



Memorandum

To: Tammy Jackson, Nick Warnecke, Ameren Illinois Company; Seth Craigo-Snell, SCS Analytics

From: The Opinion Dynamics Evaluation Team

Date: April 24, 2024

Re: 2023 AIC Multifamily Initiatives Tenant Survey Findings Memo

This memorandum summarizes the 2023 tenant survey findings for the Ameren Illinois Company (AIC) Multifamily Initiatives. These findings are based on feedback from Initiative staff, implementation partners, and tenants who live in participating properties. The tenant survey supported multiple research objectives, including the tenant's satisfaction with the installation process and installed measures and the tenant's usage of installed measures. This survey was also an opportunity to collect in-service rates (ISRs) for tenant units participating in Multifamily Initiatives.

Introduction

The AIC Multifamily Initiatives include three distinct components: the Market Rate Multifamily Initiative, the Public Housing Initiative, and the Multifamily Channel of the Income Qualified (IQ) Initiative (referred to as IQ Multifamily throughout this memo). The Multifamily Initiatives provide a wide range of directly installed energy efficiency products and building shell and HVAC retrofits that lower energy use, lower costs of living, and increase tenant comfort. Measure offerings are similar across these Initiatives, with some variations. CMC Energy implemented the Multifamily Initiatives in 2023 in coordination with AIC and Leidos.

In 2023, all property types received tenant unit direct install measures from either a Program Ally or their building management.¹ In-unit measures included smart devices such as advanced thermostats and advanced power strips, weatherization measures such as door sweeps and insulation, and water-saving measures such as kitchen and bathroom faucet aerators, restrictor shower valves, and low-flow showerheads. According to tracking data, the Multifamily Initiatives served 4,064 tenant units in 2023. Most of these units were a part of IQ Multifamily (50%), followed by the Public Housing Initiative (28%), and then the Market Rate Multifamily Initiative (22%).

Summary of Key Findings

We provide a summary of key findings below. Detailed evaluation results, conclusions, and recommendations are provided in subsequent sections.

- Tenants expressed high satisfaction with the measures installed in their units and the overall installation process. Advanced thermostats and power strips garnered the highest satisfaction ratings, while tenants were least

¹ When equipment installations were slated to be handled by property management staff, the Multifamily Initiatives collaborated with the properties to ensure measures were installed in tenant units. Implementation staff reported that these types of installations are not common.

satisfied with water savings measures, including faucet aerators and restrictor showerheads. In-person interaction is ideal, when possible: tenants present during installation were notably more satisfied with the installation process and the energy-saving measures installed than those absent during installation.

- Education is particularly important for measures requiring user engagement, such as advanced thermostats and advanced power strips. When they received it, tenants found in-person instruction from Program Allies to be more beneficial than leave-behind instructions. However, many tenants, regardless of property type, did not receive in-person information from the Program Ally even though they were present for the installation process. Implementation team staff noted during interviews that Program Allies typically provide in-person instruction, suggesting there is a possible miscommunication about expectations.
- The ISRs we estimated from survey results are generally consistent with existing IL-TRM 11.0 assumptions, with one exception. Tenants reported that their advanced power strips were installed far more than the current IL-TRM assumptions. Overall, there is enough evidence to consider ISR updates for three of the measures included in the survey: kitchen and bathroom faucet aerators, low-flow showerheads, and advanced power strips.
- A significant number of tenants do not have their advanced thermostats connected to their phones, leading to nearly half of tenants manually adjusting their thermostat temperature as needed. This lack of connectivity poses challenges in fully utilizing all the features of advanced thermostats.
- Most tenants reported using advanced power strips correctly (i.e., plugging primary and secondary appliances into the right sockets).

Evaluation Methods

In December 2023, the evaluation team fielded an online push-to-web survey to 3,232 tenant units with valid mailing addresses whose property management participated in the 2023 AIC Multifamily Initiatives.² The evaluation team sent one letter and one postcard to each tenant sampled. Table 1 summarizes the number of tenants sampled for the survey in 2023.

Table 1. Summary of Sampled Properties

Initiative	Number of Tenants Attempted	Number of Valid Addresses
IQ Multifamily	1,611	1,465
Public Housing	880	507
Market Rate Multifamily	741	547
Total	3,229	2,516

Contact Information Challenges

During the outreach process, the evaluation team received a significant amount of returned mail due to invalid addresses, representing approximately one-fifth of the targeted tenant population. The Public Housing Initiative properties experienced the most pronounced impact, with nearly half of the outreach mailings for sampled properties being returned. By comparison, the return-to-sender issue affected approximately a quarter of IQ Multifamily and Market Rate Multifamily Initiative properties. During interviews, implementation staff highlighted the challenge of tracking and managing multiple mailing addresses for entire complexes without a common building identifier in their

² The survey sample used tracking data through September 2023, which did not include an exhaustive list of all tenants served in 2023. Opinion Dynamics

database. They explained that when such complexes are integrated into the system, they are compelled to link multiple mailing addresses to a single AIC account.

