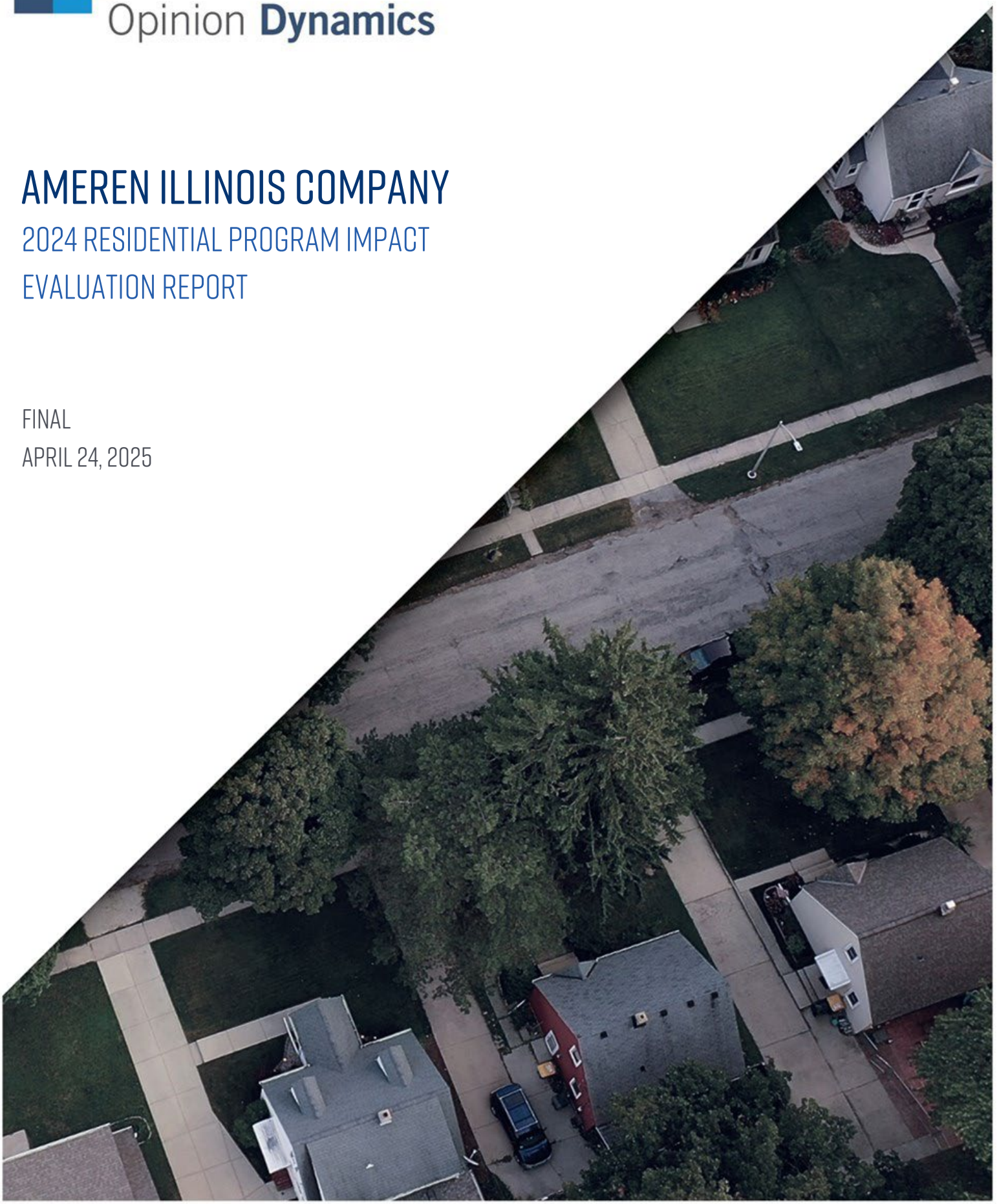
Opinion Dynamics

AMEREN ILLINOIS COMPANY

2024 RESIDENTIAL PROGRAM IMPACT EVALUATION REPORT

FINAL

APRIL 24, 2025



CONTENTS

TABLES AND FIGURES

I. EXECUTIVE SUMMARY

This report presents impact evaluation results from Ameren Illinois Company's (AIC) 2024 Residential Program. The Residential Program is part of AIC's overall portfolio of residential and nonresidential energy efficiency programs implemented during 2024. The overarching objective of the 2024 Residential Program impact evaluation is to determine gross and net electric energy, electric demand, and fossil fuel impacts associated with the Program.

I.I PROGRAM OVERVIEW

The Residential Program is formally made up of six initiatives, most of which are further broken down into channels:

- Retail Products Initiative
  - Point of Sale (POS) channel
  - Downstream Rebate channel
  - Online Marketplace channel
- Income Qualified (IQ) Initiative
  - Single Family channel, including the Accessibility Pilot
  - Community Action Agency (CAA) channel, including Food Bank Holiday Kits
  - Joint Utility channel, including Joint Utility School Kits and Bloomington-Normal (BN) Kits
  - Smart Savers channel
  - Mobile Homes and Air Sealing (MHAS) channel, including Mobile Home Kits
  - Healthier Homes channel
  - Electrification channel
  - Community Kits channel
  - Multifamily channel
  - Retail Products channel
- Public Housing Initiative
- Market Rate Multifamily Initiative
- Market Rate Single Family Initiative
  - Midstream HVAC channel
  - Home Efficiency channel
- Direct Distribution Efficient Products (Direct Distribution) Initiative
  - School Kits channel
  - High School Innovation channel

The Program's Initiatives are designed to achieve energy savings in accordance with AIC's plan filing and to provide energy efficiency services and assistance to customers through a wide range of channels. The Retail Products Initiative, which provides POS discounts and rebates to customers purchasing energy-efficient products, is the largest component

of the Program from an electric energy and gas savings perspective. The IQ Initiative, which provides whole-home retrofit services and energy efficiency measures through a variety of channels, is the largest component of the Program from a program cost perspective.

To best serve AIC and stakeholders, we have considered the delivery strategy and unique characteristics for each AIC offering at the initiative and channel level and have organized our evaluation activities to optimize the use of evaluation resources, minimize customer touchpoints, and strengthen research insights. As a result, evaluation efforts are not always organized in a way that perfectly aligns with formal portfolio organization. Our report makes the following organizational reporting choices:

- The portion of the Retail Products Initiative delivered to IQ customers is grouped with the portion delivered to Market Rate customers, as program delivery is generally not differentiated.
- The IQ Initiative's channels that focus on delivering measures directly to single family customer homes (as differentiated from retail, multifamily, or kit-based offerings) are grouped together as the IQ Initiative – Single Family channels.
- The three separate AIC efforts that deliver services to multifamily customers (the Multifamily channel of the IQ Initiative, all channels of the Market Rate Multifamily Initiative, and the Public Housing Initiative) are grouped together as program delivery is coordinated across these channels.
- All AIC efforts that deliver efficiency measures to residential customers through kits or other similar delivery channels are grouped together as evaluation efforts for these efforts are similar.

1.2 POLICY BACKGROUND

This report covers the third calendar year of AIC's sixth Electric and Gas Energy Efficiency and Demand Response Plan, covering calendar years 2022–2025 (Plan 6). AIC's Plan 6 portfolio is governed by components of Illinois state law (220 ILCS 5/8-103B [Section 8-103B] and 220 ILCS 5/8-104 [Section 8-104]) that direct large, regulated utilities to offer electric and gas energy efficiency programs. Section 8-103B and Section 8-104 were most recently substantively revised through the passage of Illinois Public Act 102-0662 (the Climate and Equitable Jobs Act, or CEJA) in September 2021.

Section 8-103B and Section 8-104 define key policy points relevant to the evaluation of the 2024 AIC Residential Program. These are summarized below as context for this evaluation report.

- **Cumulative Persisting Annual Savings (CPAS):** Since 2018, electric energy savings goals for Illinois utilities have been primarily defined based on persisting savings as a percentage of sales. As such, annual evaluations of AIC's electric energy efficiency programs must present both annual and persisting savings over the life of delivered measures. As a result, AIC and its program implementer have sought to deliver programs that achieve savings that persist for longer periods of time.
- **Weighted Average Measure Life (WAML):** Section 8-103B allows AIC to create a regulatory asset from all of its 8-103B expenditures, and amortize and recover the total expenditures of that regulatory asset "over a period that is equal to the weighted average of the measure lives implemented for that year that are reflected in the regulatory asset."[1] Therefore, annual evaluations of AIC's electric energy efficiency programs must present a WAML in

[1] Illinois Energy Efficiency Stakeholder Advisory Group. *Weighted Average Measure Life Report.* 2018. Accessed at https://www.ilsag.info/wp-content/uploads/SAG_files/SAG_Reports/SAG_WAML_Report_Final_2-20-18.pdf.

accordance with the guidelines for calculation presented in the Illinois Stakeholder Advisory Group's (SAG) WAML Report and the Illinois Energy Efficiency Policy Manual.[2]

- **Applicable Annual Incremental Goal (AAIG):** Section 8-103B allows AIC to earn a rate of return on their electric energy efficiency spending if they create a regulatory asset, as discussed above. The rate of return that is earned can be adjusted either up or down as a function of AIC's performance relative to its AAIG. The AAIG is defined as the difference between the cumulative persisting electric savings goal for the year being evaluated and the cumulative persisting electric savings goal for the previous year. AIC must achieve sufficient savings through its programs to replace savings from measures at the end of their measure life before progress can be counted toward the AAIG. Therefore, annual evaluations of AIC's electric energy efficiency programs must assess AIC's performance against its AAIG.
- **(b-25) Savings Conversion:** Subsection (b-25) of Section 8-103B allows electric utilities to "convert" savings achieved for other fuels, including natural gas, to electric savings for the purposes of goal attainment in certain cases. The total amount of savings allowed to be converted is capped at a maximum of 10% of the utility's applicable annual total savings requirement.[3,4] Savings AIC claimed in 2024 via (b-25) conversions are presented in the *2024 AIC Integrated Impact Evaluation Report*; this report presents actual savings achieved for all fuels with the exception of electrification savings, as discussed below.
- **Electrification:** CEJA added statutory language in subsection (b-27) of Section 8-103B that enables electric utilities to use their energy efficiency programs to offer and promote measures that electrify end uses, such as space and water heating, that would otherwise be served by fossil fuels. Utilities are instructed to claim those savings as the kWh equivalent of the change in site energy consumption due to electrification.

  As a result, AIC has pursued program strategies in Plan 6 that seek to begin limited electrification activities. In particular, the utility has launched targeted efforts to electrify end uses for low-income customers currently served by delivered fuels, such as propane. We report on AIC's 2024 electrification efforts in Section 3.2.9 of this report. Statutorily required reporting around these efforts is presented in Appendix G.

1.3 PROGRAM SAVINGS

In the following sections, the evaluation team presents annual savings (annualized 2024 energy savings) and CPAS for AIC's Residential Program. As discussed in greater detail in the *2024 AIC Integrated Impact Evaluation Report*, AIC's performance compared to its AAIG is determined based on both types of savings.

1.3.1 ANNUAL SAVINGS

The 2024 Residential Program achieved 145,189 MWh, 19.99 MW, and 2,643,493 therms in verified net savings. These savings include a nonparticipant spillover (NPSO) adder to net savings.[5,6] These savings also include (b-25) conversions of fuels not provided by AIC, which are detailed further in the *2024 AIC Integrated Impact Evaluation Report*. Table 1, Table 2, and Table 3 present ex ante gross, verified gross, and verified net electric energy, electric demand, and gas savings by initiative and channel for the 2024 Residential Program.

[2] Ibid.
[3] The annual total savings requirement is the AAIG plus the additional savings that need to be acquired on an annual basis to replace any savings from measures at the end of their measure life before progress can be counted toward AAIG.
[4] Prior to the passage of CEJA, the (b-25) savings conversion was capped at 10% of AAIG, rather than the annual total savings requirement.
[5] Opinion Dynamics. *Ameren Illinois Company Energy Efficiency Portfolio 2024 Net-to-Gross Ratios*. Accessed at: https://www.ilsag.info/evaluator-ntg-recommendations-for-2024/.
[6] The process of computing savings from the residential NPSO adder is complex. See Section 2.3.1 for more detail.

Table 1. 2024 Residential Program Electric Energy Annual Savings Summary

Initiative/Channel	Ex Ante Gross MWh	Gross Realization Rate	Verified Gross MWh	Net-to-Gross Ratio (NTGR)	Verified Net MWh
Retail Products – Income Qualified	84,539	98%	82,948	0.905	75,061
Retail Products – Market Rate	19,847	95%	18,816	0.830	15,618
Retail Products – Income Qualified Carryover[a]	0	N/A	4,663	0.908	4,236
Retail Products – Market Rate Carryover[a]	0	N/A	5,196	0.713	3,706
Income Qualified – Single Family	5,194	94%	4,857	1.000	4,857
Income Qualified – CAA	844	101%	852	1.000	852
Income Qualified – Joint Utility	166	102%	169	1.000	169
Income Qualified – Smart Savers	398	98%	390	0.998	389
Income Qualified – MHAS	293	102%	297	1.000	297
Income Qualified – Healthier Homes	37	110%	41	1.000	41
Income Qualified – Electrification	358	102%	365	1.000	365
Income Qualified – Carryover[a]	0	N/A	32	1.000	32
Multifamily – Income Qualified	11,776	95%	11,136	1.000	11,136
Multifamily – Market Rate	2,160	100%	2,159	0.950	2,052
Multifamily – Public Housing	1,614	85%	1,371	1.000	1,371
Market Rate Single Family – Midstream HVAC	9,885	99%	9,753	0.743	7,248
Market Rate Single Family – Midstream HVAC Market Effects	0	N/A	0	N/A	1,597
Market Rate Single Family – Home Efficiency	146	98%	143	0.830	118
Kits – Full School Kits	6,470	121%	7,827	1.000	7,827
Kits – Joint Utility School Kits	713	144%	1,028	1.000	1,028
Kits – High School Innovation	1,022	113%	1,152	1.000	1,152
Kits – Income Qualified Community Kits	1,670	100%	1,665	1.000	1,665
Kits – Mobile Home Kits	216	100%	216	1.000	216
Kits – BN Community Kits	110	100%	110	1.000	110
Kits – Food Bank Holiday Kits	1,792	100%	1,792	1.000	1,792
Kits – Carryover[a]	0	N/A	373	1.000	373
Residential Program Subtotal	*149,250*	*99%*	*157,349*	*0.911*	*143,308*
Residential (b-25) Conversions					990
Residential NPSO Adder					891
Residential Program Total					**145,189**

[a] Carryover savings are achieved through installation of measures during 2024 that were distributed or rebated in prior program years. For clarity, we break out carryover savings separately throughout this report.

[b] Calculations of gross realization rate at the Residential Program level exclude categories of savings with no ex ante savings.

Table 2. 2024 Residential Program Electric Demand Annual Savings Summary

Initiative/Channel	Ex Ante Gross MW	Gross Realization Rate	Verified Gross MW	NTGR	Verified Net MW
Retail Products – Income Qualified	18.14	58%	10.48	0.909	9.53
Retail Products – Market Rate	4.02	99%	3.96	0.788	3.12
Retail Products – Income Qualified Carryover[a]	0.00	N/A	0.60	0.908	0.55
Retail Products – Market Rate Carryover[a]	0.00	N/A	0.69	0.713	0.49
Income Qualified – Single Family	0.98	96%	0.94	1.000	0.94
Income Qualified – CAA	0.20	101%	0.20	1.000	0.20
Income Qualified – Joint Utility	0.08	103%	0.08	1.000	0.08
Income Qualified – Smart Savers	0.15	100%	0.15	0.997	0.15
Income Qualified – MHAS	0.06	113%	0.07	1.000	0.07
Income Qualified – Healthier Homes	0.02	101%	0.02	1.000	0.02
Income Qualified – Electrification	0.01	159%	0.01	1.000	0.01
Income Qualified – Carryover[a]	0.00	N/A	0.004	1.000	0.004
Multifamily – Income Qualified	0.65	85%	0.55	1.000	0.55
Multifamily – Market Rate	0.28	100%	0.28	0.984	0.28
Multifamily – Public Housing	-0.01	147%	-0.01	1.000	-0.01
Market Rate Single Family – Midstream HVAC	2.04	100%	2.04	0.743	1.52
Market Rate Single Family – Midstream HVAC Market Effects	0.00	N/A	0.00	N/A	0.28
Market Rate Single Family – Home Efficiency	0.06	100%	0.06	0.840	0.05
Kits – Full School Kits	0.99	116%	1.15	1.000	1.15
Kits – Joint Utility School Kits	0.15	96%	0.15	1.000	0.15
Kits – High School Innovation	0.15	105%	0.16	1.000	0.16
Kits – Income Qualified Community Kits	0.22	98%	0.21	1.000	0.21
Kits – Mobile Home Kits	0.03	100%	0.03	1.000	0.03
Kits – BN Community Kits	0.01	100%	0.01	1.000	0.01
Kits – Food Bank Holiday Kits	0.23	100%	0.23	1.000	0.23
Kits – Carryover[a]	0.00	N/A	0.04	1.000	0.04
Residential Program Subtotal	*28.46*	*73%*	*22.11*	*0.896*	*19.82*
Residential NPSO Adder					0.17
Residential Program Total					**19.99**

[a] Carryover savings are those savings achieved through installation of measures during 2024 that were distributed or rebated in prior program years. For clarity, we break out carryover savings separately throughout this report.

[b] Calculations of gross realization rate at the Residential Program level exclude categories of savings with no ex ante savings.

Table 3. 2024 Residential Program Gas Annual Savings Summary

Initiative/Channel	Ex Ante Gross Therms	Gross Realization Rate	Verified Gross Therms	NTGR	Verified Net Therms
Retail Products – Income Qualified	492,594	101%	495,962	1.000	495,962
Retail Products – Market Rate	1,068,064	100%	1,065,268	0.891	949,276
Income Qualified – Single Family	352,182	100%	353,137	1.000	353,137
Income Qualified – CAA	320	100%	320	1.000	320
Income Qualified – Smart Savers	53,473	101%	53,902	0.999	53,821
Income Qualified – MHAS	39,289	100%	39,290	1.000	39,290
Income Qualified – Healthier Homes	8,560	99%	8,487	1.000	8,487
Multifamily – Income Qualified	51,797	98%	50,990	1.000	50,990
Multifamily – Market Rate	16,890	102%	17,185	0.998	17,159
Multifamily – Public Housing	15,501	98%	15,182	1.000	15,182
Market Rate Single Family – Midstream HVAC	359,002	100%	358,933	0.833	298,879
Market Rate Single Family – Midstream HVAC Market Effects	0	N/A	0	N/A	18,603
Market Rate Single Family – Home Efficiency	26,824	97%	26,131	0.826	21,579
Kits – Full School Kits	204,325	97%	197,204	1.000	197,204
Kits – High School Innovation	30,435	76%	23,235	1.000	23,235
Kits – Income Qualified Community Kits	40,955	100%	40,947	1.000	40,947
Kits – Mobile Home Kits	2,799	100%	2,799	1.000	2,799
Residential Program Subtotal	2,763,010	99%	*2,748,971*	*0.941*	*2,586,870*
Residential NPSO Adder					56,623
Residential Program Total					**2,643,493**

[a] Calculations of gross realization rate at the Residential Program level exclude categories of savings with no ex ante savings.

I.3.2 CUMULATIVE PERSISTING ANNUAL SAVINGS

Table 4 summarizes CPAS and WAML for the 2024 Residential Program. For additional detail related to CPAS and measure life, please see the individual subsections in Section 3 and Appendix C, which present CPAS achieved in each future year. The overall WAML for the 2024 Residential Program is 10.4 years.

Table 4. 2024 Residential Program CPAS and WAML

Initiative/Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Retail Products – Income Qualified	8.8	82,948	0.905	75,061	75,061	75,061	75,061	...	75,061	...	664,356
Retail Products – Market Rate	11.0	18,816	0.830	15,618	15,618	15,618	15,618	...	15,595	...	170,097
Retail Products – Income Qualified Carryover	10.0	4,663	0.908	4,236	4,236	4,236	4,236	...	4,236	...	39,443
Retail Products – Market Rate Carryover	9.4	5,196	0.713	3,706	3,706	3,706	3,706	...	1,498	...	24,173
Income Qualified – Single Family	14.8	4,857	1.000	4,857	4,857	4,857	4,857	...	4,209	...	65,068
Income Qualified – CAA	17.9	852	1.000	852	852	852	851	...	771	...	14,056
Income Qualified – Joint Utility	17.9	169	1.000	169	169	169	169	...	169	...	2,561
Income Qualified – Healthier Homes	15.7	41	1.000	41	41	41	41	...	27	...	504
Income Qualified – Smart Savers	11.0	390	0.998	389	389	389	389	...	389	...	4,283
Income Qualified – MHAS	17.3	297	1.000	297	297	297	297	...	244	...	4,859
Income Qualified – Electrification	17.8	365	1.000	365	365	365	365	...	352	...	5,996
Income Qualified – Carryover	10.0	32	1.000	32	32	32	32	...	32	...	293
Multifamily – Income Qualified	12.9	11,136	1.000	11,136	11,136	11,136	11,136	...	10,892	...	141,243
Multifamily – Market Rate	12.1	2,159	0.950	2,052	2,052	2,052	2,052	...	2,025	...	24,176
Multifamily – Public Housing	14.7	1,371	1.000	1,371	1,371	1,371	1,371	...	1,371	...	20,106
Market Rate Single Family – Midstream HVAC	16.0	9,753	0.743	7,248	7,248	7,248	7,248	...	7,248	...	116,040
Market Rate Single Family – Midstream HVAC Market Effects	15.7	1,597	N/A	1,597	1,597	1,597	1,597	...	1,597	...	25,145
Market Rate Single Family – Home Efficiency	25.7	143	0.830	118	118	118	118	...	118	...	2,791
Kits – Full School Kits	9.5	7,827	1.000	7,827	7,827	6,962	6,962	...	6,962	...	74,254
Kits – Joint Utility School Kits	10.9	1,152	1.000	1,152	1,152	1,152	1,152	...	1,152	...	12,535
Kits – High School Innovation	9.1	1,665	1.000	1,665	1,665	1,665	1,665	...	1,665	...	15,073
Kits – Income Qualified Community Kits	8.2	216	1.000	216	216	216	216	...	216	...	1,769
Kits – Mobile Home Kits	9.6	1,028	1.000	1,028	1,028	929	929	...	929	...	9,825
Kits – BN Community Kits	7.9	110	1.000	110	110	110	110	...	110	...	860
Kits – Food Bank Holiday Kits	7.6	1,792	1.000	1,792	1,792	1,792	1,792	...	1,792	...	13,677
Kits – Carryover	9.9	373	1.000	373	373	373	373	...	373	...	3,408
Residential NPSO Adder	12.2	901	N/A	901	901	901	901	...	831	...	10,551
Residential (b-25) Conversions	11.6	991	0.999	990	990	990	990	...	990	...	11,443
2024 CPAS		**160,828**	**0.902**	**145,189**	**145,189**	**144,225**	**144,224**	**...**	**140,843**	**...**	**1,478,490**
Expiring 2024 CPAS				**0**	**0**	**964**	**1**	**...**	**1,149**	**...**	
Expired 2024 CPAS				**0**	**0**	**964**	**965**	**...**	**4,346**	**...**	
WAML	**10.4**										

2. EVALUATION APPROACH

The following section of the report describes the evaluation approach taken for the 2024 Residential Program impact evaluation. As part of the evaluation process, the evaluation team applied versions of the Illinois Energy Efficiency Policy Manual and the Illinois Technical Reference Manual (IL-TRM) applicable to the 2024 program year (Version 3.0 [V3.0] and Version 12.0 [V12.0], respectively) wherever relevant.[7] Appendix A of this report provides detailed, initiative-specific methodology where appropriate.

2.1 RESEARCH OBJECTIVES AND EVALUATION APPROACH

The overarching research objectives for the impact evaluation of AIC's 2024 Residential Program are as follows:

- Estimate the gross energy and demand impacts from the Program
- Estimate the net energy and demand impacts from the Program

The evaluation team met these objectives by conducting the impact evaluation activities listed in Table 5. As shown, the impact evaluation for each initiative primarily consisted of applying savings algorithms from the IL-TRM V12.0 to final initiative tracking databases to estimate verified gross savings and applying SAG-approved net-to-gross ratios (NTGRs) to these verified gross savings to derive verified net savings. In addition, we reviewed initiative materials and interviewed initiative managers.

Table 5. 2024 Residential Program Impact Evaluation Activities

Initiative	Gross Impacts				Net Impacts
	IL-TRM Application Review	Engineering Desk Reviews	On-Site Measurement and Verification	Consumption Analysis	Application of SAG-Approved NTGRs
Retail Products Initiative	✓				✓
Income Qualified Initiative	✓				✓
Multifamily Initiatives	✓				✓
Market Rate Single Family Initiative[a]	✓				✓
Kits Initiatives	✓				✓

[a] The Market Rate Single Family Initiative's Midstream HVAC channel includes net savings associated with market effects resulting from channel influences on sales of non-incentivized energy-efficient equipment. In addition to IL-TRM assumptions, market effects savings rely on supplementary distributor sales data and primary research with distributors and contractors, as detailed in Appendix A.

The following sections provide further detail on the approaches to estimating verified gross and net savings.

[7] In future years, the evaluation team will apply updated versions of these manuals to the evaluation of this Program as required by law, Illinois Commerce Commission orders, and changes to the manuals themselves.

2.2 VERIFIED GROSS IMPACT ANALYSIS APPROACH

2.2.1 APPLICATION OF IL-TRM V12.0

To determine verified gross impacts associated with the measures delivered through the Residential Program, we reviewed the content of the initiative tracking databases to identify database errors and duplicate records and ensure that the implementer correctly applied savings algorithms and assumptions stated in the IL-TRM V12.0 and the IL-TRM V12.0 errata document. In particular, we applied the algorithms and assumptions provided in the IL-TRM V12.0 while using project-specific data from the initiative tracking databases as inputs where appropriate. We also verified measure installations through analysis of initiative tracking databases and review of supporting project documentation. Appendix A provides detailed information on the IL-TRM V12.0 measures used in this evaluation.

Additionally, we resolved any discrepancies found in the databases—details related to any gross savings adjustments are provided in the initiative-specific sections of this report. Finally, in accordance with Illinois policy, the evaluation team omitted gas penalties and non-AIC fossil fuel savings from savings reported in the body of this report. Appendix B presents details on these additional impacts for cost-effectiveness purposes.

2.2.2 CARRYOVER SAVINGS

In addition to savings achieved by AIC's Residential Program through measures delivered during the 2024 program year, AIC also claims savings in 2024 from lighting measures distributed by the Residential Program in prior years but not installed until 2024. Carryover savings claimed in 2024 are associated with lighting measures distributed in 2022 through the Retail Products, Income Qualified, and Kits Initiatives.

Carryover savings are estimated primarily based on assumptions outlined in the IL-TRM V12.0, which recommends application of assumptions from the IL-TRM V10.0 and IL-TRM V10.0 errata measures memo.[8] We reported previously on AIC's 2024 carryover savings as part of an earlier memo.[9] Carryover savings are not reported as part of individual initiative subsections in Section 3.

2.3 VERIFIED NET IMPACT ANALYSIS APPROACH

To determine verified net savings for the 2024 Residential Program, we generally applied SAG-approved NTGRs to verified gross savings. Details on SAG-approved NTGRs are presented in Appendix A. For the Market Rate Single Family Initiative's Midstream HVAC channel, we estimated net savings associated with market effects resulting from channel influences on sales of non-incentivized energy-efficient equipment, which relied on supplementary distributor sales data and primary research with distributors and contractors, as detailed in Appendix A. Two other items affected net savings in 2024, as detailed below.

[8] Due to changes made to lighting measures in IL-TRM V11.0, the IL-TRM V10.0 and IL-TRM V10.0 errata memo is the final reference source for key lighting assumptions necessary for remaining carryover from certain lighting measures sold prior to 2023.

[9] Opinion Dynamics. *Ameren Illinois Company Lighting Carryover Savings Claimable in 2024*. Accessed at https://www.ilsag.info/wp-content/uploads/AIC-2024-Lighting-Carryover-Savings-Memo-FINAL-2025-01-21.pdf.

2.3.1 DISADVANTAGED AREAS NET-TO-GROSS POLICY

Section 7.4 of the Illinois Policy Manual Version 3.0 outlines the NTGR for Disadvantaged Areas policy.[10] The policy recognizes that free ridership among certain types of customers in economically disadvantaged areas is likely very low; therefore, it directs the application of a NTGR of 1.000 for eligible customers, superseding the SAG-approved NTGRs that would otherwise be applied.

For AIC's Residential Program, the policy applies to program activity in disadvantaged neighborhoods. The policy defines disadvantaged neighborhoods as areas identified as "income-eligible households" by Illinois Solar for All. A large portion of the Residential Program focuses on serving low-income customers and therefore already uses a NTGR of 1.000 in accordance with Policy Manual Section 7.3 (NTGR for Income Eligible Programs).[11] Therefore, the NTGR for Disadvantaged Areas policy does not affect the majority of the channels analyzed in this report. Furthermore, we do not apply the policy to the Retail Products Initiative because the approach used to establish the portion of Retail Products measures delivered to IQ customers overlaps significantly with the policy. Therefore, this policy only affects NTGRs for the Market Rate Multifamily and Market Rate Single Family Initiatives in this report.

Further details on our approach to applying the policy and a list of disadvantaged neighborhoods are available for reference in Opinion Dynamics' July 2024 presentation to the Illinois SAG.[12] For these initiatives, the reported NTGRs at the initiative- and measure-level vary from the SAG-approved NTGRs as a result of the policy.

2.3.2 NONPARTICIPANT SPILLOVER

Net impact evaluation of AIC's Residential Program includes an NPSO adder to net savings achieved by non-income qualified (non-IQ) efforts. This NPSO adder is 3.1% for non-IQ electric savings (energy and demand) and 4.4% for non-IQ gas savings.[13] Table 6 summarizes verified, non-IQ net savings for AIC's Residential Program by initiative and computes the NPSO adder as defined above.

Table 6. 2024 Residential Program Verified Net Savings Summary for Non-IQ Initiatives

Initiative/Channel	Verified Net MWh	Verified Net MW	Verified Net Therms
Retail Products – Market Rate	15,618	3.12	949,276
Retail Products – Market Rate Carryover	3,706	0.49	N/A
Multifamily – Market Rate	2,052	0.28	17,159
Market Rate Single Family – Midstream HVAC	7,248	1.52	298,879
Market Rate Single Family – Home Efficiency	118	0.05	21,579
Non-IQ Residential Program Subtotal	*28,743*	*5.46*	*1,286,893*
Residential NPSO Adder	**891**	**0.17**	**56,623**

[10] *Illinois Energy Efficiency Policy Manual V3.0,* Section 7.4. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf.

[11] Ibid.

[12] Opinion Dynamics. *Overview of Disadvantaged Areas Net-to-Gross Tracking for Ameren Illinois*. Accessed at https://www.ilsag.info/wp-content/uploads/SAG-NTGR-for-Disadvantaged-Areas-Presentation_ODC_2024-07-17.pdf.

[13] Opinion Dynamics. *Ameren Illinois Company Energy Efficiency Portfolio 2024 Net-to-Gross Ratios*. Accessed at: https://www.ilsag.info/evaluator-ntg-recommendations-for-2024/.

2.4 SOURCES AND MITIGATION OF ERROR

The evaluation team took steps to mitigate potential sources of error throughout the planning and implementation of the 2024 evaluation. In particular, we considered the following types of error:

- Analysis Error
  - Prescriptive Gross Impact Calculations: To calculate prescriptive gross impacts, we applied IL-TRM V12.0 calculations to the participant data in the tracking database. To minimize data analysis error, a separate team member reviewed all calculations to verify their accuracy.
  - Net Impact Calculations: For net impact calculations, we applied SAG-approved NTGRs to estimated gross impacts to derive net impacts.[14] To minimize analytical errors, all calculations were reviewed by a separate team member to verify their accuracy.
- Measurement Error
  - The validity and reliability of survey and interview data used to estimate market effects associated with the Market Rate Single Family Initiative's Midstream HVAC channel were addressed through multiple strategies. First, we relied on our experience to create questions that align with the idea or construct they intended to measure (i.e., face value validity). We reviewed the questions to ensure that we did not ask double-barreled questions (i.e., questions that ask about two subjects but allow only one response) or loaded questions (i.e., questions that are slanted one way or the other). We also checked the overall logical flow of the questions to avoid confusing respondents, which would decrease reliability. All data collection instruments were reviewed by key members of the evaluation team and were provided to AIC and ICC Staff for review.
- Nonresponse and Self-Selection Bias
  - Survey and interview efforts, such as those used to estimate market effects associated with the Market Rate Single Family Initiative's Midstream HVAC channel, have the potential for nonresponse bias due to possible differences between those who self-select to respond to surveys and those who do not. We attempted to mitigate this possible bias by sending multiple reminder emails at different times of the day and week and by making training assessment surveys required for training completion.
- Rounding Differences
  - Some values presented in this report (e.g., table totals) cannot be exactly replicated as shown due to rounding.

[14] For the Market Rate Single Family Initiative's Midstream HVAC channel, we also estimated net savings associated with market effects resulting from channel influences on sales of non-incentivized energy-efficient equipment, which relied on supplementary distributor sales data and primary research with distributors and contractors.

3. INITIATIVE-LEVEL RESULTS

3.1 RETAIL PRODUCTS INITIATIVE

3.1.1 INITIATIVE DESCRIPTION

The AIC Retail Products Initiative includes several channels that offer discounts on a wide range of qualifying ENERGY STAR® products,[15] including LED lighting, advanced power strips, advanced thermostats, and over a dozen other household appliances and miscellaneous equipment. The AIC Retail Products Initiative offers incentives in various forms on a wide range of qualifying ENERGY STAR products through three separate participation channels:

- Point of Sale (POS) channel: By partnering with retailers and manufacturers, the POS channel provides in-store discounts that reduce the purchase price of select products.
- Downstream Rebate channel: This channel allows AIC customers to apply for a post-purchase reimbursement to cover a portion of qualifying product purchases.
- Online Marketplace channel: This channel offers AIC customers select products at discounted prices on AIC's own online store.

These channels are designed to incentivize customers to purchase energy-efficient versions of select products instead of less efficient, typically cheaper, alternatives by offsetting the price difference, helping customers reduce their energy usage, energy bills, and carbon footprints. The types of products incentivized through the Retail Products Initiative in 2024 included the following:

- LED lighting, including a variety of bulb shapes and fixtures.
- Consumer electronics, including advanced thermostats, tier 1 advanced power strips, and smart sockets.
- Appliances, including dehumidifiers, air purifiers, clothes washers, clothes dryers, refrigerators, freezers, water dispensers, room air conditioners, gas storage water heaters, gas tankless water heaters, and heat pump water heaters.
- Miscellaneous other equipment, including variable-speed pool pumps, bathroom exhaust fans, showerheads, faucet aerators, showerhead kits, pipe insulation, door sweeps, wall plate gaskets, and weatherstripping.

Leidos implements the Retail Products Initiative with support from subcontractors. Walker-Miller Energy Services provides field services, including store visits and promotional events, while AM Conservation Group operates the Online Marketplace.

Summary of Key Implementation Changes

In 2024, the Retail Products Initiative expanded its measure offerings to include smart sockets in the POS and Online Marketplace channels.

[15] All product or company names that may be mentioned in this publication are tradenames, trademarks, or registered trademarks of their respective owners.

3.1.2 INITIATIVE ANNUAL SAVINGS SUMMARY

Table 7 presents the Retail Products Initiative annual savings achieved in 2024. The 2024 Retail Products Initiative achieved 90,679 MWh, 12.65 MW, and 1,445,238 therms in verified net savings. Subsequent sections provide breakouts of savings by channel, as well as by Market Rate versus IQ participants. The Initiative also produced 115,861 therms in verified net propane savings in 2024, which are not included in this section but are detailed further in Appendix B.

Table 7. 2024 Retail Products Initiative Annual Savings

Metric	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Ex Ante Gross Savings	104,386	22.16	1,560,658
Gross Realization Rate	97%	65%	100%
Verified Gross Savings	101,764	14.44	1,561,230
NTGR	0.891	0.876	0.926
Verified Net Savings	90,679	12.65	1,445,238

PARTICIPATION SUMMARY

LED Lighting remained the top-selling end use for the Retail Products Initiative in 2024, accounting for 89% of all incentivized units. Standard LEDs represented half (50%) of all incentivized product sales, followed by Specialty LEDs (19%) and LED Fixtures (13%). The Initiative also discounted over 88,000 advanced power strips, 30,000 advanced thermostats, and 21,000 air purifiers, which collectively make up another 7% of all sales and more than two-thirds (70%) of non-lighting sales. The remaining measures each accounted for less than 1% of sales and collectively amounted to 3% of total sales volume. Table 8 summarizes participation in the Initiative during 2024 by measure.

Table 8. 2024 Retail Products Initiative Participation Summary

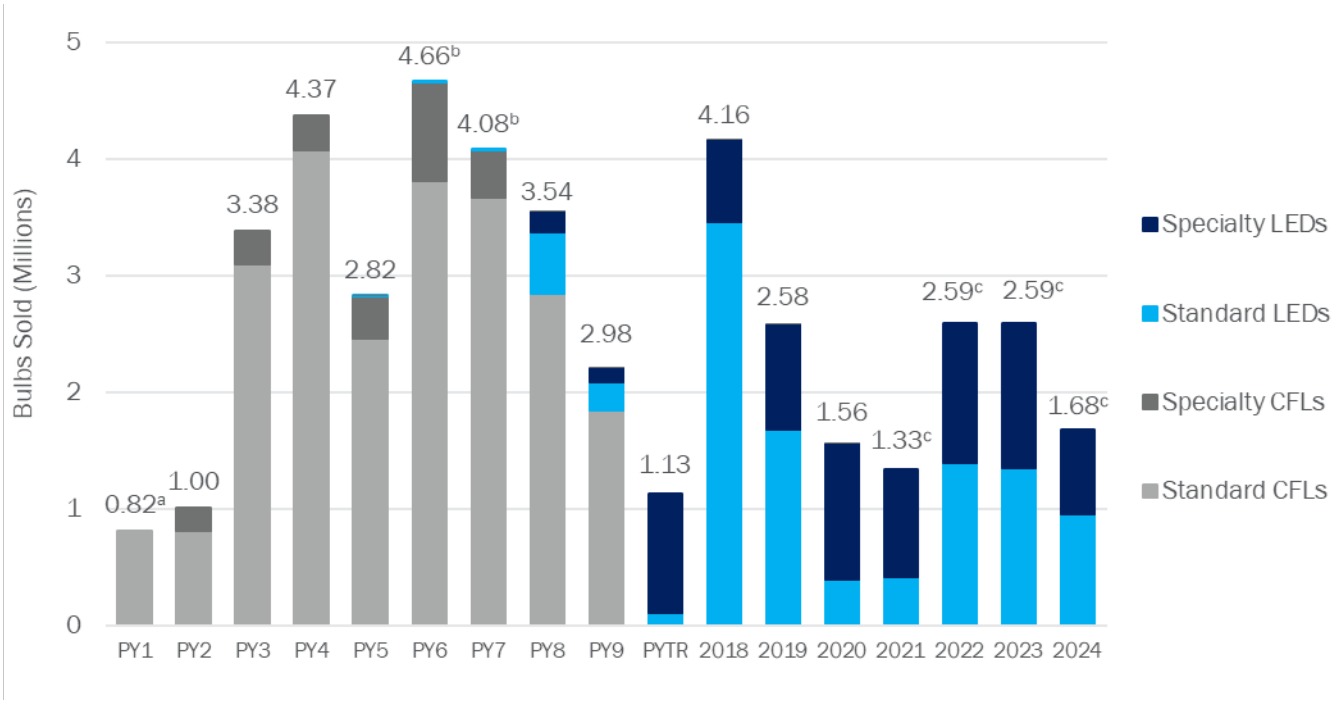
Measure Category	Subcategory	Sales Quantity	Share of Sales
Standard LED	A-Line; EISA Non-Exempt	944,102	50%
	A-Line; EISA Exempt	4,309	<1%
Specialty LED	BR/R; EISA Non-Exempt	98,290	5%
	BR/R; EISA Exempt	484	<1%
	Decorative; EISA Non-Exempt	70,655	4%
	Decorative; EISA Exempt	66,974	4%
	Globe; EISA Non-Exempt	49,356	3%
	Globe; EISA Exempt	3,298	<1%
	3-Way; EISA Non-Exempt	34,677	2%
	PAR/MR; EISA Non-Exempt	26,016	1%
	PAR/MR; EISA Exempt	36	<1%
LED Fixture	EISA Non-Exempt	44,622	2%
	EISA Exempt	199,129	11%
LED Nightlight	N/A	137,593	7%
Connected LED	N/A	1,572	<1%
Advanced Power Strip	N/A	88,144	5%

Measure Category	Subcategory	Sales Quantity	Share of Sales
Advanced Thermostat	N/A	30,088	2%
Air Purifier	N/A	21,784	1%
Door Sweep	N/A	16,908	1%
Smart Socket	N/A	13,295	1%
Dehumidifier	N/A	6,688	<1%
Bathroom Exhaust Fan	N/A	5,309	<1%
Pipe Insulation[a]	N/A	5,141	<1%
Showerhead Kit	N/A	4,386	<1%
Refrigerator	N/A	3,195	<1%
Clothes Washer[b]	N/A	2,693	<1%
Electric Dryer	N/A	1,491	<1%
Water Dispenser	N/A	771	<1%
Freezer	N/A	472	<1%
Heat Pump Water Heater	N/A	238	<1%
Faucet Aerator	N/A	128	<1%
Room Air Conditioner	N/A	95	<1%
Showerhead	N/A	89	<1%
Gas Tankless Water Heater	N/A	86	<1%
Pool Pump	N/A	82	<1%
Weatherstripping[c]	N/A	42	<1%
Wall Plate Gasket[d]	N/A	11	<1%
Gas Water Heater	N/A	6	<1%
Total	**N/A**	**1,882,255**	**100%**

[a] Pipe insulation quantity reflects the total number of packages, each containing 12 linear feet.
[b] Clothes washer quantity includes 134 combination clothes washer/dryers.
[c] Weatherstripping quantity reflects the total number of packages, each containing 17 linear feet.
[d] Wall plate gasket quantity reflects the total number of packages, each containing 20 gaskets. Historic Product Sales.

Since 2009, AIC has discounted 44.5 million energy-efficient lighting products through the Retail Products Initiative and its predecessors, beginning with compact fluorescent lamp (CFL) products and shifting toward LEDs as the lighting market transformed. The Retail Products Initiative discounted almost 1.7 million LED bulbs and fixtures during 2024, reflecting a 35% decrease from 2023 lighting sales. Figure 1 shows efficient lighting sales from PY1 through 2024.

Figure 1. Retail Products Initiative Historical Lighting Sales (PY1–2024)



The Retail Products Initiative featured 23 non-lighting measure categories in 2024. The Initiative sold higher volumes of most measures than in the previous year. Most notably, pipe insulation and air purifiers increased by 275% and 124%, respectively. The Initiative also sold over 13,295 smart sockets in the first full year they were offered. Overall, the channel sold 17% more non-lighting units in 2024 than in 2023. These historical trends in non-lighting measure mix are outlined in Table 9.[16]

Table 9. Retail Products Initiative Historical Non-Lighting Sales

Measure Category	2018	2019	2020	2021	2022	2023	2024
Advanced Power Strip	25,803	55,275	66,438	54,881	52,026	75,966	88,144
Advanced Thermostat	14,403	16,044	33,073	28,289	36,402	29,180	30,088
Air Purifier	0	0	1,237	3,316	3,733	9,705	21,784
Door Sweep	0	0	0	0	0	23,652	16,908
Smart Socket	0	0	0	0	0	3	13,295
Dehumidifier	0	0	5,768	7,735	7,747	8,352	6,688
Bathroom Exhaust Fan	0	0	1,675	1,315	4,364	4,857	5,309
Pipe Insulation[a]	0	0	0	0	0	1,372	5,141
Showerhead Kit	0	0	0	0	915	10,756	4,386
Refrigerator	0	82	1,388	2,915	2,206	2,841	3,195
Clothes Washer[b]	0	177	2,587	3,299	2,562	2,535	2,693
Electric Dryer	0	79	1,357	1,714	1,399	1,452	1,491
Water Dispenser	0	0	611	1,110	548	364	771
Freezer	0	6	83	230	189	277	472
Heat Pump Water Heater	0	0	0	55	96	125	238
Faucet Aerator	0	0	0	0	0	101	128
Room Air Conditioner	0	0	0	422	290	176	95
Showerhead	0	0	0	0	0	56	89
Gas Tankless Water Heater	0	0	0	0	0	69	86
Pool Pump	206	8	59	124	89	109	82
Weatherstripping[c]	0	0	0	0	0	7	42
Wall Plate Gasket[d]	0	0	0	0	0	8	11
Gas Water Heater	0	0	0	0	24	15	6
Lighted Ceiling Fan	0	0	0	0	3	0	0
Total	**40,412**	**71,671**	**114,276**	**105,405**	**112,593**	**171,978**	**201,142**

[a] Pipe insulation quantity reflects the total number of packages, each containing 12 linear feet.
[b] Clothes washer quantity includes 134 combination clothes washer/dryers.
[c] Weatherstripping quantity reflects the total number of packages, each containing 17 linear feet.
[d] Wall plate gasket quantity reflects the total number of packages, each containing 20 gaskets.

