

# MEMORANDUM

To: Nick Warnecke, Ameren Illinois, Seth Craigo-Snell, SCS Analytics, Elizabeth Horne, ICC Staff

From: The Opinion Dynamics Evaluation Team

Date: August 5, 2024

Re: Ameren Illinois Company Income Qualified Benchmarking Research Memo

## INTRODUCTION

This memorandum presents findings from Opinion Dynamics' income qualified benchmarking research conducted for Ameren Illinois Company (AIC).

A primary focus of AIC's Residential Program, from a budget and energy-saving perspective, is whole-building energy efficiency and electrification efforts for single family and multifamily income qualified customers. Compared to other program designs, these efforts have been more costly on a dollar-per-unit basis for energy savings. This has limited the number of customers that AIC has been able to serve while still delivering a portfolio that sufficiently meets energy savings goals.

Assessing available cost savings opportunities within whole building programs can help to support the continued growth of these efforts within AIC's Residential Program. As such, we compared the AIC Income Qualified (IQ) Initiative's Single Family and Multifamily Channels<sup>1</sup> to programs from peer utilities in five areas: measures offered, delivery mechanisms, energy savings, cost of implementation, and other benefits achieved. We reviewed offerings from eight utilities in similar climate zones who share AIC's commitment to serving income qualified customers.

## **KEY FINDINGS AND RECOMMENDATIONS**

We summarize key findings from this study and provide recommendations below. Additional details on methods, findings, and sources are available in subsequent sections.

**Key Finding #1:** In comparing AIC to eight peer utilities, we found that IQ program offerings perform well from a design, measure mix, cost-efficiency, and energy savings perspective. This is especially true for the Single Family Channel, which offers the most measures, provides the highest annual savings per participant, and is second in cost-efficiency compared to peer utilities with available data.

**Key Finding #2**: AIC's IQ Single Family Channel ranked highly in cost-efficiency (dollars per kWh) and average savings per home. Sufficient data for this comparison was publicly available for only three of the eight comparable utilities within this study. However, based on this analysis, AIC's relatively balanced emphasis on HVAC replacements (a key

<sup>&</sup>lt;sup>1</sup> AIC has other IQ oriented efforts within other channels such as Retail Products and Smart Savers. Opinion Dynamics

driver of cost-efficiency) alongside many other types of measures yielded relatively high cost-efficiency while still providing relatively high savings per customer.

**Key Finding #3:** AIC's IQ Multifamily Channel had moderate cost-efficiency compared to other utilities. Sufficient data for this comparison was publicly available for only two of the eight comparable utilities within this study. However, based on this analysis, the heavy emphasis on HVAC replacements (68% of savings in 2023) in the IQ Multifamily Channel may be lowering the cost efficiency of the Channel.

Recommendation: Consider opportunities to encourage property managers to install a broader array of available measures beyond HVAC replacements and lighting. Particularly, the evaluation team recommends focusing on opportunities to provide more direct install measures, such as faucet aerators and advanced thermostats. In 2023, about a third of participating multifamily properties within AIC territory received faucet aerators while about a fifth received advanced thermostats.<sup>2</sup> These types of measures are relatively inexpensive to implement. Consequently, these measures could boost cost efficiency and enable AIC to provide more expensive but more impactful measures.

## STUDY OVERVIEW AND METHODS

The team conducted a secondary data review for this benchmarking study. We began the first part of this process by reviewing the websites of utilities in states surrounding Illinois, with an emphasis on utilities that offer comparable electric and gas services. We focused on utilities that offer whole-building energy efficiency program offerings within the Midwest and supplemented with some utilities outside the Midwest to round out our review. Informed by this research, we created a priority list of utilities with two levels. Priority level one consisted of utilities that offered whole building offerings and direct install measures for both single and multifamily programs. Priority level two consisted of utilities that offered some whole-building offerings, but often for only single or multifamily properties, not both. The level two list was intended to be used as alternates in case one of the utilities on the level one list was not a good fit for the study.

Once both lists were complete, we worked with AIC to confirm that the priority level one list was suitable for this study. We made AIC's suggested edits to the list and finalized the eight comparable peer utilities for the benchmarking study. Table 1 lists the utilities from our finalized priority level one list and provides key information about each.

