
	Furnace Tune-Up	FALSE	Unit	1	3.0	NO	-	16	16	16
	Low Flow Aerator (IU)	FALSE	Unit	1,946	10.0	NO	2,562,555	13,271	13,271	13,271
	Low Flow Showerheads (IU)	FALSE	Unit	1,437	10.0	NO	3,104,559	19,565	19,559	19,559
	Pipe Insulation	FALSE	LN FT	22,147	12.0	NO	-	188,136	188,115	188,115
	Programmable Thermostats	FALSE	Unit	402	8.0	NO	-	16,297	16,297	16,297

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)
IHWAP	Reprogrammable Thermostat	FALSE	Unit	29	2.0	NO	-	1,176	1,176	1,176
	Shower Timer	FALSE	Unit	2,601	2.0	NO	1,729,187	10,807	10,807	10,807
	Steam Boiler Averaging Controls	FALSE	Unit	72	20.0	NO	-	4,398	4,398	4,398
	Steam Trap	FALSE	Unit	318	6.0	NO	454,875	64,387	64,387	64,387
	Storage Tank Insulation	FALSE	SQ FT	191	15.0	NO	-	1,148	1,148	1,148
	Air Sealing	FALSE	LN FT	4,262	20.0	NO	-	2,373	2,373	2,373
	Attic Insulation	FALSE	SQ FT	19,084	30.0	NO	-	1,777	1,777	1,777
	High Efficiency Furnace - IU	FALSE	Unit	48	20.0	NO	-	15,362	15,362	15,362
	Low Flow Aerator (IU)	FALSE	Unit	47	10.0	NO	58,118	299	299	299
	Low Flow Showerheads (IU)	FALSE	Unit	17	10.0	NO	11,907	75	75	75
	Programmable Thermostats	FALSE	Unit	48	8.0	NO	-	1,944	1,944	1,944
Healthy Homes	Wall Insulation	FALSE	SQ FT	22,848	30.0	NO	-	1,800	1,800	1,800
	Advanced Thermostats	FALSE	Unit	1	2.0	NO	-	67	67	67
	Air Filter Replacement	FALSE	Unit	1	3.0	NO	-	8	8	8
	Air Purifier/Cleaner	FALSE	Unit	2	-	NO	-	-	-	-
	Air Sealing	FALSE	LN FT	230	20.0	NO	-	96	96	96
	Assessment/No Savings	FALSE	Unit	15	-	NO	-	-	-	-
	Duct Sealing	FALSE	Unit	1	19.7	NO	-	310	310	310
	Furnace Tune-Up	FALSE	Unit	1	3.0	NO	-	89	89	89
Total or Weighted Average					18.1		7,921,518	842,075	824,858	824,858

Savings presented in this table are subject to rounding and may not sum precisely to totals.
Source: Evaluation team analysis.

Table 12. Verified Cost Effectiveness Inputs – Public Housing

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)
Public Housing	Air Sealing	FALSE	LN FT	55308	20.00	NO	-	23,008	23,008	23,008
	Assessment/No Savings	FALSE	Unit	3242	-	NO	-	-	-	-
	Attic Insulation	FALSE	SQ FT	92181	30.0	NO	-	6,083	6,083	6,083
	Boiler Tune Up	FALSE	Unit	4	3.0	NO	-	1,304	1,304	1,304
	Cover and Gap Sealers for AC	FALSE	Unit	24	5.0	NO	-	164	164	164
	Duct Insulation	FALSE	Unit	1385	19.7	NO	-	817	817	817
	Duct Sealing	FALSE	Unit	540	19.7	NO	-	544	544	544
	Furnace Tune-Up	FALSE	Unit	471	3.0	NO	-	7,787	7,787	7,787
	High Efficiency Furnace - CA	FALSE	Unit	400	20.0	NO	-	1,320	1,320	1,320
Total or Weighted Average					17.6			41,027	41,027	41,027

Source: Evaluation team analysis.

Appendix C. Income Qualified Multi-Family and Public Housing Reporting Metrics

The tables below present participation reporting metrics for IQ Multi-Family and Public Housing buildings (IQ Metrics). These metrics summarize program participation at the building and apartment levels, including the number treated within each major measure category, consistent with the IQ Multi-Family Reporting Principles Policy in Section 6.8 of Policy Manual Version 3.0¹.

Guidehouse used the 2025 year-end tracking data to develop these reporting metrics. The tracking data includes gas account numbers and the number of apartment units associated with each account number. Guidehouse counted buildings based on the distinct number of gas account numbers in the tracking data. To estimate the number of apartments treated, Guidehouse applied the minimum reported number of units associated with each account number.

Guidehouse then used a standardized measure crosswalk to map each tracking-data measure to the IQ metric reporting major measure categories.

Measures are generally categorized based on their primary function:

- Air sealing measures → Air Sealing
- Attic insulation measures → Attic Insulation
- Other whole-building envelope insulation measures → Other Insulation
- Heating system replacements → Gas Heating System Replacements
- Controls, tune-ups, steam-system improvements, and other HVAC measures → Other HVAC
- Direct-install measures → Direct Install categories, where applicable
- Pipe insulation and other mechanical-system insulation measures → Other
- Administrative, health-and-safety, audit-only, and non-savings measures → NA (excluded)

After mapping measures to the reporting categories, Guidehouse identified the associated building accounts and applied the conservative unit-count methodology described above to calculate the total number of affected buildings and apartments within each reporting category. For Direct Install measures, Guidehouse further limited apartment counts to the lower of the installed quantity or the building's minimum reported apartment unit count.

¹ https://www.ilsag.info/wp-content/uploads/IQ-Multi-Family-Reporting-Metrics_FINAL-updated-9-8-2025.pdf

Table 13. IQ Metrics for Nicor Gas – IQ Multi-Family

Reporting Category	Buildings Treated	Apartments Treated
Total participants	279	12448
Total participants w/electric heat	98	4392
Direct Install in-unit	152	5046
Heat pumps	0	0
heat pump water heaters	0	0
Gas heating system replacements	4	82
Other HVAC equipment measures	53	2921
Attic Insulation	91	4604
Other Insulation	5	34
Air sealing	138	6,236
Common area lighting w/controls	0	0
Common area lighting w/o controls	0	0
Other	180	6,500

Table 14. IQ Metrics for Nicor Gas – Public Housing

Reporting Category	Buildings Treated	Apartments Treated
Total participants	14	766
Total participants w/electric heat	6	377
Direct Install in-unit	1	24
Heat pumps	0	0
heat pump water heaters	0	0
Gas heating system replacements	1	32
Other HVAC equipment measures	6	574
Attic Insulation	8	430
Other Insulation	6	10
Air sealing	8	430
Common area lighting w/controls	0	0
Common area lighting w/o controls	0	0
Other	6	10