[16] Note that historical sales quantities are reflective of the Incentive-Based channels and do not include sales associated with the discontinued Efficient Choice Tool channel.

Sales by Delivery Channel

The POS channel provided the lion's share of sales, including all LED sales and nearly all advanced power strip sales. Online Marketplace channel sales were largely comprised of advanced thermostats and smart sockets, along with a few hundred units of other products. Larger appliances, including refrigerators, clothes washers, and electric dryers, sold exclusively through the Downstream Rebate channel. Table 10 provides a breakdown of 2024 sales of each measure by delivery channel.

Table 10. 2024 Retail Products Initiative Sales by Delivery Channel and Measure

Measure Category	POS	Downstream Rebate	Online Marketplace
LED Lighting	1,681,113	0	0
Advanced Power Strip	87,926	0	218
Advanced Thermostat	0	1,998	28,090
Air Purifier	21,102	608	74
Door Sweep	16,870	0	38
Smart Socket	4,728	0	8,567
Dehumidifier	5,260	1,423	5
Bathroom Exhaust Fan	5,125	184	0
Pipe Insulation[a]	5,141	0	0
Showerhead Kit	4,386	0	0
Refrigerator	0	3,195	0
Clothes Washer[b]	0	2,693	0
Electric Dryer	0	1,491	0
Water Dispenser	720	51	0
Freezer	0	472	0
Heat Pump Water Heater	0	238	0
Faucet Aerator	0	0	128
Room Air Conditioner	0	95	0
Showerhead	0	0	89
Gas Tankless Water Heater	0	86	0
Pool Pump	0	82	0
Weatherstripping[c]	0	0	42
Wall Plate Gasket[d]	0	0	11
Gas Water Heater	0	6	0
Total	**1,832,371**	**12,622**	**37,262**

[a] Pipe insulation quantity reflects the total number of packages, each containing 12 linear feet.
[b] Clothes washer quantity includes 134 combination clothes washer/dryers.
[c] Weatherstripping quantity reflects the total number of packages, each containing 17 linear feet.
[d] Wall plate gasket quantity reflects the total number of packages, each containing 20 gaskets.

Sales to Income Qualified Customers

The Retail Products Initiative implementation team makes concerted efforts to maximize outreach to low- and moderate-income customers by engaging thrift stores, dollar stores, and retailers in ZIP codes with higher incidences of IQ customers. Table 11 summarizes the share of sales for each measure category assumed to reach IQ versus market rate customers, along with the associated distribution of IQ and market rate verified kWh savings. Overall, 91% of Retail Products Initiative sales and 81% of verified energy savings are considered IQ, driven primarily by LED lighting participation.

Table 11. 2024 Retail Products Initiative Income Qualified Allocations by Measure

Measure Category	IQ Allocation	Total Sales Quantity	IQ Sales Quantity	Market Rate Sales Quantity	IQ Verified MWh	Market Rate Verified MWh
Standard LED	100%	944,102	944,102	0	39,906	0
Standard LED (EISA Exempt)	100%	4,309	4,309	0	1,179	0
Specialty LED	100%	279,123	279,123	0	14,819	0
Specialty LED (EISA Exempt)	85%	70,792	60,279	10,513	1,684	287
LED Fixtures	100%	44,622	44,622	0	3,086	0
LED Fixtures (EISA Exempt)	77%	199,129	152,880	46,249	4,746	961
LED Nightlights	80%	137,593	110,446	27,147	2,822	694
Connected LED	100%	1,443	1,443	0	68	0
Advanced Thermostat	28%	30,088	8,423	21,665	4,513	11,175
Air Purifier	67%	21,784	14,569	7,215	3,671	1,251
Advanced Power Strip	72%	88,144	63,349	24,795	3,825	1,582
Smart Socket	43%	13,295	5,664	7,631	560	493
Dehumidifier	31%	6,688	2,101	4,587	497	616
Pipe Insulation	72%	5,141	3,712	1,429	524	202
Door Sweep	40%	16,908	6,827	10,081	234	346
Showerhead Kit	64%	4,386	2,820	1,566	280	155
Heat Pump Water Heater	28%	238	66	172	136	344
Clothes Washer	27%	2,693	724	1,969	154	210
Electric Dryer	27%	1,491	403	1,088	75	175
Refrigerator	28%	3,195	883	2,312	77	145
Bathroom Exhaust Fan	33%	5,309	1,727	3,582	46	95
Water Dispenser	32%	771	250	521	17	37
Freezer	27%	472	129	343	15	16
Pool Pump	24%	82	20	62	6	19
Room Air Conditioner	35%	95	33	62	3	6
Showerhead	30%	89	27	62	2	4
Faucet Aerator	34%	128	43	85	1	2
Weatherstripping	29%	42	12	30	<1	1
Wall Plate Gasket	25%	11	3	8	<1	<1
Gas Tankless Water Heater	24%	86	20	66	0	0
Gas Water Heater	23%	6	1	5	0	0
Total	**91%**	**1,882,255**	**1,709,011**	**173,244**	**82,948**	**18,816**

SAVINGS DETAIL

Income Qualified

Table 12 presents the ex ante, verified gross, and verified net electric energy savings achieved through the income qualified portion of the Initiative in 2024.

Table 12. 2024 Retail Products Initiative (Income Qualified) Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Standard LED	39,906	100%	39,906	0.859	34,282
Standard LED (EISA Exempt)	1,179	100%	1,179	1.000	1,179
Specialty LED	14,815	100%	14,819	0.880	13,047
Specialty LED (EISA Exempt)	1,770	95%	1,684	0.791	1,332
LED Fixtures	3,070	101%	3,086	0.969	2,992
LED Fixtures (EISA Exempt)	5,037	94%	4,746	0.997	4,734
LED Nightlights	2,822	100%	2,822	0.996	2,811
Connected LED	55	103%	68	0.692	47
Advanced Thermostat	4,532	100%	4,513	1.000	4,513
Air Purifier	5,071	72%	3,671	1.000	3,671
Advanced Power Strip	3,825	100%	3,825	1.000	3,825
Smart Socket	635	88%	560	1.000	560
Dehumidifier	352	141%	497	1.000	497
Pipe Insulation	430	122%	524	1.000	524
Door Sweep	235	100%	234	1.000	234
Showerhead Kit	351	80%	280	1.000	280
Heat Pump Water Heater	136	100%	136	1.000	136
Clothes Washer	108	143%	154	1.000	154
Electric Dryer	66	114%	75	1.000	75
Refrigerator	59	130%	77	1.000	77
Bathroom Exhaust Fan	46	100%	46	1.000	46
Water Dispenser	17	102%	17	1.000	17
Freezer	9	166%	15	1.000	15
Pool Pump	6	100%	6	1.000	6
Room Air Conditioner	3	101%	3	1.000	3
Showerhead	2	100%	2	1.000	2
Faucet Aerator	1	100%	1	1.000	1
Weatherstripping	<1	135%	<1	1.000	<1
Wall Plate Gasket	<1	55%	<1	1.000	<1
Total	**84,539**	**98%**	**82,948**	**0.905**	**75,061**

Table 13 presents the ex ante, verified gross, and verified net electric demand savings achieved through the income qualified portion of the Initiative in 2024.

Table 13. 2024 Retail Products Initiative (Income Qualified) Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Standard LED	4.82	100%	4.82	0.859	4.14
Standard LED (EISA Exempt)	0.14	100%	0.14	1.000	0.14
Specialty LED	1.76	100%	1.76	0.880	1.55
Specialty LED (EISA Exempt)	0.21	95%	0.20	0.791	0.16
LED Fixtures	7.94	5%	0.42	0.968	0.40
LED Fixtures (EISA Exempt)	0.73	97%	0.71	0.997	0.71
Connected LED	0.01	103%	0.01	0.692	0.01
Advanced Thermostat	1.19	99%	1.18	1.000	1.18
Air Purifier	0.58	72%	0.42	1.000	0.42
Advanced Power Strip	0.43	100%	0.43	1.000	0.43
Smart Socket	0.09	88%	0.08	1.000	0.08
Dehumidifier	0.06	192%	0.11	1.000	0.11
Pipe Insulation	0.05	122%	0.06	1.000	0.06
Door Sweep	0.02	108%	0.024	1.000	0.024
Showerhead Kit	0.06	82%	0.05	1.000	0.05
Heat Pump Water Heater	0.01	101%	0.01	1.000	0.01
Clothes Washer	0.01	144%	0.02	1.000	0.02
Electric Dryer	0.01	114%	0.01	1.000	0.01
Refrigerator	0.01	134%	0.01	1.000	0.01
Bathroom Exhaust Fan	0.01	100%	0.01	1.000	0.01
Water Dispenser	0.002	102%	0.002	1.000	0.002
Freezer	0.001	166%	0.002	1.000	0.002
Pool Pump	0.004	100%	0.004	1.000	0.004
Room Air Conditioner	0.003	100%	0.003	1.000	0.003
Showerhead	0.0001	100%	0.0001	1.000	0.0001
Faucet Aerator	0.0003	124%	0.0004	1.000	0.0004
Weatherstripping	0.00001	137%	0.00002	1.000	0.00002
Wall Plate Gasket	0.00005	57%	0.00003	1.000	0.00003
Total	**18.14**	**58%**	**10.48**	**0.909**	**9.53**

Table 14 presents the ex ante, verified gross, and verified net gas savings achieved through the income qualified portion of the Initiative in 2024. The channel also achieved propane savings, which cannot be claimed against AIC's natural gas savings goals but are presented in Appendix B.

Table 14. 2024 Retail Products Initiative (Income Qualified) Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	377,850	100%	377,030	1.000	377,030
Pipe Insulation	47,663	121%	57,778	1.000	57,778
Door Sweep	29,490	100%	29,518	1.000	29,518
Showerhead Kit	34,238	81%	27,643	1.000	27,643
Clothes Washer	1,443	143%	2,069	1.000	2,069
Showerhead	146	100%	146	1.000	146
Faucet Aerator	90	100%	90	1.000	90
Weatherstripping	57	121%	70	1.000	70
Wall Plate Gasket	11	131%	15	1.000	15
Gas Tankless Water Heater	1,503	100%	1,503	1.000	1,503
Gas Water Heater	101	98%	99	1.000	99
Total	**492,594**	**101%**	**495,962**	**1.000**	**495,962**

Market Rate

Table 15 presents the ex ante, verified gross, and verified net electric energy savings achieved through the market rate portion of the Initiative in 2024.

Table 15. 2024 Retail Products Initiative (Market Rate) Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Specialty LED (EISA Exempt)	370	78%	287	0.690	198
Fixture LED (EISA Exempt)	1,051	91%	961	0.690	663
Nightlight LED	694	100%	694	0.690	479
Advanced Thermostat	11,232	99%	11,175	0.879	9,819
Air Purifier	1,755	71%	1,251	0.790	989
Advanced Power Strip	1,582	100%	1,582	0.860	1,361
Smart Socket	559	88%	493	0.800	394
Dehumidifier	763	81%	616	0.670	413
Pipe Insulation	166	122%	202	0.800	161
Door Sweep	346	100%	346	0.800	277
Showerhead Kit	195	80%	155	0.800	124
Heat Pump Water Heater	344	100%	344	0.800	275
Clothes Washer	274	76%	210	0.630	132
Electric Dryer	177	99%	175	0.670	117
Refrigerator	153	95%	145	0.650	94
Bathroom Exhaust Fan	95	100%	95	0.660	63
Water Dispenser	35	103%	37	0.670	25
Freezer	22	74%	16	0.630	10
Pool Pump	19	100%	19	0.760	15
Room Air Conditioner	6	102%	6	0.720	4
Showerhead	4	100%	4	0.800	3
Faucet Aerator	2	100%	2	0.800	2
Weatherstripping	1	99%	1	0.800	1
Wall Plate Gasket	<1	76%	<1	0.800	<1
Total	**19,847**	**95%**	**18,816**	**0.830**	**15,618**

Table 16 presents the ex ante, verified gross, and verified net electric demand savings achieved through the market rate portion of the Initiative in 2024.

Table 16. 2024 Retail Products Initiative (Market Rate) Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Specialty LED (EISA Exempt)	0.05	77%	0.04	0.690	0.03
Fixture LED (EISA Exempt)	0.15	117%	0.18	0.690	0.12
Advanced Thermostat	3.03	99%	3.00	0.800	2.40
Air Purifier	0.20	71%	0.14	0.790	0.11
Advanced Power Strip	0.18	100%	0.18	0.860	0.15
Smart Socket	0.08	88%	0.07	0.800	0.05
Dehumidifier	0.12	119%	0.14	0.670	0.09
Pipe Insulation	0.02	122%	0.02	0.800	0.02
Door Sweep	0.03	108%	0.035	0.800	0.028
Showerhead Kit	0.04	82%	0.03	0.800	0.02
Heat Pump Water Heater	0.02	101%	0.02	0.800	0.01
Clothes Washer	0.03	80%	0.03	0.630	0.02
Electric Dryer	0.02	99%	0.02	0.670	0.02
Refrigerator	0.02	97%	0.02	0.650	0.01
Bathroom Exhaust Fan	0.01	100%	0.01	0.660	0.01
Water Dispenser	0.004	103%	0.004	0.670	0.003
Freezer	0.004	74%	0.003	0.630	0.002
Pool Pump	0.01	100%	0.01	0.760	0.01
Room Air Conditioner	0.005	100%	0.005	0.720	0.004
Showerhead	0.0003	100%	0.0003	0.800	0.0003
Faucet Aerator	0.001	124%	0.001	0.800	0.001
Weatherstripping	0.00004	117%	0.00004	0.800	0.00004
Wall Plate Gasket	0.0001	73%	0.0001	0.800	0.0001
Total	**4.02**	**99%**	**3.96**	**0.788**	**3.12**

Table 17 presents the ex ante, verified gross, and verified net gas savings achieved through the market rate portion of the Initiative in 2024. The channel also achieved propane savings, which cannot be claimed against AIC's natural gas savings goals but are presented in Appendix B.

Table 17. 2024 Retail Products Initiative (Market Rate) Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	977,547	100%	975,349	0.900	877,817
Pipe Insulation	18,348	121%	22,241	0.800	17,793
Door Sweep	43,531	100%	43,600	0.800	34,880
Showerhead Kit	19,008	81%	15,346	0.800	12,277
Clothes Washer	3,730	75%	2,805	0.630	1,768
Showerhead	332	100%	332	0.800	265
Faucet Aerator	171	100%	171	0.800	136
Weatherstripping	139	126%	175	0.800	140
Wall Plate Gasket	33	125%	42	0.800	33
Gas Tankless Water Heater	4,888	100%	4,888	0.800	3,910
Gas Water Heater	338	95%	321	0.800	257
Total	**1,068,064**	**100%**	**1,065,268**	**0.891**	**949,276**

Summary of Discrepancies

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on Initiative savings or measures with particularly high or low realization rates.

- LED Fixtures (9% of ex ante energy savings and 40% of demand savings): The gross realization rate for LED Fixtures is 96% for kWh and 15% for kW.
  - For <1% of measures (n=46), the evaluation team assigned demand savings based on parameters recommended by the IL-TRM V12.0, whereas the implementation team assigned demand savings equivalent to claimed energy savings, resulting in lower verified demand savings. Despite affecting such a small number of measures, the misrepresented ex ante values were several thousand times larger than verified demand savings for these 46 measures, leading to a very large discrepancy in total demand savings. While this error had a very large influence on the overall RR, it appears to be a very isolated data entry error that should not pose future concern.
- Air Purifiers (7% of ex ante energy savings and 4% of demand savings): The gross realization rate for Air Purifiers is 72% for kWh and kW.
  - For 100% of measures (n=21,784), the evaluation team applied IL-TRM V12.0-recommended baseline and energy-efficient usage assumptions based on product-specific Clear Air Delivery Rates (CADRs), whereas the implementation team applied less granular baseline and energy-efficient usage assumptions, resulting in lower verified energy and demand savings.

- Smart Sockets (1% of ex ante energy and demand savings): The gross realization rate for Smart Sockets is 88% for kWh and kW.
  - For 100% of measures (n=13,295), the evaluation team applied a blended average ISR of 82% based on the virtual install ISRs recommended by the IL-TRM V12.0, whereas the implementation team applied the community distributed kit ISR of 93%, resulting in lower verified energy and demand savings.
- Dehumidifiers (1% of ex ante energy and demand savings): The gross realization rate for Dehumidifiers is 100% for kWh and 143% for kW.
  - For 100% of measures (n=6,688), the evaluation team applied the hours of use (HOU) and coincidence factor (CF) parameters recommended by the IL-TRM V12.0, whereas the implementation team seemingly applied values different than those specified in tracking data and supplemental calculations, resulting in higher verified demand savings.
- Showerhead Kits (1% of ex ante energy savings, <1% of demand savings, and 3% of gas savings): The gross realization rate for Showerhead Kits is 80% for kWh, 82% for kW, and 81% for therms.
  - For 100% of measures (n=4,386), the evaluation team applied efficiency kit ISRs of 65% for showerheads and 60% for aerators recommended by the IL-TRM V12.0, whereas the implementation team applied standalone showerhead ISRs of 80% for showerheads and 77% for aerators, resulting in lower verified energy, demand, and gas savings.
- Faucet Aerators (<1% of ex ante electric energy savings, <1% of demand savings, and <1% of gas savings): The gross realization rate for Faucet Aerators is 100% for kWh, 124% for kW, and 100% for therms.
  - For 95% of measures (n=122), the evaluation team applied a blended faucet aerator HOU value based on IL-TRM V12.0-recommended values, whereas the implementation team applied a higher faucet aerator HOU assumption, resulting in higher verified demand savings.

3.1.3 CUMULATIVE PERSISTING ANNUAL SAVINGS

Table 18 summarizes CPAS and WAML for the 2024 Retail Products Initiative by channel. The WAML for the Initiative is 9.2 years. CPAS and WAML for each channel at the measure level are presented in Table 19 and Table 20.

Table 18. 2024 Retail Products Initiative CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Income Qualified	8.8	82,948	0.905	75,061	75,061	75,061	75,061	...	75,061	...	664,356
Market Rate	11.0	18,816	0.830	15,618	15,618	15,618	15,618	...	15,595	...	170,097
2024 CPAS		**101,764**	**0.891**	**90,679**	**90,679**	**90,679**	**90,679**	...	**90,656**	...	**834,454**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**23**	...	
WAML	**9.2**										

Table 19. 2024 Retail Products Initiative – Income Qualified CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Standard LED	8.0	39,906	0.859	34,282	34,282	34,282	34,282	...	34,282	...	274,260
Standard LED (EISA Exempt)	10.0	1,179	1.000	1,179	1,179	1,179	1,179	...	1,179	...	11,789
Specialty LED	8.0	14,819	0.880	13,047	13,047	13,047	13,047	...	13,047	...	104,374
Specialty LED (EISA Exempt)	10.0	1,684	0.791	1,332	1,332	1,332	1,332	...	1,332	...	13,318
Fixture LED	8.0	3,075	0.970	2,984	2,984	2,984	2,984	...	2,984	...	23,872
Outdoor Fixture LED	8.0	12	0.690	8	8	8	8	...	8	...	64
Fixture LED (EISA Exempt)	15.0	4,746	0.997	4,734	4,734	4,734	4,734	...	4,734	...	71,005
Nightlight LED	8.0	2,822	0.996	2,811	2,811	2,811	2,811	...	2,811	...	22,486
Connected LED	10.0	68	0.692	47	47	47	47	...	47	...	471
Advanced Thermostat	11.0	4,513	1.000	4,513	4,513	4,513	4,513	...	4,513	...	49,645
Advanced Power Strip	7.0	3,825	1.000	3,825	3,825	3,825	3,825	...	3,825	...	26,775
Air Purifier	9.0	3,671	1.000	3,671	3,671	3,671	3,671	...	3,671	...	33,036
Pipe Insulation	15.0	524	1.000	524	524	524	524	...	524	...	7,862

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Dehumidifier	12.0	497	1.000	497	497	497	497	...	497	...	5,959
Showerhead Kit	10.0	280	1.000	280	280	280	280	...	280	...	2,796
Smart Socket	7.0	560	1.000	560	560	560	560	...	560	...	3,921
Door Sweep	20.0	234	1.000	234	234	234	234	...	234	...	4,687
Heat Pump Water Heater	15.0	136	1.000	136	136	136	136	...	136	...	2,045
Clothes Washer	14.0	154	1.000	154	154	154	154	...	154	...	2,162
Electric Dryer	16.0	75	1.000	75	75	75	75	...	75	...	1,199
Refrigerator	15.0	77	1.000	77	77	77	77	...	77	...	1,157
Bathroom Exhaust Fan	19.0	46	1.000	46	46	46	46	...	46	...	866
Water Dispenser	10.0	17	1.000	17	17	17	17	...	17	...	175
Freezer	21.0	15	1.000	15	15	15	15	...	15	...	310
Pool Pump	7.0	6	1.000	6	6	6	6	...	6	...	43
Room Air Conditioner	12.0	3	1.000	3	3	3	3	...	3	...	40
Showerhead	10.0	2	1.000	2	2	2	2	...	2	...	17
Faucet Aerator	10.0	1	1.000	1	1	1	1	...	1	...	12
Weatherstripping	20.0	0.5	1.000	0.5	0.5	0.5	0.5	...	0.5	...	9
Wall Plate Gasket	20.0	0.1	1.000	0.1	0.1	0.1	0.1	...	0.1	...	1
2024 CPAS		**82,948**	**0.905**	**75,061**	**75,061**	**75,061**	**75,061**	...	**75,061**	...	**664,356**
Expiring 2024 CPAS			**0**	**0**	**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS			**0**	**0**	**0**	**0**	**0**	...	**0**	...	
WAML	**8.8**										

Table 20. 2024 Retail Products Initiative – Market Rate CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Specialty LED (EISA Exempt) - Residential	10.0	254	0.690	175	175	175	175	...	175	...	1,753
Specialty LED (EISA Exempt) - Commercial	4.7	33	0.690	23	23	23	23	...	0	...	107
Fixture LED (EISA Exempt) - Residential	15.0	835	0.690	576	576	576	576	...	576	...	8,639
Fixture LED (EISA Exempt) - Commercial	14.8	126	0.690	87	87	87	87	...	87	...	1,287
Nightlight LED - Residential	8.0	694	0.690	479	479	479	479		479		3,829

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Advanced Thermostat	11.0	11,175	0.879	9,819	9,819	9,819	9,819		9,819		108,004
Advanced Power Strip	7.0	1,582	0.860	1,361	1,361	1,361	1,361		1,361		9,526
Air Purifier	9.0	1,251	0.790	989	989	989	989		989		8,897
Dehumidifier	12.0	616	0.670	413	413	413	413		413		4,955
Smart Socket	7.0	493	0.800	394	394	394	394		394		2,760
Heat Pump Water Heater	15.0	344	0.800	275	275	275	275		275		4,128
Door Sweep	20.0	346	0.800	277	277	277	277		277		5,534
Clothes Washer	14.0	210	0.594	132	132	132	132		132		1,851
Pipe Insulation	15.0	202	0.800	161	161	161	161		161		2,421
Electric Dryer	16.0	175	0.670	117	117	117	117		117		1,874
Refrigerator	15.0	145	0.650	94	94	94	94	...	94	...	1,412
Showerhead Kit	10.0	155	0.800	124	124	124	124	...	124	...	1,242
Bathroom Exhaust Fan	19.0	95	0.660	63	63	63	63	...	63	...	1,192
Water Dispenser	10.0	37	0.670	25	25	25	25	...	25	...	246
Freezer	21.0	16	0.630	10	10	10	10	...	10	...	216
Pool Pump	7.0	19	0.760	15	15	15	15	...	15	...	102
Room Air Conditioner	12.0	6	0.720	4	4	4	4	...	4	...	51
Showerhead	10.0	4	0.800	3	3	3	3	...	3	...	32
Faucet Aerator	10.0	2	0.800	2	2	2	2	...	2	...	18
Weatherstripping	20.0	1	0.800	1	1	1	1	...	1	...	16
Wall Plate Gasket	20.0	0.3	0.800	0.2	0.2	0.2	0.2	...	0.2	...	5
2024 CPAS		**18,816**	**0.830**	**15,618**	**15,618**	**15,618**	**15,618**	**...**	**15,595**	**...**	**170,097**
Expiring 2024 CPAS			**0**	**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS			**0**	**0**	**0**	**0**	**0**	**...**	**23**	**...**	
WAML	**11.0**										

3.1.4 CONCLUSIONS AND RECOMMENDATIONS

- **Key Finding 1:** The implementation team effectively and accurately tracked ex ante savings using IL-TRM V12.0-recommended assumptions in the vast majority of cases, resulting in overall gross realization rates close to 100% across most measure categories and savings metrics with the notable exception of one isolated data entry issue among a small subset of LED fixture records for which ex ante electric demand savings were several thousand times larger than those based on IL-TRM V12.0 recommendations, resulting in a lower overall gross realization rate for demand savings.
  - Recommendation: Continue to track ex ante savings in accordance with recommendations from the applicable version of the IL-TRM and consistently review for potential outlier values with potential to misrepresent savings.
- **Key Finding 2:** Initiative tracking data was generally clear, comprehensive, free of errors or inconsistencies, and included the necessary measure-level detail to inform verified savings calculations in accordance with the IL-TRM V12.0, allowing evaluators to establish defensible verified savings estimates and identify nearly all differences between ex ante and verified savings.
  - Recommendation: Continue to track detailed measure specifications and ex ante savings assumptions for all records.
- **Key Finding 3:** By targeting specific retailers and retail channels that disproportionately serve lower-income customers, the Initiative effectively delivered incentives to large numbers of IQ customers across a wide variety of product categories in accordance with Illinois Policy Manual guidance. Over the course of 2024, 95% of all LED sales and 56% of all non-lighting sales reached IQ residential customers.[17]
  - Recommendation: Continue to target retail locations and customers in proximity to ZIP codes with high incidences of IQ customers to maximize Initiative reach to IQ AIC customers.

[17] According to applicable income-eligibility assumptions detailed in Appendix A and in line with guidance from the *Illinois Energy Efficiency Policy Manual V3.0, Section* 7.4. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf.

3.2 INCOME QUALIFIED INITIATIVE – SINGLE FAMILY OFFERINGS

3.2.1 INITIATIVE DESCRIPTION

The IQ Initiative encompasses nearly all of AIC's low and moderate income targeted energy efficiency offerings, including efforts targeted at both single and multifamily customers. This section of the report provides results for seven single family-focused offerings included in the IQ Initiative:

- Single Family channel, including Accessibility Pilot
- CAA channel
- Joint Utility channel
- Smart Savers channel
- MHAS channel
- Healthier Homes channel
- Electrification channel

This section of the report does not include the IQ Initiative's Multifamily channel, for which evaluation findings are reported in Section 3.3, or IQ-focused kit and measure distribution offerings (specifically the IQ Community Kits channel, kits provided through the MHAS, CAA, and Joint Utility channels, and several ad hoc measure distributions), for which evaluation findings are reported in Section 3.5.

3.2.2 INITIATIVE ANNUAL SAVINGS SUMMARY

Table 21 presents the IQ Initiative Single Family Offerings annual savings achieved in 2024. The IQ Initiative Single Family Offerings achieved 6,967 MWh, 1.47 MW, and 543,931 therms in verified net savings. The Initiative also produced 874 therms in verified net propane savings and 987 therms in verified net non-AIC gas savings, which are not included in this section but are further detailed in Appendix B.[18]

Table 21. 2024 Income Qualified Initiative Single Family Offerings Annual Savings

Metric	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Ex Ante Gross Savings	7,290	1.50	542,629
Gross Realization Rate	96%	99%	100%
Verified Gross Savings	6,972	1.47	544,393
NTGR[a]	0.999	1.000	0.999
Verified Net Savings	6,967	1.47	543,931

[a] The evaluation team applied SAG-approved NTGRs of 1.000 for all IQ Initiatives except a small subset of Smart Savers advanced thermostats provided to ZIP codes that could not be verified as IQ.

[18] These values do not include fossil fuel impacts captured as part of IQ electrification efforts.

3.2.3 SINGLE FAMILY CHANNEL

CHANNEL DESCRIPTION

The Single Family channel is AIC's fully utility-funded, whole home weatherization program for low- and moderate-income customers. Leidos oversees its implementation in coordination with Walker-Miller Energy Services and AIC Program Allies.

The channel provides no-cost Building Performance Institute (BPI) energy audits that identify building envelope and HVAC retrofit opportunities for low-income customers. During the audit, implementation staff install direct install (DI) measures such as LEDs, showerheads, faucet aerators, advanced power strips, pipe insulation, and advanced thermostats at no cost. Following the audit, customers may receive additional HVAC and building envelope retrofits, such as air sealing and insulation improvements, central air conditioner replacements (for customers approved as high needs), or air source heat pump replacements. Low-income customers receive all retrofits at no cost (Tier 1 – incentive at 100%), while moderate-income customers may have a copayment (Tier 2 - incentive at 90%). In partnership with AIC, the Energy Assistance Foundation offers a program called Warm Neighbors Cool Friends™, which provides grant funding to help offset the out-of-pocket costs for Tier 2 customers within AIC territory. The grant funding is offered on a first-come, first-serve basis and can be applied to energy efficiency measures, as well as costs related to building envelope and HVAC upgrades (excluding air conditioners).

The channel also provides health and safety assistance to enable measure installations and improve the living conditions of AIC customers. Common health and safety measures implemented include venting exhaust fans outside, repairing or replacing vapor barriers, and installing or replacing carbon monoxide alarms.

Summary of Key Implementation Changes

We summarize key changes to the Single Family channel's design and implementation in 2024 below:

- In collaboration with local Community Partner advocacy groups, Program Allies, and municipal and regional government authorities, the Single Family channel incorporated the Accessibility Pilot, which aims to assist disabled residential customers and customers with mobility challenges by providing smart home devices at no cost. Smart home devices offered by the Accessibility Pilot include
  - Advanced thermostats;
  - Smart speakers;
  - Smart lighting, including motion-sensing night lights;
  - Advanced power strips; and,
  - Thermostatic valves that regulate faucet water temperature.
- The Single Family channel also distributed air purifiers as a new measure toward the end of 2024 to participants with pending or recently completed weatherization projects with the goal of promoting air quality and associated health improvements in an efficient manner. A total of 2,884 air purifiers were distributed via drop shipment to 1,442 customers (i.e., two air purifiers per customer).
- Funding to address knob and tube wiring was increased to $12,000 in 2024. Prior to 2024, Health and Safety remediations, including knob and tube wiring, were capped at $5,000 per household. However, Initiative staff reported that most of the health and safety remediation work participating households needed was related to knob and tube wiring. As such, funding was increased in 2024 for knob and tube wiring specifically while other health and safety remediation work remained capped at $5,000.

- The Single Family channel also made some process improvements to streamline channel implementation in 2024, including the following:
  - Implementation staff developed a portal or dashboard enabling Program Allies to view or track their assigned projects in real time and upload project information, including work scopes, beginning in 2025.
  - Home Energy Specialists began using geo-mapping and/or Google Maps to schedule appointments for Energy Advisors visiting participating households with the goal of improving scheduling efficiency for both Home Energy Specialists and Energy Advisors and scheduling subsequent appointments in close proximity to one another where possible. This often allowed Energy Advisors to visit two or three homes in a day rather than just one.
  - Implementation staff began using the Savings to Investment Ratio tool (SIR), an Excel-based calculator that helps Initiative staff assess the cost-effectiveness of each project, including any health and safety remediation work that needs to be completed before installing any energy-saving upgrades or equipment.
- The implementation team also reviewed cases where customers were previously denied participation based on elevated insulation levels for viability as retrofit projects involving air source heat pumps or enhanced air sealing.

PARTICIPATION SUMMARY

The Single Family channel provided energy efficiency services to 2,946 homes in 2024. Approximately two-thirds (66%) of participants only received DI measures, and the remaining one-third (34%) received larger retrofits. Of the 1,956 participants who only received DI measures, 1,442 only received air purifiers. Table 22 summarizes the number of homes served by project type, and additional detail regarding participation levels by measure category is provided in Appendix E.[19]

Table 22. 2024 Single Family Channel Participation Summary

Project Type	Total
DI Measures Only	1,956
Full Participation: DI + Building Envelope or HVAC Retrofits	641
Building Envelope or HVAC Retrofits Only	349
Number of Single Family Homes Served	**2,946**

Source: We identified unique homes by account number and excluded 56 homes that only received "Other" measures such as Administrative Cost, Program Support, Health and Safety, Authorized Measure, and Program Support, which did not include ex ante savings.

[19] While not depicted in Table 22, 1,013 customers received health and safety measures that may enable them to qualify for additional future upgrades.

The Accessibility Pilot served a total of 72 participants. More than two-thirds (71%) of participants received only DI measures, while the remaining participants received larger retrofits. Table 23 summarizes the number of homes served by the Single Family Accessibility Pilot in 2024.

Table 23. 2024 Single Family Accessibility Pilot Participation Summary

Project Type	Total
DI Measures Only	51
Full Participation: DI + Building Envelope or HVAC Retrofits	20
Building Envelope or HVAC Retrofits Only	1
Number of Homes Served	**72**

Source: We identified unique homes by account number and excluded one home that only received "Other" measures such as Administrative Cost, Program Support, Health and Safety, Authorized Measure, and Program Support, which did not include ex ante savings.

SAVINGS DETAIL

Table 24 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Single Family channel in 2024.

Table 24. 2024 Single Family Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Air Purifier	1,120	66%	741	1.000	741
Air Source Heat Pump (Early Replacement [ER])	892	101%	897	1.000	897
Standard LED	373	99%	369	1.000	369
Air Sealing	322	101%	326	1.000	326
Central AC (ER)	314	100%	315	1.000	315
BPM Motor	273	100%	272	1.000	272
Attic Insulation	271	102%	277	1.000	277
Advanced Power Strip	266	100%	266	1.000	266
Crawl Space Insulation	229	86%	197	1.000	197
Heat Pump Water Heater	216	99%	213	1.000	213
Advanced Thermostat	201	98%	198	1.000	198
Bathroom Exhaust Fan	159	100%	159	1.000	159
Ductless Heat Pump (Time-of-Sale [TOS])	153	128%	195	1.000	195
Specialty LED	134	99%	132	1.000	132
Pipe Insulation	84	100%	84	1.000	84
Wall Insulation	45	102%	46	1.000	46
Faucet Aerator	43	100%	43	1.000	43
Rim Joist Insulation	29	100%	29	1.000	29
Low Flow Showerhead	26	100%	26	1.000	26
Duct Sealing	18	83%	15	1.000	15
Air Source Heat Pump (TOS)	9	450%	42	1.000	42
Room Air Conditioner (ER)	6	100%	6	1.000	6

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Knee Wall Insulation	6	102%	6	1.000	6
Door Sweep	2	48%	1	1.000	1
Central AC (TOS)[b]	2	100%	2	1.000	2
Smart Socket	1	100%	1	1.000	1
Induction Range	<1	65%	<1	1.000	<1
Tree Planting	0	N/A	<1	1.000	<1
Total	**5,194**	**94%**	**4,857**	**1.000**	**4,857**

Table 25 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Single Family channel in 2024.

Table 25. 2024 Single Family Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Air Purifier	0.13	66%	0.08	1.000	0.08
Air Source Heat Pump (ER)	0.001	560%	0.01	1.000	0.01
Standard LED	0.05	99%	0.05	1.000	0.05
Air Sealing	0.16	100%	0.16	1.000	0.16
Central AC (ER)	0.21	103%	0.22	1.000	0.22
BPM Motor	0.07	101%	0.08	1.000	0.08
Attic Insulation	0.10	102%	0.10	1.000	0.10
Advanced Power Strip	0.03	100%	0.03	1.000	0.03
Crawl Space Insulation	0.04	100%	0.04	1.000	0.04
Heat Pump Water Heater	0.01	99%	0.01	1.000	0.01
Advanced Thermostat	0.09	98%	0.09	1.000	0.09
Bathroom Exhaust Fan	0.02	100%	0.02	1.000	0.02
Ductless Heat Pump (TOS)	-0.02	149%	-0.03	1.000	-0.03
Specialty LED	0.02	99%	0.02	1.000	0.02
Pipe Insulation	0.01	100%	0.01	1.000	0.01
Wall Insulation	0.02	100%	0.02	1.000	0.02
Faucet Aerator	0.01	100%	0.01	1.000	0.01
Rim Joist Insulation	0.01	100%	0.01	1.000	0.01
Low Flow Showerhead	0.002	100%	0.002	1.000	0.002
Duct Sealing	0.004	92%	0.003	1.000	0.003
Air Source Heat Pump (TOS)	0.002	100%	0.002	1.000	0.002
Room Air Conditioner (ER)	0.01	100%	0.01	1.000	0.01
Knee Wall Insulation	0.002	100%	0.002	1.000	0.002
Door Sweep	0.0003	102%	0.0003	1.000	0.0003
Central AC (TOS)	0.002	100%	0.002	1.000	0.002
Smart Socket	0.0001	100%	0.0001	1.000	0.0001
Induction Range	0.00002	65%	0.00002	1.000	0.00002
Tree Planting	0	N/A	0.0001	1.000	0.0001
Total	**0.98**	**96%**	**0.94**	**1.000**	**0.94**

Table 26 presents the ex ante, verified gross, and verified net gas savings achieved through the Single Family channel in 2024. The channel also achieved non-AIC natural gas savings, which cannot be claimed against AIC's natural gas savings goals but are presented in Appendix B.

Table 26. 2024 Single Family Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	35,402	100%	35,399	1.000	35,399
Attic Insulation	47,239	102%	48,394	1.000	48,394
Crawl Space Insulation	28,416	101%	28,640	1.000	28,640
Advanced Thermostat	39,232	99%	38,902	1.000	38,902
Pipe Insulation	16,067	100%	16,054	1.000	16,054
Wall Insulation	14,867	100%	14,867	1.000	14,867
Faucet Aerator	5,371	100%	5,371	1.000	5,371
Rim Joist Insulation	5,004	100%	5,005	1.000	5,005
Low Flow Showerhead	3,778	99%	3,731	1.000	3,731
Duct Sealing	3,121	100%	3,121	1.000	3,121
Knee Wall Insulation	1,620	100%	1,620	1.000	1,620
Door Sweep	393	91%	357	1.000	357
High Efficiency Gas Furnace (ER)	122,939	100%	122,941	1.000	122,941
High Efficiency Gas Furnace (TOS)	17,868	100%	17,868	1.000	17,868
Gas High Efficiency Boiler (ER)	7,363	100%	7,363	1.000	7,363
Gas Water Heater	3,307	100%	3,307	1.000	3,307
Gas High Efficiency Boiler (TOS)	195	100%	195	1.000	195
Total	**352,182**	**100%**	**353,137**	**1.000**	**353,137**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Air Purifier (22% of ex ante energy and 13% of demand savings): The gross realization rate for Air Purifier was 66% for kWh and 66% for kW.
  - For 100% of measures (n=2,884), the evaluation team applied the IQ baseline adjustment factor as recommended by the IL-TRM V12.0, whereas the implementation team applied the IQ baseline adjustment factor to deemed values that already accounted for it, resulting in lower verified energy and demand savings.
- Air Source Heat Pump (ER) (17% of ex ante energy and <1% of demand savings): The gross realization rate for Air Source Heat Pumps (ER) was 101% for kWh and 560% for kW.
  - For 7% of measures (n=6), the evaluation team applied the existing cooling system efficiency (7.4 EER2) from the IL-TRM V12.0 since the actual existing system cooling efficiency was unknown, whereas the implementation team converted SEER2 to EER2 using the SEER to EER conversion formula, which results in a different EER2 value (8.6 EER2) than what is presented in the IL-TRM V12.0, resulting in higher verified demand savings.[20]

[20] The application of the converted EER2 value instead of the IL-TRM V12.0 EER2 value also impacted Central AC (ER), though the impact on savings was negligible.

- For 1% of measures (n=1), the evaluation team assumed the existing cooling system was unknown when the primary cooling type field was not populated, whereas the implementation team assumed that there was no existing cooling system, resulting in higher verified energy and demand savings.

- Crawl Space Insulation (4% of ex ante energy savings, 4% of demand savings, and 8% of gas savings): The gross realization rate for Crawl Space Insulation was 86% for kWh, 100% for kW, and 101% for therms.
  - For 93% of measures (n=349), the evaluation team applied the average heating degree day (HDD) for semi-conditioned and unconditioned basements from the IL-TRM V12.0, whereas the implementation team applied the average HDD for semi-conditioned and unconditioned basements to only a portion of the savings algorithm rather than the full equation when calculating heating and furnace fan runtime savings, resulting in lower verified energy savings and higher verified gas savings.
- Ductless Heat Pump (3% of ex ante energy savings and negative demand savings): The gross realization rate for Ductless Heat Pumps was 128% for kWh and 149% for kW.
  - For 38% of measures (n=8), the evaluation team applied IL-TRM V12.0-recommended assumptions for existing electric resistance heating and no central AC in cases where measures were installed in parts of the home not served by the primary HVAC system, whereas the implementation team applied assumptions associated with the existing primary heating and cooling system, resulting in higher verified energy savings and lower (i.e., more negative) verified demand savings.
- Air Source Heat Pump (TOS) (<1% of ex ante energy and <1% of demand savings): The gross realization rate for Air Source Heat Pumps (TOS) was 450% for kWh and 100% for kW.
  - For 50% of measures (n=4), the evaluation team applied IL-TRM V12.0-recommended assumptions for existing electric resistance heating based on information included in tracking data, whereas the implementation team applied assumptions for an existing air source heat pump, resulting in higher verified energy savings.
- Door Sweep (<1% of ex ante energy, demand, and gas savings): The gross realization rate for Door Sweeps was 48% for kWh, 102% for kW, and 91% for therms.
  - For 100% of measures (n=121), the evaluation team applied IL-TRM V12.0-recommended assumptions for prescriptive air sealing measures directly installed in single-family homes, whereas the implementation team applied deemed savings that relied on select assumptions (e.g., climate weights) associated with the Kits Initiative, resulting in lower verified energy savings, higher verified demand savings, and lower verified gas savings.
- Induction Range (<1% of ex ante energy and <1% of demand savings): The gross realization rate for Induction Ranges was 65% for kWh and 65% for kW.
  - For the one measure included, the evaluation team applied IL-TRM V12.0-recommended assumptions for the induction cooktop only, whereas the implementation team included savings associated with both the induction cooktop and electric resistance oven, resulting in lower verified electric energy and demand savings.

3.2.4 COMMUNITY ACTION AGENCY CHANNEL

CHANNEL DESCRIPTION

The CAA channel provides comprehensive energy efficiency and health and safety improvements to low-income customers in AIC service territory who are eligible for the Illinois Home Weatherization Assistance Program (IHWAP). The CAA channel's key distinction from the Single Family channel is that CAA channel projects are not entirely funded by AIC. Rather, CAA channel projects use a combination of AIC and IHWAP funding, and AIC claims all savings from measures they co-fund. The AIC components of the CAA channel are implemented primarily by Walker-Miller Energy Services.