Detailed Findings

Participation Summary

Overall, 128 tenants responded to the survey, as shown in Table 2. As expected, tenants in IQ Multifamily, the largest of the three Initiatives, completed the most surveys.

Table 2. Summary of Tenant Survey Responses

Initiative	Number of Tenant Responses	Percent of Responses	Response Rate ^a
IQ Multifamily	49	38%	5%
Public Housing	40	31%	10%
Market Rate Multifamily	39	30%	8%
Total	128	N/A	7%

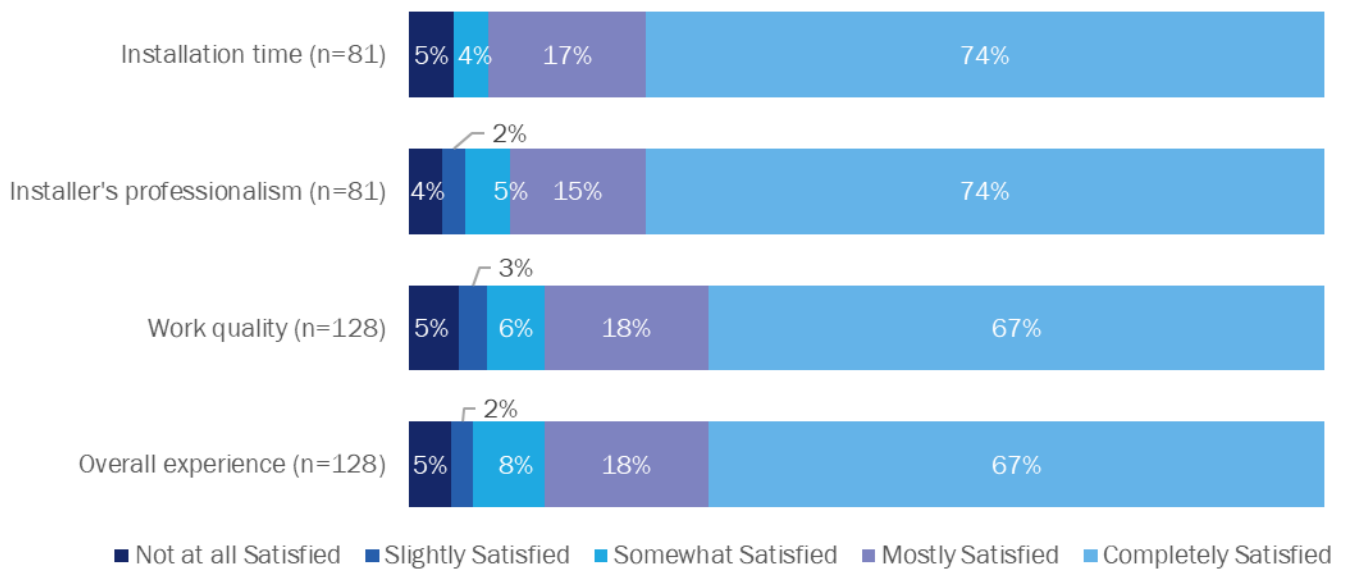
^a. Response rate was calculated using the American Association for Public Opinion Research (AAPOR) approved method.

Tenant Experience

In 2023, tenants were provided direct install measures through a Program Ally or property management personnel. Following installation, tenants were typically provided written instructions for using the equipment where applicable. If tenants were present during the installation visit, implementation staff reported that they usually provide in-person instructions from either the Program Ally or the property manager staff who conducted the installation.

Overall, tenants were highly satisfied with the installation process and the installer who completed the work. Of the tenants who were home (n=81), most reported that they were either “mostly” or “completely satisfied” with the time it took the installer to complete the installation (91%) and the professionalism of the installer (89%). Further, of all respondents (n=128), the majority reported that they were either “mostly” or “completely satisfied” with the quality of work completed by the installer during their visit (85%), as shown in Figure 1. Of the tenants who reported being less than “somewhat satisfied,” most reported being dissatisfied with the quality of the work because it was not what they were expecting (n=11), poor quality (n=4), or not completed within the time they were expecting (n=3).

Figure 1. Tenant Satisfaction with the Installation Process



Note: Some ratings do not add to 100% due to rounding.

The majority of tenants across all property types were satisfied with the installation experience overall. Tenants from Market Rate Multifamily Initiative properties were the most satisfied, followed by Public Housing Initiative tenants and IQ Multifamily tenants, as shown in Figure 2. This suggests that irrespective of the property type, there is a general trend toward effective and satisfactory installation processes.