Utility	State Served <sup>a</sup>	Customers Served	Fuel Type
Ameren Missouri	Missouri	1.2 million electric and 135,000 natural gas	Dual
CenterPoint Energy	Indiana	144,000 electric and 698,000 natural gas	Dual
Consumers Energy	Michigan	1.8 million electric and 1.7 million natural gas	Dual
Commonwealth Edison (ComEd)	Illinois	More than 4 million electric	Electric only
Detroit Edison (DTE)	Michigan	2.3 million electric and 1.3 million natural gas	Dual
National Grid	Massachusetts	1.2 million electric, 900,000 gas customers	Dual
Northern Indiana Public Service Company (NIPSCO)	Indiana	468,000 electric and 821,000 natural gas	Dual

Table 1. Peer Utilities Included in Research

<sup>&</sup>lt;sup>2</sup> Ameren Illinois, "2023 Residential Program Impact Evaluation Report," April 29, 2024, prepared by Opinion Dynamics, https://www.ilsag.info/wp-content/uploads/2023-AIC-Residential-Program-Impact-Evaluation-Report-FINAL-2024-04-29.pdf. Opinion Dynamics

Utility	State Served <sup>a</sup>	Customers Served	Fuel Type
Xcel Energy	Minnesota	3 million electricity and 500,000 natural gas	Dual

<sup>a</sup> For utilities with service territories in multiple regions, we focused our research on their service territories in the greater Midwest area.

Source: Utility websites, final evaluation reports, implementation plans, and impact evaluations. Please see the Bibliography section for a full list of sources and references.

We examined publicly available sources for information on utility measures and offerings for each of the eight prioritized utilities. These public sources included utility websites, evaluation reports, implementation plans, and quarterly/annual reports. We collected data across multiple categories from these sources for each peer utility. In addition to our secondary research, we gathered relevant insights from our extensive consulting experience.

One significant limitation of this study is its reliance on publicly available material. Not all utilities provide the same level of content or detail in their publicly available documents and websites. Therefore, some of our findings are limited by the material we were able to review. We note where these gaps exist throughout the memo. Additionally, the evaluation team had complete access to AIC program tracking data, including non-public data.

There are also limitations to comparing savings and costs, as the number of income qualified customers served varies by utility. Where possible, we have tried to normalize the data so that these comparisons can be made more easily. However, the data gaps mentioned above limited our ability to do so for all utilities.

# **DETAILED FINDINGS**

The following section provides detailed results of our comparison across the five focus areas for this study.

# **DELIVERY MECHANISMS**

# SINGLE FAMILY

AIC uses delivery mechanisms similar to those of the peer utilities we reviewed for their single family programs. However, we identified three areas where important distinctions exist between AIC's and peer utilities' fulfillment of IQ single family offerings: assessment approaches, the number of steps involved, and eligibility requirements.

**Assessment Approaches:** All eight peer utilities provide a no-cost energy assessment performed by a program representative. The program representative will analyze major appliance performance, heating, water leaks, insulation, ventilation, and more during the assessment. However, this assessment can vary slightly based on the specific program offerings for each utility. It is common for this energy assessment to occur in person, but ComEd, AIC, and NIPSCO offer a free virtual assessment for single family homes if the customer desires. Upon completing the energy assessment, the representative will provide the customer with a report with energy-saving opportunities. Along with the report, the program representative will often install or provide various energy-saving products, such as LED lightbulbs, advanced thermostats, showerheads and faucet aerators, and other easily installed (direct install) items. Overall, these improvements aim to lower utility bills and increase energy savings and comfort within customers' homes while helping to improve the cost efficiency of the program.

**Number of Steps:** For single family homes that require more significant upgrades that cannot be completed during the assessment, customers will be connected with a program representative to outline the next steps. For AIC, this process involves working with a Program Ally to create and submit a work scope for approval to AIC. The scope of work often includes weatherization, such as insulating ceilings and walls and replacing HVAC equipment. Upon approval, the Program Ally will make all necessary upgrades and appliance installations based on the scope of work. Peer utilities,

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such as ComEd, also offer next steps that provide a technical assessment that includes home analytics and diagnostics, such as thermal imaging, blower door testing, and combustion safety testing. This assessment can last three to four hours in total. Additionally, some peer utilities do not provide a second assessment or cover all necessary tests during the initial visit.

**Eligibility:** The delivery of a utility's program offerings depends on eligibility requirements (Table 2). For single family properties, the majority of programs sole eligibility criterion is that homeowners meet income qualified eligibility requirements. These requirements specify that household income must be at or below 80% of the area median income (AMI) or 200% of the federal poverty level. Xcel Energy is more restrictive and requires homeowner income to be at or below 50% of the AMI. AIC is less restrictive, and through its Single Family Channel, AIC serves both low- and moderate-income customers, as defined by households with incomes up to 200% of the federal poverty level (low-income), up to 300% of the federal poverty level (moderate-income), or at or below 80% of AMI (low- and moderate-income). As AMI is based on regional incomes, it may include more households deemed moderate income by federal guidelines, as many metropolitan regions have high costs of living.