Walker-Miller engages with CAAs to ensure those agencies have sufficient funds, resources, support, and training to complete AIC projects. CAAs are responsible for recruiting AIC IQ customers and executing projects. CAAs first provide a BPI energy assessment that identifies energy savings opportunities and produces a retrofit scope of work. During the assessment, these agencies also install energy-efficient DI measures such as LEDs, showerheads, faucet aerators, advanced power strips, pipe insulation, and advanced thermostats at no cost to qualifying customers. Following the assessment, customers typically receive additional building envelope and HVAC retrofits based on the scope of work. Additionally, AIC pays 50% of the costs of any health and safety services provided through the channel.

Summary of Key Implementation Changes

We summarize key changes to the CAA channel's design and implementation in 2024 below:

- The CAA channel expanded its offerings to multifamily customers by installing energy-saving measures in individual residential units. Measures installed included DI measures and duct sealing.
- Initiative staff created a web-based work portal/dashboard to enable CAAs to more easily view measure offerings, streamline braiding AIC and government funds, and for data security purposes.
- Initiative staff transitioned the activities of the CAA Staffing Pilot to the Illinois Association of Community Action Agencies (IACAA). The Pilot included management and placement of the Traveling Specialists with CAAs that needed supplemental staff. IACAA implemented a pay-per-service model, which covered the salaries and associated costs of the Traveling Specialists. IACAA also began recruiting and training supplemental staff who could provide CAAs with office or administrative support.
- Initiative staff also noted that CAAs transitioned to a new program tracking platform called the Illinois Weatherization (IWx) tool in July 2024. The new platform replaced WeatherWorks due to concerns about data security from the US Department of Energy (DOE). AIC allowed CAAs to submit paper applications for projects to allow the completion of projects put on hold due to the transition to IWx.

PARTICIPATION SUMMARY

In 2024, the CAA channel completed projects in 216 homes (including one multifamily unit), as shown in Table 27.[21] The majority (88%) of participants received both DI measures and larger retrofits, while the rest typically received only retrofits. Additional detail regarding the percentage of customers who received each type of measure is available in Appendix E.

Table 27. 2024 CAA Channel Participation Summary

Project Type	Total
Full Participation: DI + Building Envelope or HVAC Retrofits	190
Building Envelope or HVAC Retrofits Only	26
DI Measures Only	1
Number of Homes Served	**216**

Source: We identified unique homes by account number and excluded one home that only received "Other" measures such as Administrative Cost, Program Support, Health and Safety, Authorized Measure, and Program Support, which did not include ex ante savings.

Note: Initiative staff indicated that one participant was a multifamily property with 12 tenant units.

[21] While not depicted in Table 27, 190 customers also received health and safety services.

SAVINGS DETAIL

Table 28 presents the ex ante, verified gross, and verified net electric energy savings achieved through the CAA channel in 2024.

Table 28. 2024 CAA Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Air Sealing	188	101%	190	1.000	190
Attic Insulation	121	101%	122	1.000	122
Standard LED	107	100%	107	1.000	107
Air Source Heat Pump (ER)	106	103%	110	1.000	110
BPM Motor	63	101%	63	1.000	63
Crawl Space Insulation	51	87%	44	1.000	44
Bathroom Exhaust Fan	40	100%	40	1.000	40
Packaged Terminal Heat Pump	33	100%	33	1.000	33
Pipe Insulation	31	100%	31	1.000	31
Heat Pump Water Heaters	28	100%	28	1.000	28
Floor Insulation	18	100%	18	1.000	18
Low Flow Showerhead	16	101%	16	1.000	16
Wall Insulation	9	104%	9	1.000	9
Faucet Aerator	9	100%	9	1.000	9
Rim Joist Insulation	6	101%	6	1.000	6
Specialty LED	5	100%	5	1.000	5
Advanced Thermostat	5	95%	5	1.000	5
Room Air Conditioner (ER)	3	100%	3	1.000	3
Door Sweep	2	100%	2	1.000	2
Knee Wall Insulation	2	101%	2	1.000	2
Caulking	1	100%	1	1.000	1
Ductless Heat Pump	1	706%	9	1.000	9
Air Source Heat Pump (TOS)	1	100%	1	1.000	1
Total	**844**	**101%**	**852**	**1.000**	**852**

Table 29 presents the ex ante, verified gross, and verified net electric demand savings achieved through the CAA channel in 2024.

Table 29. 2024 CAA Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Air Sealing	0.08	100%	0.08	1.000	0.08
Attic Insulation	0.04	100%	0.04	1.000	0.04
Standard LED	0.01	100%	0.01	1.000	0.01
Air Source Heat Pump (ER)	0.0003	1,397%	0.004	1.000	0.004
BPM Motor	0.02	102%	0.02	1.000	0.02
Crawl Space Insulation	0.01	100%	0.01	1.000	0.01
Bathroom Exhaust Fan	0.01	100%	0.01	1.000	0.01
Packaged Terminal Heat Pump	0.001	100%	0.001	1.000	0.001
Pipe Insulation	0.003	100%	0.003	1.000	0.003
Heat Pump Water Heaters	0.001	100%	0.001	1.000	0.001
Floor Insulation	0.003	100%	0.003	1.000	0.003
Low Flow Showerhead	0.002	101%	0.002	1.000	0.002
Wall Insulation	0.01	100%	0.01	1.000	0.01
Faucet Aerator	0.004	100%	0.004	1.000	0.004
Rim Joist Insulation	0.002	100%	0.002	1.000	0.002
Specialty LED	0.001	100%	0.001	1.000	0.001
Advanced Thermostat	0.003	95%	0.003	1.000	0.003
Room Air Conditioner (ER)	0.002	100%	0.002	1.000	0.002
Knee Wall Insulation	0.001	101%	0.001	1.000	0.001
Ductless Heat Pump	0.0003	N/A	-0.001	1.000	-0.001
Air Source Heat Pump (TOS)	0.001	100%	0.001	1.000	0.001
Total	**0.20**	**101%**	**0.20**	**1.000**	**0.20**

Table 30 presents the ex ante, verified gross, and verified net gas savings achieved through the CAA channel in 2024. The channel also achieved non-AIC natural gas savings, which cannot be claimed against AIC's natural gas savings goals but are presented in Appendix B.

Table 30. 2024 CAA Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	18,458	100%	18,458	1.000	18,458
Attic Insulation	17,538	100%	17,539	1.000	17,539
Crawl Space Insulation	8,567	100%	8,610	1.000	8,610
Pipe Insulation	2,053	100%	2,053	1.000	2,053
Floor Insulation	2,599	100%	2,599	1.000	2,599
Low Flow Showerhead	298	100%	298	1.000	298
Wall Insulation	3,484	100%	3,495	1.000	3,495
Faucet Aerator	234	100%	234	1.000	234
Rim Joist Insulation	1,242	100%	1,239	1.000	1,239

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	1,085	95%	1,029	1.000	1,029
Knee Wall Insulation	453	101%	456	1.000	456
High Efficiency Gas Furnace (ER)	29,340	100%	29,340	1.000	29,340
Gas High Efficiency Boiler (ER)	3,033	100%	3,033	1.000	3,033
Gas Water Heater	449	100%	449	1.000	449
High Efficiency Gas Furnace (TOS)	292	100%	292	1.000	292
Total	**89,124**	**100%**	**89,123**	**1.000**	**89,123**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Air Source Heat Pump (ER) (13% of ex ante energy and <1% of demand savings): The gross realization rate for Air Source Heat Pump (ER) was 103% for kWh and 1,397% for kW.
  - For 8% of measures (n=1), the evaluation team applied the existing cooling system efficiency (7.4 EER2) from the IL-TRM V12.0 since the actual existing system cooling efficiency was unknown, whereas the implementation team converted SEER2 to EER2 using the SEER to EER conversion formula, which results in a different EER2 value (8.6 EER2) than what is presented in the IL-TRM V12.0, resulting in higher verified demand savings.
  - For 8% of measures (n=1), the evaluation team assumed the existing cooling system was unknown when the primary cooling type field was not populated, whereas the implementation team assumed that there was no existing cooling system, resulting in higher verified energy and demand savings.
- Advanced Thermostat (1% of ex ante energy, 1% of demand savings, and 1% of natural gas savings): The gross realization rate for Advanced Thermostat was 95% for kWh, kW, and therms.
  - In 6% of measures (n=1), the evaluation team did not include savings for instances where tracking data identified the existing thermostat as an advanced thermostat, whereas the implementation team included savings for these measures, resulting in lower verified energy, demand, and gas savings.
- Ductless Heat Pump (<1% of ex ante energy savings and negative demand savings): The gross realization rate for Ductless Heat Pump was 706% for kWh and is not applicable for kW.
  - For the one measure provided, the evaluation team applied IL-TRM V12.0-recommended assumptions for existing electric resistance heating and no central AC in cases where measures were installed in parts of the home not served by the primary HVAC system, whereas the implementation team applied assumptions associated with the existing primary heating and cooling system, resulting in higher verified energy savings and lower verified demand savings.

3.2.5 JOINT UTILITY CHANNEL

CHANNEL DESCRIPTION

Similar to the Single Family channel, the Joint Utility channel provides DI, HVAC, and building envelope retrofits to participating single family customer homes through select Program Allies. However, this channel is implemented via a partnership between AIC and Nicor Gas to serve IQ customers in their shared utility territory, largely in the Bloomington-Normal area but also in parts of Rantoul and Champaign counties. Measures are similar to the Single Family channel; however, AIC typically pays for and claims savings from only electric efficiency measures provided through the channel. AIC and Nicor Gas partner with Resource Innovations to implement this channel.

Summary of Key Implementation Changes

We summarize key changes to the Joint Utility channel's design and implementation in 2024 below:

- The cost allocation between AIC and Nicor Gas changed. In 2023, the cost of joint measures was consistently split 35%/65% between AIC and Nicor Gas. In 2024, AIC and Nicor Gas split costs based on measure-level savings achieved, taking into consideration each utility's avoided costs. The change more accurately aligned AIC spend with electric measure expenditure, allowing for more accurate budgeting and goal setting.
- The Joint Utility channel expanded to multifamily customers in 2024, allowing individual in-unit energy-saving upgrades and improvements. Properties with at least three tenant units, townhomes, and condominiums with both AIC electric and Nicor Gas accounts were eligible to participate through the Joint Utility channel.
- Initiative staff also made the following adjustments to energy-saving measures offered in 2024:
  - Added new DI measures such as exterior LED lighting and smart plugs
  - Increased the number of advanced power strips offered per household.
  - Expanded to include duct sealing and establish a minimum CFM requirement for all building envelope offerings.

PARTICIPATION SUMMARY

In 2024, the Joint Utility channel served 99 homes, almost half of which were part of the expansion to multifamily units. Nearly all participants received HVAC or building shell retrofits, with a few receiving DI measures only. This summary does not fully capture customers' participation experience, as customers may have also received gas-only measures funded by Nicor Gas. While not depicted below, five customers received health and safety services. Table 31 shows the number of participants served and describes the types of projects AIC funded for the Joint Utility channel, and additional detail regarding participation levels by measure category is provided in Appendix E.

Table 31. 2024 Joint Utility Channel Participation Summary (AIC-Funded Measures)

Project Type	Single-Family Home	Multifamily Unit	Total
Full Participation (DI + Building Envelope or HVAC Retrofits)	46	34	80
Building Envelope or HVAC Retrofits Only	10	3	13
DI Only	2	4	6
Number of Homes Served	**58**	**41**	**99**

Source: We identified unique homes by account number and excluded three homes that only received "Other" measures, such as Administrative Cost, Program Support, Health and Safety, Authorized Measure, and Program Support, which did not include ex ante savings.

SAVINGS DETAIL

Table 32 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Joint Utility channel in 2024.

Table 32. 2024 Joint Utility Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Duct Sealing	81	106%	86	1.000	86
Air Sealing	36	100%	36	1.000	36
Advanced Power Strip	11	100%	11	1.000	11
Standard LED	9	99%	9	1.000	9
Advanced Thermostat	7	86%	6	1.000	6
Smart Socket	5	100%	5	1.000	5
Attic Insulation	4	100%	4	1.000	4
Floor Insulation	4	100%	4	1.000	4
LED Fixtures	3	78%	2	1.000	2
Pipe Insulation	1	100%	1	1.000	1
Specialty LED	1	99%	1	1.000	1
Faucet Aerator	1	96%	1	1.000	1
Low Flow Showerhead	<1	107%	<1	1.000	<1
Wall Insulation	<1	111%	<1	1.000	<1
Rim Joist Insulation	<1	100%	<1	1.000	<1
Total	**166**	**102%**	**169**	**1.000**	**169**

Table 33 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Joint Utility channel in 2024. The channel also achieved non-AIC natural gas savings, which cannot be claimed against AIC's natural gas savings goals but are presented in Appendix B.

Table 33. 2024 Joint Utility Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Duct Sealing	0.04	102%	0.05	1.000	0.05
Air Sealing	0.02	103%	0.03	1.000	0.03
Advanced Power Strip	0.001	100%	0.001	1.000	0.001
Standard LED	0.001	99%	0.001	1.000	0.001
Advanced Thermostat	0.01	100%	0.01	1.000	0.01
Smart Socket	0.001	100%	0.001	1.000	0.001
Attic Insulation	0.002	141%	0.003	1.000	0.003
Floor Insulation	0.002	102%	0.002	1.000	0.002
LED Fixtures	0.0004	98%	0.0004	1.000	0.0004
Pipe Insulation	0.0002	100%	0.0002	1.000	0.0002
Specialty LED	0.0002	99%	0.0002	1.000	0.0002
Faucet Aerator	0.0002	100%	0.0002	1.000	0.0002

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Wall Insulation	0.0002	112%	0.0002	1.000	0.0002
Rim Joist Insulation	0.0001	100%	0.0001	1.000	0.0001
Total	**0.08**	**103%**	**0.08**	**1.000**	**0.08**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Duct Sealing (49% of ex ante energy and 55% of demand savings): The gross realization rate for Duct Sealing was 106% for kWh and 102% for kW.
  - For 13% of measures (n=12), the evaluation team included furnace fan savings, whereas the implementation team did not, resulting in higher verified electric energy savings.
  - For 1% of measures (n=1), the evaluation team included cooling savings, whereas the implementation team did not, resulting in higher verified electric energy and demand savings.
- Advanced Thermostat (5% of ex ante energy and 6% of demand savings): The gross realization rate for Advanced Thermostat was 86% for kWh and 100% for kW.
  - For 86% of measures (n=31), the evaluation team applied IL-TRM V12.0 assumptions for thermostats installed in multifamily homes based on participant information included in tracking data, whereas the implementation team applied single-family assumptions, resulting in lower verified electric energy savings.[22]
- Attic Insulation (3% of ex ante energy and 2% of demand savings): The gross realization rate for Attic Insulation was 100% for kWh and 141% for kW.
  - For 100% of measures (n=16), the evaluation team applied cooling full load hour (FLH) assumptions by cooling zone as recommended by the IL-TRM V12.0, whereas the implementation team applied cooling FLH values for a different cooling zone than reflected in tracking data, resulting in higher verified demand savings.
- LED Fixtures (2% of ex ante energy and 1% of demand savings): The gross realization rate for LED Fixtures was 78% for kWh and 98% for kW.
  - For 100% of measures (n=79), the evaluation team applied IL-TRM V12.0-recommended task lighting HOU assumptions for measures identified as desk lamps, whereas the implementation team applied indoor fixture HOU assumptions, resulting in lower verified electric energy savings.

[22] The misapplication of single-family assumptions for multifamily projects also impacted Standard LEDs, Specialty LEDs, and LED Fixtures, though the impact on savings was negligible.

3.2.6 SMART SAVERS CHANNEL

CHANNEL DESCRIPTION

The Smart Savers channel is a third-party offering that provides advanced thermostat technology and installation at no cost to AIC customers in lower-income areas. The channel utilizes a group of qualified installers enrolled to support thermostat installation, known as Program Allies. The channel's overarching goals are to achieve energy savings through advanced thermostat installation, reach customers who have not previously benefited from AIC's Residential Program, and serve as an entry point to other AIC energy efficiency offerings for both customers and contractors.

The channel targets single-family and multifamily customers in ZIP codes where at least 30% of residents are at or below 200% of the Federal Poverty Level (FPL) by census data definitions. Customers in these ZIP codes can learn about the channel in various ways, including AIC bill inserts, emails, direct mail campaigns, and Program Ally-led marketing efforts. Eligible customers may apply online or by phone and can select the Program Ally they prefer. A Program Ally then schedules and conducts the thermostat installation at the customer's home, educating them in the process on how to use their new device's energy-saving features.

The channel's implementers, Leidos and i3 Energy (formerly Staples Energy), play distinct roles in the channel's execution. Leidos is responsible for hosting the online portal, distributing project leads, and ensuring leads are contacted and served in a timely manner. I3 Energy acts as a liaison between the channel and Program Allies, identifying and recruiting new Program Allies, onboarding them into the channel, serving as their go-to resource for channel support, and providing ongoing training on various topics, including online portal navigation, marketing practices, and customer education.

Summary of Key Implementation Changes

We summarize key changes made in 2024 to the Smart Savers channel design and implementation below:

- As of early 2024, the channel no longer supports customer self-installation of thermostats. Customers who decline installation services on their Smart Savers application are redirected to AIC's Online Marketplace offering.
- This year, implementation staff placed greater emphasis on ensuring that Program Allies assist customers in connecting their new advanced thermostats to their smartphones during installation and educate them on the energy-saving features of their devices. Program Allies are now required to complete a customer acknowledgment form during each installation and submit it to Leidos alongside the project invoice to confirm they provided device setup assistance and education. Additionally, i3 Energy started dedicating time during Program Ally training sessions to the importance of customer education and best practices for educating customers.
- Over the past year, AIC scaled back email outreach for energy efficiency programs to help avoid customers unsubscribing due to high email volume. As a result, implementation staff began exploring new avenues for customer engagement, including in-person engagement at large events and outreach via bill inserts. Additionally, implementation staff placed emphasis on encouraging Program Allies to generate leads via their own marketing. To support this effort, i3 Energy began dedicating portions of onboarding and training to showing Program Allies how to use the online marketing portal, how to order pre-approved marketing materials listed there, and best practices for use of marketing resources.
- As of 2024, the Smart Savers channel no longer includes the Smart Self Reliance Pilot (SSRP), which in 2023 added 12 ZIP codes to the channel to enable a partner organization to refer their IQ clientele to the channel directly.

PARTICIPATION SUMMARY

The Smart Savers channel did not meet its adjusted participation target of 3,000 thermostats for 2024. Program Allies installed about 900 thermostats, marking a decrease of 90% from 2023 participation levels. This shift is primarily attributable to the removal of a self-install option, which historically accounted for the majority of participation, as well as the scaling back of marketing efforts and the continually increasing market saturation of advanced thermostat technology in AIC's service territory. Nearly all thermostats went to single-family homes (97%), while the remainder went to seven multifamily properties. Table 34 summarizes participation by home type.

Table 34. 2024 Smart Savers Channel Participation Summary

Home Type	Measure Quantity	Participant Count (Households)
Single-family	876	876
Multifamily[a]	28	7
Total	**904**	**883**

[a] Multifamily participant counts reflect the number of participating properties, not individual units.

The Smart Savers channel served customers across 90 unique ZIP codes in AIC service territory, reflecting a considerable drop-off from 2023 when the offering served customers in 262 unique ZIP codes. Implementation staff indicated this was primarily attributable to the drop in overall participation associated with the shift to a Program Ally-only installation model, which has historically been a less common pathway for this channel and depends on Program Ally availability in different geographic areas. Table 35 summarizes the number of unique ZIP codes served by housing type.

Table 35. 2024 Smart Saver Channel Number of ZIP Codes Served

Home Type	Number of ZIP Codes
Single-family	90
Multifamily	2
Total	**90**

SAVINGS DETAIL

In our review of tracking data, the evaluation team identified 10 participant ZIP codes not included on the approved list of ZIP codes targeted by the offering. As such, we treated these cases as market rate participants and assigned the associated NTGR to estimate net verified savings. This issue affected 12 thermostats, or 1% of the total distributed, resulting in an NTGR of slightly less than 1.0.

Table 36 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Smart Savers channel in 2024.

Table 36. 2024 Smart Savers Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Advanced Thermostat	398	98%	390	0.998	389
Total	**398**	**98%**	**390**	**0.998**	**389**

Table 37 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Smart Savers channel in 2024.

Table 37. 2024 Smart Savers Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Advanced Thermostat	0.15	100%	0.15	0.997	0.15
Total	**0.15**	**100%**	**0.15**	**0.997**	**0.15**

Table 38 presents the ex ante, verified gross, and verified net gas savings achieved through the Smart Savers channel in 2024. The channel also achieved non-AIC natural gas and propane savings, which cannot be claimed against AIC's natural gas savings goals but are presented in Appendix B.

Table 38. 2024 Smart Savers Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	53,473	101%	53,902	0.999	53,821
Total	**53,473**	**101%**	**53,902**	**0.999**	**53,821**

While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Advanced Thermostat (100% of ex ante energy savings, 100% of demand savings, and 100% of gas savings): The gross realization rate for Advanced Thermostat was 98% for kWh, 100% for kW, and 101% for therms.
  - For 1% of measures (n=7), the evaluation team applied natural gas furnace heating assumptions from the IL-TRM V12.0, whereas the implementation team assumed electric resistance heating, resulting in lower verified energy savings and higher verified gas savings.

3.2.7 MOBILE HOMES AND AIR SEALING CHANNEL

CHANNEL DESCRIPTION

The IQ Initiative's MHAS channel is a third-party offering implemented by Future Energy Enterprises (FUTEE) that delivers energy efficiency and other improvements to IQ customers living in mobile homes. The channel provides kits with energy-saving products, advanced thermostats, and larger building envelope and HVAC retrofits, including some mobile home-specific measures like "belly board" (i.e., subfloor) insulation. Customers also receive energy literacy education and certain health and safety measures, such as carbon monoxide and smoke detectors, as well as fire extinguishers. AIC and its partners are actively recruiting and training Program Allies to work on mobile home projects, and developing partnerships with community-based organizations (CBOs) for channel delivery and community engagement.[23] As done in 2023, channel staff continued offering mobile home-specific training opportunities for new and existing Program Allies through the Building Performance Center. Additionally, as of 2024, the channel includes an electrification effort to encourage propane customers to convert to electric appliances.

Summary of Key Implementation Changes

Key changes to channel design and implementation in 2024 are described below:

- The channel simplified its income qualification process to improve customer experience. Under the simplified eligibility requirements, any mobile home resident with AIC electric or gas service is automatically qualified to participate.
- Channel staff launched the new electrification effort targeting mobile home residents with propane service in AIC service territory. The pilot aimed to encourage propane customers to adopt electric appliances and make associated electrical upgrades, such as panel modifications.
  - In the first year of the electrification effort, channel staff did not complete any MHAS channel electrification projects due primarily to challenges with equipment sizing, lack of customer interest or readiness to move off of propane (e.g., having a full propane tank), and difficulty locating customers who met eligibility requirements.[24] Channel staff plan to focus on addressing these initial obstacles and begin enrolling electrification effort participants in 2025.

[23] CBOs include CAAs and other nonprofit community organizations. Historically, AIC has established the majority of channel partnerships through existing industry relationship.

[24] Eligibility requires (1) residing in mobile home with AIC electric service and (2) using propane as a primary fuel source.

PARTICIPATION SUMMARY

Table 39 summarizes MHAS channel participation in 2024. The MHAS channel provided energy efficiency services to a total of 344 customers in 2024. Nearly all of these customers (95%) received a mobile home kit that included energy-saving products such as LEDs and faucet aerators, while just under one-third (29%) received building envelope and/or HVAC retrofits. Some customers who only received a mobile home kit may have been in the middle of the participation process at the end of 2024 and could receive additional retrofits in 2025. Most of the 17 customers with no savings were walkaways, while some completed the initial assessment and may still receive additional services in 2025.

Table 39. 2024 MHAS Channel Participation Summary

Participation	Count	Percent
Received Kit	327	95%
Received Building Envelope or HVAC Retrofit	100	29%
No Savings	17	5%
Total Customers Served	**344**	**100%**

Note: We identified unique homes by account number. Participation counts are not mutually exclusive and thus sum to more than the total number of customers served.

As shown in Table 40, the MHAS channel served customers across 26 counties within AIC service territory. Nearly two-fifths (39%) of participants were located in Champaign County, where AIC has historically focused channel efforts. Macon and St. Clair counties were the next most common regions served by the channel, both of which were established as areas of interest for channel expansion beginning in 2023. In 2024, the channel expanded participation to 19 new counties, in addition to 7 of the counties served in 2023. This demonstrates significant territorial growth for the channel and indicates potential for continued participation growth in 2025.

Table 40. 2024 MHAS Channel Participation by County

County	Count of Customers	Percent of Customers
Champaign	135	39%
Macon	74	22%
St. Clair	29	8%
Madison	18	5%
Marion[a]	11	3%
Christian	10	3%
Crawford[a]	9	3%
Douglas[a]	9	3%
Coles	8	2%
Cumberland[a]	7	2%
Effingham[a]	5	1%
Shelby[a]	5	1%
Other[b]	24	7%
Total	**344**	**100%**

[a] Indicates county was a new addition to the channel for 2024.

[b] 'Other' includes 14 counties with four or fewer participants.

SAVINGS DETAIL

This chapter summarizes savings from HVAC and building envelope retrofits only. Mobile Home Kits savings are presented in the Kits Initiatives chapter (Section 3.5).

Table 41 presents the ex ante, verified gross, and verified net electric energy savings achieved through the MHAS channel in 2024.

Table 41. 2024 MHAS Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Air Source Heat Pump (ER)	118	102%	121	1.000	121
Floor Insulation	49	101%	49	1.000	49
Air Sealing	40	103%	41	1.000	41
BPM Motor	39	101%	39	1.000	39
Advanced Thermostat	22	100%	22	1.000	22
Ductless Heat Pump	13	100%	13	1.000	13
Bathroom Exhaust Fan	8	100%	8	1.000	8
Heat Pump Water Heater	3	100%	3	1.000	3
Crawl Space Insulation	2	91%	1	1.000	1
Total	**293**	**102%**	**297**	**1.000**	**297**

Table 42 presents the ex ante, verified gross, and verified net electric demand savings achieved through the MHAS channel in 2024.

Table 42. 2024 MHAS Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Air Source Heat Pump (ER)	0.01	171%	0.01	1.000	0.01
Floor Insulation	0.01	104%	0.01	1.000	0.01
Air Sealing	0.02	106%	0.02	1.000	0.02
BPM Motor	0.01	107%	0.01	1.000	0.01
Advanced Thermostat	0.01	100%	0.01	1.000	0.01
Ductless Heat Pump	-0.002	100%	-0.002	1.000	-0.002
Bathroom Exhaust Fan	0.001	100%	0.001	1.000	0.001
Heat Pump Water Heater	0.0001	101%	0.0001	1.000	0.0001
Crawl Space Insulation	0.001	100%	0.001	1.000	0.001
Total	**0.06**	**113%**	**0.07**	**1.000**	**0.07**

Table 43 presents the ex ante, verified gross, and verified net gas savings achieved through the MHAS channel in 2024.

Table 43. 2024 MHAS Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Floor Insulation	8,112	100%	8,113	1.000	8,113
Air Sealing	5,960	100%	5,960	1.000	5,960
Advanced Thermostat	4,156	100%	4,156	1.000	4,156
Crawl Space Insulation	711	100%	711	1.000	711
High Efficiency Gas Furnace (ER)	20,115	100%	20,116	1.000	20,116
High Efficiency Gas Furnace (TOS)	235	100%	235	1.000	235
Total	**39,289**	**100%**	**39,290**	**1.000**	**39,290**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Air Source Heat Pump (ER) (40% of ex ante energy and 12% of demand savings): The gross realization rate for early replacement air source heat pumps is 102% for kWh and 171% for kW.
  - For 9% of measures (n=1), the evaluation team applied IL-TRM V12.0-recommended assumptions for an unknown existing cooling system when the primary cooling type field was not populated, whereas the implementation team applied assumptions associated with a lack of any existing cooling system, resulting in higher verified energy and demand savings.[25]
  - For 36% of measures (n=4), the evaluation team applied default EER2 values from the IL-TRM V12.0, whereas the implementation team applied a SEER to EER conversion formula to the IL-TRM V12.0 default SEER2 value to calculate EER2, resulting in higher verified demand savings.

[25] The same discrepancy also affected floor insulation, air sealing, and BPM motors, though the impact on savings was limited.

3.2.8 HEALTHIER HOMES CHANNEL

CHANNEL DESCRIPTION

The Healthier Homes channel partners with healthcare providers and local community organizations to identify low-income or underserved households with a history of asthma or other respiratory ailments. AIC provides energy efficiency and health and safety services to deliver energy bill savings and preventative care to these households. Projects include an in-home health and energy assessment; various energy-saving products like LEDs; larger weatherization and HVAC upgrades like air sealing and advanced thermostats; and indoor air quality (IAQ) improvement measures such as moisture control, hypoallergenic bedding, mold remediation, IAQ monitors, and carbon monoxide detectors. Some measures, such as dehumidifiers and air purifiers, are "hybrid measures" to save energy and improve IAQ.

Summary of Key Implementation Changes

We summarize key changes to the Healthier Homes channel's design and implementation in 2024 below:

- The channel expanded the scope of non-energy-saving measures to include stairs and carpets. Replacing carpets is meant to improve air quality and prevent health issues, particularly among children who are often in close contact with carpets and elderly individuals who are more susceptible to respiratory problems.[26]
- The channel established partnerships with two healthcare organizations for client referrals: Solvera Health in Peoria and Crossing Healthcare in Decatur. These organizations helped identify the majority of participants.
- Implementation staff worked to increase the workforce of home auditors through a partnership with Richland College, pairing BPI certification graduates with Program Allies. As part of this effort, at least 12 students participated in in-home visits through Richland's workforce development program. This collaboration allowed students to engage with a Program Ally, enabling them to ask industry-related questions and gain practical experience in building performance principles.

PARTICIPATION SUMMARY

In 2024, the Healthier Homes channel served 16 unique homes, most of which received building envelope or HVAC retrofits. Table 44 summarizes the number of homes served by project type, and additional detail regarding participation levels by measure category is provided in Appendix E.

Table 44. 2024 Healthier Homes Channel Participation Summary

Project Type	Total
Full Participation: DI + Building Envelope or HVAC Retrofits	10
Building Envelope or HVAC Retrofits Only	4
DI Measures Only	2
Number of Homes Served	**16**

Source: We identified unique homes by account number and excluded one home that only received "Other" measures, such as Administrative Cost, Program Support, Health and Safety, Authorized Measure, and Program Support, which did not include ex ante savings.

[26] . These additional measures align with the Healthy Homes principles provided by the U.S. Department of Housing and Urban Development (HUD).

SAVINGS DETAIL

Table 45 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Healthier Homes channel in 2024.

Table 45. 2024 Healthier Homes Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Central AC (ER)	10	100%	10	1.000	10
BPM Motor	6	100%	6	1.000	6
Standard LED	5	100%	5	1.000	5
Air Sealing	4	105%	4	1.000	4
Attic Insulation	2	104%	3	1.000	3
Bathroom Exhaust Fan	2	100%	2	1.000	2
Advanced Thermostat	2	84%	1	1.000	1
Specialty LED	1	100%	1	1.000	1
Crawl Space Insulation	1	90%	1	1.000	1
Wall Insulation	1	100%	1	1.000	1
Advanced Power Strip	1	100%	1	1.000	1
Ductless Heat Pump (TOS)	1	773%	4	1.000	4
Central AC (TOS)	<1	100%	<1	1.000	<1
Duct Sealing	<1	100%	<1	1.000	<1
Connected LED	<1	100%	<1	1.000	<1
Rim Joist Insulation	<1	105%	<1	1.000	<1
Knee Wall Insulation	<1	100%	<1	1.000	<1
Faucet Aerator	<1	100%	<1	1.000	<1
Low Flow Showerhead	<1	100%	<1	1.000	<1
Total	**37**	**110%**	**41**	**1.000**	**41**

Table 46 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Healthier Homes channel in 2024.

Table 46. 2024 Healthier Homes Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Central AC ER	0.01	100%	0.01	1.000	0.01
BPM Motor	0.001	100%	0.001	1.000	0.001
Standard LED	0.001	100%	0.001	1.000	0.001
Air Sealing	0.002	107%	0.003	1.000	0.003
Attic Insulation	0.001	107%	0.001	1.000	0.001
Bathroom Exhaust Fan	0.0003	100%	0.0003	1.000	0.0003
Advanced Thermostat	0.001	79%	0.001	1.000	0.001
Specialty LED	0.0002	100%	0.0002	1.000	0.0002
Crawl Space Insulation	0.0004	100%	0.0004	1.000	0.0004
Wall Insulation	0.0004	100%	0.0004	1.000	0.0004
Advanced Power Strip	0.0001	100%	0.0001	1.000	0.0001
Ductless Heat Pump (TOS)	0.0001	100%	0.0001	1.000	0.0001
Central AC (TOS)	0.001	100%	0.001	1.000	0.001
Duct Sealing	0.0001	100%	0.0001	1.000	0.0001
Connected LED	0.00004	100%	0.00004	1.000	0.00004
Rim Joist Insulation	0.0001	109%	0.0001	1.000	0.0001
Knee Wall Insulation	0.0001	100%	0.0001	1.000	0.0001
Total	**0.02**	**101%**	**0.02**	**1.000**	**0.02**

Table 47 presents the ex ante, verified gross, and verified net gas savings achieved through the Healthier Homes channel in 2024.

Table 47. 2024 Healthier Homes Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	1,457	100%	1,457	1.000	1,457
Attic Insulation	1,121	100%	1,121	1.000	1,121
Advanced Thermostat	942	92%	869	1.000	869
Crawl Space Insulation	478	100%	478	1.000	478
Wall Insulation	479	100%	479	1.000	479
Duct Sealing	214	100%	214	1.000	214
Rim Joist Insulation	109	100%	109	1.000	109
Knee Wall Insulation	113	100%	113	1.000	113
Faucet Aerator	31	100%	31	1.000	31
Low Flow Showerhead	38	100%	38	1.000	38
Gas Furnace ER	2,949	100%	2,949	1.000	2,949
Gas Boiler ER	540	100%	540	1.000	540
Water Heater	89	100%	89	1.000	89
Total	**8,560**	**99%**	**8,487**	**1.000**	**8,487**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Air Sealing (11% of ex ante energy, 15% of demand savings, and 17% of gas savings): The gross realization rate for Air Sealing was 105% for kWh, 107% for kW, and 100% for therms.
  - For 6% of measures (n=1), the evaluation team assumed the existing cooling system was unknown when the primary cooling type field was not populated, whereas the implementation team assumed that there was no existing cooling system, resulting in higher verified energy and demand savings.[27]
- Advanced Thermostat (4% of ex ante energy, 6% of demand savings, and 11% of gas savings): The gross realization rate for Advanced Thermostat was 84% for kWh, 79% for kW, and 92% for therms.
  - For 9% of measures (n=1), the evaluation team did not include savings for those where tracking data identified the existing thermostat as an advanced thermostat, whereas the implementation team included savings for these measures, resulting in lower verified energy, demand, and gas savings.
- Crawl Space Insulation (3% of ex ante energy, 2% of demand savings, and 6% of gas savings): The gross realization rate for Crawl Space Insulation was 90% for kWh, 100% for kW, and 100% for therms.
  - For 100% of measures (n=7), the evaluation team applied the average HDD for semi-conditioned and unconditioned basements from the IL-TRM V12.0, whereas the implementation team applied the average HDD for semi-conditioned and unconditioned basements to only a portion of the savings algorithm rather than the full equation when calculating furnace fan runtime savings, resulting in lower verified energy savings.
- Ductless Heat Pump (TOS) (2% of ex ante energy and <1% of demand savings): The gross realization rate for Ductless Heat Pump (TOS) was 986% for kWh and 100% for kW.
  - For 100% of measures (n=1), the evaluation team applied IL-TRM V12.0-recommended assumptions for existing electric resistance heating in cases where measures were installed in parts of the home not served by the primary HVAC system, whereas the implementation team applied assumptions associated with the existing heating system, resulting in higher verified energy savings.

3.2.9 ELECTRIFICATION CHANNEL

CHANNEL DESCRIPTION

AIC conducted limited electrification efforts for its low-income customers for the first time in 2024, supported by activities in three IQ Initiative channels: the IQ Electrification channel, the IQ Single Family channel, and the IQ Healthier Homes channel. We group these efforts together in this section for simplicity.

The Electrification channel operates as part of the IQ Initiative, with the goal of encouraging AIC residential customers to replace propane-fueled appliances with energy-efficient electric appliances. In concert with appliances delivered through the Electrification channel, customers may also receive weatherization services through the Single Family channel. In 2024, the Single Family and Healthier Homes channels also conducted a limited number of installations of heat pump water heaters replacing natural gas-fired water heaters.

[27] This is also the driver of the realization rates for Attic Insulation and Rim Joist Insulation.

PARTICIPATION SUMMARY

The Electrification channel completed a limited number of projects in its first year of operation. Twenty customers received some combination of electrification and energy efficiency services. Table 48 provides a summary of AIC customers receiving electrification services in 2024.

Table 48. 2024 Income Qualified Electrification Participation Summary

Channel	Measures Delivered	Customers
Single Family and Electrification	Comprehensive Improvements	9
Electrification Only	Air Source Heat Pumps and Advanced Thermostats	2
Single Family Only	Heat Pump Water Heater Only	7
Healthier Homes Only	Heat Pump Water Heater Only	2
Total		**20**

Source: We determined unique customers served based on electric account numbers.

These customers fell into two separate categories:

- Eleven customers received electrification of space heat through the installation of a ducted air source heat pump to replace an existing fossil fuel-fired heating system.
  - Nine of these customers also received weatherization improvements, including air sealing (n=9) and/or insulation (n=8).
  - Five of these customers also received electrification of water heating (n=4), cooking (n=4), and/or clothes drying (n=1).
  - Where necessary, customers received advanced thermostats (n=5) and supplementary ductless heat pumps (n=1).
  - Two customers received ducted air source heat pumps without envelope improvements, one of whom also received an advanced thermostat.
- Nine customers received electrification of water heating only, replacing natural gas-fired systems.
  - These projects were completed through the Single Family and Healthier Homes channels

Table 49 below summarizes the measures and associated quantities delivered through the above projects in 2024.

Table 49. Summary of Measures Delivered through 2024 Electrification Projects

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Air Sealing	Air Sealing	9,107	CFM reduced
Attic Insulation	Ceiling/Attic Insulation	12,063	sq. ft.
Basement Sidewall Insulation	Basement Sidewall Insulation	159	sq. ft.
Crawl Space Insulation		559	sq. ft.
Kneewall Insulation	Wall Insulation	609	sq. ft.
Rim Joist Insulation	Rim/Band Joist Insulation	1,103	linear ft.
Air Source Heat Pump (ER, Electrification)	Air Source Heat Pumps (Centrally Ducted and Ductless)	12	# of systems
Ductless Heat Pump (Electrification)		1	# of systems
Heat Pump Water Heater (ER, Electrification)	Heat Pump Water Heaters	14	# of systems

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Advanced Thermostats (Electrification)	Advanced Thermostats	5	# of thermostats
Heat Pump Dryer (Electrification)	ENERGY STAR Clothes Dryer	1	# of dryers
Induction Cooktop (Electrification)	Residential Induction Cooking Appliances	4	# of cooktops

SAVINGS DETAIL

Reporting savings for electrification measures is complex. Illinois state law, the Illinois Energy Efficiency Policy Manual, and the Illinois TRM prescribe several rules around how to calculate savings to be claimed against AIC's goals for these measures, and this section presents savings calculated in that manner. There are two specific differences around how savings presented in this section are calculated as compared to other sections of this report:

1. Savings from the electrification of fossil fuel-fired end uses (e.g., replacement of a propane furnace with an air source heat pump) presented in this chapter are reported in kWh equivalents representing the net fuel-agnostic change in site energy usage.[28]
2. Savings from weatherization activities conducted at a site receiving electrification of space heat presented in this chapter are calculated as fossil fuel savings consistent with the weatherized site's pre-existing condition but converted to kWh equivalents for the purpose of goal attainment.[29]

For a full accounting of at-the-meter impacts from these measures that will be used in cost-effectiveness testing, please see Appendix B.

Table 50 presents the ex ante, verified gross, and verified net energy savings in MWh equivalents achieved through the Electrification channel in 2024 that can be claimed against AIC's electric energy savings goals.

Table 50. 2024 Income Qualified Electrification Channel Energy Savings by Measure (MWh Equivalents)

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Air Source Heat Pump (ER, Electrification)	213	103%	220	1.000	220
Heat Pump Water Heater (ER, Electrification)	60	100%	60	1.000	60
Attic Insulation	23	100%	23	1.000	23
Air Sealing	19	100%	19	1.000	19
Crawl Space Insulation	16	100%	16	1.000	16
Ductless Heat Pump (Electrification)	9	104%	9	1.000	9
Advanced Thermostats (Electrification)	6	100%	6	1.000	6
Basement Sidewall Insulation	5	100%	5	1.000	5
Rim Joist Insulation	3	100%	3	1.000	3
Kneewall Insulation	2	100%	2	1.000	2
Induction Cooktop (Electrification)	1	112%	2	1.000	2
Heat Pump Dryer (Electrification)	1	23%	0	1.000	0
Total	**358**	**102%**	**365**	**1.000**	**365**

Table 50 presents the ex ante, verified gross, and verified net demand savings resulting from the Electrification channel in 2024.

[28] See 220 ILCS 5/8-103B(b-27).

[29] Illinois Energy Efficiency Stakeholder Advisory Group. *Illinois Energy Efficiency Policy Manual Version 3.0,* Section 12.3. 2023. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf.

Table 51. 2024 Income Qualified Electrification Channel Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Air Source Heat Pump (ER, Electrification)	0.0051	161%	0.0083	1.000	0.0083
Heat Pump Water Heater (ER, Electrification)	0.0002	388%	0.0008	1.000	0.0008
Attic Insulation	-0.0005	100%	-0.0005	1.000	-0.0005
Air Sealing	0.0015	100%	0.0015	1.000	0.0015
Crawl Space Insulation	0.0022	100%	0.0022	1.000	0.0022
Ductless Heat Pump (Electrification)	0.0004	100%	0.0004	1.000	0.0004
Advanced Thermostats (Electrification)	0.0010	100%	0.0010	1.000	0.0010
Basement Sidewall Insulation	0.0001	100%	0.0001	1.000	0.0001
Rim Joist Insulation	0.0001	100%	0.0001	1.000	0.0001
Kneewall Insulation	0.0001	100%	0.0001	1.000	0.0001
Induction Cooktop (Electrification)	-0.0013	-29%	0.0004	1.000	0.0004
Heat Pump Dryer (Electrification)	0.0000	N/A	-0.0001	1.000	-0.0001
Total	**0.01**	**159%**	**0.01**	**1.000**	**0.01**

We identified several specific discrepancies for specific measure categories when conducting our verified analysis and discuss them below.

- Air Source Heat Pumps – Early Replacement, Electrification (59% of ex ante energy savings): The gross realization rates for Air Source Heat Pumps were 103% for kWh and 161% for kW.
  - For 100% of measures (n=11), the implementation team made a conversion error in calculations that understated furnace fan energy savings by a factor of 10. Correction of this issue in verified calculations increased energy savings.
  - For 9% of measures (n=1), the implementation team appears to have zeroed out added energy consumption due to cooling from an air source heat pump installed at a site that previously did not have cooling. Correction of this issue in verified calculations decreased energy savings.
- Ductless Heat Pump – Electrification (5% of ex ante energy savings): The gross realization rates for Ductless Heat Pumps were 104% for kWh and 388% for kW.
  - For 100% of measures (n=1), the implementation team made a conversion error in calculations that understated furnace fan energy savings by a factor of 10. Correction of this issue in verified calculations increased energy savings.
- Heat Pump Water Heaters – Early Replacement, Electrification (17% of ex ante energy savings): The gross realization rates for Heat Pump Water Heaters were 100% for kWh and 100% for kW.
  - For all measures, measure calculations appear to have been implemented correctly. The evaluation team observed minor rounding errors in calculations that led to slight variances in verified values on a measure-by-measure basis (no greater than 1% for any given measure and approximately 0.5% in aggregate) but accepted the implementation team's calculations for simplicity.
- Induction Cooktops – Electrification (<1% of ex ante energy savings): The gross realization rate for Induction Cooktops - Electrification was 112% for kWh and 100% for kW.
  - For 100% of measures (n=4), we could not determine the source of ex ante energy savings. Component values presented in the tracking database for this measure appear correct and can be replicated, but final claimed savings are incorrectly specified.