Figure 2. Tenant Satisfaction with Installation Experience Overall

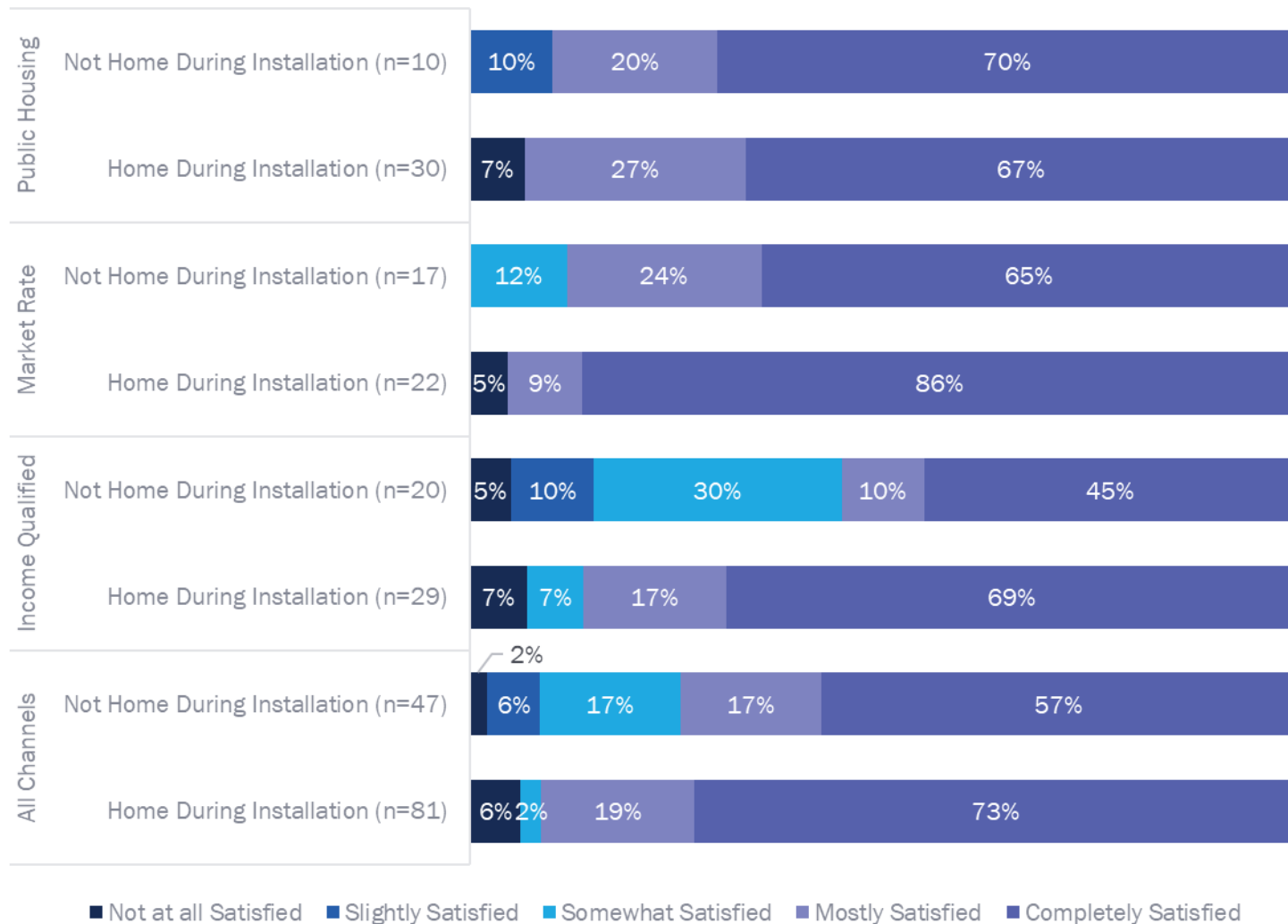


Tenants who engaged with the Program Ally during the installation process expressed higher overall satisfaction than those who were not home during the installation process, as shown in Figure 3.³ Most properties notified tenants that

³ Findings are statistically significant when compared to tenants who were not home at the time of installation.
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work would be completed in their unit before the Program Ally’s visit (83%, n=128). Most of these tenants reported that this notice came at least a few days to more than a week in advance (83%). The majority of tenants were home during the installation process (63%). Overall, those present during installation were more likely to rate their satisfaction as “mostly” or “completely satisfied,” as depicted in Figure 3. However, those in the IQ channel were more likely to report being less satisfied with the installation process if they were not home during the installation. This finding suggests that the advance notice prepared tenants for the installation and contributed to their opportunity to engage with the process. Tenants in the Public Housing and Market Rate channels remained more consistent in their satisfaction ratings regardless of whether tenants were home or not at the time of installation.

Figure 3. Tenant’s Overall Satisfaction by Presence During Installation



Most tenants received some educational materials, but few who were home during installation received in-person instruction from the Program Ally. The majority of all tenants received some instructional leave-behind materials, as shown in Figure 4. However, approximately half of Market Rate tenants and less than half of IQ Multifamily and Public Housing Initiative tenants who were home during the installation reported receiving in-person information. The implementation team mentioned that they will talk to the tenant about the installation if they were home when installing the measures. However, most tenants did not report receiving this in-person instruction. Additionally, IQ Multifamily and Public Housing Initiative tenants were less likely to receive instructional materials.