As verifying eligibility can be difficult, the Illinois Energy Efficiency Policy Manual, Version 3.0, outlines multiple pathways to verification for AIC and ComEd, including but not limited to participation in other state, federal, or local income eligible programs with like eligibility or participation in a weatherization assistance program with like eligibility.

CenterPoint Energy has an additional eligibility criterion, requiring homes to be five years or older to be eligible.

Utility	Single Family Eligibility Requirements
AIC	Customers must have an income up to 200% of the federal poverty level (low- income), up to 300% of the federal poverty level (moderate-income), or 80% of AMI (low- and moderate-income), multiple pathways to verify.
Ameren Missouri	Customers must have an income at or below 80% of AMI or 200% of the federal poverty level.
CenterPoint Energy	Customers must have an income below 200% of the federal poverty level and a home older than five years old.
Consumers Energy	Customers must have an income at or below 80% of AMI or 200% of the federal poverty level.
ComEd	Customers must have an income at or below 80% AMI, multiple pathways to verify.
DTE	Customers must have an income below 200% of the federal poverty level.
National Grid	Customers must have an income below 200% of the federal poverty level.
NIPSCO	Customers must have an income below 200% of the federal poverty level.
Xcel Energy	Customers must have an income at or below 50% of the AMI.

#### Table 2. Single Family Eligibility Requirements

Source: Utility websites. Please see the Bibliography section for a full list of sources and references.

#### MULTIFAMILY

While there are some similarities in the delivery mechanisms of multifamily programs, there is more differentiation than in single family programs. These differences include number of contacts and eligibility.

**Number of contacts**: Some utilities use a single point of contact to serve multifamily properties, while others have multiple points of contact. In Illinois, a single point of contact is embedded in the one-stop-shop (OSS) model mandated by the Illinois Energy Efficiency Policy Manual, Version 3.0. This model is offered to all Illinois multifamily properties, where a single point of contact will help a property address the energy needs of residential units, common areas, and any commercial space within a multifamily property.

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Adhering to Illinois policy, AIC and ComEd use an OSS to deliver their multifamily programs. For AIC, an energy advisor serves as the single point of contact, performs all home assessments, provides project recommendations, and connects the property owner with Program Allies to install measures. For ComEd, an initial energy assessment is completed where a program representative will help multifamily property owners understand how they can help their tenants save money. From there, if additional weatherization or deeper incentive improvements are necessary, the property owner will be assigned a point of contact that will provide construction oversight and project guidance. Depending on the number of projects, this could include multiple visits.

Unlike AIC and ComEd, other peer utilities have not committed to providing a single point of contact. Depending on the initial home assessment, further communication and visits within the home are likely not done by the same contractors.

**Eligibility requirements**: Multifamily programs require properties to meet multiple eligibility requirements, such as the number of units, income qualified eligibility requirements, and age requirements of buildings. For example, CenterPoint Energy and NIPSCO only offer energy-efficient upgrades to properties that are at least five years old. Xcel Energy only offers appliance upgrades to properties that are 15 years or older. National Grid, CenterPoint Energy, and Xcel Energy also require properties to have five or more units for eligibility. In contrast, AIC, Ameren Missouri, ComEd, NIPSCO, DTE, and Consumers Energy require three units or more.

There is some variation in income requirements across utility multifamily offerings. Like single family program eligibility requirements, income levels are generally required to be at or below 80% of the AMI for most tenants. For example, Xcel Energy requires 66% of tenants in multifamily properties to meet income qualified eligibility requirements, while National Grid only requires 50%. Ameren Missouri will serve multifamily properties that meet at least one of three income requirements. Consumers Energy and DTE do not specify income requirements in their public documents AIC will serve multifamily properties that participate in government-sponsored programs or with at least 50% of tenants who are at or below 300% of the federal poverty line (FPL) or have incomes below 80% of the AMI. As verifying eligibility can be difficult, the Illinois Energy Efficiency Policy Manual, Version 3.0, outlines multifamily programs.