- Heat Pump Clothes Dryers - Electrification (<1% of ex ante energy savings): The gross realization rate for Heat Pump Clothes Dryers - Electrification was 23% for kWh and N/A for kW.
  - For 100% of measures (n=1), the implementation team appears to have reversed a +/- sign on impact values for electric energy; ex ante values indicated positive electric energy savings from the implementation of these measures where, in reality, additional electric energy is consumed by the installation of these measures.
  - For 100% of measures (n=1), the implementation team improperly omitted the %Gas factor when calculating energy usage associated with the baseline propane dryer. This overstated propane energy savings.
  - For 100% of measures (n=1), the implementation team did not include peak demand impacts in ex ante calculations.

3.2.10 CUMULATIVE PERSISTING ANNUAL SAVINGS

Table 52 summarizes CPAS and WAML for the 2024 Single Family Initiative by channel. The WAML for the Initiative is 15.3 years. CPAS and WAML for each channel at a measure level are presented in Table 53 through Table 59.

Table 52. 2024 Income Qualified Initiative – Single Family Offerings CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Single Family	14.8	4,857	1.000	4,857	4,857	4,857	4,857	...	4,209	...	65,068
CAA	17.9	852	1.000	852	852	852	851	...	771	...	14,056
Joint Utility	17.9	169	1.000	169	169	169	169	...	169	...	2,561
Smart Savers	11.0	390	0.998	389	389	389	389	...	389	...	4,283
MHAS	17.3	297	1.000	297	297	297	297	...	244	...	4,859
Healthier Homes	15.7	41	1.000	41	41	41	41	...	27	...	504
Electrification	17.8	365	1.000	365	365	365	365	...	352	...	5,996
2024 CPAS		**6,972**	**1.000**	**6,971**	**6,971**	**6,971**	**6,970**	...	**6,161**	...	**97,327**
Expiring 2024 CPAS				**0**	**0**	**0**	**1**	...	**809**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**1**	...	**810**	...	
WAML	**15.3**										

Table 53. 2024 Income Qualified Initiative – Single Family Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Air Purifier	9.0	741	1.000	741	741	741	741	...	741	...	6,666
Air Source Heat Pump (ER)	16.0	897	1.000	897	897	897	897	...	797	...	13,346
Standard LED	8.0	369	1.000	369	369	369	369	...	369	...	2,950
Air Sealing	20.0	326	1.000	326	326	326	326	...	326	...	5,744
Central AC (ER)	18.0	315	1.000	315	315	315	315	...	40	...	2,367
BPM Motor	6.0	272	1.000	272	272	272	272	...	0	...	1,635
Attic Insulation	30.0	277	1.000	277	277	277	277	...	277	...	6,607
Advanced Power Strip	7.0	266	1.000	266	266	266	266	...	266	...	1,859

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Crawl Space Insulation	30.0	197	1.000	197	197	197	197	...	197	...	5,485
Heat Pump Water Heater	15.0	213	1.000	213	213	213	213	...	213	...	3,193
Advanced Thermostat	11.0	198	1.000	198	198	198	198	...	198	...	2,178
Bathroom Exhaust Fan	19.0	159	1.000	159	159	159	159	...	159	...	3,021
Ductless Heat Pump	16.0	195	1.000	195	195	195	195	...	195	...	3,120
Specialty LED	8.0	132	1.000	132	132	132	132	...	132	...	1,056
Pipe Insulation	15.0	84	1.000	84	84	84	84	...	84	...	1,257
Wall Insulation	30.0	46	1.000	46	46	46	46	...	46	...	1,173
Faucet Aerator	10.0	43	1.000	43	43	43	43	...	43	...	427
Rim Joist Insulation	30.0	29	1.000	29	29	29	29	...	29	...	808
Low Flow Showerhead	10.0	26	1.000	26	26	26	26	...	26	...	258
Duct Sealing	20.0	15	1.000	15	15	15	15	...	15	...	276
Air Source Heat Pump (TOS)	16.0	42	1.000	42	42	42	42	...	42	...	672
Room Air Conditioner (ER)	12.0	6	1.000	6	6	6	6	...	6	...	75
Knee Wall Insulation	30.0	6	1.000	6	6	6	6	...	6	...	160
Door Sweep	20.0	1	1.000	1	1	1	1	...	1	...	22
Central AC (TOS)	18.0	2	1.000	2	2	2	2	...	2	...	30
Smart Socket	7.0	1	1.000	1	1	1	1	...	1	...	5
Induction Range	16.0	<1	1.000	<1	<1	<1	<1	...	<1	...	<1
Tree Planting	25.0	<1	1.000	<1	<1	<1	<1	...	<1	...	1
2024 CPAS		**4,857**	**1.000**	**4,857**	**4,857**	**4,857**	**4,857**	**...**	**4,209**	**...**	**65,068**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**648**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**648**	**...**	
WAML	**14.8**										

Table 54. 2024 Income Qualified Initiative – CAA Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Air Sealing	20.0	190	1.000	190	190	190	190	...	190	...	3,362
Attic Insulation	30.0	122	1.000	122	122	122	122	...	122	...	3,256
Standard LED	8.0	107	1.000	107	107	107	107	...	107	...	859
Air Source Heat Pump (ER)	16.0	110	1.000	110	110	110	110	...	93	...	1,590
BPM Motor	6.0	63	1.000	63	63	63	63	...	0	...	380
Crawl Space Insulation	30.0	44	1.000	44	44	44	44	...	44	...	1,187
Bathroom Exhaust Fan	19.0	40	1.000	40	40	40	40	...	40	...	753
Packaged Terminal Heat Pump	8.0	33	1.000	33	33	33	32	...	32	...	261
Pipe Insulation	15.0	31	1.000	31	31	31	31	...	31	...	459
Heat Pump Water Heater	15.0	28	1.000	28	28	28	28	...	28	...	416
Floor Insulation	30.0	18	1.000	18	18	18	18	...	18	...	510
Low Flow Showerhead	10.0	16	1.000	16	16	16	16	...	16	...	158
Wall Insulation	30.0	9	1.000	9	9	9	9	...	9	...	233
Faucet Aerator	10.0	9	1.000	9	9	9	9	...	9	...	86
Rim Joist Insulation	30.0	6	1.000	6	6	6	6	...	6	...	153
Specialty LED	8.0	5	1.000	5	5	5	5	...	5	...	40
Advanced Thermostat	11.0	5	1.000	5	5	5	5	...	5	...	52
Room Air Conditioner (ER)	12.0	3	1.000	3	3	3	3	...	3	...	37
Door Sweep	20.0	2	1.000	2	2	2	2	...	2	...	41
Knee Wall Insulation	30.0	2	1.000	2	2	2	2	...	2	...	45
Caulking	20.0	1	1.000	1	1	1	1	...	1	...	27
Ductless Heat Pump	16.0	9	1.000	9	9	9	9	...	9	...	138
Air Source Heat Pump (TOS)	16.0	1	1.000	1	1	1	1	...	1	...	13
2024 CPAS		**852**	**1.000**	**852**	**852**	**852**	**851**	...	**771**	...	**14,056**
Expiring 2024 CPAS				**0**	**0**	**0**	**1**	...	**80**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**1**	...	**81**	...	
WAML	**17.9**										

Table 55. 2024 Income Qualified Initiative – Joint Utility Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Duct Sealing	20.0	86	1.000	86	86	86	86	...	86	...	1,382
Air Sealing	20.0	36	1.000	36	36	36	36	...	36	...	627
Advanced Power Strip	7.0	11	1.000	11	11	11	11	...	11	...	77
Standard LED	8.0	9	1.000	9	9	9	9	...	9	...	72
Advanced Thermostat	11.0	6	1.000	6	6	6	6	...	6	...	71
Smart Socket	7.0	5	1.000	5	5	5	5	...	5	...	37
Attic Insulation	30.0	4	1.000	4	4	4	4	...	4	...	111
Floor Insulation	30.0	4	1.000	4	4	4	4	...	4	...	107
LED Fixtures	8.0	2	1.000	2	2	2	2	...	2	...	20
Pipe Insulation	15.0	1	1.000	1	1	1	1	...	1	...	22
Specialty LED	8.0	1	1.000	1	1	1	1	...	1	...	9
Faucet Aerator	10.0	1	1.000	1	1	1	1	...	1	...	10
Low Flow Showerhead	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	5
Wall Insulation	30.0	<1	1.000	<1	<1	<1	<1	...	<1	...	8
Rim Joist Insulation	30.0	<1	1.000	<1	<1	<1	<1	...	<1	...	2
2024 CPAS		**169**	**1.000**	**169**	**169**	**169**	**169**	...	**169**	...	**2,561**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
WAML	**17.9**										

Table 56. 2024 Income Qualified Initiative – Smart Savers Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2023	2024	2025	2026	...	2030	...	
Advanced Thermostat	11.0	390	0.998	389	389	389	389	...	389	...	4,283
2023 CPAS		**390**	**0.998**	**389**	**389**	**389**	**389**	**...**	**389**	**...**	**4,283**
Expiring 2023 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2023 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**11.0**										

Table 57. 2024 Income Qualified Initiative – MHAS Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Air Source Heat Pump (ER)	16.0	120	1.000	120	120	120	120	...	106	...	1,783
Floor Insulation	30.0	49	1.000	49	49	49	49	...	49	...	1,395
Air Sealing	20.0	41	1.000	41	41	41	41	...	41	...	763
BPM Motor	6.0	39	1.000	39	39	39	39	...	0	...	233
Advanced Thermostat	11.0	22	1.000	22	22	22	22	...	22	...	244
Ductless Heat Pump	16.0	13	1.000	13	13	13	13	...	13	...	210
Bathroom Exhaust Fan	19.0	8	1.000	8	8	8	8	...	8	...	156
Heat Pump Water Heater	15.0	3	1.000	3	3	3	3	...	3	...	38
Crawl Space Insulation	30.0	1	1.000	1	1	1	1	...	1	...	38
2024 CPAS		**297**	**1.000**	**297**	**297**	**297**	**297**	**...**	**244**	**...**	**4,859**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**53**	**...**	
WAML	**17.3**										

Table 58. 2024 Income Qualified Initiative – Healthier Homes Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Central AC ER	18.0	10	1.000	10	10	10	10	...	1	...	78
BPM Motor	6.0	6	1.000	6	6	6	6	...	0	...	34
Standard LED	8.0	5	1.000	5	5	5	5	...	5	...	39
Air Sealing	20.0	4	1.000	4	4	4	4	...	4	...	74
Attic Insulation	30.0	3	1.000	3	3	3	3	...	3	...	63
Bathroom Exhaust Fan	19.0	2	1.000	2	2	2	2	...	2	...	43
Advanced Thermostat	11.0	1	1.000	1	1	1	1	...	1	...	15
Specialty LED	8.0	1	1.000	1	1	1	1	...	1	...	12
Crawl Space Insulation	30.0	1	1.000	1	1	1	1	...	1	...	22
Wall Insulation	30.0	1	1.000	1	1	1	1	...	1	...	21
Advanced Power Strip	7.0	1	1.000	1	1	1	1	...	1	...	6
Ductless Heat Pump TOS	16.0	4	1.000	4	4	4	4	...	4	...	69
Central AC TOS	18.0	<1	1.000	<1	<1	<1	<1	...	<1	...	9
Duct Sealing	20.0	<1	1.000	<1	<1	<1	<1	...	<1	...	7
Connected LED	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	3
Rim Joist Insulation	30.0	<1	1.000	<1	<1	<1	<1	...	<1	...	5
Knee Wall Insulation	30.0	<1	1.000	<1	<1	<1	<1	...	<1	...	4
Faucet Aerator	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	<1
Low Flow Showerhead	10.0	<1	1.000	<1	<1	<1	<1	...	<1	...	<1
2024 CPAS		**41**	**1.000**	**41**	**41**	**41**	**41**	...	**27**	...	**504**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**15**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**15**	...	
WAML	**15.7**										

Table 59. 2024 Income Qualified Electrification CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	…	2030	…	
Air Source Heat Pump (ER, Electrification)	16.0	220	1.000	220	220	220	220	…	207	…	3,002
Heat Pump Water Heater (ER, Electrification)	15.0	60	1.000	60	60	60	60	…	60	…	906
Attic Insulation	30.0	23	1.000	23	23	23	23	…	23	…	690
Air Sealing	20.0	19	1.000	19	19	19	19	…	19	…	385
Crawl Space Insulation	30.0	16	1.000	16	16	16	16	…	16	…	487
Ductless Heat Pump (Electrification)	16.0	9	1.000	9	9	9	9	…	9	…	145
Advanced Thermostats (Electrification)	11.0	6	1.000	6	6	6	6	…	6	…	62
Basement Sidewall Insulation	30.0	5	1.000	5	5	5	5	…	5	…	153
Rim Joist Insulation	30.0	3	1.000	3	3	3	3	…	3	…	90
Kneewall Insulation	30.0	2	1.000	2	2	2	2	…	2	…	47
Induction Cooktop (Electrification)	16.0	2	1.000	2	2	2	2	…	2	…	25
Heat Pump Dryer (Electrification)	16.0	<1	1.000	<1	<1	<1	<1	…	<1	…	5
2024 CPAS		**365**	**1.000**	**365**	**365**	**365**	**365**	…	**352**	…	**5,996**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	…	**13**	…	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	…	**13**	…	
WAML	**17.8**										

3.2.11 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this evaluation, the evaluation team offers the following key findings and recommendations for the Income Qualified Initiative moving forward.

CROSS-CUTTING

- **Key Finding 1:** For some projects, the Initiatives tracking data did not include the primary cooling system type, and the implementation team excluded savings from cooling when the primary cooling type is unspecified in the tracking database
  - Recommendation: The implementation team should collect and track primary cooling system information whenever possible. To increase the accuracy of the tracking database, the primary cooling system field should explicitly state whether there is no existing cooling system or if the existing cooling or heating system is unknown. When the primary cooling system is unknown, assumptions specified in the current IL-TRM for unknown cooling should be used to calculate savings.
- **Key Finding 2:** For all Crawl Space Insulation projects, the implementation team applied the average HDD for semi-conditioned and unconditioned basements to only a portion of the savings algorithm rather than the full equation when calculating heating and furnace fan runtime savings.
  - Recommendation: The implementation team should ensure basement condition assumptions are applied consistently to all portions of the savings algorithm. To the degree possible, the implementation team should also track basement condition information (e.g., semi-conditioned or unconditioned space) in tracking data and apply the appropriate HDD value from the current IL-TRM rather than averaging HDDs associated with various basement conditions.
- **Key Finding 3:** The implementation team applied primary heating and cooling system information from the tracking database to calculate savings for ductless heat pump measures; however, ductless heat pumps installed through the Single Family and CAA channels are often installed to heat and cool areas of the home that are not served by the primary system. The existing heating and cooling system that served the area where the ductless heat pump was installed is included in project applications but does not appear in tracking data.
  - Recommendation: If AIC plans to continue installing ductless heat pumps in income-qualified homes, the implementation team should track whether the heat pump serves the whole home or part of it. For ductless heat pumps serving part of the home, tracking data should indicate the existing secondary heating and cooling system that serves the area where the ductless heat pump was installed and use the existing secondary system as the baseline for ductless heat pump savings.
- **Key Finding 4:** The implementation team included savings from advanced thermostats in six cases where the previously installed (i.e., existing) thermostat was an advanced thermostat. In these cases, the baseline condition is an advanced thermostat, and savings generally should not be claimed. Although this only affected a very small portion of 2024 participants, the prevalence of previously installed advanced thermostats may increase in future years.
  - Recommendation: Advanced thermostats should only be installed in place of existing advanced thermostats in select cases (e.g., for the purpose of customer satisfaction), and no savings should be claimed given the existing baseline unit is a high-efficiency unit.

SINGLE FAMILY CHANNEL

- **Key Finding 1:** Almost 3,000 air purifiers were drop-shipped to customers with pending or completed Single Family channel weatherization projects without explicitly soliciting customer interest or gathering detailed household information.
  - Recommendation: If AIC intends to offer this measure via this channel in the future, IL-TRM updates should be made to reflect more appropriate baseline and installation assumptions. IL-TRM V12.0 recommendations presume that customers are replacing existing air purifiers or intend to purchase air purifiers in the near future and effectively assume an ISR of 100%. These assumptions are likely not entirely applicable to customers who receive a free and unsolicited measure and may therefore use the measure less than someone who actively decided to purchase one. This likelihood is exacerbated by the delivery of two such units to each individual household.
- **Key Finding 2:** The evaluation team assigned savings per IL-TRM V12.0 recommendations for prescriptive air sealing measures, whereas the implementation team applied deemed savings that relied on select assumptions (e.g., climate weights) associated with the Kits Initiative.
  - Recommendation: The implementation team should apply savings assumptions recommended by the IL-TRM for prescriptive air sealing measures rather than deriving deemed values with inputs from alternate sources.

CAA CHANNEL

- **Key Finding 1:** One CAA project involved the installation of packaged terminal heat pumps in a residential multifamily building.
  - Recommendation: If AIC plans to continue installing packaged terminal heat pumps in multifamily buildings, consider working with the IL-TRM Technical Advisory Committee (TAC) to develop a residential packaged terminal heat pump measure for inclusion in the IL-TRM.

JOINT UTILITY CHANNEL

- **Key Finding 1:** The Joint Utility channel expanded to multifamily customers in 2024, yet the implementation team applied single-family assumptions from the IL-TRM V12.0 for all advanced thermostat and LED lighting measures, regardless of home type indicated in tracking data.
  - Recommendation: Ensure appropriate home type-dependent parameters recommended by the current version of the IL-TRM are applied based on information available in tracking data.
- **Key Finding 2:** For some duct sealing measures delivered through the Joint Utility channel, the post-installation distribution efficiency was not included in tracking data. To calculate CPAS, a mid-life adjustment was applied to account for the likely replacement of heating and cooling equipment during the lifetime of the duct sealing measure. Additionally, per IL-TRM V12.0, the post-installation distribution efficiency is a required input for calculating annual savings after the expiration of existing gas systems.
  - Recommendation: To enable development of accurate CPAS estimates per IL-TRM recommendations, the implementation team should track the distribution efficiency following installation of duct sealing.

- **Key Finding 3:** For all attic insulation measures distributed through the Joint Utility channel, the implementation team applied cooling FLH values recommended by the IL-TRM V12.0 for different climate zones than those indicated in tracking data.
  - Recommendation: The implementation team should ensure climate zone-dependent savings assumptions recommended by the current IL-TRM are applied in alignment with participant zip codes included in tracking data.

SMART SAVERS CHANNEL

- **Key Finding 1:** Several participants' service address ZIP codes were not included on the approved list of areas targeted by the channel and therefore could not be verified as IQ participants.
  - Recommendation: Review the screening processes in place to ensure that only customers from eligible ZIP codes are included in the Smart Savers channel, and consider whether any changes to communication or coordination between the implementation team and Program Allies could improve alignment on qualification criteria and procedures.

ELECTRIFICATION CHANNEL

- **Key Finding 1:** Electrification tracking data appears well-populated and the implementation team's approach to calculating energy savings for electrification efforts appears reasonable. We observed minor variances for select measures, including an issue where a load increase was inadvertently treated as a load decrease.
  - Recommendation: As AIC continues to scale electrification efforts, ensure that electrification savings are carefully reviewed in line with Illinois SAG policy and current IL-TRM guidance. The complexity of electrification savings calculations increases the risk of error.
- **Key Finding 2:** In our impact evaluation, we found that in certain cases, the implementation team applied the Policy Manual-outlined rounded therm to kWh conversion factor of 29.3 when converting fossil savings to kWh equivalents,[30] while in other cases, they used the IL-TRM V12.0-prescribed stepwise conversion of therms to Btus (100,000 Btus per therm) and then Btus to kWh (3,412 Btus per kWh). The IL-TRM V12.0 approach results in an effective conversion factor of 100,000/3,412 or ≈ 29.31 kWh per therm, which differs from the rounded conversion factor by a small amount. Both approaches are detailed in SAG- and ICC-approved Illinois guiding documents and the implementation team's approach is of course therefore acceptable. To align with this approach, we applied conversion factors in our 2024 verified analysis that aligned with the implementation team's approach wherever possible. However, the inconsistency in the use of these factors is likely to produce small and potentially confusing variations in future impact calculations.
  - Recommendation: While the actual impact of these variations in conversion factors is very small, we recommend that the implementation team consistently apply the full precision 100,000/3,412 conversion factor rather than the rounded 29.3 conversion factor to avoid potential confusion or misalignment in future program years. We plan to make a similar change in our 2025 impact evaluations.

[30] Illinois Energy Efficiency Stakeholder Advisory Group. *Illinois Energy Efficiency Policy Manual Version 3.0*, Section 11.3 Counting Fossil Fuel Savings Toward Electric Savings Goals. 2023. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf.

3.3 MULTIFAMILY INITIATIVES

3.3.1 INITIATIVE DESCRIPTION

Multifamily Initiatives include the Multifamily channel of the IQ Initiative (IQ Multifamily channel), the Market Rate Multifamily Initiative, and the Public Housing Initiative. Together, these Initiatives serve property managers and owners of subsidized or low-income housing; non-subsidized (market rate) multifamily and mixed-use buildings; and publicly owned housing. While there are some differences in qualifying measures, the Multifamily Initiatives all provide comprehensive property assessments, health and safety evaluations (and remediation where necessary), tenant unit and common area DI measures (e.g., LEDs, water-savings measures, advanced thermostats), and more comprehensive building envelope and HVAC retrofits. The Initiatives are implemented by CMC Energy Services as a subcontractor to Leidos.

While this chapter focuses specifically on the measures provided through the Multifamily Initiatives, it is important to note that the Initiatives are implemented with a "one-stop shop" (OSS) delivery model. The goal of the OSS is to seamlessly connect customers to offerings available to them across the Residential and Business Programs using an Energy Advisor who serves as a single point of contact. In cases where participants choose to pursue additional upgrades beyond the Multifamily Initiatives, the Energy Advisor continues to help the participant navigate the process (e.g., assisting with applications, deciding on project scopes, selecting Program Allies). This delivery model ensures that properties have access to the full range of offerings available to them and creates an opportunity to develop a trusted, longer-term relationship with the property, allowing AIC to serve their energy efficiency needs continuously.

Summary of Key Implementation Changes

We summarize key changes to the Multifamily Initiatives' design and implementation in 2024 below:

- The Multifamily Initiatives began offering window inserts to IQ Multifamily channel and Public Housing Initiative participants.
- The implementation team made some adjustments to program tracking data to allow for more reliable and precise tracking of customer participation through the OSS. For instance, the implementation team created a unique identifier called "OSS Name," which can be used to track each participant's journey through the OSS and Multifamily Initiatives. The unique identifier also enabled the evaluation team to report on new IQ metrics agreed upon by Illinois Program Administrators and stakeholders in 2024. The new IQ metrics are described in the Illinois Energy Efficiency Policy Manual Version 3.[31]

[31] In 2024, the Illinois Program Administrators and non-financially interested stakeholders reached an agreement on a set of IQ Multifamily metrics that each utility must report on annually. The new IQ Multifamily metrics for multifamily reporting are described in this document: https://www.ilsag.info/wp-content/uploads/IQ-Multi-Family-Reporting-Metrics_FINAL-Clean-6-20-2024_v2.pdf.

3.3.2 INITIATIVE ANNUAL SAVINGS SUMMARY

The 2024 Multifamily Initiatives achieved 14,558 MWh, 0.82 MW, and 83,331 therms in verified net savings. The IQ Multifamily channel was the largest contributor to overall electric savings (76%), followed by the Market Rate Multifamily Initiative (14%) and the Public Housing Initiative (10%). Table 60 summarizes Multifamily Initiatives annual savings achieved in 2024.

Table 60. 2024 Multifamily Initiatives Annual Savings

Metric	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Ex Ante Gross Savings	15,550	0.92	84,189
Gross Realization Rate	94%	89%	99%
Verified Gross Savings	14,665	0.82	83,357
NTGR	0.993	0.995	1.000
Verified Net Savings	14,558	0.82	83,331

3.3.3 IQ MULTIFAMILY CHANNEL

CHANNEL DESCRIPTION

Multifamily properties participating in government-sponsored programs or that house 50% or more tenants who are at or below 300% of the FPL or below 80% of the area median income levels, are eligible to participate in the IQ Multifamily channel offerings.[32] The channel works to minimize costs for participating properties; all DI measures are provided at no cost to the property, incentives of $7,500 per system are offered for HVAC upgrades, and building envelope measures (such as attic insulation and air sealing upgrades) are provided at no cost if the costs fall within a $5,000 per property cap. Lastly, any eligible health and safety needs for properties are addressed alongside retrofits.

PARTICIPATION SUMMARY

In 2024, the IQ Multifamily channel served 198 unique properties consisting of 1,571 buildings and 8,210 individual tenant units, as shown in Table 61. As reported by the implementation team, the IQ Multifamily channel maintained a consistently robust pipeline of projects throughout the year.

Table 61. 2024 IQ Multifamily Channel Participation Summary

Number of Properties	Number of Buildings	Number of Tenant Units
198	1,571	8,210

[32] Eligibility is defined in greater detail in the Illinois Energy Efficiency Policy Manual V3.0, Section 4.3. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf.

The most common measures provided to IQ Multifamily channel participants were DI measures such as advanced power strips, standard LEDs, showerheads, and kitchen faucet aerators, each of which were delivered to at least three-quarters of participating properties as shown in Table 62.

Table 62. 2024 IQ Multifamily Channel Measure Mix

Measure Category	Properties Served	Percent of Properties	Measure Quantity	Percent of Measures
Advanced Power Strip - Tier 1	161	81%	4,811	4%
Standard LED	156	79%	22,013	18%
Showerhead	149	75%	4,507	4%
Kitchen Faucet Aerator	149	75%	4,085	3%
Wall Plate Gasket	146	74%	11,014	9%
Restrictor Shower Valve	143	72%	3,469	3%
Bathroom Faucet Aerator	137	69%	3,388	3%
Pipe Insulation	111	56%	5,988	5%
Advanced Thermostat	59	30%	1,775	1%
Specialty LED	53	27%	3,078	2%
Door Sweep	47	24%	1,174	1%
Ductless Heat Pump	22	11%	450	<1%
Air Purifiers	18	9%	4,653	4%
Standard LED (Common Area)	9	5%	2,700	2%
Attic Insulation	7	4%	41,668	34%
Air Sealing	6	3%	9,072	7%
Air Source Heat Pump	5	3%	299	<1%
Specialty LED (Common Area)	2	1%	152	<1%
Low Energy Storm Window	1	1%	14	<1%
Total	**198**	**100%**	**124,310**	**100%**

Additional participation summaries containing the IQ Multifamily metrics agreed upon by the Illinois Program Administrators and non-financially interested stakeholders are reported in Appendix D.

SAVINGS DETAIL

Table 63 presents the ex ante, verified gross, and verified net electric energy savings achieved through the IQ Multifamily channel in 2024.

Table 63. 2024 IQ Multifamily Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Ductless Heat Pump	2,750	107%	2,933	1.000	2,933
Air Source Heat Pump	2,226	100%	2,226	1.000	2,226
Air Purifier	1,807	66%	1,195	1.000	1,195
Advanced Thermostat	1,263	100%	1,263	1.000	1,263
Showerhead	922	100%	922	1.000	922
Standard LED (Common Area)	614	63%	390	1.000	390
Kitchen Faucet Aerator	588	100%	588	1.000	588
Standard LED	500	102%	509	1.000	509
Pipe Insulation	296	100%	296	1.000	296
Advanced Power Strip - Tier 1	198	100%	198	1.000	198
Restrictor Shower Valve	170	100%	170	1.000	170
Door Sweep	136	101%	137	1.000	137
Bathroom Faucet Aerator	98	100%	98	1.000	98
Wall Plate Gasket	70	101%	70	1.000	70
Specialty LED	57	111%	63	1.000	63
Specialty LED (Common Area)	56	98%	54	1.000	54
Attic Insulation	16	100%	16	1.000	16
Air Sealing	7	100%	7	1.000	7
Low Energy Storm Window	2	7%	<1	1.000	<1
Total	**11,776**	**95%**	**11,136**	**1.000**	**11,136**

Table 64 presents the ex ante, verified gross, and verified net electric demand savings achieved through the IQ Multifamily channel in 2024.

Table 64. 2024 IQ Multifamily Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Ductless Heat Pump	-0.45	91%	-0.41	1.000	-0.41
Air Source Heat Pump	0.07	100%	0.07	1.000	0.07
Air Purifier	0.21	66%	0.14	1.000	0.14
Advanced Thermostat	0.23	100%	0.23	1.000	0.23
Showerhead	0.11	100%	0.11	1.000	0.11
Standard LED (Common Area)	0.07	4%	<0.01	1.000	<0.01
Kitchen Faucet Aerator	0.13	100%	0.13	1.000	0.13
Standard LED	0.10	101%	0.10	1.000	0.10
Pipe Insulation	0.03	101%	0.03	1.000	0.03
Advanced Power Strip - Tier 1	0.02	100%	0.02	1.000	0.02
Restrictor Shower Valve	0.01	100%	0.01	1.000	0.01
Door Sweep	0.003	103%	0.004	1.000	0.004
Bathroom Faucet Aerator	0.08	100%	0.08	1.000	0.08
Wall Plate Gasket	0.01	100%	0.01	1.000	0.01
Specialty LED	0.01	102%	0.01	1.000	0.01
Specialty LED (Common Area)	0.01	98%	0.01	1.000	0.01
Attic Insulation	0.002	102%	0.002	1.000	0.002
Air Sealing	0.001	100%	<0.01	1.000	0.001
Low Energy Storm Window	0.001	8%	0.0001	1.000	0.0001
Total	**0.65**	**85%**	**0.55**	**1.000**	**0.55**

Table 65 presents the ex ante, verified gross, and verified net gas savings achieved through the IQ Multifamily channel in 2024.

Table 65. 2024 IQ Multifamily Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	24,994	100%	25,050	1.000	25,050
Showerhead	11,468	100%	11,468	1.000	11,468
Kitchen Faucet Aerator	8,100	100%	8,100	1.000	8,100
Pipe Insulation	706	100%	706	1.000	706
Restrictor Shower Valve	1,632	100%	1,632	1.000	1,632
Door Sweep	856	100%	856	1.000	856
Bathroom Faucet Aerator	1,445	100%	1,445	1.000	1,445
Wall Plate Gasket	434	100%	436	1.000	436
Attic Insulation	929	89%	831	1.000	831
Air Sealing	434	94%	409	1.000	409
Low Energy Storm Window	799	7%	57	1.000	57
Total	**51,797**	**98%**	**50,990**	**1.000**	**50,990**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Ductless Heat Pump (23% of ex ante energy savings and negative demand savings): The gross realization rate for ductless heat pumps was 107% for kWh and 91% for kW.
  - For 14% of measures (n=76), the evaluation team applied the IL-TRM V12.0-recommended "ductless save" factor (0.85) to projects where ductless units replaced ducted ones, whereas the implementation team did not account for the ductless save factor in these instances, resulting in higher verified energy and demand savings.
  - For 3% of measures (n=12), the evaluation team applied IL-TRM V12.0-recommended assumptions for an unknown existing cooling system because there was no information in the data, whereas the implementation team applied assumptions for no existing cooling system, resulting in lower verified demand savings.
- Air Purifier (15% of ex ante energy savings and 32% of demand savings): The gross realization rate for air purifiers was 66% for kWh and kW.
  - For 100% of measures (n=4,653), the evaluation team applied the IQ baseline adjustment factor as recommended by the IL-TRM V12.0, whereas the implementation team applied the IQ baseline adjustment factor to deemed values that that already accounted for it, resulting in lower verified energy and demand savings.
- Standard LED (Common Area) (5% of ex ante energy savings and 10% of demand savings): The gross realization rate for common area standard LEDs was 63% for kWh and 4% for kW.
  - For 96% of measures (n=2,600), The evaluation team assigned IL-TRM V12.0-recommended assumptions for exterior common area lighting because units were installed as external pathway lighting, whereas the implementation team applied assumptions for internal common area lighting, resulting in lower verified energy and demand savings.
- Low Energy Storm Window (<1% of ex ante energy savings, <1% of demand savings, and 2% of gas savings): The gross realization rate for low energy storm windows was 7% for kWh, 8% for kW, and 7% for therms.
  - For 100% of measures (n=14), the evaluation team multiplied per-unit savings by the "window area" field, which accounted for both window quantity and sizing, whereas the implementation team multiplied per-unit savings by both "quantity" and "window area" fields, resulting in lower verified energy, demand and gas savings.
  - For 100% of measures (n=14), the evaluation team applied the cooling FLH values recommended for multifamily housing by the IL-TRM V12.0, whereas the implementation applied cooling FLH values recommended for single-family housing, resulting in higher verified demand savings. However, this adjustment did not supersede the effects of the quantity-related discrepancy.

3.3.4 MARKET RATE MULTIFAMILY INITIATIVE

INITIATIVE DESCRIPTION

AIC recruits properties into the Market Rate Multifamily Initiative if the property does not meet IQ Multifamily channel or Public Housing eligibility (as outlined in Sections 3.3.3 and 3.3.5). Incentives are provided at a lower reimbursement level than for IQ Multifamily channel properties. All DI measures are provided at no cost to the property, and incentives of $5,000 per system are offered for HVAC upgrades. Building envelope upgrades are also available to market rate properties, but the Initiative does not provide an incentive (i.e., properties pay 100% of the cost).

PARTICIPATION SUMMARY

In 2024, the Market Rate Multifamily Initiative served 45 unique properties consisting of 189 buildings and 2,057 individual tenant units, as shown in Table 66.

Table 66. 2024 Market Rate Multifamily Initiative Participation Summary

Number of Properties	Number of Buildings	Number of Tenant Units
45	189	2,057

The most common measures provided to Market Rate Multifamily Initiative participants were wall plate gaskets, advanced power strips, and showerheads, each of which were delivered to at least 80% of participating properties, as shown in Table 67.

Table 67. 2024 Market Rate Multifamily Initiative Measure Mix

Measure Category	Properties Served	Percent of Properties	Measure Quantity	Percent of Measures
Wall Plate Gasket	37	82%	2,989	25%
Advanced Power Strip - Tier 1	37	82%	2,133	18%
Showerhead	36	80%	1,500	12%
Kitchen Faucet Aerator	35	78%	733	6%
Bathroom Faucet Aerator	33	73%	925	8%
Restrictor Shower Valve	28	62%	733	6%
Advanced Thermostat	27	60%	1,007	8%
Pipe Insulation	25	56%	1,932	16%
Door Sweep	8	18%	75	1%
Air Source Heat Pump	2	4%	50	<1%
Total	**45**	**100%**	**12,077**	**100%**

Additional participation summaries containing are reported in Appendix D.[33]

[33] Note that while the stakeholders required new metrics specifically for the IQ Initiative, the evaluation team conducted the same analysis for the Market Rate Multifamily Initiative for consistency in reporting.

SAVINGS DETAIL

Table 68 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Market Rate Multifamily Initiative in 2024.

Table 68. 2024 Market Rate Multifamily Initiative Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Advanced Thermostat	949	100%	948	1.000	948
Air Source Heat Pump	528	100%	528	0.835	441
Showerhead	327	100%	327	1.004	328
Kitchen Faucet Aerator	101	100%	101	1.004	101
Pipe Insulation	89	100%	89	0.831	74
Advanced Power Strip - Tier 1	88	100%	88	0.994	88
Restrictor Shower Valve	30	100%	30	0.862	26
Bathroom Faucet Aerator	23	100%	23	1.004	23
Wall Plate Gasket	16	100%	16	0.936	15
Door Sweep	9	100%	9	0.865	7
Total	**2,160**	**100%**	**2,159**	**0.950**	**2,052**

Table 69 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Market Rate Multifamily Initiative in 2024.

Table 69. 2024 Market Rate Multifamily Initiative Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Advanced Thermostat	0.16	100%	0.16	1.000	0.16
Air Source Heat Pump	0.02	100%	0.02	0.863	0.01
Showerhead	0.04	100%	0.04	1.004	0.04
Kitchen Faucet Aerator	0.02	100%	0.02	1.004	0.02
Pipe Insulation	0.01	101%	0.01	0.831	0.01
Advanced Power Strip - Tier 1	0.01	100%	0.01	0.994	0.01
Restrictor Shower Valve	0.002	100%	0.002	0.861	0.002
Bathroom Faucet Aerator	0.02	100%	0.02	1.004	0.02
Wall Plate Gasket	0.003	100%	0.003	0.907	0.003
Door Sweep	0.0002	100%	0.0002	0.861	0.0002
Total	**0.28**	**100%**	**0.28**	**0.984**	**0.28**

Table 70 presents the ex ante, verified gross, and verified net gas savings achieved through the Market Rate Multifamily Initiative in 2024.

Table 70. 2024 Market Rate Multifamily Initiative Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	10,566	100%	10,566	1.000	10,566
Showerhead	2,793	100%	2,793	1.000	2,793
Kitchen Faucet Aerator	1,690	100%	1,690	1.000	1,690
Pipe Insulation	517	100%	517	1.000	517
Restrictor Shower Valve	639	100%	639	0.959	613
Bathroom Faucet Aerator	599	100%	599	1.000	599
Wall Plate Gasket	85	446%	380	1.000	380
Total	**16,890**	**102%**	**17,185**	**0.998**	**17,159**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report on one discrepancy that led to a particularly high realization rate for wall plate gaskets.

- Wall Plate Gasket (<1% of ex ante energy savings, <1% of demand savings and <1% of gas savings): The gross realization rate for wall plate gaskets was 100% for energy and demand savings and 446% for gas savings.
  - In 30% of measures (n=899), the evaluation team included gas savings for participants with a natural gas furnace, whereas the implementation team did not include gas savings, resulting in significantly higher verified gas savings.

3.3.5 PUBLIC HOUSING INITIATIVE

INITIATIVE DESCRIPTION

The Public Housing Initiative serves public sector housing managed or owned by government entities, encompassing federal, state, county, and municipal housing authorities. Incentives offered are consistent with the IQ Multifamily channel; all DI measures are provided at no cost to the property, HVAC incentives are offered at $7,500 per system, and building envelope measures, such as attic insulation and air sealing upgrades, are provided at no cost if the costs fall within a $5,000 per property cap. Any eligible health and safety needs for properties are addressed alongside weatherization upgrades. If a Program Ally visits a site and determines the property does not qualify for building envelope or HVAC measures, the Program Ally is eligible for a non-project stipend of $100 per unit, not to exceed $300.

PARTICIPATION SUMMARY

In 2024, the Public Housing Initiative served 64 unique properties consisting of 357 buildings and 1,391 tenant units, as shown in Table 71.

Table 71. 2024 Public Housing Initiative Participation Summary

Number of Properties	Number of Buildings	Number of Tenant Units
64	357	1,391

The most common measures provided to Public Housing Initiative participants were standard LEDs and advanced power strips, each of which were delivered to about two-thirds of participating properties, as shown in Table 72. In 2024, 19% of properties also received building envelope measures such as air sealing and attic insulation, measures which were available but not actually installed in 2023.

Table 72. 2024 Public Housing Initiative Measure Mix

Measure Category	Properties Served	Percent of Properties	Measure Quantity	Percent of Measures
Standard LED	42	66%	3,730	2%
Advanced Power Strip - Tier 1	41	64%	787	<1%
Kitchen Faucet Aerator	31	48%	743	<1%
Wall Plate Gasket	30	47%	1,794	1%
Bathroom Faucet Aerator	25	39%	541	<1%
Showerhead	24	38%	473	<1%
Advanced Thermostat	22	34%	330	<1%
Restrictor Shower Valve	21	33%	257	<1%
Pipe Insulation	20	31%	827	<1%
Door Sweep	13	20%	129	<1%
Air Sealing	12	19%	38,452	18%
Attic Insulation	12	19%	164,528	77%
Ductless Heat Pump	3	5%	91	<1%
Standard LED (Common Area)	1	2%	4	<1%
Low Energy Storm Window	1	2%	27	<1%
Specialty LED	1	2%	54	<1%
Total	**64**	**100%**	**212,767**	**100%**

Additional participation summaries containing the IQ Multifamily metrics agreed upon by the Illinois Program Administrators and non-financially interested stakeholders are reported in Appendix D.

SAVINGS DETAIL

Table 73 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Public Housing Initiative in 2024.

Table 73. 2024 Public Housing Initiative Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Ductless Heat Pump	783	90%	708	1.000	708
Low Energy Storm Window	181	4%	7	1.000	7
Advanced Thermostat	140	100%	140	1.000	140
Kitchen Faucet Aerator	96	100%	96	1.000	96
Standard LED	93	104%	97	1.000	97
Showerhead	92	100%	92	1.000	92
Attic Insulation	78	101%	78	1.000	78
Pipe Insulation	36	100%	36	1.000	36
Advanced Power Strip - Tier 1	32	100%	32	1.000	32
Air Sealing	30	101%	30	1.000	30
Bathroom Faucet Aerator	15	100%	15	1.000	15
Restrictor Shower Valve	13	100%	13	1.000	13
Door Sweep	13	102%	13	1.000	13
Wall Plate Gasket	11	101%	11	1.000	11
Specialty LED	1	100%	1	1.000	1
Standard LED (Common Area)	1	98%	1	1.000	1
Total	**1,614**	**85%**	**1,371**	**1.000**	**1,371**

Table 74 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Public Housing Initiative in 2024.

Table 74. 2024 Public Housing Initiative Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Ductless Heat Pump	-0.11	100%	-0.11	1.000	-0.11
Low Energy Storm Window	0.005	4%	0.0002	1.000	0.0002
Advanced Thermostat	0.02	100%	0.02	1.000	0.02
Kitchen Faucet Aerator	0.02	100%	0.02	1.000	0.02
Standard LED	0.02	100%	0.02	1.000	0.02
Showerhead	0.01	100%	0.01	1.000	0.01
Attic Insulation	0.003	143%	0.004	1.000	0.004
Pipe Insulation	0.004	101%	0.004	1.000	0.004
Advanced Power Strip - Tier 1	0.004	100%	0.004	1.000	0.004
Air Sealing	0.004	96%	0.004	1.000	0.004
Bathroom Faucet Aerator	0.01	100%	0.01	1.000	0.01
Restrictor Shower Valve	0.001	100%	0.001	1.000	0.001
Door Sweep	0.0004	100%	0.0004	1.000	0.0004
Wall Plate Gasket	0.001	96%	0.001	1.000	0.001
Specialty LED	0.0002	100%	0.0002	1.000	0.0002
Standard LED (Common Area)	0.0001	98%	0.0001	1.000	0.0001
Total	**-0.01**	**147%**	**-0.01**	**1.000**	**-0.01**

Table 75 presents the ex ante, verified gross, and verified net gas savings achieved through the Public Housing Initiative in 2024.

Table 75. 2024 Public Housing Initiative Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	8,242	100%	8,242	1.000	8,242
Kitchen Faucet Aerator	2,016	94%	1,893	1.000	1,893
Showerhead	1,458	100%	1,458	1.000	1,458
Attic Insulation	2,148	93%	1,993	1.000	1,993
Pipe Insulation	296	100%	296	1.000	296
Air Sealing	645	94%	604	1.000	604
Bathroom Faucet Aerator	272	100%	272	1.000	272
Restrictor Shower Valve	96	100%	96	1.000	96
Door Sweep	234	100%	234	1.000	234
Total	**15,501**	**98%**	**15,182**	**1.000**	**15,182**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Ductless Heat Pump (49% of ex ante energy savings and negative demand savings): The gross realization rate for ductless heat pumps is 90% for kWh and 100% for kW.
  - For 100% of measures (n=6), the evaluation team applied the HSPF2 Climate Adjustment Factors by climate zone recommended by the IL-TRM V12.0, whereas the implementation team applied HSPF2 Climate Adjustment Factors from an unknown source, resulting in lower verified energy savings.
- Low Energy Storm Windows (11% of ex ante energy savings and <1% of demand savings): The gross realization rate for storm windows was 4% for kWh and kW.
  - For 100% of measures (n=27), the evaluation team multiplied per-unit savings by the "window area" field, which accounted for both window quantity and sizing, whereas the implementation team multiplied per-unit savings by both "quantity" and "window area" fields, resulting in lower verified energy, demand and gas savings.
  - For 100% of measures (n=27), the evaluation team applied cooling FLH values recommended for multifamily housing by the IL-TRM V12.0, whereas the implementation team applied cooling FLH values recommended for single-family housing, resulting in higher verified demand savings. However, this adjustment had a much smaller effect on savings than the quantity-related discrepancy.
- Attic Insulation (5% of ex ante energy savings, <1% of demand savings and 14% of gas savings): The gross realization rate for attic insulation was 101% for kWh, 143% for kW and 93% for therms.
  - For 4% of measures (n=4), the evaluation team applied the summer system peak CF for CACs recommended by the IL-TRM V12.0, whereas the implementation team applied a CF of 45.5%, resulting in higher verified demand savings.
  - For 4% of measures (n=4), the evaluation team applied the cooling FLH and default existing heating efficiency values recommended by the IL-TRM V12.0, whereas the implementation applied cooling FLH values recommended by the IL-TRM V11.0 and unsourced heating efficiency values, resulting in lower verified energy savings, higher demand savings, and lower gas savings.