Figure 4. Tenant Receipt of Educational Materials or Contractor Instruction by Property Type

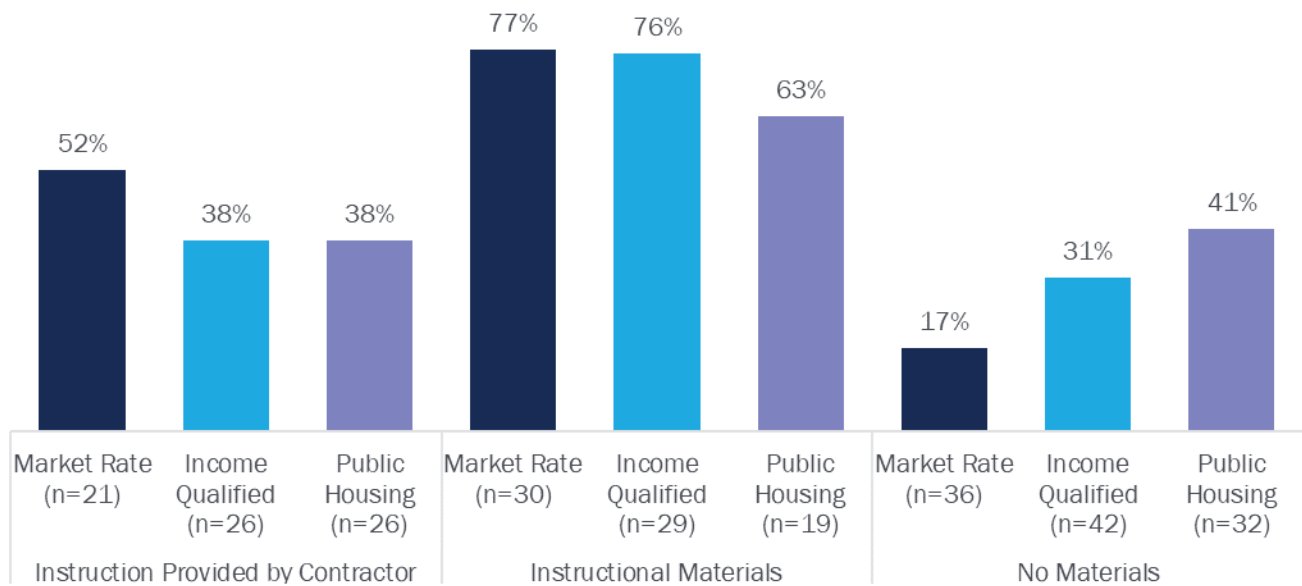


Figure Note: Customers who were home at the time of installation were asked whether they received both types of instruction (i.e. Instruction from a contractor and instructional materials). Customers who were not home during installation were only asked about instructional materials. Customers who said that they did not receive any materials are exclusive to the other two categories in this figure.

Among those who received it, in-person instruction provided by the Program Ally was somewhat more useful to tenants than the instructional materials left behind. When tenants are present during the installation process, Program Allies will provide in-person education regarding the newly installed measures and how to utilize any smart devices installed effectively. Some tenants reported that the hands-on assistance from Program Allies was more helpful compared to instructional materials left behind by the Program Ally. As shown in Figure 5, 8% of tenants reported instructional materials were “not at all helpful” or “slightly helpful” compared to just 3% of tenants who reported that instruction provided by Program Allies was “slightly helpful.” The handful of tenants who reported that the leave-behind materials were less than “somewhat helpful” mentioned that the instructions were not comprehensive enough to help them set up their advanced thermostats and advanced power strips (n=5).

Figure 5. Helpfulness of Instructions Provided to Tenants

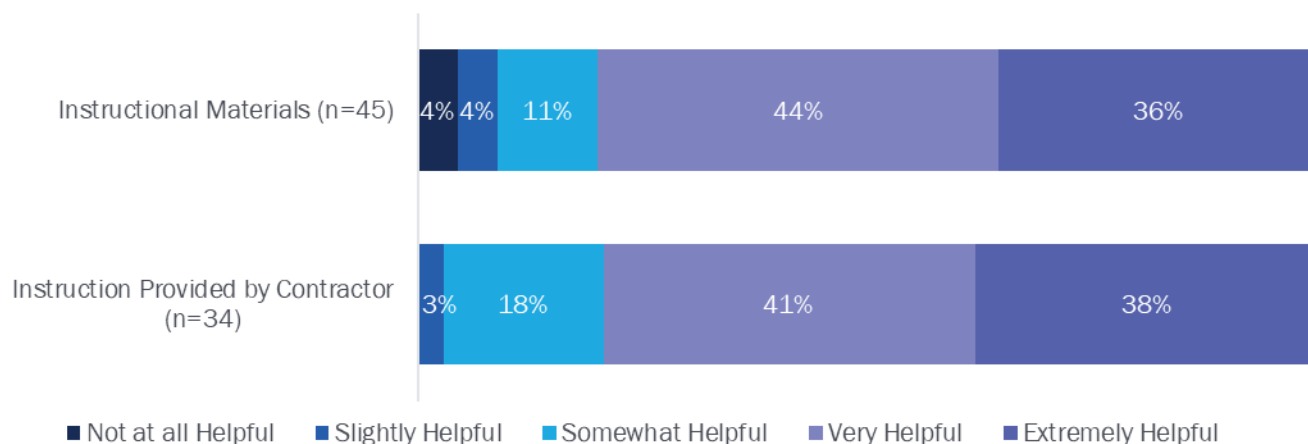


Figure note: Some respondents did not provide a response to these questions (n=13, Instructional Materials, and n=2, Instruction Provided by Contractor)

Measure Verification & Satisfaction

The survey verified that direct install measures remained installed in tenant units, focusing on measures tenants could feasibly remove.