Utility	Multifamily Eligibility Requirements
AIC	Properties must have three or more units; properties participating in government-sponsored programs or with at least 50% of tenants who are at or below 300% of the federal poverty line (FPL) or have incomes below 80% of the area median income, multiple pathways to verify.
Ameren Missouri	Properties must have three or more units and meet at least one of three following income requirements: 50% of tenants' incomes must not exceed 80% of AMI, participation in a federal, state, or local subsidized housing program, and/or neighborhood in which the property is located is on the Ameren Missouri's low-income eligible neighborhood list.
CenterPoint Energy	Properties must have five or more units, be five years or older, and 66% of tenants must fall within income qualified status.
Consumers Energy	Properties must have three or more units; income eligibility not publicly stated.
ComEd	Properties must have three or more units, and multifamily property must be located in an income eligible census tract or a portion of tenants' incomes must not exceed 80% of AMI, multiple pathways to verify.
DTE	Properties must have three or more units; income eligibility not publicly stated.
National Grid	Properties must have five or more units, and 50% of tenants must have incomes at or below 80% AMI.
NIPSCO	Properties must have three or more units and be five years or older; income eligibility not publicly stated.

#### Table 3. Multifamily Eligibility Requirements

Utility	Multifamily Eligibility Requirements					
Xcel Energy	Properties must have five or more units, be 15 years or older, and 66% of tenants must fall within income qualified status.					
Source: Utility websites. Please see the Riblingraphy section for a full list of sources and references						

Source: Utility websites. Please see the Bibliography section for a full list of sources and references.

# MFASURES OFFERED

# SINGI F FAMILY PROGRAM

The AIC Single Family Channel provides measures through a no-cost Building Performance Institute (BPI) energy audits that identify building shell and HVAC retrofit opportunities and include a health and safety (H&S) evaluation. During the audit, implementation staff also install energy-efficient 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 also receive additional retrofits such as air sealing and insulation improvements, central air conditioner (CAC) replacements, and air source heat pump (ASHP) replacements. If needed, the program also seeks to address H&S needs.

We identified 18 different measures offered across the eight peer utilities (Table 4). According to the available data, AIC offers the largest array of distinct measures for single family IQ residences compared to peer utilities.<sup>3</sup> This includes relatively less common measures, such as air conditioners, door sweeps, and duct sealing, which are only offered by four or fewer peer utilities. There are a few measures that peer utilities offer that AIC does not. Over half of the peer utilities (5 of 8) offer freezers or refrigerators, and a quarter of the peer utilities (2 of 8) offer HVAC tune-ups, air filters, and smart sockets.

			Utility												
Measure	ComEd	Ameren Missouri	NIPSCO	National Grid	Xcel Energy	Consumers Energy	CenterPoint Energy	DTE	AIC						
Water Heater	Х			Х	Х			Х	Х						
Air Source Heat Pump	Х	Х							Х						
Electric Clothes Dryer									Х						
Freezer/Fridge		Х	Х	Х	Х			Х							
Air Conditioner <sup>a</sup>	Х	Х		Х	Х				Х						
Showerhead and/or Faucet Aerator <sup>b</sup>	Х	Х	Х	Х	Х	Х	Х		Х						
Air Filter	Х		Х												
Advanced or Programmable Thermostat	Х	Х	Х	Х		Х	Х		Х						
LED Lighting	Х	Х	Х	Х	Х	Х	Х	Х	Х						
Water Pipe Insulation		Х	Х		Х	Х	Х		Х						
Attic or Wall Insulation	Х	Х		Х	Х			Х	Х						
Air Sealing	Х	Х	Х	Х		Х			Х						
Duct Sealing		Х	Х				Х		Х						

Table 4. Measures Offered for Income Qualified Single Family Programs

<sup>&</sup>lt;sup>3</sup> Ameren Illinois serves both low and moderate-income customers in their single family program. 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 Ameren Illinois, the Energy Assistance Foundation offers the program, called Warm Neighbors Cool Friends™, which provides grant funding to help offset the out-of-pocket costs for Tier 2 customers within Ameren Illinois 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). **Opinion Dynamics** 

		Utility										
Measure	ComEd	Ameren Missouri	NIPSCO	National Grid	Xcel Energy	Consumers Energy	CenterPoint Energy	DTE	AIC			
Advanced Power Strips	Х	Х	Х	Х					Х			
Smart Sockets	Х		Х									
Occupancy Sensors												
Door Sweeps	Х		Х						Х			
HVAC Tune-Up						Х		Х				
Number of Distinct Measures	12	11	11	9	7	6	5	5	13			

<sup>a</sup> This measure includes central air conditioners and window units. Publicly available data specifying air conditioner type are lacking.

<sup>b</sup> We group showerheads and faucet aerators for ease of interpretation, as it is common to offer these measures together. Nonetheless, we recognize they are distinct measures, and utilities may offer kitchen and bathroom aerators.