3.3.6 CUMULATIVE PERSISTING ANNUAL SAVINGS

Table 76 summarizes CPAS and WAML for the 2024 Multifamily Initiatives by Initiative and channel. The WAML for the Initiative is 12.8 years. CPAS and WAML for each channel at a measure level are presented in Table 77, Table 78, and Table 79.

Table 76. 2024 Multifamily Initiatives by Channel for CPAS and WAML

Channel/Initiative	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
IQ Multifamily Channel	12.9	11,136	1.000	11,136	11,136	11,136	11,136	...	10,892	...	141,243
Market Rate Multifamily Initiative	12.1	2,159	0.950	2,052	2,052	2,052	2,052	...	2,025	...	24,176
Public Housing Initiative	14.7	1,371	1.000	1,371	1,371	1,371	1,371	...	1,371	...	20,106
2024 CPAS		**14,665**	**0.971**	**14,558**	**14,558**	**14,558**	**14,558**	...	**14,288**	...	**185,525**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**270**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**270**	...	
WAML	**13.0**										

Table 77. 2024 Multifamily Initiatives – IQ Multifamily Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Ductless Heat Pump	16.0	2,933	1.000	2,933	2,933	2,933	2,933	...	2,868	...	46,281
Air Source Heat Pump	16.0	2,226	1.000	2,226	2,226	2,226	2,226	...	2,047	...	33,828
Advanced Thermostat	11.0	1,263	1.000	1,263	1,263	1,263	1,263	...	1,263	...	13,890
Air Purifiers	9.0	1,195	1.000	1,195	1,195	1,195	1,195	...	1,195	...	10,755
Showerhead	10.0	922	1.000	922	922	922	922	...	922	...	9,219
Kitchen Faucet Aerator	10.0	588	1.000	588	588	588	588	...	588	...	5,882
Standard LED	8.0	509	1.000	509	509	509	509	...	509	...	4,074
Standard LED (Common Area)	8.0	390	1.000	390	390	390	390	...	390	...	3,117
Pipe Insulation	15.0	296	1.000	296	296	296	296	...	296	...	4,442
Advanced Power Strip - Tier 1	7.0	198	1.000	198	198	198	198	...	198	...	1,387
Restrictor Shower Valve	10.0	170	1.000	170	170	170	170	...	170	...	1,705
Door Sweep	20.0	137	1.000	137	137	137	137	...	137	...	2,730

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Bathroom Faucet Aerator	10.0	98	1.000	98	98	98	98	...	98	...	983
Wall Plate Gasket	20.0	70	1.000	70	70	70	70	...	70	...	1,403
Specialty LED	8.0	63	1.000	63	63	63	63	...	63	...	505
Specialty LED (Common Area)	8.0	54	1.000	54	54	54	54	...	54	...	435
Attic Insulation	30.0	16	1.000	16	16	16	16	...	16	...	474
Air Sealing	20.0	7	1.000	7	7	7	7	...	7	...	131
Low Energy Storm Window	20.0	0	1.000	<1	<1	<1	<1	...	<1	...	3
2024 CPAS		**11,136**	**1.000**	**11,136**	**11,136**	**11,136**	**11,136**	...	**10,892**	...	**141,243**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**244**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**244**	...	
WAML	**12.9**										

Table 78. 2024 Multifamily Initiatives –Market Rate Multifamily Initiative CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Advanced Thermostat	11.0	948	1.000	948	948	948	948	...	948	...	10,430
Air Source Heat Pump	16.0	528	0.835	441	441	441	441	...	415	...	6,796
Showerhead	10.0	327	1.004	328	328	328	328	...	328	...	3,284
Kitchen Faucet Aerator	10.0	101	1.004	101	101	101	101	...	101	...	1,012
Pipe Insulation	15.0	89	0.831	74	74	74	74	...	74	...	1,107
Advanced Power Strip - Tier 1	7.0	88	0.994	88	88	88	88	...	88	...	613
Restrictor Shower Valve	10.0	30	0.862	26	26	26	26	...	26	...	260
Bathroom Faucet Aerator	10.0	23	1.004	23	23	23	23	...	23	...	228
Wall Plate Gasket	20.0	16	0.936	15	15	15	15	...	15	...	295
Door Sweep	20.0	9	0.865	7	7	7	7	...	7	...	149
2024 CPAS		**2,159**	**0.950**	**2,052**	**2,052**	**2,052**	**2,052**	...	**2,025**	...	**24,176**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**26**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**26**	...	
WAML	**12.1**										

Table 79. 2024 Multifamily Initiatives – Public Housing Initiative CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Ductless Heat Pump	16.0	708	1.000	708	708	708	708	...	708	...	11,334
Advanced Thermostat	11.0	140	1.000	140	140	140	140	...	140	...	1,544
Standard LED	8.0	97	1.000	97	97	97	97	...	97	...	776
Kitchen Faucet Aerator	10.0	96	1.000	96	96	96	96	...	96	...	962
Showerhead	10.0	92	1.000	92	92	92	92	...	92	...	917
Attic Insulation	30.0	78	1.000	78	78	78	78	...	78	...	2,324
Pipe Insulation	15.0	36	1.000	36	36	36	36	...	36	...	544
Advanced Power Strip - Tier 1	7.0	32	1.000	32	32	32	32	...	32	...	227
Air Sealing	20.0	30	1.000	30	30	30	30	...	30	...	580
Bathroom Faucet Aerator	10.0	15	1.000	15	15	15	15	...	15	...	149
Restrictor Shower Valve	10.0	13	1.000	13	13	13	13	...	13	...	131
Door Sweep	20.0	13	1.000	13	13	13	13	...	13	...	256
Wall Plate Gasket	20.0	11	1.000	11	11	11	11	...	11	...	214
Low Energy Storm Window	20.0	7	1.000	7	7	7	7	...	7	...	134
Specialty LED	8.0	1	1.000	1	1	1	1	...	1	...	12
Standard LED (Common Area)	8.0	1	1.000	1	1	1	1	...	1	...	4
2024 CPAS		**1,371**	**1.000**	**1,371**	**1,371**	**1,371**	**1,371**	...	**1,371**	...	**20,106**
Expiring 2024 CPAS					**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS					**0**	**0**	**0**	...	**0**	...	
WAML	**14.7**										

3.3.7 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this evaluation, the evaluation team offers the following key findings and recommendations for the Multifamily Initiatives moving forward.

- **Key Finding 1:** In calculating savings for air purifiers delivered to IQ customers, the implementation team effectively applied the IQ adjustment factor twice, substantially overestimating air purifier savings.
  - Recommendation: Ensure that air purifier savings algorithms appropriately account for IQ adjustments in line with recommendations from the current version of the IL-TRM.
- **Key Finding 2:** In calculating savings for low energy storm windows, the implementation team effectively double-counted the number of windows by multiplying per-unit savings by both "quantity" and "window area" fields when window area already accounts for both quantity and sizing, substantially overestimating low energy storm window savings.
  - Recommendation: Ensure that quantity fields are appropriately specified and applied for any such measures where units consist of multiple considerations.
- **Key Finding 3:** For one large IQ Multifamily channel project, lighting was incorrectly tracked as interior lighting, whereas supplementary data requested by the evaluation team showed the lighting was installed for exterior walkways.
  - Recommendation: Ensure that all lighting installation locations are appropriately tracked and accounted for in savings calculations, particularly for individual projects with disproportionately large contributions to channel savings.

3.4 MARKET RATE SINGLE FAMILY INITIATIVE

3.4.1 INITIATIVE DESCRIPTION

As part of the 2024 Residential Program, AIC operated the Market Rate Single Family Initiative, which delivered services to market rate residential customers through two distinct channels: the Midstream HVAC channel and the Home Efficiency channel. Each channel is described in more detail below.

3.4.2 INITIATIVE ANNUAL SAVINGS SUMMARY

Table 80 presents the Market Rate Single Family Initiative annual savings achieved in 2024. The 2024 Market Rate Single Family Initiative achieved 8,964 MWh, 1.85 MW, and 339,061 therms in verified net savings.[34]

Table 80. 2024 Market Rate Single Family Initiative Annual Savings

Metric	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Ex Ante Gross Savings	10,031	2.10	385,826
Gross Realization Rate	99%	100%	100%
Verified Gross Savings	9,895	2.10	385,064
NTGR	0.906	0.881	0.881
Verified Net Savings	8,964	1.85	339,061

[a] Note that the gross realization rate for gas savings is slightly less than 100%, which is not apparent due to rounding.

3.4.3 MIDSTREAM HVAC CHANNEL

CHANNEL DESCRIPTION

The Midstream HVAC channel encourages market actors, such as distributors and contractors, in AIC territory to promote and install a range of energy-efficient equipment, including ductless heat pumps, ducted air source heat pumps, heat pump water heaters, and advanced thermostats. The channel offers incentives to distributors for approved sales of efficient equipment that will, in turn, lower the cost of efficient equipment for contractors, thus encouraging them to (1) pass those savings onto their customers and (2) install more efficient HVAC and water heating equipment than they would otherwise. The midstream model alleviates the need for customers to seek out the offering themselves or submit applications, instead relying on distributors and contractors to inform and market to customers.

The channel also provides training and marketing support to distributors and contractors. Channel staff engages a network of distributors, providing co-branded marketing and educational materials along with training on participation processes and eligibility requirements. Account managers from CMC Energy Services recruit and maintain relationships with individual distributors, enabling them to communicate programmatic changes, share information on data request processes and due dates, circulate promotional materials, and assist with issues as they arise. Midstream HVAC channel staff also coordinate with distributors around showcases, events, and training sessions to increase contractor awareness and engagement and collect market feedback. Any contractors servicing residential customers in AIC service

[34] Verified net savings are inclusive of Midstream HVAC channel market effects savings of 1,597 MWh, 0.28 MW, and 18,603 therms. Initiative-level NTGR values are therefore inflated by the inclusion of market effect savings.

territory can participate in the offering, but only those with ICC certification can enroll as Program Allies, entitling them to be listed on the channel website and receive additional marketing materials and informational updates.

Distributors receive incentives for qualifying sales after submitting equipment and customer information via an online portal managed by Leidos. Distributors are then required to pass a portion of the incentives on to contractors, who can, in turn, provide discounts to customers. In addition to the incentive, the channel offers end-use customers an on-bill financing option, which customers can apply for through their contractor.

In addition to encouraging the adoption of the directly incentivized equipment, the Midstream HVAC channel aims to shift the broader HVAC and water heating market within their service territory. The channel's midstream model should theoretically help encourage increased sales of energy-efficient, eligible equipment that does not receive incentives through the channel and, therefore, is not tracked in channel tracking data. To help quantify these "market effects," Midstream HVAC channel staff collect sales data from participating distributors that allows them to quantify the total amount of channel-eligible equipment sold in AIC service territory, both incentivized and non-incentivized.

Summary of Key Implementation Changes

We summarize key changes to the Midstream HVAC channel's design and implementation in 2024 below:

- In April 2024, implementation staff lowered the incentive for high efficiency gas furnaces from $250 to $150. Later in the year, high efficiency gas furnaces were removed as channel-eligible measures.
- In April 2024, implementation staff reduced the maximum allowable percentage of incentive amounts that distributors could retain at their discretion to cover internal marketing and administrative costs associated with the channel from 25% to 10%.
- Implementation staff updated how incentive values were presented in customer-facing marketing materials. Instead of presenting customers with total incentive amount (of which distributors had the option of retaining a percentage), updated customer-facing materials display measure-level incentives with the 10% distributor discretionary funds already deducted with the goal of minimizing customer confusion and reducing pressure on distributors to not retain the allowable portion of incentives.
- Implementation staff altered the template and process for requesting distributor sales data inclusive of non-incentivized sales needed for assessment of market effects. Rather than requesting more specific subsets of non-incentivized distributor sales, which sometimes created an administrative burden for distributor staff, implementation staff began requesting *all* sales of relevant equipment types using a template that better aligns with distributors' internal POS systems. As part of the updated process, distributors were asked to consistently populate sale dates, branch locations, and individual equipment model numbers, allowing implementation and evaluation staff to determine efficiency levels and applicability of individual sales for market effects savings analysis.

PARTICIPATION SUMMARY

The Midstream HVAC channel distributed more than 9,000 measures to over 6,000 participants in 2024. Central air conditioners and high efficiency gas furnaces were the most common measures sold, each accounting for at least one-quarter of total sales (34% for central AC and 25% for furnaces). Ductless heat pump sales dropped substantially from 2,522 units in 2023 to 1,197 units in 2024 (a 53% decrease). Other measures experienced at least moderate increases in sales relative to 2023, including central ACs (23% increase), centrally ducted air source heat pumps (42% increase), and high efficiency gas furnaces (16% increase). Heat pump water heaters remained the smallest contributor to overall sales (3%), but the total number of units sold did increase by more than half (57%) from 2023. Table 81 summarizes 2024 Midstream HVAC channel participation.

Table 81. 2024 Midstream HVAC Channel Participation Summary

Measure Category	Measures	Participants[a]
Ductless Heat Pump	1,197	1,016
Central Air Conditioner	3,038	2,820
High Efficiency Gas Furnace	2,237	2,202
Air Source Heat Pump	1,289	1,238
Advanced Thermostat	1,020	1,020
Heat Pump Water Heater	226	153
Total	**9,007**	**6,361**

[a] Values do not sum to totals because some projects include multiple measure categories.

The Midstream HVAC channel engaged 43 distributors in 2024. As seen in Table 82, distributor participation varied widely, with the top six distributors (in terms of volume) accounting for nearly two-thirds (61%) of sales. Conversely, 42% of participating distributors sold less than 50 units. Distributors tended to focus on either HVAC (equipment or thermostats) or water heating measures. Of the 43 distributors who sold equipment through the channel, 65% only sold HVAC measures (including HVAC equipment and thermostats), 16% only sold water heating measures, and 19% sold both.

Table 82. 2024 Midstream HVAC Channel Distributor Participation Summary

Project Count	Distributors		Sales	
	Count	Percent	Count	Percent
1,000+	1	2%	1,539	17%
500 – 999	5	12%	3,997	44%
250 – 499	4	9%	1,351	15%
100 – 249	9	21%	1,531	17%
50 – 99	6	14%	402	4%
1 – 49	18	42%	187	2%
Total	**43**	**100%**	**9,007**	**100%**

SAVINGS DETAIL

Table 83 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Midstream HVAC channel in 2024.

Table 83. 2024 Midstream HVAC Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Centrally Ducted Air Source Heat Pump	4,696	100%	4,696	0.732	3,439
Ductless Heat Pump	3,344	96%	3,221	0.749	2,411
Central Air Conditioner	1,029	100%	1,029	0.748	770
Heat Pump Water Heater	536	98%	527	0.795	419
Advanced Thermostat	280	100%	280	0.748	210
Total	**9,885**	**99%**	**9,753**	**0.743**	**7,248**

Table 84 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Midstream HVAC channel in 2024.

Table 84. 2024 Midstream HVAC Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Centrally Ducted Air Source Heat Pump	0.49	100%	0.49	0.728	0.36
Ductless Heat Pump	0.39	100%	0.39	0.747	0.29
Central Air Conditioner	0.98	100%	0.98	0.748	0.73
Heat Pump Water Heater	0.03	99%	0.02	0.795	0.02
Advanced Thermostat	0.16	100%	0.16	0.744	0.12
Total	**2.04**	**100%**	**2.04**	**0.743**	**1.52**

Table 85 presents the ex ante, verified gross, and verified net gas savings achieved through the Midstream HVAC channel in 2024.

Table 85. 2024 Midstream HVAC Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	51,049	100%	50,980	0.873	44,526
High Efficiency Gas Furnace	307,953	100%	307,953	0.826	254,353
Total	**359,002**	**100%**	**358,933**	**0.833**	**298,879**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Ductless Heat Pump (34% of ex ante energy and 19% of demand savings): The gross realization rate for Ductless Heat Pump was 96% for kWh and 100% for kW.
  - In 100% of measures (n=1,197), the evaluation team applied full and partial displacement heating split values of 0.5 and 0.5, as shown in the IL-TRM V12.0, whereas the implementation team applied a full and partial

displacement heating split of approximately 0.57 and 0.43, respectively, resulting in lower verified energy savings.

- Heat Pump Water Heater (5% of ex ante energy and 1% of demand savings): The gross realization rate for Heat Pump Water Heater was 98% for kWh and 99% for kW.
  - In 3% of measures (n=6), the evaluation team applied a Uniform Energy Factor (UEF) value that corresponds to a tank size greater than 55 gallons, matching the tank size indicated in the tracking data and aligning with AHRI nominal storage volume, whereas the implementation team applied a UEF value that corresponds to a tank size of less than 55 gallons based on ENERGY STAR rated storage volume, resulting in lower verified energy savings.

MARKET EFFECTS SAVINGS

In addressing market barriers to installing high-efficiency HVAC and water heating equipment through the Midstream HVAC channel, AIC aims to broadly affect the HVAC and water heater market within their service territory. The channel's program theory logic model (PTLM) hypothesizes that its various forms of marketing, education, and training should also increase sales of efficient equipment beyond those products directly incentivized by the channel. While some of these market changes are expected to occur over a long-term time horizon, AIC expects that the Midstream HVAC channel will directly or indirectly lead to increased sales of efficient, eligible units that do not receive channel incentives and, therefore, are not included in tracking data.

As part of the 2024 evaluation of the Midstream HVAC channel, Opinion Dynamics reviewed supplementary distributor sales data inclusive of non-incentivized products to determine market effects-eligible sales. We then applied adjustment factors based on primary research conducted with contractors and distributors in 2023 and 2024 to estimate savings attributable to market effects of the Midstream HVAC channel. Table 86 summarizes net savings associated with market effects from non-incentivized, energy-efficient sales attributable to Midstream HVAC channel efforts. Market effects methods and detailed results are included in Appendix A.

Table 86. 2024 Midstream HVAC Channel Market Effects Net Savings Summary

Measure	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Air Source Heat Pump	690	0.07	0
Ductless Heat Pump	686	0.08	0
Advanced Thermostat	100	0.06	18,603
Central Air Conditioner	71	0.07	0
Heat Pump Water Heater	50	0.002	0
Total	**1,597**	**0.28**	**18,603**

3.4.4 HOME EFFICIENCY CHANNEL

CHANNEL DESCRIPTION

The Home Efficiency channel, launched in 2021, aims to increase residential customer awareness of home energy usage and increase the efficiency of existing, occupied single-family homes through building envelope improvements. The channel is designed to serve residential customers who do not qualify for the IQ Initiative (i.e., households with annual incomes over 299% of the FPL).

There is no customer-facing application for the Home Efficiency channel. Program allies generate leads for the channel and customer outreach directs interested customers to contact a registered Program Ally. Leidos, the channel's primary implementer, employs Energy Field Specialists to recruit prospective Program Allies and encourage them to market the channel by providing them with cobranded outreach materials and helping them develop marketing campaigns. Additionally, in some instances, IQ Initiative staff may refer applicants identified as ineligible for IQ offerings to Home Efficiency channel offerings due to income levels.

Participation in the Home Efficiency channel begins with a Home Energy Assessment from a registered Program Ally to identify opportunities for larger building shell retrofits. Participants may need to pay for their assessment. As part of the assessment, Program Allies provide participants with educational materials on indoor air quality and American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) ventilation guidelines and create a customized project report. The customized project report details the home's current energy efficiency state, presents basic health and safety test results, identifies options for building shell retrofits, summarizes relevant available incentives, and estimates the total out-of-pocket costs for the proposed upgrades. Eligible retrofits include air sealing, bathroom exhaust fans, and various types of insulation (ceiling/attic, wall, crawlspace/basement, and rim/band joist). Following this report, participants can choose whether to move forward with some or all of the recommendations.

Home Efficiency channel participants are responsible for a portion of project costs; however, AIC offers on-bill financing to help defray upfront project costs. Channel outreach and Program Allies also encourage participants to take advantage of the tax credits available for insulation and air sealing projects through the Inflation Reduction Act (IRA).

Summary of Key Implementation Changes

We summarize key changes to the Home Efficiency channel's design and implementation in 2024 below:

- Duct sealing was added as an "off-menu" option in early 2024, meaning participants could receive duct sealing incentives but the measure was not formally marketed to customers.
- In September 2024, channel eligibility broadened to include customers with propane service.
- Implementation staff focused on promoting availability of IRA tax credits, including mention of them in all marketing collateral. Implementation staff also strengthened marketing analytics efforts, placing greater emphasis on tracking the amount of traffic to the channel's web page and its 'sources of origin.' They also employed region-specific QR codes on outreach postcards that allowed for monitoring of web page traffic by region.
- At the end of 2023, implementation staff suspended the $200 bonuses previously provided to Program Allies upon project completion.

PARTICIPATION SUMMARY

The Home Efficiency channel completed projects with 158 participants in 2024, as shown in Table 87. The channel achieved its 2024 goal of 150 participants and accomplished 36% year-over-year growth compared to 2023, in which the channel completed projects with 116 participants. Staff attributed this success to their actively engaged and growing pool of Program Allies along with increased and improved marketing efforts.

Table 87. 2024 Home Efficiency Channel Participation Summary

Measure Category	Participants	Measure Quantity
Attic Insulation	134	148
Air Sealing	157	157
Crawlspace Insulation	66	66
Bathroom Exhaust Fan	82	82
Exterior Wall Insulation	39	41
Rim Joist Insulation	98	98
Duct Sealing	1	1
Total	**158**	**593**

Note: Values do not sum to total because some participants received multiple measure categories.

SAVINGS DETAIL

Table 88 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Home Efficiency channel in 2024.

Table 88. 2024 Home Efficiency Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Attic Insulation	50	100%	50	0.806	40
Air Sealing	40	100%	40	0.895	36
Crawlspace Insulation	27	87%	23	0.806	19
Bathroom Exhaust Fan	18	100%	18	0.803	14
Exterior Wall Insulation	5	99%	5	0.800	4
Rim Joist Insulation	4	100%	4	0.804	3
Duct Sealing	1	100%	1	0.800	1
Total	**146**	**98%**	**143**	**0.830**	**118**

Table 89 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Home Efficiency channel in 2024.

Table 89. 2024 Home Efficiency Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Attic Insulation	0.02	100%	0.02	0.809	0.02
Air Sealing	0.02	100%	0.02	0.898	0.02
Crawlspace Insulation	0.01	100%	0.01	0.813	0.01
Bathroom Exhaust Fan	0.002	100%	0.002	0.803	0.002
Exterior Wall Insulation	0.002	98%	0.002	0.800	0.002
Rim Joist Insulation	0.001	100%	0.001	0.808	0.001
Duct Sealing	0.001	100%	0.001	0.800	0.001
Total	**0.06**	**100%**	**0.06**	**0.840**	**0.05**

Table 90 presents the ex ante, verified gross, and verified net gas savings achieved through the Home Efficiency channel in 2023.

Table 90. 2024 Home Efficiency Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Attic Insulation	12,088	98%	11,816	0.810	9,565
Air Sealing	5,184	98%	5,082	0.891	4,525
Crawlspace Insulation	6,132	98%	6,008	0.815	4,897
Exterior Wall Insulation	1,854	91%	1,685	0.800	1,349
Rim Joist Insulation	1,071	98%	1,046	0.809	847
Duct Sealing	495	100%	495	0.800	396
Total	**26,824**	**97%**	**26,131**	**0.826**	**21,579**

We discuss major discrepancies between ex ante claims and the verified analysis below. While the analysis identified and characterized all discrepancies, we only report those with significant impacts on channel savings or measures with particularly high or low realization rates.

- Crawlspace Insulation (19% of ex ante energy savings, 12% of demand savings, and 23% of therm savings): The gross realization rate for Crawlspace Insulation was 87% for kWh, 100% for kW, and 98% for therms.
  - In 95% of measures (n=63), the evaluation team applied the average of the conditioned and unconditioned HDD from the IL-TRM V12.0 for all electric heating savings calculations, whereas the implementation team only applied the average of the conditioned and unconditioned HDD for part of their electric heating savings calculations, resulting in lower verified energy savings.
- Additionally, for 10 records across five measure categories (air sealing, attic insulation, wall insulation, crawlspace insulation, and rim joist insulation), the evaluation team did not calculate gas savings given tracking data indicated the participants were not gas customers, whereas the implementation team assigned gas savings, resulting in lower verified gas savings.

3.4.5 CUMULATIVE PERSISTING ANNUAL SAVINGS

Table 91 summarizes CPAS and WAML for the 2024 Market Rate Single Family Initiative by channel. The WAML for the Initiative is 15.8 years. CPAS and WAML for each channel at a measure level are presented in Table 92, Table 93, and Table 94.

Table 91. 2024 Market Rate Single Family Initiative CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Midstream HVAC	16.0	9,753	0.743	7,248	7,248	7,248	7,248	...	7,248	...	116,040
Midstream HVAC Market Effects	15.7	4,474	0.357	1,597	1,597	1,597	1,597		1,597		25,145
Home Efficiency	25.7	143	0.830	118	118	118	118	...	118	...	2,791
2024 CPAS		**14,369**	**0.624**	**8,964**	**8,964**	**8,964**	**8,964**	**...**	**8,964**	**...**	**143,976**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**15.8**										

Table 92. 2024 Market Rate Midstream HVAC Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Air Source Heat Pump	16.0	4,696	0.732	3,439	3,439	3,439	3,439	...	3,439	...	55,017
Central Air Conditioner	18.0	1,029	0.748	770	770	770	770	...	770	...	13,859
Ductless Heat Pump	16.0	3,221	0.749	2,411	2,411	2,411	2,411		2,411		38,575
Heat Pump Water Heater	15.0	527	0.795	419	419	419	419		419		6,281
Advanced Thermostat	11.0	280	0.748	210	210	210	210	...	210	...	2,308
2024 CPAS		**9,753**	**0.743**	**7,248**	**7,248**	**7,248**	**7,248**	**...**	**7,248**	**...**	**116,040**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**16.0**										

Table 93. 2024 Market Rate Midstream HVAC Channel Market Effects CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Air Source Heat Pump	16.0	690	N/A	690	690	690	690	...	690	...	11,033
Ductless Heat Pump	16.0	686	N/A	686	686	686	686	...	686	...	10,983
Advanced Thermostat	11.0	100	N/A	100	100	100	100		100		1,105
Central Air Conditioner	18.0	71	N/A	71	71	71	71		71		1,274
Heat Pump Water Heater	15.0	50	N/A	50	50	50	50	...	50	...	750
2024 CPAS		**1,597**	**N/A**	**1,597**	**1,597**	**1,597**	**1,597**	**...**	**1,597**	**...**	**25,145**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**15.7**										

Table 94. 2024 Market Rate Home Efficiency Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Air Sealing	20.0	40	0.895	36	36	36	36	...	36	...	658
Attic Insulation	30.0	50	0.806	40	40	40	40	...	40	...	1,100
Bathroom Exhaust Fan	19.0	18	0.803	14	14	14	14	...	14	...	274
Wall Insulation	30.0	5	0.800	4	4	4	4	...	4	...	116
Duct Sealing	20.0	1	0.800	1	1	1	1	...	1	...	20
Crawlspace Insulation	30.0	23	0.806	19	19	19	19		19		531
Rim Joist Insulation	30.0	4	0.804	3	3	3	3		3		91
2024 CPAS		**143**	**0.830**	**118**	**118**	**118**	**118**	**...**	**118**	**...**	**2,791**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**25.7**										

3.4.6 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this evaluation, the evaluation team offers the following key findings and recommendations for the Market Rate Single Family Initiative moving forward.

- **Key Finding 1:** Midstream HVAC channel market effects represent a substantive impact of channel activities beyond directly incentivized measures. The availability of well-populated distributor sales data is critical to enabling continued estimation of market effects savings, and continuing to improve upon the existing template and process for soliciting and verifying distributor sales data remains a worthwhile focus.
  - Recommendation: The implementation team should continue to collect distributor data from participating distributors with an emphasis on limiting reported sales to Illinois branch locations and ensuring location fields are reliably populated.

3.5 KITS INITIATIVES

In this chapter, we present the results of the impact evaluation of AIC's kit and ad hoc measure distribution efforts in 2024. AIC formally operates three kit distribution channels as part of its portfolio: the School Kits and High School Innovation channels of the Direct Distribution Initiative, and the Community Kits channel of the IQ Initiative. In addition, this chapter includes mobile home kits distributed through the IQ Initiative's MHAS channel, two types of kits distributed through the IQ Initiative's Joint Utility and IQ CAA channel, and two additional types of measures distributed on an ad hoc basis through the School Kits and Community Kits channels.

3.5.1 INITIATIVE DESCRIPTION

The objectives of AIC's Residential Kits Initiatives are to reach underserved communities, as well as low- to moderate-income customers with free energy-saving measures and educational materials designed to engage them in energy efficiency and give them immediate tools they can use to improve their quality of life.

3.5.2 INITIATIVE ANNUAL SAVINGS SUMMARY

Table 95 presents the Kits Initiatives annual savings achieved in 2024. The 2024 Kits Initiatives achieved 13,789 MWh, 1.94 MW, and 264,184 therms in verified net savings.

Table 95. 2024 Kits Initiative Annual Savings

Metric	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Ex Ante Gross Savings	11,992	1.78	278,513
Gross Realization Rate	115%	109%	95%
Verified Gross Savings	13,789	1.94	264,184
NTGR	1.000	1.000	1.000
Verified Net Savings	13,789	1.94	264,184

In addition to minor errors in ex ante savings calculations for a handful of kit measures, discussed later in this section, we note that, unlike calculations for other Initiatives, the implementation team calculates kit savings outside of the Residential Program tracking database and transfers assumptions into the database. This leads to minor rounding errors and differences between backup calculations provided to the evaluation team and savings recorded in the

tracking database. For the purposes of internal consistency, we calculate all savings (ex ante, verified gross, and verified net) using measure-level savings for kits calculated at full precision and multiplied by the number of kits recorded in the tracking database, which results in very slight differences between ex ante savings recorded in the tracking database and those presented in this report.

3.5.3 SCHOOL KITS CHANNEL

CHANNEL DESCRIPTION

The Direct Distribution Initiative's School Kits channel provides school presentations, curriculum, in-class activities, and energy-saving kits to students in participating fifth grade classrooms with a focus on underserved communities in AIC service territory. In particular, the channel serves schools where 50% or more of the student body is participating in free or reduced-price lunch programs, or that are in designated IQ ZIP codes. By providing the kits in conjunction with energy conservation education in the classroom, AIC seeks to establish an interest in energy efficiency among participating students and reduce energy use in their homes. The School Kits channel is primarily implemented by the National Energy Foundation (NEF) as a subcontractor to Leidos. In partnership with the NEF, a team of Illinois-based educators deliver the school presentations.

Summary of Key Implementation Changes

In 2024, AIC began offering Joint Utility School Kits in AIC and Nicor Gas' shared service territory. The NEF and Resource Innovations implement this offering.

PARTICIPATION SUMMARY

In 2024, the School Kits channel conducted energy efficiency education and distributed 9,500 energy-saving kits to students across 147 unique schools in AIC's dual-fuel (gas and electric) service territory (Full School Kits). There were 406 teachers who participated in the Full School Kits portion of the channel in 2024. Table 96 summarizes the measures included in each kit.

Table 96. 2024 Full School Kits Contents

Measure Category	Per-Kit Quantity
Specialty LED	4
Showerhead	1
Kitchen Faucet Aerator	1
Shower Timer	1
Advanced Power Strip – Tier 1	1
Pipe Insulation	1
Door Sweep	1
Weatherstripping	1
Bathroom Faucet Aerator	1

The channel also conducted energy efficiency education and distributed 1,500 energy-saving kits to students across 21 unique schools in AIC and Nicor's shared service territory (Joint Utility School Kits). There were 56 teachers who participated in the Joint Utility School Kits portion of the channel in 2024. This kit was nearly identical to the Full School Kit but also included outlet gaskets. Table 97 summarizes the measures included in each kit.

Table 97. 2024 Joint Utility School Kits Contents

Measure Category	Per-Kit Quantity
Specialty LED	4
Showerhead	1
Advanced Power Strip – Tier 1	1
Kitchen Faucet Aerator	1
Shower Timer	1
Weatherstripping	1
Door Sweep	1
Pipe Insulation	1
Outlet Gaskets	10
Bathroom Faucet Aerator	1

In addition to the energy-saving kits, the NEF partnered with Sparrow Energy Services to host seven "Community in Action" fundraising events at participating schools. At these events, families received one connected LED bulb and information on energy efficiency careers. A total of 400 connected LEDs were distributed at these events, included in the Full School Kits portion of the channel.

SAVINGS DETAIL

Table 98 presents the ex ante, verified gross, and verified net electric energy savings achieved through the School Kits channel in 2024.

Table 98. 2024 School Kits Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Full School Kits					
Specialty LED	1,936	100%	1,937	1.000	1,937
Showerhead	1,495	131%	1,958	1.000	1,958
Kitchen Faucet Aerator	1,080	131%	1,412	1.000	1,412
Shower Timer	660	131%	865	1.000	865
Advanced Power Strip - Tier 1	507	100%	505	1.000	505
Pipe Insulation	241	110%	265	1.000	265
Door Sweep	205	162%	333	1.000	333
Weatherstripping	199	183%	364	1.000	364
Bathroom Faucet Aerator	131	132%	173	1.000	173
Connected LED	15	101%	15	1.000	15
Full School Kits Total	**6,470**	**121%**	**7,827**	**1.000**	**7,827**

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Joint Utility School Kits					
Specialty LED	306	100%	306	1.000	306
Showerhead	107	210%	225	1.000	225
Advanced Power Strip - Tier 1	78	106%	82	1.000	82
Kitchen Faucet Aerator	79	208%	163	1.000	163
Shower Timer	47	210%	99	1.000	99
Weatherstripping	27	155%	41	1.000	41
Door Sweep	25	151%	38	1.000	38
Pipe Insulation	16	186%	29	1.000	29
Outlet Gaskets	19	136%	25	1.000	25
Bathroom Faucet Aerator	10	194%	20	1.000	20
Joint Utility School Kits Total	**713**	**144%**	**1,028**	**1.000**	**1,028**

Table 99 presents the ex ante, verified gross, and verified net electric demand savings achieved through the School Kits channel in 2024.

Table 99. 2024 School Kits Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Full School Kits					
Specialty LED	0.23	100%	0.23	1.000	0.23
Showerhead	0.14	132%	0.18	1.000	0.18
Kitchen Faucet Aerator	0.20	132%	0.27	1.000	0.27
Shower Timer	0.15	110%	0.17	1.000	0.17
Advanced Power Strip - Tier 1	0.06	100%	0.06	1.000	0.06
Pipe Insulation	0.03	110%	0.03	1.000	0.03
Door Sweep	0.03	46%	0.01	1.000	0.01
Weatherstripping	0.01	80%	0.01	1.000	0.01
Bathroom Faucet Aerator	0.15	132%	0.19	1.000	0.19
Connected LED	0.002	89%	0.002	1.000	0.002
Full School Kits Total	**0.99**	**116%**	**1.15**	**1.000**	**1.15**
Joint Utility School Kits					
Specialty LED	0.04	100%	0.04	1.000	0.04
Showerhead	0.01	236%	0.02	1.000	0.02
Advanced Power Strip - Tier 1	0.01	106%	0.01	1.000	0.01
Kitchen Faucet Aerator	0.01	220%	0.03	1.000	0.03
Shower Timer	0.01	186%	0.02	1.000	0.02
Weatherstripping	0.02	4%	0.001	1.000	0.001
Door Sweep	0.02	10%	0.002	1.000	0.002
Pipe Insulation	0.0002	185%	0.003	1.000	0.003
Outlet Gaskets	0.02	35%	0.01	1.000	0.01

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Bathroom Faucet Aerator	0.01	235%	0.02	1.000	0.02
Joint Utility School Kits Total	**0.15**	**96%**	**0.15**	**1.000**	**0.15**

Table 100 presents the ex ante, verified gross, and verified net gas savings achieved through the School Kits channel in 2024. AIC claims no gas savings for Joint Utility School Kits as they were claimed by Nicor Gas.

Table 100. 2024 School Kits Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Full School Kits					
Showerhead	64,320	108%	69,618	1.000	69,618
Kitchen Faucet Aerator	45,387	108%	49,121	1.000	49,121
Shower Timer	28,235	108%	30,565	1.000	30,565
Pipe Insulation	10,756	90%	9,704	1.000	9,704
Door Sweep	23,489	64%	15,097	1.000	15,097
Weatherstripping	26,673	64%	17,144	1.000	17,144
Bathroom Faucet Aerator	5,465	109%	5,956	1.000	5,956
Full School Kits Total	**204,325**	**97%**	**197,204**	**1.000**	**197,204**

We discuss discrepancies between ex ante claims and the verified analysis below for each of the school kits.

Full School Kit

The primary drivers of Full School Kit realization rates are differences in heating and water heating fuel type, household size, and home type. For these parameters, the evaluation team relied on self-reported responses from participating students' 2024 Home Energy Worksheets, whereas the implementation team applied a combination of self-reported responses from the 2023 Home Energy Worksheets, 2013 Market Potential Study findings, and IL-TRM V12.0 default assumptions, resulting in higher verified energy and demand savings and lower verified gas savings. Table 101 compares the ex ante and verified assumptions for each parameter.

Table 101. 2024 Full School Kit Self-Reported Assumptions

Parameter	Ex Ante Value	Verified Value	Impact on Verified Savings
Average Household Size (People per Household)	4.67	5.59	Higher electric and gas savings
Electric Water Heating (% of Participants)	49%	54%	Lower electric savings
Single-family Homes (% of Participants)	79%	77%	Higher electric savings Lower gas savings
Multifamily Homes (% of Participants)	21%	23%	
Single-family Homes with Gas Heat (% of Participants)	74%	47%	Higher electric savings Lower gas savings
Multifamily Homes with Gas Heat (% of Participants)	61%	41%	

In addition, the following discrepancy affected Door Sweeps (3% of kit ex ante energy savings, 3% of kit demand savings, and 12% of kit gas savings) and Weatherstripping (3% of kit ex ante energy savings, 1% of kit demand savings, and 13% of kit gas savings):

- The evaluation team calculated cooling savings by applying the air sealing adjustment factor (80%) and, for Door Sweeps specifically, also applied the ISR for kits (57%) from the IL-TRM V12.0, whereas the implementation team did not apply these factors, resulting in lower verified energy and demand savings.

Joint Utility School Kit

The primary drivers of Joint Utility School Kit realization rates are differences in heating and water heating fuel type, household size, and home type. For these parameters, the evaluation team relied on self-reported responses from participating students' 2024 Home Energy Worksheets, whereas the implementation team applied a combination of self-reported responses from the 2023 Home Energy Worksheets and IL-TRM V12.0 default assumptions, resulting in higher verified energy and demand savings. Table 102 compares the ex ante and verified assumptions for each parameter.

Table 102. 2024 Joint Utility School Kit Self-Reported Assumptions

Parameter	Ex Ante Value	Verified Value	Impact on Verified Savings
Average Household Size (People per Household)	4.67	5.72	Higher electric savings
Electric Water Heating (% of Participants)	20%	37%	Higher electric savings
Single-family Homes (% of Participants)	69%	88%	Higher electric savings
Multifamily Homes (% of Participants)	31%	12%	Higher electric savings
Single-family Homes with Gas Heat (% of Participants)	84%	65%	Higher electric savings
Multifamily Homes with Gas Heat (% of Participants)	59%	48%	Higher electric savings

In addition, the following discrepancy affected Door Sweeps (4% of kit ex ante energy savings and 15% of kit demand savings), Weatherstripping (4% of kit ex ante energy savings and 16% of kit demand savings), and Outlet Gaskets (3% of kit ex ante energy savings and 11% of kit demand savings):

- The evaluation team calculated demand savings including only cooling savings per the IL-TRM V12.0, whereas the implementation team included both cooling and heating savings when calculating demand, resulting in lower verified demand savings.

3.5.4 HIGH SCHOOL INNOVATION CHANNEL

CHANNEL DESCRIPTION

The Direct Distribution Initiative's High School Innovation channel aims to introduce high school students to advanced energy literacy education through curriculum, in-class activities, and the distribution of energy-saving kits. In particular, the channel serves schools where 50% or more of the student body is participating in free or reduced-price lunch programs, or that are in designated IQ ZIP codes. The presentations target science and math classrooms such as economics, chemistry, and biology classes. After each presentation, students receive take home energy-saving kits. The High School Innovation channel is primarily implemented by the NEF as a subcontractor to Leidos. In partnership with the NEF, a team of Illinois-based educators deliver the school presentations.

PARTICIPATION SUMMARY

In 2024, the High School Innovation channel conducted energy efficiency education and distributed 2,513 energy-saving kits to students across 30 unique schools in AIC service territory. There were 55 teachers who participated in the channel in 2024. Table 103 summarizes the measures included in each kit.

Table 103. 2024 High School Innovation Kit Contents

Measure Category	Per-Kit Quantity
Specialty LED	3
Showerhead	1
LED Desk Lamp	1
Pipe Insulation	1
Weatherstripping	1
Outlet Gaskets	10
Bathroom Faucet Aerator	1

SAVINGS DETAIL

Table 104 presents the ex ante, verified gross, and verified net electric energy savings achieved through the High School Innovation channel in 2024.

Table 104. 2024 High School Innovation Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Specialty LED	384	100%	384	1.000	384
Showerhead	371	113%	420	1.000	420
LED Desk Lamp	80	101%	81	1.000	81
Pipe Insulation	64	115%	73	1.000	73
Weatherstripping	53	191%	100	1.000	100
Outlet Gaskets	38	150%	57	1.000	57
Bathroom Faucet Aerator	33	111%	36	1.000	36
Total	**1,022**	**113%**	**1,152**	**1.000**	**1,152**

Table 105 presents the ex ante, verified gross, and verified net electric demand savings achieved through the High School Innovation channel in 2024.

Table 105. 2024 High School Innovation Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Specialty LED	0.05	100%	0.05	1.000	0.05
Showerhead	0.03	114%	0.04	1.000	0.04
LED Desk Lamp	0.01	101%	0.01	1.000	0.01
Pipe Insulation	0.01	115%	0.01	1.000	0.01
Weatherstripping	0.002	80%	0.002	1.000	0.002

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Outlet Gaskets	0.01	80%	0.01	1.000	0.01
Bathroom Faucet Aerator	0.04	114%	0.04	1.000	0.04
Total	**0.15**	**105%**	**0.16**	**1.000**	**0.16**

Table 106 presents the ex ante, verified gross, and verified net gas savings achieved through the High School Innovation channel in 2024.

Table 106. 2024 High School Innovation Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Showerhead	15,958	84%	13,418	1.000	13,418
Pipe Insulation	2,845	85%	2,426	1.000	2,426
Weatherstripping	7,056	61%	4,305	1.000	4,305
Outlet Gaskets	3,221	61%	1,965	1.000	1,965
Bathroom Faucet Aerator	1,356	83%	1,122	1.000	1,122
Total	**30,435**	**76%**	**23,235**	**1.000**	**23,235**

We discuss discrepancies between ex ante claims and the verified analysis below.

The primary drivers of High School Innovation channel realization rates are differences in heating and water heating fuel type, household size, and home type. The evaluation team relied on self-reported responses from participating students' 2024 Home Energy Worksheets, whereas the implementation team applied a combination of self-reported responses from the 2023 Home Energy Worksheets, 2013 Market Potential Study findings, and IL-TRM V12.0 default assumptions, resulting in higher verified energy and demand savings and lower verified gas savings. Table 107 compares the ex ante and verified assumptions for each parameter.