Tenants very rarely removed devices that were installed in their units, as expected for direct install offerings. Table 3 outlines ISRs by measure compared to the IL-TRM v.11.0 assumptions. ISRs for each measure mostly align with current TRM assumptions, except for advanced power strips, which were reported as mostly installed by tenants. Some advanced thermostats were reported as not being installed because they broke after installation (n=1), or the tenant could not connect it to their smartphone, so they removed it (n=1).

Table 3. Multifamily Initiatives ISRs

Measure Name	Valid Respondents	Total Verified Received by Respondents	ISR	Current IL TRM v.11.0 Assumption	TRM Section/ Program Type
Door Sweep	2	2	100%	100%	Section 5.6.1 Air Sealing
Bath Faucet Aerator	38	60	98%	93%	Section 5.4.4 Low Flow Faucet Aerators - Direct Install
Kitchen Faucet Aerator	44	44	98%	93%	Section 5.4.4 Low Flow Faucet Aerators - Direct Install
Low-Flow Showerhead	26	33	97%	96%	Section 5.4.5 Low Flow Showerheads
Restrictor Shower Valve	27	42	95%	95%	Section 5.4.8 Thermostatic Restrictor Shower Valve
Advanced Thermostat	37	37	95%	100%	Section 5.3.16 Advanced Thermostats
Advanced Power Strip	75	87	92%	40%	Section 5.2.1 Advanced Power Strip

Satisfaction

Tenants were most satisfied with the advanced thermostat and advanced power strips they received and least satisfied with the water-saving measures. As shown in Figure 6, tenants were most satisfied with advanced thermostats and advanced power strips, and they were the least satisfied with the restrictor shower valves and bathroom faucet aerators. Of the customers who reported being less than “mostly satisfied” with the water-saving measures that were installed (n=27), most reported that they did not like the lower water flow (56%) or the way equipment performs (33%). Less common feedback included reports of leaks (n=4) or breakage after installation (n=4).

Figure 6. Tenant Satisfaction with Installed Measures



Note: Two tenants who received door sweeps reported being “mostly satisfied” and “completely satisfied.”

Measure Usage

This section describes tenant usage and perceptions of advanced thermostats and advanced power strips, two measures that require user engagement to function optimally.

Advanced Thermostats

A large proportion of tenants do not have their advanced thermostats connected to their phones (65%). As such, almost half of the tenants manually adjust the thermostat's temperature as needed. Program Allies may not be assisting tenants with thermostat connectivity, as tenant presence during installation did not impact the rate at which thermostats were connected to mobile devices. About a third of tenants who were home during the installation reported receiving instruction or information from the Program Ally who installed it (31%, n=36).⁴ Over half of the tenants reported receiving leave-behind materials, and a quarter did not receive any information about the installation.⁵ The implementation team mentioned briefly talking to the tenant about the advanced thermostat when they installed it; however, most tenants did not report receiving this in-person instruction. Additionally, one tenant reported removing their thermostat because they could not connect it to their phone.