Source: Utility websites, final evaluation reports, implementation plans, and impact evaluations. Please see the Bibliography section for a full list of sources and references.

### MULTIFAMILY PROGRAM MEASURES

The AIC Multifamily Channel provides measures through the OSS model in which multifamily customers receive comprehensive property assessments, health and safety evaluations, in-unit and common area direct install measures, as well as deeper energy saving weatherization and HVAC measures.

Across the utilities, some multifamily measures are provided at no cost and there is no copay required from the customer. In contrast, others have an incentive or rebate that covers some or all of the cost and may require a copay from the customer to complete (Table 5). Whether the incentive or rebate covers the full cost depends on the cost per unit and whether other electrical or building upgrades are needed before installing measures.

**No cost measures**: ComEd provides the most free offerings for multifamily properties. Their program offerings cover lighting upgrades, replacement and upgrades of major appliances, such as HVAC equipment and water heaters, insulation, and smart technologies, such as advanced thermostats. More specifically, they offer water heater replacements and occupancy sensors free of charge. National Grid also provides more free measures than AIC; however, AIC does not charge customers for direct installs, including LEDs, water, and weatherization measures.

**Partial rebates/incentives**: Ameren Missouri provides the most partial rebates and incentives for measures within multifamily offerings, followed by DTE, Consumers Energy, and AIC, in that order.

Overall, DTE offers the most measures within their multifamily program, with AIC and ComEd tied for second. AIC offers the second most multifamily measures overall, while DTE offers the most.

	Utility									
Measure	ComEd	National Grid	NIPSCO	Xcel Energy	CenterPoint Energy	Consumers Energy	DTE	Ameren Missouri	AIC	
Water Heater	Х		/			/	/	/	/	
Freezer/Fridge	Х	Х	/	Х			/	/		
Air Source Heat Pump			/			/	/	/	/	
Electric Clothes Dryer							/			
Showerhead and/or Faucet Aerator <sup>a</sup>	Х	Х	Х		Х	Х	Х	/	Х	

#### Table 5. Measures Offered for Multifamily Programs

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	Utility									
Measure	ComEd	National Grid	NIPSCO	Xcel Energy	CenterPoint Energy	Consumers Energy	DTE	Ameren Missouri	AIC	
Air Conditioner	Х	Х		Х		/	/	/	/	
Air Filter										
Advanced or Programmable Thermostats	Х	Х	Х			/	/	/	Х	
LED Lighting	Х	Х	Х	Х	Х	Х	Х	/	Х	
Water Pipe Insulation	Х	Х	Х		Х	Х	/	/	Х	
Attic or Wall Insulation	Х	Х				/	/	/	Х	
Air Sealing	Х	Х					/	/	/	
Duct Sealing						/	/		Х	
Advanced Power Strips	Х	Х		Х				/	Х	
Smart Sockets	Х					/				
Occupancy Sensors	Х						/			
Door Sweeps									Х	
HVAC Tune-Up					/		/			
Number of Distinct Measures – no participant cost	12	9	4	4	3	3	2	0	8	
Number of Distinct Measures – participant cost (partial rebates or incentives)	0	0	3	0	1	7	12	11	4	
Total Number of Measures Offered	12	9	7	4	4	10	14	11	12	

<sup>a</sup> We group showerheads and faucet aerators for ease of interpretation, as it is common to offer these measures together. Nonetheless, we recognize they are distinct measures, and utilities may offer kitchen and bathroom aerators.

Note: Cells with a diagonal indicate that the utility only offers partial rebates or incentives for this measure.

Source: Utility websites, final evaluation reports, implementation plans, and impact evaluations. Please see the Bibliography section for a full list of sources and references.

# ENERGY SAVINGS AND COST

Three of the eight peer utilities offering single family programs included in this research effort had sufficient data in publicly available reports to support a direct comparison of cost-efficiency (cost per kWh savings) to AIC.<sup>4</sup> These same three utilities had sufficient data to compare average single family participant savings. Two of eight utilities had sufficient data for the multifamily comparisons to AIC. See Table 6 for a summary of the comparison.