Table 107. 2024 High School Innovation Kit Self-Reported Assumptions

Parameter	Ex Ante Value	Verified Value	Impact on Verified Savings
Average Household Size (People per Household)	4.38	4.34	Lower electric and gas savings
Electric Water Heating (% of Participants)	57%	56%	Higher electric savings Lower gas savings
Single-family Homes (% of Participants)	79%	82%	Higher electric savings Lower gas savings
Multifamily Homes (% of Participants)	21%	18%	
Single-family Homes with Gas Heat (% of Participants)	74%	45%	Higher electric savings Lower gas savings
Multifamily Homes with Gas Heat (% of Participants)	61%	39%	

In addition, the following discrepancy affected Weatherstripping (5% of kit ex ante energy savings, 1% of kit demand savings, and 23% of kit gas savings) and Outlet Gaskets (4% of kit ex ante energy savings, 8% of kit demand savings, and 11% of kit gas savings):

- The evaluation team calculated cooling savings by applying the air sealing adjustment factor (80%) from the IL-TRM V12.0, whereas the implementation team did not apply the air sealing adjustment factor to cooling savings, resulting in lower verified energy and demand savings.

3.5.5 IQ COMMUNITY KITS CHANNEL

CHANNEL DESCRIPTION

The IQ Initiative's Community Kits channel provides energy-saving kits and educational materials to AIC low-to-moderate-income customers in under-served/challenged communities at community events or following home visits conducted as part of the IQ Initiative. The objective of the channel is to partner with CBOs to provide do-it-yourself no-cost energy savings measures that will help improve the quality of life for our customers and spark their interest in additional AIC energy efficiency offerings. The channel is implemented by Resource Innovations.

PARTICIPATION SUMMARY

In 2024, the IQ Community Kits channel distributed 3,000 energy-saving kits to AIC low-to-moderate-income customers in underserved/challenged communities. Table 108 summarizes the measures distributed through the Community Kits channel in 2024.

Table 108. 2024 IQ Community Kit Contents

Measure Category	Per-Kit Quantity
Standard LED	6
Advanced Power Strip – Tier 1	1
Showerhead	2
Pipe Insulation	2
Kitchen Faucet Aerator	1
Door Sweep	1
Bathroom Faucet Aerator	2

In addition, channel staff delivered 6,700 8W standard LED bulbs at bill pay events offered by AIC.

SAVINGS DETAIL

Table 109 presents the ex ante, verified gross, and verified net electric energy savings achieved through the Community Kits channel in 2024.

Table 109. 2024 IQ Community Kits Channel Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Standard LED	920	100%	920	1.000	920
Advanced Power Strip - Tier 1	257	100%	257	1.000	257
Showerhead	226	100%	226	1.000	226
Pipe Insulation	91	100%	91	1.000	91
Kitchen Faucet Aerator	90	100%	90	1.000	90
Door Sweep	64	91%	58	1.000	58
Bathroom Faucet Aerator	22	100%	22	1.000	22
Total	**1,670**	**100%**	**1,665**	**1.000**	**1,665**

Table 110 presents the ex ante, verified gross, and verified net electric demand savings achieved through the Community Kits channel in 2024.

Table 110. 2024 IQ Community Kits Channel Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Standard LED	0.11	100%	0.11	1.000	0.11
Advanced Power Strip - Tier 1	0.03	100%	0.03	1.000	0.03
Showerhead	0.02	100%	0.02	1.000	0.02
Pipe Insulation	0.01	100%	0.01	1.000	0.01
Kitchen Faucet Aerator	0.02	100%	0.02	1.000	0.02
Door Sweep	0.01	50%	0.004	1.000	0.004
Bathroom Faucet Aerator	0.02	100%	0.02	1.000	0.02
Total	**0.22**	**98%**	**0.21**	**1.000**	**0.21**

Table 111 presents the ex ante, verified gross, and verified net gas savings achieved through the Community Kits channel in 2024.

Table 111. 2024 IQ Community Kits Channel Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Showerhead	18,250	100%	18,246	1.000	18,246
Pipe Insulation	8,078	100%	8,078	1.000	8,078
Kitchen Faucet Aerator	7,014	100%	7,011	1.000	7,011
Door Sweep	5,925	100%	5,925	1.000	5,925
Bathroom Faucet Aerator	1,689	100%	1,687	1.000	1,687
Total	**40,955**	**100%**	**40,947**	**1.000**	**40,947**

We identified one discrepancy between ex ante claims and the verified analysis that had small impacts on overall kit savings, discussed below.

- Door Sweep (4% of kit ex ante energy savings, 4% of kit demand savings, and 14% of kit gas savings): The gross realization rate for Door Sweep was 91% for kWh, 50% for kW, and 100% for therms.
  - The evaluation team calculated cooling savings by applying both the air sealing adjustment factor (80%) and the ISR (62%) for self-install door sweeps in income qualified kits from the IL-TRM V12.0, whereas the implementation team did not apply either the air sealing adjustment factor or the ISR to cooling savings, resulting in lower verified energy and demand savings.

3.5.6 MOBILE HOME KITS

CHANNEL DESCRIPTION

The IQ Initiative's MHAS channel provides energy-saving kits, as detailed in Section 3.2.7.

PARTICIPATION SUMMARY

In 2024, 330 mobile home kits were distributed through the MHAS channel. Table 112 summarizes the measures included in each kit.

Table 112. 2024 Mobile Home Kit Contents

Measure Category	Per-Kit Quantity
Standard LED	12
Advanced Power Strip – Tier 1	1
Showerhead	1
Kitchen Faucet Aerator	1
Thermostatic Restrictor Shower Valve	1
Bathroom Faucet Aerator	1

SAVINGS DETAIL

Table 113 presents the ex ante, verified gross, and verified net electric energy savings achieved through mobile home kits in 2024.

Table 113. 2024 Mobile Home Kits Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Standard LED	152	100%	152	1.000	152
Advanced Power Strip - Tier 1	30	100%	30	1.000	30
Showerhead	18	100%	18	1.000	18
Kitchen Faucet Aerator	11	100%	11	1.000	11
Thermostatic Restrictor Shower Valve	4	100%	4	1.000	4
Bathroom Faucet Aerator	2	100%	2	1.000	2
Total	**216**	**100%**	**216**	**1.000**	**216**

Table 114 presents the ex ante, verified gross, and verified net electric demand savings achieved through mobile home kits in 2024.

Table 114. 2024 Mobile Home Kits Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Standard LED	0.02	100%	0.02	1.000	0.02
Advanced Power Strip - Tier 1	0.003	100%	0.003	1.000	0.003
Showerhead	0.001	100%	0.001	1.000	0.001
Kitchen Faucet Aerator	0.002	100%	0.002	1.000	0.002
Thermostatic Restrictor Shower Valve	0.0002	100%	0.0002	1.000	0.0002
Bathroom Faucet Aerator	0.001	100%	0.001	1.000	0.001
Total	**0.03**	**100%**	**0.03**	**1.000**	**0.03**

Table 115 presents the ex ante, verified gross, and verified net gas savings achieved through mobile home kits in 2024.

Table 115. 2024 Mobile Home Kits Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Showerhead	1,447	100%	1,447	1.000	1,447
Kitchen Faucet Aerator	879	100%	879	1.000	879
Thermostatic Restrictor Shower Valve	291	100%	291	1.000	291
Bathroom Faucet Aerator	181	100%	181	1.000	181
Total	**2,799**	**100%**	**2,799**	**1.000**	**2,799**

The evaluation team did not identify any discrepancies between ex ante and verified savings.

3.5.7 BN COMMUNITY KITS

CHANNEL DESCRIPTION

Bloomington-Normal (BN) community kits were distributed through the IQ Initiative's Joint Utility channel in partnership with Nicor Gas to customers in the Bloomington-Normal area, as detailed in Section 3.2.5.

PARTICIPATION SUMMARY

In 2024, 230 energy-saving kits were distributed through the Joint Utility channel. Table 116 summarizes the quantity of measures included in each of the kits.

Table 116. 2024 BN Community Kits Contents

Measure Category	Per-Kit Quantity
Specialty LED	1
Smart Socket	2
Standard LED	3
Advanced Power Strip – Tier 1	1
Connected LED	1
LED Desk Lamp	1

SAVINGS DETAIL

Table 117 presents the ex ante, verified gross, and verified net electric energy savings achieved through the BN community kits in 2024.

Table 117. 2024 BN Community Kits Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Specialty LED	40	100%	40	1.000	40
Smart Socket	19	100%	19	1.000	19
Standard LED	17	100%	17	1.000	17
Advanced Power Strip – Tier 1	16	100%	16	1.000	16
Connected LED	10	100%	10	1.000	10
LED Desk Lamp	7	100%	7	1.000	7
Total	**110**	**100%**	**110**	**1.000**	**110**

Table 118 presents the ex ante, verified gross, and verified net electric demand savings achieved through the BN community kits in 2024.

Table 118. 2024 BN Community Kits Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Specialty LED	0.004	100%	0.004	1.000	0.004
Smart Socket	0.003	100%	0.003	1.000	0.003
Standard LED	0.002	100%	0.002	1.000	0.002
Advanced Power Strip – Tier 1	0.002	100%	0.002	1.000	0.002
Connected LED	0.001	100%	0.001	1.000	0.001
LED Desk Lamp	0.001	100%	0.001	1.000	0.001
Total	**0.01**	**100%**	**0.01**	**1.000**	**0.01**

The evaluation team did not identify any discrepancies between ex ante and verified savings.

3.5.8 FOOD BANK HOLIDAY KIT

CHANNEL DESCRIPTION

AIC provided kits of energy-saving products at food banks via the IQ Initiative's CAA channel in December 2024, as detailed in Section 3.2.4.

PARTICIPATION SUMMARY

In December 2024, 7,000 food bank holiday kits were distributed through the CAA channel. Table 119 summarizes the measures included in each kit.

Table 119. 2024 Food Bank Holiday Kits Contents

Measure Category	Per-Kit Quantity
Standard LED	4
Smart Socket	2

SAVINGS DETAIL

Table 120 presents the ex ante, verified gross, and verified net electric energy savings achieved through food bank holiday kits in 2024.

Table 120. 2024 Food Bank Holiday Kits Electric Energy Savings by Measure

Measure Category	Ex Ante Gross Savings (MWh)	Gross Realization Rate	Verified Gross Savings (MWh)	NTGR	Verified Net Savings (MWh)
Standard LED	1,135	100%	1,135	1.000	1,135
Smart Socket	656	100%	656	1.000	656
Total	**1,792**	**100%**	**1,792**	**1.000**	**1,792**

Table 121 presents the ex ante, verified gross, and verified net electric demand savings achieved through food bank holiday kits in 2024.

Table 121. 2024 Food Bank Holiday Kits Electric Demand Savings by Measure

Measure Category	Ex Ante Gross Savings (MW)	Gross Realization Rate	Verified Gross Savings (MW)	NTGR	Verified Net Savings (MW)
Standard LED	0.14	100%	0.14	1.000	0.138
Smart Socket	0.09	100%	0.09	1.000	0.091
Total	**0.23**	**100%**	**0.23**	**1.000**	**0.23**

The evaluation team did not identify any discrepancies between ex ante and verified savings.

3.5.9 CUMULATIVE PERSISTING ANNUAL SAVINGS

Table 122 summarizes CPAS and WAML for the 2024 Kits Initiatives by channel or kit. The WAML for the Initiative is 9.3 years. CPAS and WAML for each channel or kit at a measure level are presented in Table 123 through Table 129 below.

Table 122. 2024 Kits Initiatives CPAS and WAML

Channel/Kits	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Full School Kits	9.5	7,827	1.000	7,827	7,827	6,962	6,962	...	6,962	...	74,254
Joint Utility School Kits	9.6	1,028	1.000	1,028	1,028	929	929	...	929	...	9,825
High School Innovation Kits	10.9	1,152	1.000	1,152	1,152	1,152	1,152	...	1,152	...	12,535
IQ Community Kits	9.1	1,665	1.000	1,665	1,665	1,665	1,665	...	1,665	...	15,073
Mobile Homes Kits	8.2	216	1.000	216	216	216	216	...	216	...	1,769
BN Community Kits	7.9	110	1.000	110	110	110	110	...	110	...	843
Food Bank Holiday Kits	7.6	1,792	1.000	1,792	1,792	1,792	1,792	...	1,792	...	13,677
2024 CPAS		**13,789**	**1.000**	**13,789**	**13,789**	**12,825**	**12,825**	...	**12,825**	...	**127,975**
Expiring 2024 CPAS				**0**	**0**	**964**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**964**	**964**	...	**964**	...	
WAML	**9.3**										

Table 123. 2024 Kits Initiatives – Full School Kits Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Specialty LED	8.0	1,937	1.000	1,937	1,937	1,937	1,937	...	1,937	...	15,493
Showerhead	10.0	1,958	1.000	1,958	1,958	1,958	1,958	...	1,958	...	19,579
Kitchen Faucet Aerator	10.0	1,412	1.000	1,412	1,412	1,412	1,412	...	1,412	...	14,123
Shower Timer	2.0	865	1.000	865	865	0	0	...	0	...	1,730
Advanced Power Strip - Tier 1	7.0	505	1.000	505	505	505	505	...	505	...	3,536
Pipe Insulation	15.0	265	1.000	265	265	265	265	...	265	...	3,981
Door Sweep	20.0	333	1.000	333	333	333	333	...	333	...	6,650

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Weatherstripping	20.0	364	1.000	364	364	364	364	...	364	...	7,286
Bathroom Faucet Aerator	10.0	173	1.000	173	173	173	173	...	173	...	1,726
Connected LED	10.0	15	1.000	15	15	15	15	...	15	...	150
2024 CPAS		**7,827**	**1.000**	**7,827**	**7,827**	**6,962**	**6,962**	...	**6,962**	...	**74,254**
Expiring 2024 CPAS				**0**	**0**	**865**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**865**	**865**	...	**865**	...	
WAML	**9.5**										

Table 124. 2024 Kits Initiatives – Joint Utility School Kits Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Specialty LED	8.0	306	1.000	306	306	306	306	...	306	...	2,446
Showerhead	10.0	225	1.000	225	225	225	225	...	225	...	2,248
Advanced Power Strip - Tier 1	7.0	82	1.000	82	82	82	82	...	82	...	575
Kitchen Faucet Aerator	10.0	163	1.000	163	163	163	163	...	163	...	1,630
Shower Timer	2.0	99	1.000	99	99	0	0	...	0	...	199
Weatherstripping	20.0	41	1.000	41	41	41	41	...	41	...	827
Door Sweep	20.0	38	1.000	38	38	38	38	...	38	...	762
Pipe Insulation	15.0	29	1.000	29	29	29	29	...	29	...	433
Outlet Gaskets	20.0	25	1.000	25	25	25	25	...	25	...	507
Bathroom Faucet Aerator	10.0	20	1.000	20	20	20	20	...	20	...	199
2024 CPAS		**1,028**	**1.000**	**1,028**	**1,028**	**929**	**929**	...	**929**	...	**9,825**
Expiring 2024 CPAS				**0**	**0**	**99**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**99**	**99**	...	**99**	...	
WAML	**9.6**										

Table 125. 2024 Kits Initiatives – High School Innovation Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Specialty LED	8.0	384	1.000	384	384	384	384	...	384	...	3,074
Showerhead	10.0	420	1.000	420	420	420	420	...	420	...	4,196
LED Desk Lamp	8.0	81	1.000	81	81	81	81	...	81	...	646
Pipe Insulation	15.0	73	1.000	73	73	73	73	...	73	...	1,102
Weatherstripping	20.0	100	1.000	100	100	100	100	...	100	...	2,009
Outlet Gaskets	20.0	57	1.000	57	57	57	57	...	57	...	1,147
Bathroom Faucet Aerator	10.0	36	1.000	36	36	36	36	...	36	...	361
2024 CPAS		**1,152**	**1.000**	**1,152**	**1,152**	**1,152**	**1,152**	...	**1,152**	...	**12,535**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
WAML	**10.9**										

Table 126. 2024 Kits Initiatives – IQ Community Kits Channel CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Standard LED	8.0	920	1.000	920	920	920	920	...	920	...	7,359
Advanced Power Strip - Tier 1	7.0	257	1.000	257	257	257	257	...	257	...	1,802
Showerhead	10.0	226	1.000	226	226	226	226	...	226	...	2,262
Pipe Insulation	15.0	91	1.000	91	91	91	91	...	91	...	1,371
Kitchen Faucet Aerator	10.0	90	1.000	90	90	90	90	...	90	...	898
Door Sweep	20.0	58	1.000	58	58	58	58	...	58	...	1,160
Bathroom Faucet Aerator	10.0	22	1.000	22	22	22	22	...	22	...	220
2024 CPAS		**1,665**	**1.000**	**1,665**	**1,665**	**1,665**	**1,665**	...	**1,665**	...	**15,073**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
WAML	**9.1**										

Table 127. 2024 Kits Initiatives – Mobile Home Kits CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Standard LED	8.0	152	1.000	152	152	152	152	...	152	...	1,212
Advanced Power Strip - Tier 1	7.0	30	1.000	30	30	30	30	...	30	...	211
Showerhead	10.0	18	1.000	18	18	18	18	...	18	...	176
Kitchen Faucet Aerator	10.0	11	1.000	11	11	11	11	...	11	...	111
Thermostatic Restrictor Shower Valve	10.0	4	1.000	4	4	4	4	...	4	...	36
Bathroom Faucet Aerator	10.0	2	1.000	2	2	2	2	...	2	...	23
2024 CPAS		**216**	**1.000**	**216**	**216**	**216**	**216**	**...**	**216**	**...**	**1,769**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**8.2**										

Table 128. 2024 Kits Initiatives – BN Community Kits CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Specialty LED	8.0	40	1.000	40	40	40	40	...	40	...	319
Smart Socket	7.0	19	1.000	19	19	19	19	...	19	...	133
Standard LED	8.0	17	1.000	17	17	17	17	...	17	...	120
Advanced Power Strip - Tier 1	7.0	16	1.000	16	16	16	16	...	16	...	114
Connected LED	10.0	10	1.000	10	10	10	10	...	10	...	98
LED Desk Lamp	8.0	7	1.000	7	7	7	7	...	7	...	59
2024 CPAS		**110**	**1.000**	**110**	**110**	**110**	**110**	**...**	**110**	**...**	**843**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**...**	**0**	**...**	
WAML	**7.9**										

Table 129. 2024 Kits Initiatives – Food Bank Holiday Kits CPAS and WAML

Measure	Measure Life	Annual Verified Gross Savings (MWh)	NTGR	CPAS – Verified Net Savings (MWh)							Lifetime Savings (MWh)
				2024	2025	2026	2027	...	2030	...	
Standard LED	8.0	1,135	1.000	1,135	1,135	1,135	1,135	...	1,135	...	9,082
Smart Socket	7.0	656	1.000	656	656	656	656	...	656	...	4,594
2024 CPAS		**1,792**	**1.000**	**1,792**	**1,792**	**1,792**	**1,792**	...	**1,792**	...	**13,677**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
Expired 2024 CPAS				**0**	**0**	**0**	**0**	...	**0**	...	
WAML	**7.6**										

3.5.10 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this evaluation, the evaluation team offers the following key findings and recommendations for the Kits Initiatives moving forward.

CROSS-CUTTING

- **Key Finding 1:** For Full School Kits, Joint Utility School Kits, and High School Innovation Kits, the evaluation team relied on self-reported responses from participating students' 2024 Home Energy Worksheets, whereas the implementation team applied a combination of self-reported responses from the 2023 Home Energy Worksheets, 2013 Market Potential Study, and IL-TRM V12.0.
  - Recommendation: As data availability allows, update savings assumptions to align with the most recent self-reported values as shown in Table 101, Table 102, and Table 107.
- **Key Finding 2:** For Full School Kits, High School Innovation Kits, and IQ Community Kits, the implementation team did not apply the air sealing adjustment factor to cooling savings for prescriptive air sealing measures (door sweeps, weatherstripping, and outlet gaskets) per the IL-TRM V12.0.
  - Recommendation: Apply the air sealing adjustment factor of 80% from the IL-TRM V12.0 to cooling savings calculations for prescriptive air sealing measures.

FULL SCHOOL KITS

- **Key Finding 1:** The evaluation team was unable to replicate ex ante savings for the additional 400 connected LEDs distributed through the seven "Community in Action" fundraising events, and therefore, unable to identify differences between ex ante claims and verified savings. These measures have limited implications for total savings, accounting for <0.5% of ex ante kit energy and demand kit savings; however, if single distribution measures continue in future program years, detailed savings calculations will be needed.
  - Recommendation: Provide detailed savings calculations for single distribution measures in the TRM calculations workbook.

JOINT UTILITY SCHOOL KITS

- **Key Finding 1:** The implementation team included both heating and cooling energy savings in demand savings calculations for prescriptive air sealing measures.
  - Recommendation: Update demand savings formulas for prescriptive air sealing measures to rely on cooling energy savings only.

FOOD BANK HOLIDAY KITS

- **Key Finding 1:** For Food Bank Holiday Kits, the nature of their distribution prevented the implementation team or community partners from collecting backup documentation (i.e., participant information) associated with 7,000 kits distributed at food banks. As such, it is unclear what portion of recipients were truly AIC customers.
  - Recommendation: If AIC plans to continue with similar offerings in the future, the evaluation team recommends conducting research and engaging with the TRM working group in 2025 to establish an applicable leakage assumption to appropriately account for the proportion provided to non-AIC customers.

APPENDIX A. IMPACT ANALYSIS METHODOLOGY

RETAIL PRODUCTS INITIATIVE

GROSS IMPACT METHODOLOGY

The evaluation team calculated verified savings for the Retail Products Initiative by applying savings algorithms from the IL-TRM V12.0 to known information from initiative tracking data. We leveraged the wide range of measure specifications and participant information (e.g., LED wattage, bulb type, heating and cooling equipment type) from tracking data to inform savings assumptions. For parameters not informed by information from tracking data, the evaluation team relied on default recommendations from the IL-TRM V12.0. Table 130 lists the measures in the Retail Products Initiative, their corresponding IL-TRM entry, and whether or not TRM errata applied to the measure in the 2024 evaluation.

Table 130. 2024 Retail Products Initiative Measures Evaluated

IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
ENERGY STAR Air Purifier/Cleaner	5.1.1	No errata present
ENERGY STAR Clothes Washers	5.1.2	No errata present
ENERGY STAR Dehumidifier	5.1.3	No errata present
ENERGY STAR Freezer	5.1.5	No errata present
ENERGY STAR and CEE Tier 2 Refrigerator	5.1.6	No errata present
ENERGY STAR Room Air Conditioner	5.1.7	Yes
ENERGY STAR Clothes Dryer	5.1.10	Errata not applicable/relevant
ENERGY STAR Water Coolers	5.1.11	No errata present
Advanced Power Strip – Tier 1	5.2.1	No errata present
Smart Sockets	5.2.4	No errata present
Advanced Thermostats	5.3.16	No errata present
High Efficiency Bathroom Exhaust Fan	5.3.9	No errata present
Domestic Hot Water Pipe Insulation	5.4.1	Errata not applicable/relevant
Gas Water Heater	5.4.2	No errata present
Heat Pump Water Heaters	5.4.3	No errata present
Low Flow Faucet Aerators	5.4.4	Errata not applicable/relevant
Low Flow Showerheads	5.4.5	Errata not applicable/relevant
LED Specialty Lamps	5.5.6 & 4.5.4	No errata present
LED Screw Based Omnidirectional Bulbs	5.5.8 & 4.5.4	No errata present
LED Fixtures	5.5.9 & 4.5.4	No errata present
LED Nightlights	5.5.11	No errata present
Connected LED Lamps	5.5.12 & 5.5.6/5.5.8	No errata present
EISA Exempt LED Lighting	5.5.13	No errata present
Air Sealing	5.6.1	No errata present
High Efficiency Pool Pumps	5.7.1	No errata present

MEASURE LIVES AND CUMULATIVE PERSISTING ANNUAL SAVINGS

The evaluation team calculated CPAS by applying measure lives, baseline shifts, and mid-life adjustments from the IL-TRM V12.0.

NET IMPACT METHODOLOGY

The evaluation team applied SAG-approved NTGRs to verified gross savings to calculate verified net savings. NTGRs vary depending on whether sales are assumed to reach market rate or IQ customers. Because the Retail Products Initiative does not verify customer income, we estimate the IQ allocation using a consistent methodology and apply NTGRs accordingly.

- For POS channel LED lighting, IQ allocations are deemed 100% by the IL-TRM V12.0 for retail stores included on the SAG-approved IQ Store List of store locations nearest to a community with a zip code where at least 65% of family households have an income equal to or less than 299% of the FPL for their household size.
- For POS channel non-lighting, IQ allocations are based on United States Census Bureau American Community Survey (ACS) data for all census tracts within a 10-mile radius of each store location. Each participating store location has an assigned percentage representing its expected incidence of IQ customers and, by extension, the expected portion of sales going to IQ customers. This approach does not apply to sales from thrift stores, for which IQ allocation is deemed at 100% in the absence of adequate research, but with the understanding that these types of retailers tend to attract a higher proportion of IQ customers than other retail channels.
- For Downstream Rebate and Online Marketplace offerings, tracking data included customer addresses from rebate applications, allowing for assignment of IQ allocations based on individual participant ZIP codes. These IQ allocations use household-level ACS data to calculate the incidence of IQ customers in each ZIP code in AIC's service territory. The evaluation team used these ZIP code-based IQ allocations to estimate the portion of purchases made by IQ participants based on the incidence of IQ customers in that ZIP code.

Table 131 outlines the SAG-approved NTGR values applied to verified gross savings to calculate verified net savings.

Table 131. 2024 SAG-Approved Retail Products Initiative NTGRs

Measure Category	IQ NTGR	Market Rate NTGR
Advanced Thermostat (Cooling)	1.000	0.800
Advanced Thermostat (Heating)	1.000	0.900
Air Purifiers	1.000	0.790
Bathroom Vent Fans	1.000	0.660
Clothes Washers	1.000	0.630
Dehumidifiers	1.000	0.670
ENERGY STAR Clothes Dryer	1.000	0.670
ENERGY STAR Dishwasher	1.000	0.800
ENERGY STAR Room AC	1.000	0.720
Faucet Aerator	1.000	0.800
Freezers	1.000	0.630
Heat Pump Clothes Dryer	1.000	0.800
Heat Pump Water Heater	1.000	0.800
LED Lighting[a]	1.000	0.690

Measure Category	IQ NTGR	Market Rate NTGR
Pipe Insulation	1.000	0.800
Pool Pumps	1.000	0.760
Refrigerators	1.000	0.650
Showerhead	1.000	0.800
Showerhead Kits	1.000	0.800
Smart Sockets	1.000	0.800
Tier 1 Advanced Power Strips	1.000	0.860
Wall Plate Gasket	1.000	0.800
Water Dispensers	1.000	0.670
Weatherstripping	1.000	0.800

[a] For LED lighting, the market rate NTGR is applied for all sales occurring at Big Box, DIY, or Warehouse retailers, regardless of IQ designation.

INCOME QUALIFIED INITIATIVE – SINGLE FAMILY OFFERINGS

GROSS IMPACT METHODOLOGY

The evaluation team calculated verified savings for the IQ Initiative Single Family Offerings by applying savings algorithms from the IL-TRM V12.0. The team leveraged initiative tracking data such as primary heating and cooling type, the delivery mechanism (e.g., DI, leave-behind), LED wattage, LED lamp type, project location (e.g., for weather-dependent variables), and installed measure location (e.g., for faucet aerators) to inform savings assumptions. For variables outside these parameters, the evaluation team typically relied on defaults from the IL-TRM V12.0. Table 132 lists the measures in the IQ Initiative Single Family Offerings, their corresponding IL-TRM entry, and whether TRM errata were applied to the measure in the 2024 evaluation.

Table 132. 2024 Income Qualified Initiative – Single Family Offerings Measures Evaluated

IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
Package Terminal Air Conditioner (PTAC) and Package Terminal Heat Pump (PTHP)	4.4.13	No errata present
ENERGY STAR Air Purifier/Cleaner	5.1.1	No errata present
ENERGY STAR Clothes Dryer	5.1.10	No errata present
Income Qualified: ENERGY STAR and CEE Tier 2 Room Air Conditioner	5.1.13	Yes
Residential Induction Cooktop	5.1.14	No errata present
Advanced Power Strip - Tier 1	5.2.1	No errata present
Smart Sockets	5.2.4	No errata present
Air Source Heat Pump (Centrally Ducted and Ductless)	5.3.1	No errata present
Central Air Conditioning	5.3.3	No errata present
Duct Insulation and Sealing	5.3.4	No errata present
Furnace Blower Motor	5.3.5	No errata present
Gas High Efficiency Boiler	5.3.6	No errata present
Gas High Efficiency Furnace	5.3.7	No errata present
High Efficiency Bathroom Exhaust Fan	5.3.9	No errata present
Advanced Thermostats	5.3.16	No errata present

IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
Domestic Hot Water Pipe Insulation	5.4.1	Errata not applicable/relevant
Gas Water Heater	5.4.2	No errata present
Heat Pump Water Heaters	5.4.3	No errata present
Low Flow Faucet Aerators	5.4.4	Errata not applicable/relevant
Low Flow Showerheads	5.4.5	Errata not applicable/relevant
LED Specialty Lamps	5.5.6	No errata present
LED Screw Based Omnidirectional Bulbs	5.5.8	No errata present
LED Fixtures	5.5.9	No errata present
Connected LEDs	5.5.11	No errata present
Air Sealing	5.6.1	No errata present
Basement Sidewall Insulation	5.6.2	No errata present
Floor Insulation Above Crawlspace	5.6.3	No errata present
Wall Insulation	5.6.4	No errata present
Ceiling/Attic Insulation	5.6.5	No errata present
Rim/Band Joist Insulation	5.6.6	No errata present
Tree Planting	5.7.5	No errata present

(B-27) ELECTRIFICATION

As detailed in Section 3.2.9, AIC claimed savings for a limited number of electrification measures in 2024. These savings were calculated in accordance with the IL-TRM V12.0, Illinois statute (specifically 220 ILCS 5/8-103B subsection b-27) and the Policy Manual (Sections 11.3, 12.1, and 12.3). The savings presented in the body of this report are those AIC will claim against its goals. Actual energy impacts from electrification measures for use in cost-effectiveness testing are presented in Appendix B. Additional detail around electrification savings calculations, including average "at-the-meter" fossil fuel savings and electric consumption increases, are detailed in Appendix G.

MEASURE LIVES AND CUMULATIVE PERSISTING ANNUAL SAVINGS

The evaluation team calculated CPAS by applying measure lives, baseline shifts, and mid-life adjustments from the IL-TRM V12.0.

NET IMPACT METHODOLOGY

The evaluation team applied SAG-approved 2024 NTGRs of 1.000 to verified gross savings to calculate verified net savings for IQ-targeted offerings.

The one exception is the Smart Savers channel. In 1% of cases, advanced thermostats were provided to ZIP codes we could not verify as IQ. The evaluation team treated these cases as market rate, applying NTGRs of 0.800 for cooling and 0.900 for cooling. The resulting overall NTGR for the Smart Savers channel was 0.998 for electric energy, 0.997 for demand, and 0.999 for gas.

MULTIFAMILY INITIATIVES

GROSS IMPACT METHODOLOGY

The evaluation team calculated verified savings for the Multifamily Initiatives by applying savings algorithms from the IL-TRM V12.0. The team leveraged initiative tracking data such as primary heating and cooling type, the delivery mechanism (e.g., DI, leave-behind), LED wattage, LED lamp type, project location (e.g., for weather-dependent variables), clean air density rate (e.g., for air purifiers), and installed measure location (e.g., for faucet aerators) to inform savings assumptions. For variables outside these parameters, the evaluation team typically relied on defaults from the IL-TRM V12.0. Table 133 lists the measures in the Multifamily Initiatives, their corresponding IL-TRM entry, and whether TRM errata applied to the measure in the 2024 evaluation.

Table 133. 2024 Multifamily Initiative Measures Evaluated

Channel	IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
IQ Multifamily	LED Bulbs and Fixtures	4.5.4	No
	ENERGY STAR Air Purifier/Cleaner	5.1.1	No
	Advanced Power Strip - Tier 1	5.2.1	No
	Air Source Heat Pump (Centrally Ducted and Ductless)	5.3.1	No
	Advanced Thermostats	5.3.16	No
	Domestic Hot Water Pipe Insulation	5.4.1	Yes
	Low Flow Faucet Aerators	5.4.4	Yes
	Low Flow Showerheads	5.4.5	Yes
	Thermostatic Restrictor Shower Valve	5.4.8	Yes
	LED Specialty Lamps	5.5.6	No
	LED Screw Based Omnidirectional Bulbs	5.5.8	No
	Air Sealing	5.6.1	No
	Ceiling/Attic Insulation	5.6.5	No
	Low-E Storm Window	5.6.7	No
MR Multifamily	Advanced Power Strip - Tier 1	5.2.1	No
	Air Source Heat Pump (Centrally Ducted and Ductless)	5.3.1	No
	Advanced Thermostats	5.3.16	No
	Domestic Hot Water Pipe Insulation	5.4.1	Yes
	Low Flow Faucet Aerators	5.4.4	Yes
	Low Flow Showerheads	5.4.5	Yes
	Thermostatic Restrictor Shower Valve	5.4.8	Yes
	Air Sealing	5.6.1	No

Channel	IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
Public Housing	LED Bulbs and Fixtures	4.5.4	No
	Advanced Power Strip - Tier 1	5.2.1	No
	Air Source Heat Pump (Centrally Ducted and Ductless)	5.3.1	No
	Advanced Thermostats	5.3.16	No
	Domestic Hot Water Pipe Insulation	5.4.1	Yes
	Low Flow Faucet Aerators	5.4.4	Yes
	Low Flow Showerheads	5.4.5	Yes
	Thermostatic Restrictor Shower Valve	5.4.8	Yes
	LED Specialty Lamps	5.5.6	No
	LED Screw Based Omnidirectional Bulbs	5.5.8	No
	Air Sealing	5.6.1	No
	Ceiling/Attic Insulation	5.6.5	No
	Low-E Storm Window	5.6.7	No

MEASURE LIVES AND CUMULATIVE PERSISTING ANNUAL SAVINGS

The evaluation team applied measure lives, baseline shifts, and mid-life adjustments from the IL-TRM V12.0 to calculate CPAS.

NET IMPACT METHODOLOGY

The evaluation team applied SAG-approved 2024 NTGRs to the verified gross savings to calculate verified net savings. Note that for customers in zip codes identified as Disadvantaged Areas, the evaluation team applied electric and gas NTGRs of 1.000, per Illinois Policy Manual guidance detailed in Section 2.3.1. Table 134 outlines the SAG-approved NTGR values applied to verified gross savings to calculate verified net savings.

Table 134. 2024 SAG-Approved Multifamily Initiatives NTGRs

Channel	Measure Category	Electric NTGR	Gas NTGR
IQ Multifamily	All Measures	1.000	1.000
Public Housing	All Measures	1.000	1.000
MR Multifamily	Advanced Power Strip - Tier 1	0.980	N/A
	Air Source Heat Pump	0.800	0.800
	Advanced Thermostat	1.000	1.000
	Pipe Insulation	0.794	1.000
	Bathroom Faucet Aerator	1.004	1.000
	Kitchen Faucet Aerator	1.004	1.000
	Showerhead	1.004	1.000
	Restrictor Shower Valve	0.800	0.800
	Wall Plate Gasket	0.861	1.000
	Door Sweep	0.861	1.000

MARKET RATE SINGLE FAMILY INITIATIVE

GROSS IMPACT METHODOLOGY

The evaluation team calculated verified savings for the Market Rate Single Family Initiative by applying savings algorithms from the IL-TRM V12.0. The team leveraged initiative tracking data such as primary heating and cooling type, new and existing heating and cooling efficiencies and capacities, project location (for weather-dependent variables), and water heater tank volumes. For variables outside these parameters, the evaluation team typically relied on defaults from the IL-TRM V12.0. Table 135 lists the measures in the Market Rate Single Family Initiative, their corresponding IL-TRM entry, and whether TRM errata were applied to the measure in the 2024 evaluation.

Table 135. 2024 Market Rate Single Family Initiative Measures Evaluated

Channel	IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
Midstream HVAC	Ductless Heat Pumps	5.3.1	No
	Centrally Ducted Air Source Heat Pump	5.3.1	No
	Central Air Conditioning	5.3.3	No
	Heat Pump Water Heaters	5.4.3	No
	Advanced Thermostats	5.3.16	No
	Gas High Efficiency Furnace	5.3.7	No
Home Efficiency	Duct Sealing	5.3.4	No
	High Efficiency Bathroom Exhaust Fan	5.3.9	No
	Air Sealing	5.6.1	No
	Basement Sidewall Insulation	5.6.2	No
	Wall Insulation	5.6.4	No
	Ceiling/Attic Insulation	5.6.5	No
	Rim/ Band Joist Insulation	5.6.6	No

MEASURE LIVES AND CUMULATIVE PERSISTING ANNUAL SAVINGS

The evaluation team applied measure lives, baseline shifts, and mid-life adjustments from the IL-TRM V12.0 to calculate CPAS.

NET IMPACT METHODOLOGY

The evaluation team applied SAG-approved 2024 NTGRs to the verified gross savings to calculate verified net savings. Note that for customers in zip codes identified as Disadvantaged Areas, the evaluation team applied electric and gas NTGRs of 1.000, per Illinois Policy Manual guidance detailed in Section 2.3.1. Table 136 outlines the SAG-approved NTGR values applied to verified gross savings to calculate verified net savings.

Table 136. 2024 SAG-Approved Market Rate Single Family Initiative NTGRs

Channel	Measure Category	Electric NTGR	Gas NTGR
Midstream HVAC	Air Conditioners and Heat Pumps	0.700	N/A
	Heat Pump Water Heaters	0.700	N/A

Channel	Measure Category	Electric NTGR	Gas NTGR
	Advanced Thermostats - Cooling	0.700	N/A
	Advanced Thermostats - Heating	0.850	0.850
	High Efficiency Gas Furnace	N/A	0.800
Home Efficiency	Air Sealing (when insulation is also installed)	0.900	0.900
	Air Sealing (when insulation is not also installed)	0.800	0.800
	Attic Insulation	0.800	0.800
	Bathroom Exhaust Fan	0.800	0.800
	Wall Insulation	0.800	0.800
	Crawlspace Insulation	0.800	0.800
	Rim Joist Insulation	0.800	0.800
	Duct Sealing	0.800	0.800

MIDSTREAM HVAC CHANNEL MARKET EFFECTS

Opinion Dynamics developed market effects savings estimates for 2024 based on supplemental distributor sales data provided by the implementation team and primary research with distributors and contractors, as outlined in a July 2024 presentation to the Illinois SAG.[35] This methodology combines total non-incentivized channel-eligible equipment sales with two key multiplicative factors (i.e., the In-Region Factor and the Attribution Factor) to estimate the portion of non-incentivized energy-efficient sales attributable to the channel. Details on the development of the In-Region Factor and Attribution Factor are provided in a December 2024 memorandum delivered to the Illinois SAG.[36]

DISTRIBUTOR SALES DATA REVIEW

The implementation team requested quarterly extracts of distributor sales data using throughout 2024, asking distributors to report total sales of HVAC systems, heat pump water heaters, and advanced thermostats occurring in Illinois (i.e., inclusive of non-incentivized sales) with the necessary information to determine equipment eligibility for market effects analysis. The template used by the implementation team aims to standardize the necessary fields for identifying channel-eligible sales based on timing, location, and efficiency level (i.e., date of sale, distributor branch location, and equipment model including efficiency specification).

The evaluation team conducted a comprehensive review of 2024 distributor sales data provided by the implementation team to identify non-incentivized channel-qualifying sales (i.e., total sales by distributor and measure category that occurred in or adjacent to AIC service territory and met channel efficiency thresholds):

- We reviewed records of total sales by distributor and measure category, excluding 52 records (37% of total) for which a distributor's total sales of a given measure category did not align with incentivized sales from tracking data. These included instances of zero or near-zero total sales, cases where total sales were reportedly inclusive of the full year but did not exceed incentivized sales, and cases where the given distributor did not appear in 2024 tracking data.

[35] Opinion Dynamics. *Ameren Illinois (AIC) Residential Market Effects Evaluation Approach*. Presented at SAG Evaluation Working Group Meeting. Accessed at https://www.ilsag.info/wp-content/uploads/AIC-Midstream-HVAC-Market-Effects-Evaluation-Approach_2024-07-16.pdf

[36] Opinion Dyanmics. *AIC 2024 Midstream HVAC Channel Market Effects and Process Research Findings Memorandum*. December 16, 2024. Accessed at https://www.ilsag.info/wp-content/uploads/AIC-2024-Res-Midstream-HVAC-Market-Effects-and-Process-Memo_FINAL_2024-12-16.pdf

- Among the remaining records, we reviewed available location information and conducted manual lookups to populate missing branch locations for sales records from 16 of 32 distributors. We ultimately excluded sales of 33,985 units (66% of remaining total) where sales occurred outside of the geographically eligible area or we were unable to confirm sales were limited to areas in or adjacent to AIC's service territory.
- We then reviewed model-specific product efficiency information included in distributor sales data to determine whether equipment met the minimum efficiency thresholds for the Midstream HVAC channel. Based on this review, we determined that efficiency information was well-populated and excluded 11,374 units (64% of remaining total) that did not meet the efficiency thresholds.
- The evaluation team then subtracted total incentivized sales reflected in Midstream HVAC channel tracking data from the total channel-eligible sales established via supplemental distributor sales data to estimate the number of non-incentivized channel-eligible sales for each equipment type.
  - For 15 records (11% of total), the total sales by distributor and measure category only accounted for a portion of the 2024 calendar year and did not exceed corresponding incentivized sales reflected in tracking data. In these cases, we only subtracted incentivized sales associated with the portion of the year for which total sales were provided.

APPLICATION OF IN-REGION FACTOR AND ATTRIBUTION FACTOR

The **In-Region Factor** reflects the share of non-incentivized channel-eligible sales installed in AIC service territory based on contractor research conducted in 2023 and 2024 that asked contractors to estimate what percentage of their total HVAC, thermostat, and water heater projects in Illinois in the past year were for customers in AIC service territory. The evaluation team averaged respondent-level input to calculate the In-Region Factor.

The **Attribution Factor** accounts for the share of non-incentivized channel-eligible sales that can be attributed to Midstream HVAC channel interventions. Contractor research conducted in 2023 and 2024 asked contractors who made sales of high-efficiency equipment not incentivized by the Midstream HVAC channel how influential their experience with the channel (including related materials, marketing, and training) was in helping them persuade customers to install high-efficiency equipment without the incentive. The evaluation averaged respondent-level input from 2023 and 2024 research to calculate the Attribution Factor.

The evaluation team developed In-Region and Attribution Factors as the average of respondent-level contractor research conducted in 2023 and 2024. We estimated an In-Region Factor of 0.675 and an Attribution Factor of 0.357, as shown in Table 137.

Table 137. 2024 Midstream HVAC Channel Market Effects In-Region And Attribution Factors

Factor	Value
In-Region Factor (n=18)	0.675
Attribution Factor (n=7)	0.357

The evaluation team estimated total *market effects units* for each equipment type by multiplying non-incentivized channel-eligible sales from distributor sales data by the In-Region Factor and the Attribution Factor. We then calculated the estimated market effects savings by applying measure-level average per-unit verified gross savings achieved through the 2024 Midstream HVAC channel for each equipment type, as established in Section 0 by applying recommendations from the IL-TRM V12.0 to Midstream HVAC channel tracking data.

Table 138 summarizes the measure-level per-unit gross verified savings established by the 2024 evaluation of the Midstream HVAC channel. These per-unit savings are applied to Market Effects Units to calculate total savings attributable to Market Effects.

Table 138. 2024 Midstream HVAC Channel Market Effects Per-Unit Savings

Measure	Per-Unit Electric Energy Savings (MWh)	Per-Unit Electric Demand Savings (MW)	Per-Unit Gas Savings (Therms)
Centrally Ducted Air Source Heat Pump	3.65	0.00038	0
Central Air Conditioner	2.70	0.00033	0
Advanced Thermostats	0.27	0.00016	50
Ductless Heat Pump	0.34	0.00032	0
Heat Pump Water Heater	2.33	0.00011	0

Table 139 summarizes the measure-level non-incentivized offering-eligible sales reported by distributors in 2024, the number of market effects units (non-incentivized offering-eligible sales multiplied by In-Region Factor and Attribution Factor), and the claimable market effects savings (market effects units multiplied by per-unit gross savings).