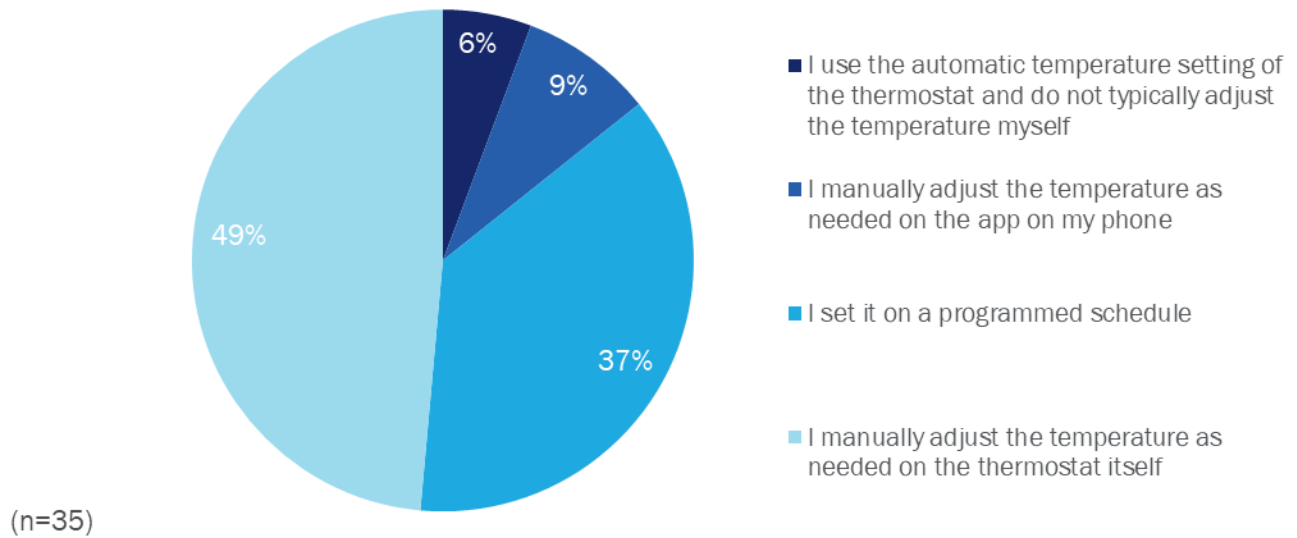
More than a third of tenants (37%) reported setting their thermostats on a programmed schedule (Figure 7). Of those who reported manually adjusting their thermostat as needed, the majority stated they adjust it rarely (26%) or once or twice a week (26%). While advanced thermostats offer valuable features for energy management and comfort control, the ability of tenants to fully utilize these features may be hindered by challenges related to connecting their mobile

⁴ This includes one tenant who reported that the thermostat had been removed. This tenant was not asked about the use of their thermostat.

⁵ The installation instruction question was not specific to the measure received.

phones to the thermostat rather than issues with Wi-Fi connectivity. According to the 2022 Low Income Needs Assessment (LINA), the majority of both low income residents (75%) and residents who live in multifamily dwellings (84%) reported having access to high-speed broadband. Less than 5% of tenants in multifamily housing reported not having access to any form of home internet.⁶

Figure 7. Tenant Typical Use of Advanced Thermostat

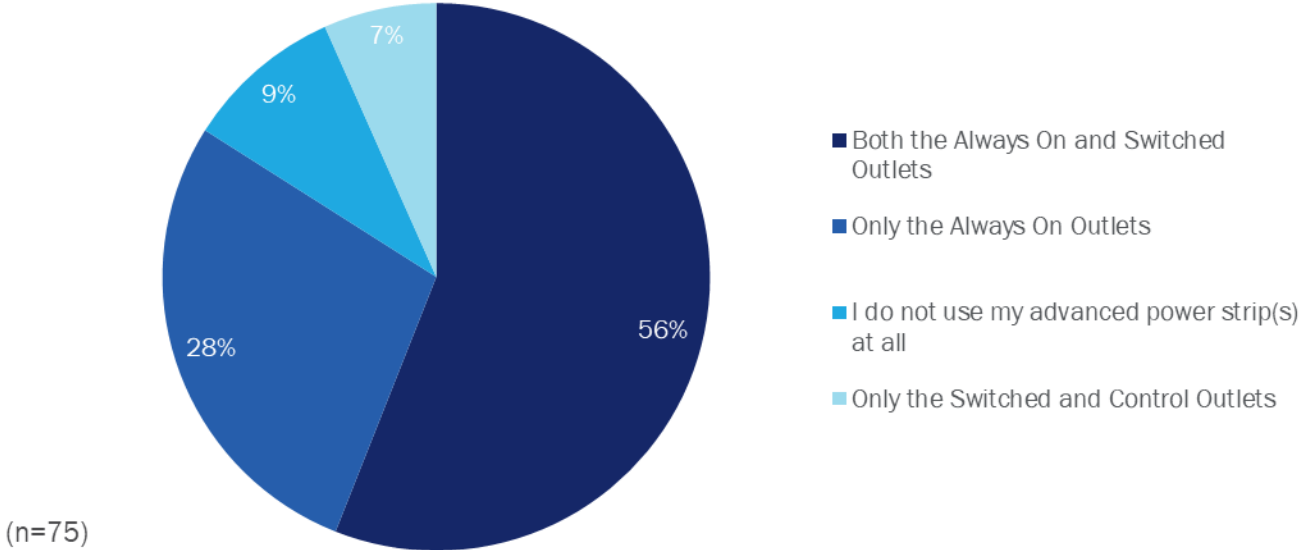


Advanced Power Strips

Most tenants reported installing the advanced power strips provided to their unit and using the advanced switch feature. Almost three-quarters of tenants reported using the advanced features of their advanced power strips (63%). In contrast, a little over one-quarter reported using their advanced power strip like a standard power strip (Figure 8). The few tenants who reported not using the advanced power strips said they do not need a power strip (n=3) or do not like that the power strip would automatically turn off the equipment in the switched outlets when not in use (n=2).