AIC's Single Family Channel ranks high in cost-efficiency and provides significantly higher average savings per participant. Three of the four utilities fall within a tight distribution of cost-efficiency. NIPSCO is an outlier in terms of its low cost per kWh. AIC ranks second among these utilities in terms of cost-efficiency and first by a significant margin in terms of savings per home. As discussed, AIC offers the largest array of distinct measures among the compared utilities. This variety leads to addressing more opportunities and, ultimately, higher savings on average. However, (b-25) conversions<sup>5</sup> are a key contributor to the savings per participant. While the costs of projects with (b-25) conversions cannot be fully disaggregated from other projects, removing (b-25) conversion savings yields an average savings of 1,485 kWh per participant, which is similar to Ameren Missouri and ComEd's savings and more aligned with AIC's cost-

<sup>&</sup>lt;sup>4</sup> We were unable to disaggregate income qualified from market rate customers for NIPSCO's multifamily program. Therefore, we have not included its data for multifamily in this report.

<sup>&</sup>lt;sup>5</sup> Statutorily allowed conversion of fossil fuel savings to kWh for the purposes of goal attainment. Opinion Dynamics

efficiency ranking (i.e., when excluding conversions from the calculation, the cost-efficiency and savings per participant of AIC's Single Family Channel are second highest among peer utilities).

AIC's IQ Multifamily Channel is moderately cost-efficient compared to other utilities. The distribution of cost-efficiency is much tighter for the multifamily programs, and AIC ranks in the middle of the three utilities researched. We provide additional analysis of the drivers of cost-efficiency following Table 6. A comparison of savings per multifamily property was not feasible, given that multifamily buildings are more heterogeneous than single family homes. We could not ensure that the properties served were similar in terms of characteristics that can drive energy usage and savings potential (e.g., number of units, stories, buildings).

Utility	Year	Program Annual Savings (MWh)ª	Program Electric Annual Costs (\$)	Cost per kWh	Number of Participants (Homes or Properties)	Annual Savings Per Participant (kWh)	Source
Single Family							
NIPSCO	2022	566	\$556,651	\$0.98	828 <sup>b</sup>	684	NIPSCO 2022 Evaluation Report
AIC	2023	10,059 <sup>b</sup>	\$19,991,046	\$1.99	2,732	3,682	AIC Q4 2023 Report 2023 Evaluation Report
Ameren Missouri	2022	1,034	\$2,510,092	\$2.43	540	1,915	Ameren Missouri 2022 Evaluation Report
ComEd	2023	11,265	\$29,447,339	\$2.61	9,380°	1,201	ComEd Q4 2023 Report
Multifamily							
Ameren Missouri	2022	11,247	\$7,154,725	\$0.64	147	N/A	Ameren Missouri 2022 Evaluation Report
AIC	2023	8,168	\$7,999,962	\$0.98	203 <sup>b</sup>	N/A	AIC Q4 2023 Report 2023 Evaluation Report
ComEd	2023	23,229	\$26,485,043	\$1.14	278	N/A	ComEd Q4 2023 Report

#### Table 6. Energy Savings and Cost Comparison

<sup>a</sup> Individual utilities reported energy savings differently. We converted all program annual electric savings to MWh for electric for consistency.
 <sup>b</sup> AIC savings and costs include the Joint Utility Channel, which has the same delivery model as the Single Family Channel but is a partnership with Nicor Gas in shared territory; AIC only claims the electric savings for these projects. AIC savings include (b-25) conversions for the Single Family Channel, as converted projects are included in electric program costs.

° We made estimates of participation based on information in the report, but participation is not explicitly reported.

While likely not the only factors, HVAC upgrades, and lighting appear to be significant drivers of cost-efficiency. Table 7 and Table 8 compare the percentage of annual program savings provided by various measure categories. While anecdotal, a few potential trends emerged in this analysis:

- Emphasis on HVAC replacements correlates to lower cost efficiency. For example, Ameren Missouri's single family program contributes the most to savings from HVAC replacement and is less cost-efficient. In contrast, NIPSCO does no HVAC replacement and has the greatest cost efficiency. This same relationship holds, to a lesser extent, when comparing AIC and Ameren Missouri's multifamily programs. HVAC replacements are one of the most expensive upgrades offered through energy efficiency programs, and this trend suggests that they produce relatively low yield (kWh per dollar).
- Lighting has been a historical boon to cost-efficiency and the transition away from lighting measures will pose a
  cost-efficiency issue for programs. For example, nearly half of NIPSCO's single family savings comes from lighting,
  much more than the other two utilities, and this is a likely driver of NIPSCO's very high cost-efficiency when
  combined with less emphasis on HVAC replacement. This same relationship holds although the differences are

smaller when comparing AIC and Ameren Missouri's multifamily programs. However, energy efficiency programs throughout the country are currently transitioning away from most lighting measures as a result of changes to federal lighting efficiency standards that went into place during 2023. While this transition will look different in every state, it should be expected that the vast majority of lighting measures historically implemented will generally not be available to AIC's income qualified programs beginning in 2026, which will exacerbate cost-efficiency concerns that already exist for the programs.