Table 139. 2024 Midstream HVAC Channel Market Effects Units and Savings

Measure	Non-Incentivized Energy-Efficient Sales (Units)	Market Effects Units	Electric Energy Savings (MWh)	Electric Demand Savings (MW)	Gas Savings (Therms)
Centrally Ducted Air Source Heat Pump	784	189	689.574	0.07	0
Central Air Conditioner	1,055	254	686.417	0.08	0
Advanced Thermostats	1,544	372	100.458	0.06	18,603
Ductless Heat Pump	864	208	70.789	0.07	0
Heat Pump Water Heater	89	21	49.971	0.002	0
Total	**4,336**	**1,045**	**1,597**	**0.28**	**18,603**

KITS INITIATIVES

GROSS IMPACT METHODOLOGY

The evaluation team calculated verified savings for the Kits Initiatives by applying savings algorithms and default assumptions from the IL-TRM V12.0. Table 140 lists the measures in the Kits Initiatives, their corresponding IL-TRM entry, and whether TRM errata applied to the measure in the 2024 evaluation.

Table 140. 2024 Kits Initiatives Measures Evaluated

IL-TRM Measure Name	IL-TRM Measure	Errata Applied?
Advanced Power Strip – Tier 1	5.2.1	No
Smart Sockets	5.2.4	No
Domestic Hot Water Pipe Insulation	5.4.1	Errata not applicable/relevant
Low Flow Faucet Aerators	5.4.4	Errata not applicable/relevant
Low Flow Showerheads	5.4.5	Errata not applicable/relevant
Thermostatic Restrictor Shower Valve	5.4.8	Errata not applicable/relevant
Shower Timer	5.4.9	Errata not applicable/relevant
LED Specialty Lamps	5.5.6	No
LED Screw Based Omnidirectional Bulbs	5.5.8	No
LED Fixtures	5.5.9	No
Connected LED Lamps	5.5.12	No
Air Sealing	5.6.1	No

MEASURE LIVES AND CUMULATIVE PERSISTING ANNUAL SAVINGS

The evaluation team applied measure lives, baseline shifts, and mid-life adjustments, where applicable, from the IL-TRM V12.0 to calculate CPAS.

NET IMPACT METHODOLOGY

The evaluation team applied SAG-approved 2024 NTGRs of 1.000 to verified gross savings to calculate verified net savings given that all Kits Initiatives targeted IQ customers.

APPENDIX B. ADDITIONAL IMPACTS

INTRODUCTION

In this appendix, we provide additional quantified impacts from AIC's Residential Program that are not presented in the body of the report. Three specific types of additional inputs are provided:

- Summaries of fossil fuel impacts achieved by the Residential Program that cannot be directly claimed against AIC's goals but can be used in cost-effectiveness testing and support savings conversions under Illinois law;
- Summaries of gas penalties that are not counted toward goal attainment but are required for cost-effectiveness analysis; and,
- Summaries of water savings and secondary electric energy savings from water supply and wastewater treatment required for cost-effectiveness analysis.

ADDITIONAL FOSSIL FUEL IMPACTS

Some AIC customers receive natural gas service from other energy providers or use unregulated fuels such as propane to serve their energy needs. Measures that AIC provides to these customers through its existing programs may save units of these fuels in addition to energy sources provided by AIC. While these savings cannot be directly claimed against AIC's energy savings goals, where possible, we quantify these impacts in this appendix to support both cost-effectiveness testing and savings conversions under Illinois state law.

The Retail Products Initiative, IQ Initiative (Single Family, CAA, Joint Utility, and Smart Savers channels), and Market Rate Single Family Initiative (Home Efficiency channel) produced quantifiable propane and/or non-AIC natural gas impacts in 2024.

GAS HEATING PENALTIES

Per the Policy Manual, AIC is not required to account for gas heating penalties resulting from the installation of energy efficiency measures designed to save electricity when considering savings for goal attainment purposes.[37,38] Therefore, we exclude those effects from all savings reported throughout the body of this report. However, these effects must be evaluated and considered as part of cost-effectiveness testing and are therefore presented in this appendix.

In the following sections, the evaluation team focuses specifically on gas heating penalties as follows:

- **Lighting Heating Penalties.** The inclusion of waste heat factors for lighting is based on the concept that heating loads are increased to supplement the reduction in waste heat that was once provided by the existing, less-efficient lamp type. The evaluation team applied the IL-TRM waste heat factors to lamps, based on heating fuel types provided in the tracking database, to arrive at gross heating penalties. For the cases where tracking data did not provide the heating type, the team assumed natural gas heating, per the IL-TRM.

[37] *Illinois Energy Efficiency Policy Manual V3.0*, Section 7.7. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf.

[38] AIC is, however, required to account for *electric* heating penalties resulting from the installation of energy efficiency measures designed to save electricity, and those effects are accounted for throughout this report.

- **Furnace Blower Motor Heating Penalties.** High-efficiency fan motors operate at cooler temperatures than traditional furnace blower motors. The amount of heat that is released decreases due to cooler operating conditions. Heating equipment must compensate for this heat loss during the heating season, resulting in an increase in HVAC heating loads. The team applied IL-TRM algorithms to calculate the associated heating penalty.
- **Heat Pump Water Heater Heating Penalties.** When heat pump water heaters are installed in conditioned space, they move heat from the ambient air into water stored in a tank. During the heating season, this can increase HVAC heating loads. The team applied IL-TRM algorithms to calculate the associated heating penalty.

All gas heating penalties were calculated using algorithms from the IL-TRM V12.0 (with applicable errata applied).

SECONDARY ELECTRIC SAVINGS FOR WATER SUPPLY AND WASTEWATER TREATMENT

Some measures delivered through the Residential Program produce water savings as well as energy savings. For applicable measures, the IL-TRM V12.0 includes an algorithm to calculate the secondary electric impacts of these water savings resulting from decreased electricity usage for water supply and wastewater treatment. As directly instructed in the IL-TRM, these savings may be included toward goal attainment but must be removed for the purpose of cost-effectiveness calculations. This is because secondary electric savings occur due to the displaced energy usage needed to power the water supply and wastewater treatment systems, but water savings are also included in the Illinois Total Resource Cost (TRC) test as gallons of water saved, and avoided water costs include the effects of this displaced energy usage. As such, secondary electric savings are excluded from the Illinois TRC to avoid double counting.

Therefore, we present these savings separately in this appendix to provide transparency on the reduced savings used for cost-effectiveness testing. All secondary electric savings were calculated using algorithms from the IL-TRM V12.0.

ELECTRIFICATION IMPACTS

Some measures delivered through the Residential Program are subject to rules on counting electrification savings outlined in Illinois statute[39] and Policy Manual.[40] Energy savings for these measures included in the body of this report are expressed in kWh equivalents for goal attainment purposes and are not appropriate for cost-effectiveness testing. Therefore, we present the actual at-the-meter energy impacts caused by these measures separately in this appendix to provide transparency on the impacts used for cost-effectiveness testing. Note, the electric demand savings presented in the body of this report are accurate for use in cost-effectiveness testing; therefore, no revised values are presented here.

[39] 220 ILCS 5/8-103B(b-27).

[40] Illinois Energy Efficiency Stakeholder Advisory Group. *Illinois Energy Efficiency Policy Manual Version 3.0*, Section 12.3. 2023. Accessed at https://www.ilsag.info/wp-content/uploads/IL_EE_Policy_Manual_Version_3.0_Final_11-3-2023.pdf

RETAIL PRODUCTS INITIATIVE

ADDITIONAL FOSSIL FUEL IMPACTS

A portion of the advanced thermostats rebated through the Retail Products initiative went to participants with propane heating. Propane savings associated with 1,784 thermostats distributed to customers with propane heating are presented in Table 141.

Table 141. 2024 Retail Products Initiative Propane Savings by Measure

Channel	Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Income Qualified	Advanced Thermostat	31,120	101%	31,374	1.000	31,374
Market Rate	Advanced Thermostat	93,408	100%	93,874	0.900	84,487
Total		**124,528**	**101%**	**125,248**	**0.925**	**115,861**

GAS HEATING PENALTIES

Table 142 presents gas heating penalties not reported in the body of the report for the Retail Products Initiative.

Table 142. 2024 Retail Products Initiative Gas Heating Penalties

Channel	Measure Category	Therms
Income Qualified	Standard LED	-801,221
	Specialty LED	-323,002
	Fixture LED	-151,881
	Nightlight LED	-63,958
	Connected LED	-1,230
	Heat Pump Water Heater	-57
Market Rate	Fixture LED	-17,934
	Nightlight LED	-15,721
	Specialty LED	-5,433
	Heat Pump Water Heater	-150
Total		**-1,380,587**

SECONDARY ELECTRIC SAVINGS FOR WATER SUPPLY AND WASTEWATER TREATMENT

Table 143 presents water savings and secondary electric savings for the Retail Products Initiative.

Table 143. 2024 Retail Products Initiative Secondary Electric and Water Savings by Measure

Channel	Measure Category	Verified Gross Water Savings (Gallons)	Conversion Factor	Verified Gross Secondary Electric Savings (kWh)
Income Qualified	Showerhead Kit	7,624,213	5,010 kWh/million gal[a]	38,197
	Clothes Washer	1,972,766		9,884
	Showerhead	46,567		233
	Faucet Aerator	36,259		182
Market Rate	Showerhead Kit	4,232,672		21,206
	Clothes Washer	3,292,561		16,496
	Showerhead	106,659		534
	Faucet Aerator	71,315		357
Total		**17,383,012**		**87,089**

Source: IL-TRM V12.0.

TOTAL IMPACTS FOR COST-EFFECTIVENESS

Table 144 presents a summary of the 2024 Retail Products Initiative verified gross impacts adjusted for the above effects.

Table 144. 2024 Retail Products Initiative Verified Gross Impacts for Cost-Effectiveness

Metric	Electric Energy (kWh)	Gas (Therms)	Non-AIC Gas (Therms)	Propane (Therms)	Water (Gallons)
Verified Gross Impacts for Goal Attainment	101,763,947	1,561,230	N/A	N/A	N/A
Gas Penalties	N/A	-1,380,587	N/A	N/A	N/A
Water Savings	N/A	N/A	N/A	N/A	17,383,012
Secondary Electric Savings	-87,089	N/A	N/A	N/A	N/A
Additional Fossil Fuel Impacts	N/A	N/A	0	125,248	N/A
Final Verified Gross Impacts for Cost-Effectiveness	**101,676,858**	**180,643**	**0**	**125,248**	**17,383,012**

Note: All electric demand savings used in cost-effectiveness testing align with those presented in Section 3.

INCOME QUALIFIED INITIATIVE – SINGLE FAMILY OFFERINGS

ADDITIONAL FOSSIL FUEL IMPACTS

The Single Family, CAA, Joint Utility, and Smart Savers channels produced additional fossil fuel impacts, while MHAS and Healthier Home channels did not. AIC converted these savings to CPAS for the purposes of goal attainment. Those conversion-related savings are presented separately and detailed for each channel below.

In 2024, AIC implemented gas efficiency measures for eight AIC electric customers who receive gas service from other utilities as part of the Single Family channel. As allowed under 220 ILCS 5/8-103B(b-25), we verified non-AIC gas savings associated with these measures and present them in Table 145.

Table 145. 2024 Single Family Channel Non-AIC Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	61	918%	561	1.000	561
Pipe Insulation	20	100%	20	1.000	20
Total	**81**	**715%**	**582**	**1.000**	**582**

We discuss discrepancies between ex ante claims and the verified analysis for Joint Utility channel non-AIC gas savings as follows:

- Advanced Thermostats (75% of ex ante non-AIC gas savings): The gross realization rate for Advanced Thermostats was 918%.
  - In 86% of non-AIC gas measures (n=6), the evaluation team included gas savings when the tracking database specified the primary heating system was a natural gas furnace, whereas the implementation team did not, resulting in higher verified non-AIC gas savings.

Similarly, AIC also provided measures to two electric customers who use propane for heating. As allowed under 220 ILCS 5/8-103B(b-25), we verified propane savings associated with these measures and present them in Table 146.

Table 146. 2024 Single Family Channel Propane Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	37	100%	37	1.000	37
Attic Insulation	47	100%	47	1.000	47
Crawl Space Insulation	110	100%	110	1.000	110
Advanced Thermostat	73	100%	73	1.000	73
Rim Joist Insulation	11	100%	11	1.000	11
Total	**278**	**100%**	**278**	**1.000**	**278**

In 2024, AIC completed building envelope upgrades for two AIC electric customers who received gas service from other utilities as part of the CAA channel. As allowed under 220 ILCS 5/8-103B(b-25), we verified non-AIC gas savings associated with these measures and present them in Table 147.

Table 147. 2024 CAA Channel Non-AIC Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	45	100%	45	1.000	45
Attic Insulation	33	100%	33	1.000	33
Crawl Space Insulation	62	100%	62	1.000	62
Floor Insulation	161	100%	161	1.000	161
Wall Insulation	6	100%	6	1.000	6
Rim Joist Insulation	13	100%	13	1.000	13
Total	**320**	**100%**	**320**	**1.000**	**320**

Similarly, AIC completed building envelope upgrades for one AIC electric customer who used propane for heating. As allowed under 220 ILCS 5/8-103B(b-25), we verified propane savings associated with these measures and present them in Table 148.

Table 148. 2024 CAA Channel Propane Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	55	100%	55	1.000	55
Attic Insulation	54	100%	54	1.000	54
Total	**109**	**100%**	**109**	**1.000**	**109**

In 2024, AIC paid for gas measures included in one Joint Utility channel project as allowed under 220 ILCS 5/8-103B(b-25). Non-AIC gas savings associated with the Joint Utility channel are presented in Table 149.

Table 149. 2024 Joint Utility Channel Non-AIC Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Pipe Insulation	20	100%	20	1.000	20
Duct Sealing	153	100%	153	1.000	153
Air Sealing	61	100%	61	1.000	61
Floor Insulation	179	100%	179	1.000	179
Rim Joist Insulation	8	100%	8	1.000	8
Wall Insulation	33	100%	33	1.000	33
Total	**454**	**100%**	**454**	**1.000**	**454**

In 2024, AIC provided advanced thermostats to one AIC electric customers who received gas service from other utilities as part of the Smart Savers Channel. As allowed under 220 ILCS 5/8-103B(b-25), we verified non-AIC gas savings associated with these measures and present them in Table 150.

Table 150. 2024 Smart Savers Channel Non-AIC Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Advanced Thermostat	0	N/A	85	1.000	85
Total	**0**	**N/A**	**85**	**1.000**	**85**

Similarly, AIC also provided advanced thermostats to seven AIC electric customers who use propane for heating. As allowed under 220 ILCS 5/8-103B(b-25), we verified propane savings associated with these measures and present them in Table 151.

Table 151. 2024 Smart Savers Channel Propane Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Terms)
Advanced Thermostat	487	100%	487	1.000	487
Total	**487**	**100%**	**487**	**1.000**	**487**

GAS HEATING PENALTIES

Table 152 presents gas penalties not reported in the body of the report for the Income Qualified Initiative – Single Family Offerings. The Smart Savers Channel did not produce gas penalties.

Table 152. 2024 Income Qualified Initiative – Single Family Gas Heating Penalties

Channel	Measure Category	Therms
Single Family	Standard LED	-7,720
	Specialty LED	-2,688
	Furnace Blower Motor	-2,129
	Heat Pump Water Heater	-39
	Tree Planting	-2
CAA	Standard LED	-1,735
	Furnace Blower Motor	-483
	Heat Pump Water Heater	-12
	Specialty LED	-90
Joint Utility	Standard LED	-205
	Specialty LED	-17
	Furnace Blower Motor	-57
MHAS	Furnace Blower Motor	-295
Healthier Homes	Standard LED	-110
	Specialty LED	-33
	Connected LED	-12
	Furnace Blower Motor	-50
Electrification	Heat Pump Water Heater	-11
Total		**-15,689**

SECONDARY ELECTRIC SAVINGS FOR WATER SUPPLY AND WASTEWATER TREATMENT

Table 153 presents water savings and secondary electric savings for the IQ Initiative Single Family Offerings. The Smart Savers, MHAS, and Electrification channels did not produce secondary electric savings for water supply and wastewater treatment in 2024.

Table 153. 2024 Income Qualified Initiative – Single Family Secondary Electric and Water Savings by Measure

Channel	Measure Category	Verified Gross Water Savings (Gallons)	Conversion Factor	Verified Gross Secondary Electric Savings (kWh)
Single Family	Low Flow Showerhead	901,577	5,010 kWh/million gal[a]	4,517
	Faucet Aerator	1,617,788		8,105
CAA	Low Flow Showerhead	174,486		874
	Faucet Aerator	134,744		675
Joint Utility	Low Flow Showerhead	92,710		464
	Faucet Aerator	107,714		540
Healthier Homes	Low Flow Showerhead	6,947		35
	Faucet Aerator	7,119		36
Total		**3,043,084**		**15,246**

Source: IL-TRM V12.0.

ELECTRIFICATION IMPACTS

Table 154, Table 155, and Table 156 provide a summary of at-the-meter verified electric energy, natural gas, and propane impacts for the 2024 IQ Electrification channel to be used in cost-effectiveness testing.

Table 154. Electrification Channel Electric Energy Impacts by Measure

Measure Category	Ex Ante Gross Impacts (kWh)	Gross Realization Rate	Verified Gross Impacts (kWh)	NTGR	Verified Net Impacts (kWh)
Air Source Heat Pump (ER, Electrification)	-90,611	92%	-83,754	1.000	-83,754
Heat Pump Water Heater (ER, Electrification)	-9,559	100%	-9,559	1.000	-9,559
Attic Insulation	2,483	100%	2,483	1.000	2,483
Air Sealing	3,267	100%	3,267	1.000	3,267
Crawl Space Insulation	1,055	100%	1,055	1.000	1,055
Ductless Heat Pump (Electrification)	-3,747	91%	-3,394	1.000	-3,394
Advanced Thermostats (Electrification)	5,613	100%	5,613	1.000	5,613
Basement Sidewall Insulation	310	100%	310	1.000	310
Rim Joist Insulation	221	100%	221	1.000	221
Kneewall Insulation	153	100%	153	1.000	153
Induction Cooktop (Electrification)	-1,111	85%	-947	1.000	-947
Heat Pump Dryer (Electrification)	421	-100%	-421	1.000	-421
Total	**-91,504**	**93%**	**-84,972**	**1.000**	**-84,972**

Table 155. Electrification Channel Gas Impacts by Measure

Measure Category	Ex Ante Gross Impacts (Therms)	Gross Realization Rate	Verified Gross Impacts (Therms)	NTGR	Verified Net Impacts (Therms)
Air Source Heat Pump (ER, Electrification)	544	100%	544	1.000	544
Heat Pump Water Heater (ER, Electrification)	1,594	100%	1,594	1.000	1,594
Total	**2,138**	**100%**	**2,138**	**1.000**	**2,138**

Table 156. Electrification Channel Propane Impacts by Measure

Measure Category	Ex Ante Gross Impacts (Therms)	Gross Realization Rate	Verified Gross Impacts (Therms)	NTGR	Verified Net Impacts (Therms)
Air Source Heat Pump (ER, Electrification)	9,803	100%	9,803	1.000	9,803
Heat Pump Water Heater (ER, Electrification)	794	100%	794	1.000	794
Attic Insulation	700	100%	700	1.000	700
Air Sealing	545	100%	545	1.000	545
Crawl Space Insulation	519	100%	519	1.000	519
Ductless Heat Pump (Electrification)	427	100%	427	1.000	427
Basement Sidewall Insulation	164	100%	164	1.000	164
Rim Joist Insulation	94	100%	94	1.000	94
Kneewall Insulation	48	100%	48	1.000	48
Induction Cooktop (Electrification)	85	100%	85	1.000	85

Measure Category	Ex Ante Gross Impacts (Therms)	Gross Realization Rate	Verified Gross Impacts (Therms)	NTGR	Verified Net Impacts (Therms)
Heat Pump Dryer (Electrification)	29	84%	24	1.000	24
Total	**13,209**	**100%**	**13,204**	**1.000**	**13,204**

TOTAL IMPACTS FOR COST-EFFECTIVENESS

Table 157 presents a summary of the 2024 Income Qualified Initiative Single Family Offerings verified gross impacts adjusted for the above effects.

Table 157. 2024 Income Qualified Initiative – Single Family Verified Gross Impacts for Cost-Effectiveness

Metric	Electric Energy (kWh)	Gas (Therms)	Non-AIC Gas (Therms)	Propane (Therms)	Water (Gallons)
Verified Gross Impacts for Goal Attainment	6,971,521	544,393	N/A	N/A	N/A
Gas Penalties	N/A	-15,689	N/A	N/A	N/A
Water Savings	N/A	N/A	N/A	N/A	3,043,084
Secondary Electric Savings	-15,246	N/A	N/A	N/A	N/A
Additional Fossil Fuel Impacts	N/A	N/A	987	874	N/A
Electrification Conversions[a]	-449,623	2,138	0	13,204	0
Final Verified Gross Impacts for Cost-Effectiveness	**6,506,652**	**530,843**	**987**	**14,078**	**3,043,084**

Note: All electric demand savings used in cost-effectiveness testing align with those presented in Section 3.

[a] Inclusive of both subsection (b-27) conversions as well as Policy Manual Section 12.3 conversions.

MULTIFAMILY INITIATIVES

ADDITIONAL FOSSIL FUEL IMPACTS

There were no additional fossil fuel impacts for the Multifamily Initiatives.

GAS HEATING PENALTIES

Table 158 presents gas penalties not reported in the body of the report for the Multifamily Initiatives.

Table 158. 2024 Multifamily Initiatives Gas Heating Penalties

Initiative/Channel	Measure Category	Therms
IQ Multifamily	Standard LED (Common Area)	-7,917
	Standard LED	-2,440
	Specialty LED	-298
	Specialty LED (Common Area)	-990
Public Housing	Standard LED	-859
	Specialty LED	-31
Total		**-12,535**

SECONDARY ELECTRIC SAVINGS FOR WATER SUPPLY AND WASTEWATER TREATMENT

Table 159 presents water savings and secondary electric savings for the Multifamily Initiatives.

Table 159. 2024 Multifamily Initiatives Secondary Electric and Water Savings by Measure

Initiative/Channel	Measure Category	Verified Gross Water Savings (Gallons)	Conversion Factor	Verified Gross Secondary Electric Savings (kWh)
IQ Multifamily	Showerhead	8,841,023	5,010 kWh/million gal[a]	44,294
	Kitchen Faucet Aerator	6,785,899		33,997
	Restrictor Shower Valve	1,560,153		7,816
	Bathroom Faucet Aerator	1,368,860		6,858
Multifamily MR	Showerhead	2,942,431		14,742
	Kitchen Faucet Aerator	1,217,641		6,100
	Bathroom Faucet Aerator	373,730		1,872
	Restrictor Shower Valve	329,099		1,649
Public Housing	Kitchen Faucet Aerator	1,234,253		6,184
	Showerhead	927,846		4,649
	Bathroom Faucet Aerator	218,581		1,095
	Restrictor Shower Valve	115,387		578
Total		**25,914,903**		**129,834**

Source: IL-TRM V12.0.

TOTAL IMPACTS FOR COST-EFFECTIVENESS

Table 160 presents a summary of the 2024 Multifamily Initiatives verified gross impacts adjusted for the above effects.

Table 160. 2024 Multifamily Initiatives Verified Gross Impacts for Cost-Effectiveness

Metric	Electric Energy (kWh)	Gas (Therms)	Non-AIC Gas (Therms)	Propane (Therms)	Water (Gallons)
Verified Gross Impacts for Goal Attainment	14,665,476	83,357	N/A	N/A	N/A
Gas Penalties	N/A	-12,535	N/A	N/A	N/A
Water Savings	N/A	N/A	N/A	N/A	25,914,903
Secondary Electric Savings	-129,834	N/A	N/A	N/A	N/A
Additional Fossil Fuel Impacts	N/A	N/A	0	0	N/A
Final Verified Gross Impacts for Cost-Effectiveness	**14,535,642**	**70,822**	**0**	**0**	**25,914,903**

Note: All electric demand savings used in cost-effectiveness testing align with those presented in Section 3.

MARKET RATE SINGLE FAMILY INITIATIVE

ADDITIONAL FOSSIL FUEL IMPACTS

In 2024, AIC provided a variety of measures to one AIC electric customer who received gas service from other utilities as part of the Home Efficiency channel. As allowed under 220 ILCS 5/8-103B(b-25), we verified non-AIC gas savings associated with these measures and present them in Table 161.

Table 161. 2024 Home Efficiency Channel Non-AIC Gas Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Attic Insulation	29	100%	29	0.800	23
Air Sealing	60	100%	60	0.900	54
Crawlspace Insulation	68	100%	68	0.800	54
Wall Insulation	4	100%	4	0.800	3
Rim Joist Insulation	11	100%	11	0.800	9
Total	**172**	**100%**	**172**	**0.835**	**144**

Similarly, AIC also provided air sealing and rim joist insulation to one AIC electric customer who used propane for heating as part of the Home Efficiency channel. As allowed under 220 ILCS 5/8-103B(b-25), we verified propane savings associated with these measures and present them in Table 162.

Table 162. 2024 Home Efficiency Channel Propane Savings by Measure

Measure Category	Ex Ante Gross Savings (Therms)	Gross Realization Rate	Verified Gross Savings (Therms)	NTGR	Verified Net Savings (Therms)
Air Sealing	29	100%	29	0.800	24
Rim Joist Insulation	14	100%	14	0.800	11
Total	**43**	**100%**	**43**	**0.800**	**35**

GAS HEATING PENALTIES

Table 163 presents gas penalties not reported in the body of the report for the Market Rate Single Family Initiative.

Table 163. 2024 Market Rate Single Family Initiative Gas Heating Penalties

Channel	Measure Category	Therms
Midstream HVAC	Heat Pump Water Heater	-223
Total Gas Penalties		**-223**

SECONDARY ELECTRIC SAVINGS FOR WATER SUPPLY AND WASTEWATER TREATMENT

There were no water savings or secondary electric savings for the Market Rate Single Family Initiative.

TOTAL IMPACTS FOR COST-EFFECTIVENESS

Table 164 presents a summary of the 2024 Market Rate Single Family Initiative verified gross impacts adjusted for the above effects.

Table 164. 2024 Market Rate Single Family Initiative Verified Gross Impacts for Cost-Effectiveness

Metric	Electric Energy (kWh)	Gas (Therms)	Non-AIC Gas (Therms)	Propane (Therms)	Water (Gallons)
Verified Gross Impacts for Goal Attainment	9,895,199	385,064	N/A	N/A	N/A
Gas Penalties	N/A	-223	N/A	N/A	N/A
Water Savings	N/A	N/A	N/A	N/A	0
Secondary Electric Savings	0	N/A	N/A	N/A	N/A
Additional Fossil Fuel Impacts	N/A	N/A	172	43	N/A
Final Verified Gross Impacts for Cost-Effectiveness	**9,895,199**	**384,842**	**172**	**43**	**0**

Note: All electric demand savings used in cost-effectiveness testing align with those presented in Section 3.

KITS INITIATIVES

ADDITIONAL FOSSIL FUEL IMPACTS

There were no additional fossil fuel impacts for the Kits Initiatives.

GAS HEATING PENALTIES

Table 165 presents gas penalties not reported in the body of the report for the Kits Initiatives.

Table 165. 2024 Kits Initiatives Gas Heating Penalties

Channel/Kit	Measure Category	Therms
Full School Kits	Specialty LED	-37,902
	Connected LED	-587
Joint Utility School Kits	Specialty LED	-5,985
High School Innovation Kits	Specialty LED	-7,520
	LED Desk Lamp	-1,566
IQ Community Kits	Standard LED	-15,416
Mobile Homes Kits	Standard LED	-2,492
BN Community Kits	Standard LED	-334
	Connected LED	-382
	LED Desk Lamp	-143
Food Bank Holiday Kits	Standard LED	-22,114
Total		**-94,440**

SECONDARY ELECTRIC SAVINGS FOR WATER SUPPLY AND WASTEWATER TREATMENT

Table 166 presents water savings and secondary electric savings for the Kits Initiatives.

Table 166. 2024 Kits Initiatives Secondary Electric and Water Savings by Measure

Channel/Kit	Measure Category	Verified Gross Water Savings (Gallons)	Conversion Factor	Verified Gross Secondary Electric Savings (kWh)
Full School Kits	Showerhead	27,005,888	5,010 kWh/million gal[a]	135,299
	Kitchen Faucet Aerator	22,810,767		114,282
	Shower Timer	11,930,074		59,770
	Bathroom Faucet Aerator	3,289,357		16,480
Joint Utility School Kits	Showerhead	4,363,252		21,860
	Kitchen Faucet Aerator	3,685,460		18,464
	Shower Timer	1,927,503		9,657
	Bathroom Faucet Aerator	527,282		2,642
High School Innovation Kits	Showerhead	5,546,324		27,787
	Bathroom Faucet Aerator	659,901		3,306
IQ Community Kits	Showerhead	6,174,745		30,935
	Kitchen Faucet Aerator	2,840,583		14,231
	Bathroom Faucet Aerator	812,810		4,072
Mobile Home Kits	Showerhead	453,218		2,271
	Kitchen Faucet Aerator	330,541		1,656
	Thermostatic Restrictor Shower Valve	91,259		457
	Bathroom Faucet Aerator	80,394		403
Total		**92,529,357**		**463,572**

Source: IL-TRM V12.0.

TOTAL IMPACTS FOR COST-EFFECTIVENESS

Table 167 presents a summary of the 2024 Kits Initiatives verified gross impacts adjusted for the above effects.

Table 167. 2024 Kits Initiatives Verified Gross Impacts for Cost-Effectiveness

Metric	Electric Energy (kWh)	Gas (Therms)	Non-AIC Gas (Therms)	Propane (Therms)	Water (Gallons)
Verified Gross Impacts for Goal Attainment	13,789,206	264,184	N/A	N/A	N/A
Gas Penalties	N/A	-94,440	N/A	N/A	N/A
Water Savings	N/A	N/A	N/A	N/A	92,529,357
Secondary Electric Savings	-463,572	N/A	N/A	N/A	N/A
Additional Fossil Fuel Impacts	N/A	0	0	0	N/A
Final Verified Gross Impacts for Cost-Effectiveness	**13,325,634**	**169,744**	**0**	**0**	**92,529,357**

Note: All electric demand savings used in cost-effectiveness testing align with those presented in Section 3.

APPENDIX C. CUMULATIVE PERSISTING ANNUAL SAVINGS

This appendix presents detailed CPAS for the Residential Program initiatives and channels. Due to many years of CPAS, tables are challenging to read; please reference the separately provided CPAS spreadsheet for additional detail as needed.

RESIDENTIAL PROGRAM

Table 168 provides CPAS for the 2024 Residential Program through 2055. Lifetime savings for the 2024 Residential Program are 1,478,490 MWh.

Table 168. 2024 Residential Program CPAS and WAML

Initiative	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)														
				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Retail Products	9.2	101,764	0.891	90,679	90,679	90,679	90,679	90,672	90,656	90,656	84,495	30,884	26,225	23,038	8,707	7,790	7,790	7,486	838
Income Qualified - Single Family Offerings	15.3	6,972	1.000	6,971	6,971	6,971	6,970	6,970	6,970	6,161	5,835	5,171	4,430	4,034	3,406	3,397	3,397	3,397	2,977
Multifamily	13.0	14,665	0.993	14,558	14,558	14,558	14,558	14,558	14,558	14,288	13,970	12,854	11,659	9,183	6,831	6,831	6,831	6,831	6,425
Market Rate Single Family	16.1	11,492	0.780	8,964	8,964	8,964	8,964	8,964	8,964	8,964	8,964	8,964	8,964	8,949	8,639	8,639	8,639	8,639	8,170
Kits	9.3	13,789	1.000	13,789	13,789	12,825	12,825	12,825	12,825	12,825	11,259	6,280	6,280	1,477	1,477	1,477	1,477	1,477	1,017
Carryover	9.7	10,264	0.813	8,347	8,347	8,347	8,347	6,351	6,206	6,139	4,998	4,944	4,944	72	72	72	72	57	0
Res NPSO	12.2	891	N/A	891	891	891	891	829	824	821	761	746	715	648	308	295	295	290	236
Residential (b-25) Conversions	11.6	991	0.999	990	990	990	990	990	990	990	990	990	990	990	35	35	35	35	34
2024 Portfolio CPAS		**160,828**	**0.903**	**145,189**	**145,189**	**144,225**	**144,224**	**142,159**	**141,992**	**140,843**	**131,271**	**70,833**	**64,208**	**48,391**	**29,475**	**28,536**	**28,536**	**28,212**	**19,699**
Expiring 2024 Portfolio CPAS				**0**	**0**	**964**	**1**	**2,064**	**167**	**1,149**	**9,573**	**60,438**	**6,626**	**15,817**	**18,916**	**939**	**0**	**324**	**8,513**
Expired 2024 Portfolio CPAS				**0**	**0**	**964**	**965**	**3,030**	**3,196**	**4,346**	**13,918**	**74,356**	**80,981**	**96,798**	**115,714**	**116,653**	**116,653**	**116,977**	**125,490**

Initiative	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)														
				2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Retail Products	9.2	101,764	0.891	646	646	646	538	25	0	0	0	0	0	0	0	0	0	0	0
Income Qualified - Single Family Offerings	15.3	6,972	1.000	1,543	1,543	1,500	1,291	743	743	743	743	743	743	743	743	743	743	0	0
Multifamily	13.0	14,665	0.993	386	386	386	386	93	93	93	93	93	93	93	93	93	93	0	0
Market Rate Single Family	16.1	11,492	0.780	944	944	104	89	58	58	58	58	58	58	58	58	58	58	0	0
Kits	9.3	13,789	1.000	1,017	1,017	1,017	1,017	0	0	0	0	0	0	0	0	0	0	0	0
Carryover	9.7	10,264	0.813	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Res NPSO	12.2	891	N/A	39	39	15	12	2	2	2	2	2	2	2	2	2	2	0	0
Residential (b-25) Conversions	11.6	991	0.999	34	34	34	34	24	24	24	24	24	24	24	24	24	24	0	0
2024 Portfolio CPAS		**160,828**	**0.903**	**4,610**	**4,610**	**3,702**	**3,368**	**945**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**0**	**0**
Expiring 2024 Portfolio CPAS				**15,088**	**0**	**908**	**334**	**2,423**	**25**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**919**	**0**
Expired 2024 Portfolio CPAS				**140,579**	**140,579**	**141,487**	**141,821**	**144,244**	**144,270**	**144,270**	**144,270**	**144,270**	**144,270**	**144,270**	**144,270**	**144,270**	**144,270**	**145,189**	**145,189**
WAML	**10.4**																		

RETAIL PRODUCTS INITIATIVE

Table 169 provides CPAS for the 2024 Retail Products Initiative through 2046. Lifetime savings for the Initiative are 834,454 MWh.

Table 169. 2024 Retail Products Initiative CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)											
				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Income Qualified	8.8	82,948	0.905	75,061	75,061	75,061	75,061	75,061	75,061	75,061	70,669	17,537	13,867	11,009	6,496
Market Rate	11.0	18,816	0.830	15,618	15,618	15,618	15,618	15,611	15,595	15,595	13,826	13,347	12,358	12,029	2,211
2024 CPAS		**101,764**	**0.891**	**90,679**	**90,679**	**90,679**	**90,679**	**90,672**	**90,656**	**90,656**	**84,495**	**30,884**	**26,225**	**23,038**	**8,707**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**7**	**16**	**0**	**6,161**	**53,611**	**4,659**	**3,187**	**14,332**
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**7**	**23**	**23**	**6,184**	**59,794**	**64,454**	**67,640**	**81,972**

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)											
				2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Income Qualified	8.8	82,948	0.905	5,996	5,996	5,842	370	295	295	295	250	15	0	0	0
Market Rate	11.0	18,816	0.830	1,794	1,794	1,644	468	351	351	351	288	10	0	0	0
2024 CPAS		**101,764**	**0.891**	**7,790**	**7,790**	**7,486**	**838**	**646**	**646**	**646**	**538**	**25**	**0**	**0**	**0**
Expiring 2024 CPAS				**917**	**0**	**304**	**6,648**	**192**	**0**	**0**	**108**	**513**	**25**	**0**	**0**
Expired 2024 CPAS				**82,889**	**82,889**	**83,193**	**89,841**	**90,033**	**90,033**	**90,033**	**90,141**	**90,654**	**90,679**	**90,679**	**90,679**
WAML	**9.2**														

INCOME QUALIFIED INITIATIVE – SINGLE FAMILY OFFERINGS

Table 170 provides CPAS for the 2024 Income Qualified Initiative – Single Family Offerings through 2055. Lifetime savings for the Initiative are 97,327 MWh.

Table 170. 2024 Income Qualified Initiative – Single Family Offerings CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)														
				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Single Family	14.8	4,857	1.000	4,857	4,857	4,857	4,857	4,857	4,857	4,209	3,943	3,442	2,701	2,464	2,266	2,260	2,260	2,260	1,963
CAA	17.9	852	1.000	852	852	852	851	851	851	771	771	627	627	527	522	519	519	519	461
Joint Utility	17.9	169	1.000	169	169	169	169	169	169	169	153	140	140	94	88	88	88	88	86
Healthier Homes	15.7	41	1.000	41	41	41	41	41	41	27	26	19	19	17	15	15	15	15	15
Smart Savers	11.0	390	0.998	389	389	389	389	389	389	389	389	389	389	389	0	0	0	0	0
MHAS	17.3	297	1.000	297	297	297	297	297	297	244	244	244	244	233	211	211	211	211	208
Electrification	17.8	365	1.000	365	365	365	365	365	365	352	309	309	309	309	304	304	304	304	243
2024 CPAS		**6,972**	**1.000**	**6,971**	**6,971**	**6,971**	**6,970**	**6,970**	**6,970**	**6,161**	**5,835**	**5,171**	**4,430**	**4,034**	**3,406**	**3,397**	**3,397**	**3,397**	**2,977**
Expiring 2024 CPAS				**0**	**0**	**0**	**1**	**0**	**0**	**809**	**326**	**664**	**741**	**396**	**628**	**9**	**0**	**0**	**419**
Expired 2024 CPAS				**0**	**0**	**0**	**1**	**1**	**1**	**810**	**1,136**	**1,800**	**2,541**	**2,937**	**3,565**	**3,574**	**3,574**	**3,574**	**3,993**

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)															
				2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Single Family	14.8	4,857	1.000	930	930	888	729	468	468	468	468	468	468	468	468	468	468	0	0
CAA	17.9	852	1.000	358	358	358	319	169	169	169	169	169	169	169	169	169	169	0	0
Joint Utility	17.9	169	1.000	86	86	86	86	7	7	7	7	7	7	7	7	7	7	0	0
Healthier Homes	15.7	41	1.000	11	11	9	7	3	3	3	3	3	3	3	3	3	3	0	0
Smart Savers	11.0	390	0.998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MHAS	17.3	297	1.000	89	89	89	81	46	46	46	46	46	46	46	46	46	46	0	0
Electrification	17.8	365	1.000	68	68	68	68	49	49	49	49	49	49	49	49	49	49	0	0
2024 CPAS		**6,972**	**1.000**	**1,543**	**1,543**	**1,500**	**1,291**	**743**	**743**	**743**	**743**	**743**	**743**	**743**	**743**	**743**	**743**	**0**	**0**
Expiring 2024 CPAS				**1,435**	**0**	**43**	**209**	**548**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**743**	**0**
Expired 2024 CPAS				**5,428**	**5,428**	**5,471**	**5,680**	**6,228**	**6,228**	**6,228**	**6,228**	**6,228**	**6,228**	**6,228**	**6,228**	**6,228**	**6,228**	**6,971**	**6,971**
WAML	**15.3**																		

MULTIFAMILY INITIATIVES

Table 171 provides CPAS for the 2024 Multifamily Initiatives through 2055. Lifetime savings for the Initiatives are 185,525 MWh.

Table 171. 2024 Multifamily Initiatives CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)															
				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Income Qualified - Multifamily	12.9	11,136	1.000	11,136	11,136	11,136	11,136	11,136	11,136	10,892	10,694	9,678	8,483	6,703	5,440	5,440	5,440	5,440	5,144
Multifamily Market Rate	12.1	2,159	0.950	2,052	2,052	2,052	2,052	2,052	2,052	2,025	1,938	1,938	1,938	1,459	511	511	511	511	437
Public Housing	14.7	1,371	1.000	1,371	1,371	1,371	1,371	1,371	1,371	1,371	1,338	1,239	1,239	1,021	880	880	880	880	844
2024 CPAS		**14,665**	**0.993**	**14,558**	**14,558**	**14,558**	**14,558**	**14,558**	**14,558**	**14,288**	**13,970**	**12,854**	**11,659**	**9,183**	**6,831**	**6,831**	**6,831**	**6,831**	**6,425**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**0**	**0**	**270**	**318**	**1,115**	**1,195**	**2,477**	**2,351**	**0**	**0**	**0**	**406**
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**0**	**0**	**270**	**589**	**1,704**	**2,899**	**5,376**	**7,727**	**7,727**	**7,727**	**7,727**	**8,133**

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS (Verified Net MWh)															
				2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Income Qualified - Multifamily	12.9	11,136	1.000	229	229	229	229	16	16	16	16	16	16	16	16	16	16	0	0
Multifamily Market Rate	12.1	2,159	0.950	22	22	22	22	0	0	0	0	0	0	0	0	0	0	0	0
Public Housing	14.7	1,371	1.000	135	135	135	135	77	77	77	77	77	77	77	77	77	77	0	0
2024 CPAS		**14,665**	**0.993**	**386**	**386**	**386**	**386**	**93**	**93**	**93**	**93**	**93**	**93**	**93**	**93**	**93**	**93**	**0**	**0**
Expiring 2024 CPAS				**6,039**	**0**	**0**	**0**	**294**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**93**	**0**
Expired 2024 CPAS				**14,172**	**14,172**	**14,172**	**14,172**	**14,466**	**14,466**	**14,466**	**14,466**	**14,466**	**14,466**	**14,466**	**14,466**	**14,466**	**14,466**	**14,558**	**14,558**
WAML	**13.0**																		

MARKET RATE SINGLE FAMILY INITIATIVE

Table 172 provides CPAS for the 2024 Market Rate Single Family Initiative through 2055. Lifetime savings for the Initiative are 143,976 MWh.

Table 172. 2024 Market Rate Single Family Initiative CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)															
				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Midstream HVAC	16.0	9,753	0.743	7,248	7,248	7,248	7,248	7,248	7,248	7,248	7,248	7,248	7,248	7,248	7,038	7,038	7,038	7,038	6,619
Midstream HVAC Market Effects	15.7	1,597	N/A	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,497	1,497	1,497	1,497	1,447
Home Efficiency	25.7	143	0.830	118	118	118	118	118	118	118	118	118	118	104	104	104	104	104	104
2024 CPAS		**11,492**	**0.780**	**8,964**	**8,964**	**8,964**	**8,964**	**8,964**	**8,964**	**8,964**	**8,964**	**8,964**	**8,964**	**8,949**	**8,639**	**8,639**	**8,639**	**8,639**	**8,170**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**310**	**0**	**0**	**0**	**469**
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**325**	**325**	**325**	**325**	**794**

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)															
				2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Midstream HVAC	16.0	9,753	0.743	770	770	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Midstream HVAC Market Effects	15.7	1,597	N/A	71	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Home Efficiency	25.7	143	0.830	104	104	104	89	58	58	58	58	58	58	58	58	58	58	0	0
2024 CPAS		**11,492**	**0.780**	**944**	**944**	**104**	**89**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**0**	**0**
Expiring 2024 CPAS				**7,225**	**0**	**841**	**14**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**58**	**0**
Expired 2024 CPAS				**8,019**	**8,019**	**8,860**	**8,874**	**8,905**	**8,905**	**8,905**	**8,905**	**8,905**	**8,905**	**8,905**	**8,905**	**8,905**	**8,905**	**8,964**	**8,964**
WAML	**16.1**																		

KITS INITIATIVES

Table 173 provides CPAS for the 2024 Kits Initiatives through 2045. Lifetime savings for the Initiatives are 127,993 MWh.