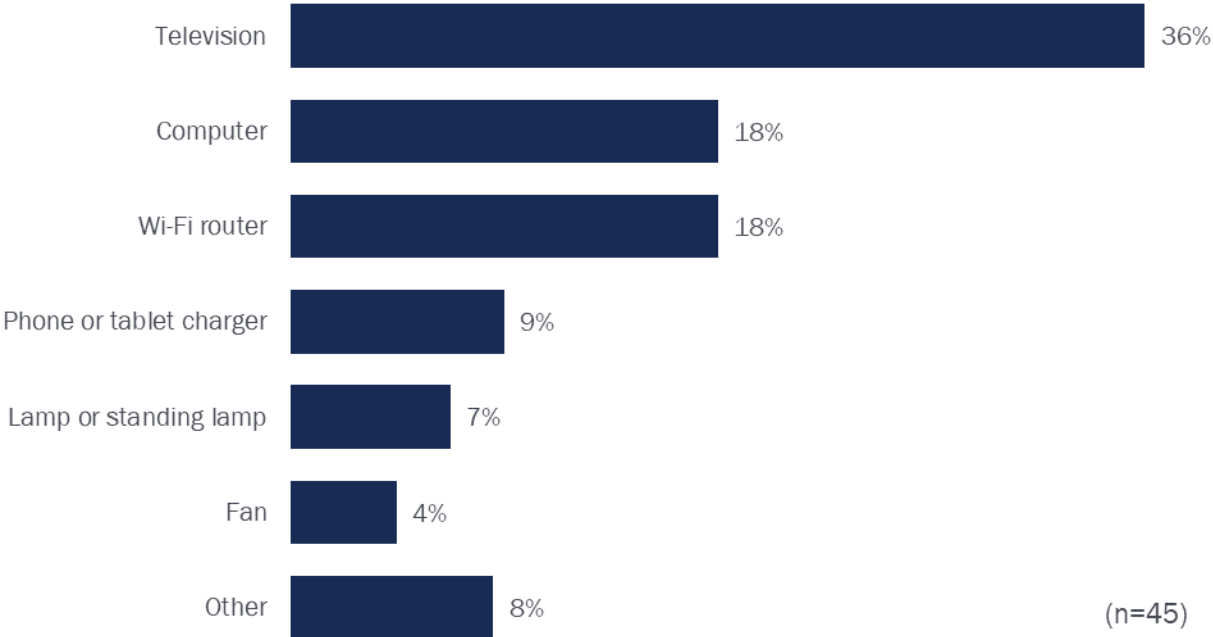
⁶ Opinion Dynamics. (2022, June 1). Ameren Illinois Company Low Income Needs Assessment. Retrieved from <https://www.ilsag.info/wp-content/uploads/AIC-2021-LINA-Report-FINAL-2022-06-01.pdf>
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Figure 8. Tenant Typical Use of Advanced Power Strips



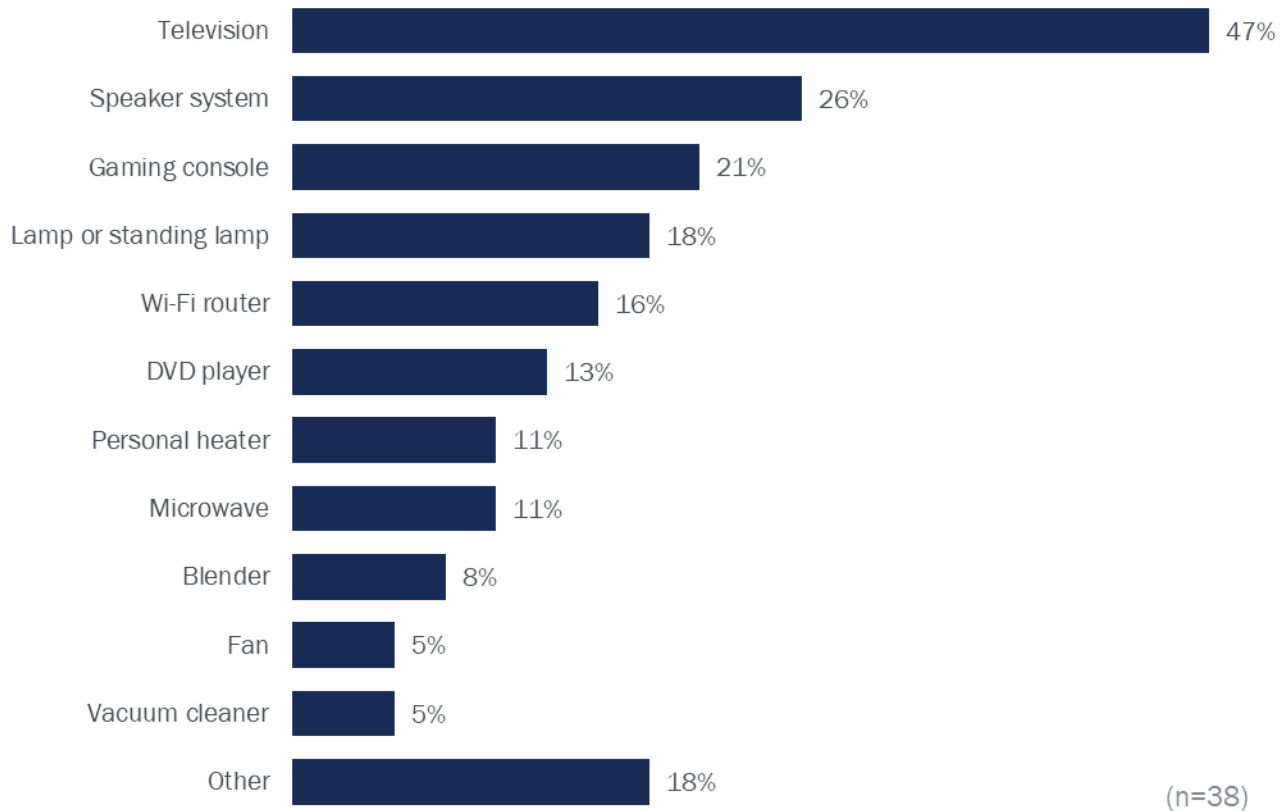
Tenants who reported using both control and switched outlets are connecting various devices. Televisions were the devices most reported to be connected to the advanced power strips for both outlet types. However, for control outlets, common household devices typically requiring stable currents of electricity, such as Wi-Fi routers and computers, were among the most common, as shown in Figure 9 and Figure 10. For switched outlets, commonly plugged-in devices included secondary devices used with a television, such as speaker systems and gaming consoles.