While measure mix is logically one driver of cost-efficiency, there are also likely other factors that drive cost-efficiency that are outside the scope of this memorandum, such as local and state economies.

Measure Category	AIC 2023	NIPSCO 2022	Ameren Missouri 2022
Cost per kWh	\$1.99	\$0.98	\$2.43
HVAC replacements	27%	0%	68%
Air sealing and insulation (non-prescriptive)	24%	17%	4%
Lighting	15%	43%	2%
Minor HVAC (tune-ups and/or motors)	10%	0%	11%
Other direct install (DI) (e.g., door sweeps, outlet gaskets, advanced power strips)	10%	0%	3%
Thermostats (advanced or programmable)	6%	2%	7%
Domestic hot water (DHW) DI	3%	8%	1%
Heat pump water heaters	3%	0%	0%
Ductwork	<1%	10%	0%
Appliances (e.g., refrigerators/freezers)	0%a	13%	3%
Assessments	0%	7%	0%

Table 7. Measure Contribution to Savings (Single Family)

Table 8. Measure Contribution to Savings (Multifamily)

Measure Category	AIC 2023	Ameren Missouri 2022
Cost per kWh	\$0.98	\$0.64
HVAC replacements	66%	59%
Lighting	18%	24%
DHW DI	8%	2%
Thermostats (advanced or programmable)	5%	7%
Other DI	2%	2%
Air sealing and insulation (non-prescriptive)	1%	<1%
Minor HVAC (tune-ups and/or motors)	0%	5%

## **OTHER BENEFITS**

While we were able to compare AIC to the other peer utilities on measures offered, delivery mechanisms, energy savings, and cost of implementation, it proved difficult to benchmark "other benefits." Our review secondary data identified some peer utilities that discussed other benefits such as health and safety benefits and cost savings.

Health and safety benefits are mentioned broadly by utilities in public-facing materials. Peer utilities will mention that their single family and multifamily programs can promote health and safety but often fail to provide specific examples. ComEd stands out in providing more background towards their health and safety benefits. They mention that their single family and multifamily programs help customers improve building safety through indoor and outdoor lighting. Their multifamily program states that their offerings help customers reduce their buildings' impact on the environment by creating healthier living spaces and a cleaner environment. Their single family program mentions that their offerings can reduce air pollution. This information is provided in a "Benefits" section on their website, which describes their single family and multifamily programs.

AIC and other peer utilities do not offer readily available public information on benefits in this way. While this may be the case for publicly available data, it is true that AIC offers a wide range of health and safety measures, as indicated by program tracking data available to the evaluation team and the results of the Single Family Site Visit Findings memorandum.<sup>6</sup> As more utilities start to formally report on the health and safety measures they provide, a more formal comparison can be made.

Some peer utilities describe energy bill cost savings. For multifamily properties, ComEd specifies that property owners can save up to \$45 per unit annually. These cost savings can vary per project and are not guaranteed. For Consumers Energy's single family program, they report that their energy-efficient upgrades and installations can help customers save up to \$150 per year. AIC provides information on a few measures within their door hanger collateral that they leave behind after home energy assessments. This door hanger explains that customers can save up to \$180 from the installation of an advanced thermostat and up to \$100 for upgrading their refrigerator.

<sup>&</sup>lt;sup>6</sup> Ameren Illinois, "Ameren Illinois Company Income Qualified Initiative – Single Family Site Visit Findings," (unpublished draft, March 21, 2024), prepared by Opinion Dynamics.