Table 173. 2024 Kits Initiatives CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)										
				2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
School Kits	9.5	7,827	1.000	7,827	7,827	6,962	6,962	6,962	6,962	6,962	6,457	4,520	4,520	962
Joint Utility School Kits	9.6	1,028	1.000	1,028	1,028	929	929	929	929	929	847	541	541	134
High School Innovation	10.9	1,152	1.000	1,152	1,152	1,152	1,152	1,152	1,152	1,152	1,152	687	687	231
Community Kits	9.1	1,665	1.000	1,665	1,665	1,665	1,665	1,665	1,665	1,665	1,407	487	487	149
Mobile Home Kits	8.2	216	1.000	216	216	216	216	216	216	216	186	35	35	0
BN Community Kits	7.9	110	1.000	110	110	110	110	110	110	110	74	10	10	0
Food Bank Kits	7.6	1,792	1.000	1,792	1,792	1,792	1,792	1,792	1,792	1,792	1,135	0	0	0
2024 CPAS		**13,789**	**1.000**	**13,789**	**13,789**	**12,825**	**12,825**	**12,825**	**12,825**	**12,825**	**11,259**	**6,280**	**6,280**	**1,477**
Expiring 2024 CPAS				**0**	**0**	**964**	**0**	**0**	**0**	**0**	**1,566**	**4,978**	**0**	**4,804**
Expired 2024 CPAS				**0**	**0**	**964**	**964**	**964**	**964**	**964**	**2,531**	**7,509**	**7,509**	**12,313**

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)										
				2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
School Kits	9.5	7,827	1.000	962	962	962	962	697	697	697	697	697	0	0
High School Innovation	10.9	1,152	1.000	231	231	231	231	158	158	158	158	158	0	0
Mobile Home Kits	8.2	216	1.000	0	0	0	0	0	0	0	0	0	0	0
Community Kits	9.1	1,665	1.000	149	149	149	149	58	58	58	58	58	0	0
Joint Utility School Kits	9.6	1,028	1.000	134	134	134	134	105	105	105	105	105	0	0
BN Community Kits	7.9	110	1.000	0	0	0	0	0	0	0	0	0	0	0
Food Bank Kits	7.6	1,792	1.000	0	0	0	0	0	0	0	0	0	0	0
2024 CPAS		**13,789**	**1.000**	**1,477**	**1,477**	**1,477**	**1,477**	**1,017**	**1,017**	**1,017**	**1,017**	**1,017**	**0**	**0**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**459**	**0**	**0**	**0**	**0**	**1,017**	**0**
Expired 2024 CPAS				**12,313**	**12,313**	**12,313**	**12,313**	**12,772**	**12,772**	**12,772**	**12,772**	**12,772**	**13,789**	**13,789**
WAML	**9.3**													

CARRYOVER

Table 174 provides 2024 Residential Program CPAS achieved through carryover through 2041. Lifetime savings from Residential Program carryover are 114,306 MWh.

Table 174. 2024 Residential Program Carryover CPAS and WAML

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)								
				2024	2025	2026	2027	2028	2029	2030	2031	2032
Retail Products IQ Carryover	10.0	4,663	0.908	4,236	4,236	4,236	4,236	4,236	4,236	4,236	3,284	3,252
Retail Products MR Carryover	9.4	5,196	0.713	3,706	3,706	3,706	3,706	1,711	1,565	1,498	1,411	1,409
Income Qualified Carryover	10.0	32	1.000	32	32	32	32	32	32	32	24	24
Kits Carryover	9.9	373	1.000	373	373	373	373	373	373	373	279	260
2024 CPAS		**10,264**	**0.813**	**8,347**	**8,347**	**8,347**	**8,347**	**6,351**	**6,206**	**6,139**	**4,998**	**4,944**
Expiring 2024 CPAS				**0**	**0**	**0**	**0**	**1,996**	**146**	**67**	**1,141**	**54**
Expired 2024 CPAS				**0**	**0**	**0**	**0**	**1,996**	**2,141**	**2,208**	**3,349**	**3,403**

Channel	WAML	Annual Verified Gross Savings (MWh)	NTGR	CPAS - Verified Net Savings (MWh)								
				2033	2034	2035	2036	2037	2038	2039	2040	2041
Retail Products IQ Carryover	10.0	4,663	0.908	3,252	0	0	0	0	0	0	0	0
Retail Products MR Carryover	9.4	5,196	0.713	1,409	72	72	72	72	57	0	0	0
Income Qualified Carryover	10.0	32	1.000	24	0	0	0	0	0	0	0	0
Kits Carryover	9.9	373	1.000	260	0	0	0	0	0	0	0	0
2024 CPAS		**10,264**	**0.813**	**4,944**	**72**	**72**	**72**	**72**	**57**	**0**	**0**	**0**
Expiring 2024 CPAS				**0**	**4,872**	**0**	**0**	**0**	**15**	**57**	**0**	**0**
Expired 2024 CPAS				**3,403**	**8,275**	**8,275**	**8,275**	**8,275**	**8,290**	**8,347**	**8,347**	**8,347**
WAML	**9.7**											

APPENDIX D. MULTIFAMILY INITIATIVES PARTICIPATION SUMMARIES

In 2024, the Illinois Program Administrators and non-financially interested stakeholders reached an agreement on a set of IQ Multifamily metrics that each utility must report on annually.[41] The evaluation team therefore conducted additional participation analyses based on 2024 tracking data to characterize the agreed upon metrics, presented in this appendix.

IQ MULTIFAMILY CHANNEL

Most of the properties served by the IQ Multifamily channel in 2024 were buildings with 20 tenant units or less (120), while 42 properties had between 20 to 49 tenant units, and 36 had 50 or more tenant units (Table 175).

Table 175. 2024 IQ Multifamily Channel Building Types Treated

Building Size	Housing Type	Number of Properties	Number of Buildings	Number of Tenant Units
Buildings < 20 Units	**Total Buildings < 20 Units**	**120**	**212**	**1,040**
	Subsidized	36	82	370
	Unsubsidized	84	130	670
Buildings 20 – 49 Units	**Total Buildings 20 – 49 Units**	**42**	**194**	**1,284**
	Subsidized	23	99	687
	Unsubsidized	19	95	597
Buildings ≥ 50 Units	**Total Buildings ≥ 50 Units**	**36**	**1,165**	**5,886**
	Subsidized	15	151	1,906
	Unsubsidized	21	1,014	3,980

Notes: For evaluation purposes, the Public Housing Initiative participation summary is reported in Section 3.3.5.
The program tracking data currently lacks data to accurately identify properties, buildings, and/or tenant units with primary or individual central heating systems. As such, this table reports on the total number of properties, buildings, and tenant units.

[41] Illinois Energy Efficiency Stakeholder Advisory Group. *Illinois Energy Efficiency Policy Manual Version 3.0*. "Income Qualified Multi-Family Reporting Principles Policy." June 20,2024. Accessed at https://www.ilsag.info/wp-content/uploads/IQ-Multi-Family-Reporting-Metrics_FINAL-Clean-6-20-2024_v2.pdf.

The most common measures provided to IQ Multifamily channel buildings and tenant units were air purifiers, direct install in-unit measures, and common area lighting, as shown in Table 176.

Table 176. 2024 IQ Multifamily Channel Participating Buildings and Tenant Units by Measure

Measure Category	Number of Buildings[a]	Number of Tenant Units[b]
Total Participants	1,571	8,210
Total Participants w/ Electric Heat	571	5,361
Air Purifier	927	2,277
Direct Install In-Unit	582	5,585
Common Area Lighting	565	1,830
Heat Pumps[b]	112	749
Air Sealing	6	84
Attic Insulation	7	88
Other (Storm Windows)	1	4
Gas Heating System Replacements	0	0
Heat Pump Water Heaters	0	0
Other HVAC Equipment Measures	0	0
Other Insulation	0	0

[a] The sum of the counts by measure will not add up to the total participants as some participating properties received more than one type of measure.
[b] Heat pumps include ductless heat pumps and air source heat pumps.
[c] Property-level tracking data indicated a total of only 527 tenant units associated with properties that received at least one heat pump. However, the evaluation team assumed that each tenant unit received one heat pump.
Note: For evaluation purposes, the Public Housing Initiative participation summary is reported in Section 3.3.5, under the Public Housing Initiative section.

In 2024, seven buildings, consisting of 88 tenant units in total, received air sealing and insulation measures. Notably, two-thirds (1,023) of buildings assessed qualified for air sealing and insulation but were deferred to a future year (Table 177).

Table 177. Reasons Building Envelope Measures Not Installed in IQ Multifamily Channel Properties

	Number of Buildings	Number of Tenant Units
Total Buildings / Units Served[a]	2,496	16,386
Total Buildings / Units Assessed[b]	1,571	8,210
Note: The following data are associated with buildings served with a Multifamily Energy Savings assessment.		
Installed Insulation/Air Sealing Measures	7	88
Did Not Install Insulation/Air Sealing Measures	1,564	8,122
A. Not qualified for measures	**539**	**4,969**
1. Measure already there/already upgraded	358	2,670
2. Not cost-effective	14	125
3. Cannot access attic or other space	53	346
4. Not applicable (e.g., no attic)	113	1,822
5. Health and safety cost too high or extensive	1	6
B. Qualified and offered measure, but didn't install	**1,023**	**3,136**
1. Building owner not willing to make co-pay	0	0
2. Building owner sees no benefit	0	0
3. Building owner will not accept disruption	6	48
4. Deferring to a future year	1,016	3,074
5. Building owner dislikes aesthetics	0	0
6. Building owner non-responsive	1	14
7. Building owner not willing/able to address health & safety work or deferrable conditions	0	0
C. Unknown[c]	**2**	**17**

[a] Total Buildings/Units Served includes buildings and/or apartment units that only received an energy audit in 2024, as well as buildings and/or units that received at least one energy-saving upgrade or equipment.

[b] Total Buildings/Units Assessed includes buildings and/or units that received an audit either in 2024 or before and also received at least one energy-saving upgrade or equipment in 2024.

[c] Data indicating reasons for not installing air sealing and/or insulation were not required or recorded prior to 2024; hence, data for properties that were audited before 2024 are either limited or unavailable.

Note: For evaluation purposes, the Public Housing Initiative participation summary is reported in Section 3.3.5, under the Public Housing Initiative section.

Almost one-fifth of the assessed IQ Multifamily buildings with electric heating received heat pumps in 2024. While more than half of the buildings qualified for heat pumps, the majority (294 of 308) of those that qualified for heat pumps were deferred to a future year, as shown in Table 178.

Table 178. Reasons Heat Pump Not Installed in IQ Multifamily Channel Properties

	Number of Buildings	Number of Tenant Units
Total Electrically Heated Buildings / Units Served[ab]	673	5,862
Total Electrically Heated Buildings/Units Assessed[c]	571	5,361
Note: The following data are associated with buildings served with a Multifamily Energy Savings assessment.		
Installed Heat Pumps[d]	112	749
Did Not Install Heat Pumps	459	4,612
A. Not qualified for measures	**39**	**643**
1. Measure already there/already upgraded	25	367
2. Not cost-effective	14	276
3. No good location or space	0	0
B. Qualified and offered measures but didn't install	**308**	**2,763**
1. Building owner not willing to make co-pay	13	202
2. Building owner sees no benefit	1	49
3. Building owner will not accept disruption	0	0
4. Deferring to a future year	294	2,512
5. Building owner dislikes aesthetics	0	0
6. Building owner non-responsive	0	0
7. Building owner not willing/able to address health & safety work or deferrable conditions	0	0
8. Desired heat pump does not meet program specification requirements	0	0
Unknown[e]	**112**	**1,206**

[a] Total Buildings/Units Served includes electrically heated buildings and/or apartment units that only received an energy audit in 2024, as well as buildings and/or units that received at least one energy-saving upgrade or piece of equipment.

[b] There are participants for whom the channel or initiative is unknown or blank. As such, actual building and apartment counts may be larger than reported.

[c] Total Buildings/Units Assessed include electrically heated buildings and/or units that received both an audit either in 2024 or before and received at least one energy-saving upgrade or equipment in 2024.

[d] Property-level tracking data indicated a total of only 527 tenant units associated with properties that received at least one heat pump. However, the evaluation team assumed that each tenant unit received one heat pump.

[e] Data indicating reasons for not installing heat pumps were not recorded or required prior to 2024; hence, data for properties that were audited before 2024 are either limited or unavailable.

Note: For evaluation purposes, the Public Housing Initiative participation summary is reported in Section 3.3.5, under the Public Housing Initiative section.

MARKET RATE MULTIFAMILY INITIATIVE

Most properties (34) that participated through the Market Rate Multifamily Initiative in 2024 have up to 49 tenant units, while 11 properties had 50 or more tenant units. (Table 179).

Table 179. 2024 Market Rate Multifamily Initiative Building Types Treated

Building Size	Number of Properties	Number of Buildings	Number of Tenant Units
Buildings < 20 Units	22	27	160
Buildings 20 – 49 Units	12	37	372
Buildings ≥ 50 Units	11	125	1,525

Note: The program tracking data lacks information to accurately identify properties, buildings, and/or tenant units with primary central heating systems or individual heating systems. As such, this table reports on the total number of properties, buildings, and tenant units.

Most Market Rate buildings received direct install in-unit measures, while five buildings received heat pumps (Table 180). While this number seems limited, Multifamily Initiatives staff reported that they reached the heat pump budget and installation goals for 2024.

Table 180. 2024 Market Rate Multifamily Initiative Participating Buildings and Tenant Units by Measure

Measure Category	Number of Buildings[a]	Number of Tenant Units[b]
Total Participants	189	2,057
Total Participants w/ Electric Heat	139	1,551
Air Purifier	N/A	N/A
Direct Install In-Unit	172	1,657
Common Area Lighting	0	0
Heat Pumps	5	50
Air Sealing	N/A	N/A
Attic Insulation	N/A	N/A
Other (Storm Windows)	0	0
Gas Heating System Replacements	0	0
Heat Pump Water Heaters	0	0
Other HVAC Equipment Measures	0	0
Other Insulation	0	0

[a] The sum of the counts by measure will not add up to the total participants as some participating properties received more than one type of measure.

None of the participating Market Rate Multifamily properties received building envelope measures as they are not cost-effective, as shown in Table 181.

Table 181. Reasons Building Envelope Measures Not Installed in Market Rate Multifamily Initiative Properties

	Number of Buildings	Number of Tenant Units
Total Buildings/Units Served[a]	339	3,425
Total Buildings/Units Assessed[b]	189	2,057
Note: The following data are associated with buildings served with a Multifamily Energy Savings assessment.		
Installed Insulation/Air Sealing Measures	N/A	N/A
Did Not Install Insulation/Air Sealing Measures	189	2,057
A. Not qualified for measures	**189**	**2,057**
1. Measure already there/already upgraded	N/A	N/A
2. Not cost-effective	189	2,057
3. Cannot access attic or other space	N/A	N/A
4. Not applicable (e.g., no attic)	N/A	N/A
5. Health and safety cost too high or extensive	N/A	N/A
B. Qualified and offered measure, but didn't install	**N/A**	**N/A**
1. Building owner not willing to make co-pay	N/A	N/A
2. Building owner sees no benefit	N/A	N/A
3. Building owner will not accept disruption	N/A	N/A
4. Deferring to a future year	N/A	N/A
5. Building owner dislikes aesthetics	N/A	N/A
6. Building owner non-responsive	N/A	N/A
7. Building owner not willing/able to address health & safety work or deferrable conditions	N/A	N/A
C. Unknown	**N/A**	**N/A**

[a] Total Buildings/Units Served includes buildings and/or apartment units that only received an energy audit in 2024, as well as buildings and/or units that received at least one energy-saving upgrade or equipment.

[b] Total Buildings /Units Assessed includes buildings and/or units that received both an audit either in 2024 or prior and received at least one energy-saving upgrade or equipment in 2024.

Most market rate properties that qualified for heat pumps were deferred to a future year (Table 182). Multifamily Initiatives staff noted that they have a pipeline for heat pump installations in market rate properties in 2025.

Table 182. Reasons Heat Pump Not Installed in Market Rate Multifamily Initiative Properties

	Number of Buildings	Number of Tenant Units
Total Electrically Heated Buildings/Units Served[ab]	139	1,551
Total Electrically Heated Buildings/Units Assessed[c]	139	1,551
Note: The following data are associated with buildings served with a Multifamily Energy Savings assessment.		
Installed Heat Pumps	5	50
Did Not Install Heat Pumps	134	1,501
A. Not qualified for measures	**2**	**9**
1. Measure already there/already upgraded	2	9
2. Not cost-effective	0	0
3. No good location or space	0	0
B. Qualified and offered measures but didn't install	**77**	**702**
1. Building owner not willing to make co-pay	3	18
2. Building owner sees no benefit	0	0
3. Building owner will not accept disruption	0	0
4. Deferring to a future year	74	684
5. Building owner dislikes aesthetics	0	0
6. Building owner non-responsive	0	0
7. Building owner not willing/able to address health & safety work or deferrable conditions	0	0
8. Desired heat pump does not meet program specification requirements	0	0
Unknown[d]	**55**	**790**

[a] Total Buildings/Units Served includes electrically heated buildings and/or apartment units that only received an energy audit in 2024, as well as buildings and/or units that received at least one energy-saving upgrade or equipment.

[b] There are participants for whom the channel or initiative is unknown or blank. As such, actual building and apartment counts may be larger than reported.

[c] Total Buildings/Units Assessed include electrically heated buildings and/or units that received an audit either in 2024 or before and received at least one energy-saving upgrade or equipment in 2024.

[d] Data indicating reasons for not installing heat pumps were not recorded or required prior to 2024; hence, data for properties that were audited prior to 2024 are either limited or unavailable.

PUBLIC HOUSING INITIATIVE

The majority of the 64 public housing properties served by the Public Housing Initiative in 2024 consist of 20 tenant units or less, while 10 properties have 50 or more tenant units (Table 183).

Table 183. 2024 Public Housing Initiative Building Types Treated

Building Size	Number of Properties	Number of Buildings	Number of Tenant Units
Buildings < 20 Units	46	143	452
Buildings 20 – 49 Units	8	65	235
Buildings ≥ 50 Units	10	149	704

Note: The program tracking data lacks data to accurately identify properties, buildings, and/or tenant units that have primary central heating systems or individual heating systems. As such, this table reports on the total number of properties, buildings, and tenant units.

The most common measures provided to Public Housing Initiative participants were direct install in-unit measures, followed by heat pumps, and building envelope measures (Table 184).

Table 184. 2024 Public Housing Initiative Participating Buildings and Tenant Units by Measure

Measure Category	Number of Buildings[a]	Number of Tenant Units[b]
Total Participants	357	1,391
Total Participants w/ Electric Heat	207	810
Air Purifier	0	0
Direct Install In-Unit	280	995
Common Area Lighting	19	64
Heat Pumps[b]	39	91
Air Sealing	28	90
Attic Insulation	28	90
Other (Window Inserts)	1	12
Gas Heating System Replacements	0	0
Heat Pump Water Heaters	0	0
Other HVAC Equipment Measures	0	0
Other Insulation	0	0

[a] The sum of the counts by measure will not add up to the total participants as some participating properties received more than one type of measure.

[d] Property-level tracking data indicated a total of only 51 tenant units associated with properties that received at least one heat pump. However, the evaluation team assumed that each tenant unit received one heat pump.

Of the 357 public housing properties assessed, 28 received air sealing and/or insulation measures. This is largely due to the prevalence of air sealing and insulation measures in public housing properties. As shown in Table 185, 116 public housing buildings did not qualify for building envelope measures as the measures were already installed or upgraded. Other reasons for the lack of installation of building envelope measures include deferment to a future year for buildings that qualified and cost-effectiveness reasons for buildings that did not qualify.

Table 185. Reasons Building Envelope Measures Not Installed in Public Housing Initiative Properties

	Number of Buildings	Number of Tenant Units
Total Buildings/Units Served[a]	1,165	6,527
Total Buildings/Units Assessed[b]	357	1,391
Note: The following data are associated with buildings served with a Multifamily Energy Savings assessment.		
Installed Insulation/Air Sealing Measures	28	90
Did Not Install Insulation/Air Sealing Measures	329	1,301
A. Not qualified for measures	**167**	**848**
1. Measure already there/already upgraded	116	408
2. Not cost-effective	34	78
3. Cannot access attic or other space	11	38
4. Not applicable (e.g., no attic)	6	324
5. Health and safety cost too high or extensive	0	0
B. Qualified and offered measure, but didn't install	**69**	**202**
1. Building owner not willing to make co-pay	0	0
2. Building owner sees no benefit	0	0
3. Building owner will not accept disruption	0	0
4. Deferring to a future year	69	202
5. Building owner dislikes aesthetics	0	0
6. Building owner non-responsive	0	0
7. Building owner not willing/able to address health & safety work or deferrable conditions	0	0
C. Unknown[c]	**93**	**251**

[a] Total Buildings/Units Served includes buildings and/or apartment units that only received an energy audit in 2024, as well as buildings and/or units that received at least one energy-saving upgrade or equipment.

[b] Total Buildings/Units Assessed includes buildings and/or units that received both an audit either in 2024 or prior and received at least one energy-saving upgrade or equipment in 2024.

In 2024, 39 public housing buildings with electric heating installed heat pumps despite the number of buildings that qualified for heat pumps. The main reason for the limited installation of heat pumps in eligible buildings is the cost, as most building owners were unwilling to make the co-pay. Additionally, 38 buildings that qualified were deferred to a future year.

Table 186. Reasons Heat Pump Not Installed in Public Housing Initiative Properties

	Number of Buildings	Number of Tenant Units
Total Electrically Heated Buildings/Units Served[ab]	272	1,267
Total Electrically Heated Buildings/Units Assessed[c]	207	810
Note: The following data are associated with buildings served with a Multifamily Energy Savings assessment.		
Installed Heat Pumps[d]	39	91
Did Not Install Heat Pumps	168	719
A. Not qualified for measures	**21**	**63**
1. Measure already there/already upgraded	13	48
2. Not cost-effective	8	15
3. No good location or space	0	0
B. Qualified and offered measures, but didn't install	**142**	**543**
1. Building owner not willing to make co-pay	104	279
2. Building owner sees no benefit	0	0
3. Building owner will not accept disruption	0	0
4. Deferring to a future year	38	264
5. Building owner dislikes aesthetics	0	0
6. Building owner non-responsive	0	0
7. Building owner not willing/able to address Health & Safety work or deferrable conditions	0	0
8. Desired heat pump does not meet program specification requirements	0	0
Unknown[e]	**5**	**113**

[a] Total Buildings/Units Served includes electrically heated buildings and/or apartment units that only received an energy audit in 2024, as well as buildings and/or units that received at least one energy-saving upgrade or equipment.
[b] There are participants for whom the channel or initiative is unknown or blank. As such, actual building and apartment counts may be larger than reported.
[c] Total Buildings/Units Assessed include electrically heated buildings and/or units that received both an audit either in 2024 or before and received at least one energy-saving upgrade or equipment in 2024.
[d] Property-level tracking data indicated a total of only 51 tenant units associated with properties that received at least one heat pump. However, the evaluation team assumed that each tenant unit received one heat pump.
[e] Data indicating reasons for not installing heat pumps were not recorded or required prior to 2024; hence, data for properties that were audited prior to 2024 are either limited or unavailable.

APPENDIX E. INCOME QUALIFIED INITIATIVE PARTICIPATION SUMMARIES

Presented at stakeholder request, Table 187 through Table 192 provide a detailed summary of measures received by participants in the Single Family, CAA, Joint Utility, MHAS, and Healthier Homes channels of the 2024 IQ Initiative, with an explicit focus on characterizing the percentage of participants in each channel that received a given measure. For the MHAS channel, the base includes customers who only received Mobile Home kits (in order to properly characterize what proportion of channel participants received non-kit measures), but the kit measures are not presented below. Kit Initiatives participation by measure is documented in Appendix F.

Table 187. 2024 Detailed Single Family Channel Participation Summary

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=3,018)	Total Quantity	Unit	Average Quantity per Participant Receiving
Air Purifier Fan	ENERGY STAR Air Purifier/Cleaner	1,442	48%	2,884	Fans	2
Air Source Heat Pump (ER)	Air Source Heat Pump (Centrally Ducted and Ductless)	88	3%	90	Systems	1
Standard LED	LED Screw Based Omnidirectional Bulbs	1,494	51%	7,942	Bulbs	5
Air Sealing	Air Sealing	790	27%	691,686	CFM	876
Central AC (ER)	Central Air Conditioning	160	5%	161	Systems	1
BPM Motor	Furnace Blower Motor	518	18%	529	Motors	1
Attic Insulation	Ceiling/Attic Insulation	773	26%	836,680	Square Feet	1,082
Advanced Power Strip	Advanced Power Strip - Tier 1	2,235	76%	4,220	Strips	2
Crawl Space Insulation	Basement Sidewall Insulation	375	13%	43,169	Square Feet	115
Heat Pump Water Heater	Heat Pump Water Heaters	87	3%	87	Systems	1
Advanced Thermostat	Advanced Thermostats	576[c]	20%	576	Thermostats	1
Bathroom Exhaust Fan	High Efficiency Bathroom Exhaust Fan	726	25%	727	Fans	1
Ductless Heat Pump (TOS)	Air Source Heat Pump (Centrally Ducted and Ductless)	19	1%	21	Systems	1
Specialty LED	LED Specialty Lamps	861	29%	4,594	Bulbs	5
Pipe Insulation	Domestic Hot Water Pipe Insulation	1,171	40%	9,568	Linear Feet	8
Wall Insulation	Wall Insulation	161	5%	152,979	Square Feet	950
Faucet Aerator	Low Flow Faucet Aerators	828	28%	1,309	Aerators	2
Rim Joist Insulation	Rim/Band Joist Insulation	598	20%	72,834	Linear Feet	122
Low Flow Showerhead	Low Flow Showerheads	463	16%	511	Showerheads	1

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=3,018)	Total Quantity	Unit	Average Quantity per Participant Receiving
Duct Sealing	Duct Insulation and Sealing	18	1%	18	Participants	1
Air Source Heat Pump (TOS)	Air Source Heat Pump (Centrally Ducted and Ductless)	8	<1%	8	Systems	1
Room Air Conditioner (ER)	Income Qualified: ENERGY STAR and CEE Tier 2 Room Air Conditioner	7	<1%	13	Systems	2
Knee Wall Insulation	Wall Insulation	79	3%	17,481	Square Feet	221
Door Sweep	Air Sealing	74	3%	121	Door Sweeps	2
Central AC (TOS)	Central Air Conditioning	4	<1%	7	Systems	2
Induction Range	Residential Induction Cooktop	1	<1%	1	Ranges	1
High Efficiency Gas Furnace (ER)	Gas High Efficiency Furnace	533	18%	543	Systems	1
High Efficiency Gas Furnace (TOS)	Gas High Efficiency Furnace	153	5%	153	Systems	1
Gas High Efficiency Boiler (ER)	Gas High Efficiency Boiler	17	1%	17	Systems	1
Gas Water Heater	Gas Water Heater	37	1%	37	Systems	1
Gas High Efficiency Boiler (TOS)	Gas High Efficiency Boiler	2	<1%	2	Systems	1
Tree Planting	Tree Planting	2	<1%	200	Trees Planted	100
Total				**1,849,168**		

Table 188. 2024 Detailed Single Family Accessibility Pilot Participation Summary

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=72)	Total Quantity	Unit	Average Quantity per Participant Receiving
Advanced Power Strip	Advanced Power Strip - Tier 1	63	88%	116	Strips	2
Advanced Thermostat	Advanced Thermostats	27	38%	27	Thermostats	1
Pipe Insulation	Domestic Hot Water Pipe Insulation	6	8%	48	Linear Feet	8
Standard LED	LED Screw Based Omnidirectional Bulbs	68	94%	1,336	Bulbs	20
Specialty LED	LED Specialty Lamps	24	33%	194	Bulbs	8
Low Flow Showerheads	Low Flow Showerheads	7	10%	7	Showerheads	1

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=72)	Total Quantity	Unit	Average Quantity per Participant Receiving
Smart Sockets	Smart Sockets	9	13%	14	Sockets	2
Total				**1,742**		

Table 189. 2024 Detailed CAA Channel Participation Summary

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=216)	Total Quantity	Unit	Average Quantity per Participant Receiving
Air Sealing	Air Sealing	198	92%	405,369	CFM	2,047
Attic Insulation	Ceiling/Attic Insulation	165	76%	169,283	Square Feet	1,026
Standard LED	LED Screw Based Omnidirectional Bulbs	180	83%	3,178	Bulbs	18
Air Source Heat Pump (ER)	Air Source Heat Pump (Centrally Ducted and Ductless)	12	6%	12	Systems	1
BPM Motor	Furnace Blower Motor	111	51%	115	Motors	1
Crawl Space Insulation	Basement Sidewall Insulation	103	48%	12,940	Square Feet	126
Bathroom Exhaust Fan	High Efficiency Bathroom Exhaust Fan	170	79%	182	Fans	1
PTHP	Package Terminal Air Conditioner (PTAC) and Package Terminal Heat Pump (PTHP)	1	<1%	12	Systems	12
Pipe Insulation	Domestic Hot Water Pipe Insulation	117	54%	1,628	Linear Feet	14
Heat Pump Water Heater	Heat Pump Water Heaters	11	5%	11	Systems	1
Floor Insulation	Floor Insulation Above Crawlspace	31	14%	30,892	Square Feet	997
Low Flow Showerhead	Low Flow Showerheads	65	30%	91	Showerheads	1
Wall Insulation	Wall Insulation	49	23%	39,553	Square Feet	807
Faucet Aerator	Low Flow Faucet Aerators	101	47%	183	Aerators	2
Rim Joist Insulation	Rim/Band Joist Insulation	138	64%	18,221	Linear Feet	132
Specialty LED	LED Specialty Lamps	31	14%	245	Bulbs	8
Advanced Thermostat	Advanced Thermostats	18	8%	18	Thermostats	1
Room Air Conditioner (ER)	Income Qualified: ENERGY STAR and CEE Tier 2 Room Air Conditioner	4	2%	4	Systems	1
Door Sweep	Air Sealing	1	<1%	15	Door Sweeps	15
Knee Wall Insulation	Wall Insulation	14	6%	5,144	Square Feet	367

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=216)	Total Quantity	Unit	Average Quantity per Participant Receiving
Caulking	Air Sealing	1	<1%	173	Linear Feet	173
Ductless Heat Pump	Air Source Heat Pump (Centrally Ducted and Ductless)	1	<1%	1	Systems	1
Air Source Heat Pump (TOS)	Air Source Heat Pump (Centrally Ducted and Ductless)	1	<1%	1	Systems	1
High Efficiency Gas Furnace (ER)	Gas High Efficiency Furnace	117	54%	121	Systems	1
Gas High Efficiency Boiler (ER)	Gas High Efficiency Boiler	6	3%	6	Systems	1
Gas Water Heater	Gas Water Heater	5	2%	5	Systems	1
High Efficiency Gas Furnace (TOS)	Gas High Efficiency Furnace	3	1%	3	Systems	1
Total				**687,406**		

Table 190. 2024 Detailed Joint Utility Channel Participation Summary

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=99)	Total Quantity	Unit	Average Quantity per Participant Receiving
Duct Sealing	Duct Insulation and Sealing	92	93%	92	Participants	1
Air Sealing	Air Sealing	90	91%	111,425	CFM	1,238
Advanced Power Strip	Advanced Power Strip - Tier 1	69	70%	112	Strips	2
Standard LED	LED Screw Based Omnidirectional Bulbs	43	43%	245	Bulbs	6
Advanced Thermostat	Advanced Thermostats	35	35%	36	Thermostats	1
Smart Socket	Smart Sockets	55	56%	109	Sockets	2
Attic Insulation	Ceiling/Attic Insulation	16	16%	17,152	Square Feet	1,072
Floor Insulation	Floor Insulation Above Crawlspace	14	14%	17,004	Square Feet	1,215
LED Fixtures	LED Fixtures	51	52%	79	Fixtures	2
Pipe Insulation	Domestic Hot Water Pipe Insulation	5	5%	39	Linear Feet	8
Specialty LED	LED Specialty Lamps	11	11%	33	Bulbs	3
Faucet Aerator	Low Flow Faucet Aerators	58	59%	96	Aerators	2
Low Flow Showerhead	Low Flow Showerheads	43	43%	47	Showerheads	1
Wall Insulation	Wall Insulation	3	3%	1,211	Square Feet	404
Rim Joist Insulation	Rim/Band Joist Insulation	3	3%	369	Linear Feet	123
Total				**148,049**		

Table 191. 2024 Detailed MHAS Channel Participation Summary

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=344)	Total Quantity	Unit	Average Quantity per Participant Receiving
Air Source Heat Pump (ER)	Air Source Heat Pump (Centrally Ducted and Ductless)	11	3%	11	Systems	1
Floor Insulation	Floor Insulation Above Crawlspace	74	22%	81,338	Square Feet	1,099
Air Sealing	Air Sealing	100	29%	99,751	CFM	998
BPM Motor	Furnace Blower Motor	70	20%	70	Motors	1
Advanced Thermostat	Advanced Thermostats	76	22%	76	Thermostats	1
Ductless Heat Pump	Air Source Heat Pump (Centrally Ducted and Ductless)	1	<1%	1	Systems	1
Bathroom Exhaust Fan	High Efficiency Bathroom Exhaust Fan	38	11%	38	Fans	1
Heat Pump Water Heater	Heat Pump Water Heaters	1	0%	1	Systems	1
Crawl Space Insulation	Basement Sidewall Insulation	3	1%	738	Square Feet	246
High Efficiency Gas Furnace (ER)	Gas High Efficiency Furnace	72	21%	72	Systems	1
High Efficiency Gas Furnace (TOS)	Gas High Efficiency Furnace	2	1%	2	Systems	1
Total				**182,098**		

Table 192. 2024 Detailed Healthier Homes Channel Participation Summary

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=16)	Total Quantity	Unit	Average Quantity per Participant Receiving
Central AC ER	Central Air Conditioning	5	31%	5	Systems	1
BPM Motor	Furnace Blower Motor	12	75%	12	Motors	1
Standard LED	LED Screw Based Omnidirectional Bulbs	12	75%	118	Bulbs	10
Air Sealing	Air Sealing	13	81%	22,859	CFM	1,758
Attic Insulation	Ceiling/Attic Insulation	12	75%	10,969	Square Feet	914
Bathroom Exhaust Fan	High Efficiency Bathroom Exhaust Fan	10	63%	10	Fans	1
Advanced Thermostat	Advanced Thermostats	11	69%	11	Thermostats	1
Specialty LED	LED Specialty Lamps	4	25%	51	Bulbs	13
Crawl Space Insulation	Basement Sidewall Insulation	7	44%	551	Square Feet	79
Wall Insulation	Wall Insulation	6	38%	4,686	Square Feet	781

Measure	IL-TRM Measure Name	Participants Receiving Measure	% Participants Receiving Measure (N=16)	Total Quantity	Unit	Average Quantity per Participant Receiving
Advanced Power Strip	Advanced Power Strip - Tier 1	8	50%	10	Power Strips	1
Ductless Heat Pump TOS	Air Source Heat Pump (Centrally Ducted and Ductless)	1	6%	1	Systems	1
Central AC TOS	Central Air Conditioning	2	13%	2	Systems	1
Duct Sealing	Duct Insulation and Sealing	1	6%	1	Systems	1
Connected LED	Connected LED Lamps	1	6%	7	Bulbs	7
Rim Joist Insulation	Rim/Band Joist Insulation	11	69%	1,214	Square Feet	110
Knee Wall Insulation	Wall Insulation	4	25%	1,044	Square Feet	261
Faucet Aerator	Low Flow Faucet Aerators	6	38%	7	Aerators	1
Low Flow Showerhead	Low Flow Showerheads	4	25%	4	Showerheads	1
Gas Furnace ER	Gas High Efficiency Furnace	12	75%	12	Systems	1
Gas Boiler ER	Gas High Efficiency Boiler	1	6%	1	Systems	1
Water Heater	Gas Water Heater	1	6%	1	Systems	1
Total				**41,576**		

APPENDIX F. KITS INITIATIVES PARTICIPATION SUMMARIES

Table 193 through Table 198 summarize participation, by measure, for the Kits Initiatives, by channel and kit.

Table 193. School Kits Channel Participation Summary

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Full School Kits			
Specialty LED	LED Specialty Lamps	38,000	Lamps
Showerhead	Low Flow Showerheads	9,500	Showerheads
Kitchen Faucet Aerator	Low Flow Faucet Aerators	9,500	Aerators
Shower Timer	Shower Timer	9,500	Shower timers
Advanced Power Strip - Tier 1	Advanced Power Strip – Tier 1	9,500	Power strips
Pipe Insulation	Domestic Hot Water Pipe Insulation	28,500	Linear feet
Door Sweep	Air Sealing	9,500	Door sweeps
Weatherstripping	Air Sealing	161,500	Linear feet
Bathroom Faucet Aerator	Low Flow Faucet Aerators	9,500	Aerators
Connected LED	Connected LED Lamps	400	Lamps
Full School Kits Total		**285,400**	**N/A**
Joint Utility School Kits			
Specialty LED	LED Specialty Lamps	6,000	Lamps
Showerhead	Low Flow Showerheads	1,500	Showerheads
Advanced Power Strip - Tier 1	Advanced Power Strip – Tier 1	1,500	Power strips
Kitchen Faucet Aerator	Low Flow Faucet Aerators	1,500	Aerators
Shower Timer	Shower Timer	1,500	Shower timers
Weatherstripping	Air Sealing	25,500	Linear feet
Door Sweep	Air Sealing	1,500	Door sweeps
Pipe Insulation	Domestic Hot Water Pipe Insulation	4,500	Linear feet
Outlet Gaskets	Air Sealing	15,000	Gaskets
Bathroom Faucet Aerator	Low Flow Faucet Aerators	1,500	Aerators
Joint Utility School Kits Total		**60,000**	**N/A**

Table 194. High School Innovation Channel Participation Summary

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Specialty LED	LED Specialty Lamps	7,539	Lamps
Showerhead	Low Flow Showerheads	2,513	Showerheads
LED Desk Lamp	LED Fixtures	2,513	Desk lamps
Pipe Insulation	Domestic Hot Water Pipe Insulation	7,539	Linear feet
Weatherstripping	Air Sealing	42,721	Linear feet
Outlet Gaskets	Air Sealing	25,130	Gaskets
Bathroom Faucet Aerator	Low Flow Faucet Aerators	2,513	Aerators
Total		**90,468**	**N/A**

Table 195. IQ Community Kit Channel Participation Summary

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Standard LED	LED Screw Based Omnidirectional Bulbs	24,700	Lamps
Advanced Power Strip - Tier 1	Advanced Power Strip – Tier 1	3,000	Power strips
Showerhead	Low Flow Showerheads	6,000	showerheads
Pipe Insulation	Domestic Hot Water Pipe Insulation	18,000	Linear feet
Kitchen Faucet Aerator	Low Flow Faucet Aerators	3,000	Aerators
Door Sweep	Air Sealing	3,000	Door sweeps
Bathroom Faucet Aerator	Low Flow Faucet Aerators	6,000	Aerators
Total		**63,700**	**N/A**

Table 196. Mobile Home Kit Channel Participation Summary

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Standard LED	LED Screw Based Omnidirectional Bulbs	3,960	Lamps
Advanced Power Strip - Tier 1	Advanced Power Strip – Tier 1	330	Power strips
Showerhead	Low Flow Showerheads	330	Showerheads
Kitchen Faucet Aerator	Low Flow Faucet Aerators	330	Aerators
Thermostatic Restrictor Shower Valve	Thermostatic Restrictor Shower Valve	330	Valves
Bathroom Faucet Aerator	Low Flow Faucet Aerators	330	Aerators
Total		**5,610**	**N/A**

Table 197. BN Community Kit Participation Summary

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Specialty LED	LED Specialty Lamps	230	Lamps
Smart Socket	Smart Sockets	460	Sockets
Standard LED	LED Screw Based Omnidirectional Bulbs	690	Lamps
Advanced Power Strip - Tier 1	Advanced Power Strip – Tier 1	230	Power strips
Connected LED	Connected LED Lamps	230	Lamps
LED Desk Lamp	LED Fixtures	230	Desk lamps
Total		**2,070**	**N/A**

Table 198. Food Bank Holiday Kit Participation Summary

Measure Category	IL-TRM Measure Name	Measure Quantity	Units
Standard LED	LED Screw Based Omnidirectional Bulbs	28,000	Lamps
Smart Socket	Smart Sockets	14,000	Sockets
Total		**42,000**	**N/A**

APPENDIX G. (B-27) ELECTRIFICATION REPORTING

As directed by statute, each year AIC must make an annual informational filing to the Commission in which it shall:

> *"identify the specific electrification measures offered under this subsection (b-27); the quantity of each electrification measure that was installed by its customers; the average total cost, average utility cost, average reduction in fossil fuel consumption, and average increase in electricity consumption associated with each electrification measure; the portion of installations of each electrification measure that were in low-income single-family housing, low-income multifamily housing, non-low-income single-family housing, non-low-income multifamily housing, commercial buildings, and industrial facilities; and the quantity of savings associated with each measure category in each customer category that are being counted toward the utility's applicable annual total savings requirement."*[42]

This appendix summarizes the required information to be included in the informational filing based on evaluated results for 2024.

Table 199. Electrification Measures – Measures Offered and Quantities Installed

Measure Category	Measure Quantity	Units	Customers Receiving Measure
Air Source Heat Pump (ER)	12	# of systems	11
Ductless Heat Pump	1	# of systems	1
Heat Pump Water Heater (ER)	14	# of systems	13
Heat Pump Dryer	1	# of dryers	1
Induction Cooktop	4	# of cooktops	4
Other Necessary Improvements[a]	10	# of homes	10

[a] Non-energy-saving improvements required to complete electrification; e.g. electric service or panel upgrades and/or new wiring.

Table 200. Electrification Measures – Costs and Energy Changes

Measure Category	Average Total Cost	Average Utility Cost	Average Annual Reduction in Fossil Fuel Consumption (Therms)	Average Annual Increase in Electric Consumption (kWh)
Air Source Heat Pump (ER)	$11,717.85	$11,717.85	941	10,124
Ductless Heat Pump	$8,335.00	$8,335.00	427	4,256
Heat Pump Water Heater (ER)	$4,957.14	$4,957.14	171	805
Heat Pump Dryer	$2,100.00	$2,100.00	24	467
Induction Cooktop	$2,589.75	$2,589.75	21	283
Other Necessary Improvements	$7,528.39	$7,528.39	N/A	N/A

Notes: Values are expressed on a per measure basis.
Savings in this table include subsection (b-27) savings only and do not include efficiency savings associated with measures presented in this section.

[42] 220 ILCS 5/8-103B(b-27).

Table 201. Electrification Measures – Share of Measures Installed by Customer Category

Measure Category	Low-Income Single-Family Housing	Low-Income Multifamily Housing	Non Low-Income Single-Family Housing	Non Low-Income Multifamily Housing	Commercial Buildings	Industrial Facilities
Air Source Heat Pump (ER)	100%	0%	0%	0%	0%	0%
Ductless Heat Pump	100%	0%	0%	0%	0%	0%
Heat Pump Water Heater (ER)	100%	0%	0%	0%	0%	0%
Heat Pump Dryer	100%	0%	0%	0%	0%	0%
Induction Cooktop	100%	0%	0%	0%	0%	0%

Table 202. Electrification Measures – Savings Being Counted Toward AATS

Measure Category	Savings Counted Toward Applicable Annual Total Savings Requirement (kWh)
Air Source Heat Pump (ER)	191,901
Ductless Heat Pump	8,259
Heat Pump Water Heater (ER)	59,080
Heat Pump Dryer	240
Induction Cooktop	1,367
Total	**260,846**

Note: Savings in this table include subsection (b-27) savings only and do not include efficiency savings associated with measures presented in this section.

Opinion **Dynamics**

CONTACT:

Zach Ross
Director
zross@opiniondynamics.com

Evan Tincknell
Associate Director
etincknell@opiniondynamics.com

BOSTON
PORTLAND
SAN DIEGO
SAN FRANCISCO

All product or company names that may be mentioned in this publication are tradenames, trademarks or registered trademarks of their respective owners.