Figure 9. Tenant Use of Control Outlets



Note: Other devices included a heater, electric recliner, cable box, dehumidifier, and wax warmer (n=1 for each device).

Figure 10. Tenant Use of Switched Outlets



Note: Other devices included air purifiers, computers, phone or tablet chargers, printers, monitors, baby chairs, and wax warmers (n=1 for each device).

Conclusions & Recommendations

In general, tenants expressed high satisfaction with the energy-saving measures installed and the installation process, regardless of the property type. They also reported high ISRs across all installed measures, as expected of a direct install offering. While the Multifamily Initiatives are performing well overall from a customer service standpoint, there may be opportunities to improve tenant instruction and education about the installed measures to enhance tenant satisfaction.

We offer several recommendations to ensure the Multifamily Initiatives remain successful and improve the accuracy of future tenant research:

- Finding 1:** Overall, tenants were highly satisfied with the measures and installation process. They rated their satisfaction with smart devices such as the advanced power strip and advanced thermostat very highly on average. Although still mostly satisfied, tenants reported being the least satisfied with water-saving measures such as restrictor shower valves and faucet aerators.
- Finding 2:** ISRs were relatively consistent with current TRM assumptions except for advanced power strips. There was a large difference between the reported number of advanced power strips currently being used and current TRM assumptions. Based on this research, the evaluation team will submit an Illinois TRM work paper to update multifamily direct install ISRs for faucet aerators, low-flow showerheads, and advanced power strips to update savings assumptions for 2025.

- **Finding 3:** Tenants who were present during the installation process reported higher satisfaction with the process overall. Tenants also found in-person instruction more useful than leave-behind instructions. However, many tenants reported that they did not receive in-person instruction from the Program Ally who worked in their unit. Implementation team staff noted during interviews that Program Allies typically provide in-person instruction, suggesting there is a possible miscommunication about expectations.
 - **Recommendation:** Reinforce expectations to Program Allies that they should provide some instruction to tenants when measures with interactive components are installed (i.e., advanced thermostats, advanced power strips, water-saving measures).
 - **Recommendation:** Consider leaving behind a helpline for all tenants, especially those unable to be present during installation. This helpline would serve as a resource for tenants requiring further explanations or assistance with the devices installed in their unit, supplementing the leave-behind instructions. By offering this support mechanism, the Multifamily Initiatives can ensure that all tenants receive adequate guidance and support, regardless of their presence during the installation process. This support would promote greater satisfaction and understanding among tenants.
- **Finding 4:** A significant portion of tenants have not linked their advanced thermostats to their mobile phones, thereby restricting their access to the full range of advanced features offered by the device. Additionally, only about a third of tenants home during installation reported that the Program Ally talked to them about the installation process.
 - **Recommendation:** Program Allies should actively promote and assist with connecting advanced thermostats to tenants' mobile phones during the installation process, provided that the tenant's phone supports this functionality. If tenants cannot connect their phones to their advanced thermostats, then Program Allies should ensure that these tenants can use the advanced features of the thermostat directly from the device interface. This education should cover functionalities such as setting schedules, adjusting temperature, and maximizing energy-saving capabilities.
- **Finding 5:** The return-to-sender mail complication hindered tenant outreach, impacting approximately one-fifth of the targeted tenant population. This issue was particularly pronounced in participating Public Housing Initiative properties, with nearly half receiving partial or no mailings.
 - **Recommendation:** To mitigate the return-to-sender complication and enhance future outreach efforts, the Multifamily Initiatives could consider improving address collection practices by asking Program Allies to collect common building identifiers into the database (i.e., building numbers and apartment numbers).