## BIBLIOGRAPHY

- AIC. "Home Efficiency Income Qualified." Accessed March 21, 2024, https://www.amerenillinoissavings.com/residential/instant-savers-assessment.
- AIC. "Multifamily Property Managers." Accessed March 21, 2024, https://www.amerenillinoissavings.com/multifamily/multifamily-property-managers.
- AIC. "One Stop Shop: Making Your Property More Energy Efficiency." Accessed March 22, 2024, https://www.amerenillinoissavings.com/wp-content/uploads/2021/05/PY21-JAN-2021-Multifamily-Outreach-Presentation-FINAL.pdf.
- AIC. PY2023 Quarterly Report. n.d., https://www.ilsag.info/wp-content/uploads/PY23-Ameren-Illinois-Quarterly-Report-Q4-2023.pdf.
- AIC. 2023 Residential Program Impact Evaluation Report. April 29, 2024, prepared by Opinion Dynamics, https://www.ilsag.info/wp-content/uploads/2023-AIC-Residential-Program-Impact-Evaluation-Report-FINAL-2024-04-29.pdf.
- Ameren Missouri. Ameren Missouri Program Year 2022 Annual EM&V Report Volume 1: Portfolio Impact Summary. June 9, 2023. https://efis.psc.mo.gov/Document/Display/17590.
- Ameren Missouri. "CommunitySavers Single Family Program." Accessed March 22, 2024, https://www.ameren.com/missouri/residential/energy-efficiency/single-family.
- Ameren Missouri. "Multifamily Income Eligible Energy Efficiency Program Guidelines." Accessed March 22, 2024, https://ameren-staging.planetecosystems.com/templates/pdf/MFIE\_Program\_Guidelines\_v.31122.pdf.
- CenterPoint Energy. "Multifamily Direct Install Program." Accessed April 15, 2024, https://www.centerpointenergy.com/en-us/Documents/Commercial-Industrial-Docs/Multifamily.pdf.
- CenterPoint Energy. "Resources to Weatherize your Home." Accessed March, 22, 2024, https://midwest.centerpointenergy.com/assistance/weather.
- Consumers Energy. "Helping Neighbors Program: Free Energy Saving Upgrades for Income Qualified." Accessed March 22, 2024, https://www.consumersenergy.com/residential/save-money-andenergy/assessments/helping-neighbors.
- Consumers Energy. "Multifamily Property Management," Consumers Energy, Accessed March 22, 2024, https://www.consumersenergy.com/business/business-services/multifamily-property-management.
- Commonwealth Edison. CY2023 Fourth Quarter Report. n.d., https://www.ilsag.info/wp-content/uploads/CY2023-Q4-ComEd-EE-Report.pdf.
- Commonwealth Edison. "Multifamily-Energy Savings." Accessed February 20, 2024, https://www.comed.com/ways-to-save/for-your-home/home-energy-savings/multi-family.
- Commonwealth Edison. "Single Family Home Energy Savings." Accessed February 20, 2024, https://www.comed.com/ways-to-save/for-your-home/home-energy-savings/single-family.
- Detroit Edison. "Limited Income Assistance." Accessed March 22, 2024, https://www.dteenergy.com/us/en/residential/save-money-energy/get-started-with/limited-incomeassistance.html.
- Detroit Edison. "The DTE Energy Multifamily Program: Do your Part to Reduce Energy Use and Costs in Multifamily Buildings." Accessed March 22, 2024, https://www.dteenergy.com/us/en/business/energyefficiency/getting-started/rebate-programs/The-DTE-Energy-Multifamily-Program.html.

- Illinois Energy Efficiency Stakeholder Group. Illinois Energy Efficiency Policy Manual Version 3.0. 2023, https://www.ilsag.info/wp-content/uploads/IL\_EE\_Policy\_Manual\_Version\_3.0\_Final\_11-3-2023.pdf
- NationalGrid. "Income Eligible Services." Accessed March 22, 2024, https://www.nationalgridus.com/MA-Home/Energy-Saving-Programs/Income-Eligible-Services.
- NationalGrid. "See the Possibility for Making your Buildings Smarter and Safer." Accessed March 22, 2024, https://www.nationalgridus.com/multifamily?utm\_source=Print-Radio-OOH&utm\_medium=Print&utm\_content=Building|Print-Radio-OOH|All|All&utm\_campaign=Cl|LCl|2022MultiFamily|All|All|All|100770|2022-09-14.
- Northern Indiana Public Service Company. 2022 DSM Portfolio Evaluation Report, June 26, 2023, prepared by ILLUME Advising, LLC, et al, https://www.nipsco.com/docs/librariesprovider11/energy-efficiency/2022-dsm-portfolio-evaluation-report.pdf.
- Northern Indiana Public Service Company. "Income Qualified Weatherization." Accessed March, 22, 2024, https://www.nipsco.com/energy-efficiency/for-your-home/income-qualified-weatherization.
- Northern Indiana Public Service Company. "Multi-Family Direct Install." Accessed March, 22, 2024, https://www.nipsco.com/energy-efficiency/for-your-home/multi-family-direct-install.
- Xcel Energy. "Income-Qualified Home Energy Savings Program." Accessed March, 23, 2023, https://mn.my.xcelenergy.com/s/billing-payment/energy-assistance/income-qualified-home-energy-savings.
- Xcel Energy. "Income- Qualified Multifamily Energy Savings Program." Accessed March, 23, 2023, https://mn.my.xcelenergy.com/s/business/cost-savings/income-qualified-multi-family-energy-savings.