

# Memorandum

**To:** Fernando Morales and Deb Perry, Ameren Illinois Company (AIC), Jennifer Morris (ICC Staff)  
**From:** The Opinion Dynamics Evaluation Team  
**Date:** October 7, 2019  
**Re:** 2018 Multifamily Initiative Tenant and Property Manager Survey Results

---

## Introduction

The Ameren Illinois Multifamily Initiative offers incentives and services that enable energy savings and lower operating costs in market-rate multifamily housing (buildings with three or more units managed by a private entity). The Initiative implementer, CMC Energy (CMC), conducts all outreach and recruitment, performs audits to identify installation opportunities, and provides direct installation of energy-saving measures for building common areas and tenant units. Measures are provided free-of-charge. The types of measures that property managers<sup>1</sup> and tenants are eligible to receive through the Initiative are as follows:

- **In-unit:** Initiative offerings for tenant units include LEDs, low-flow showerheads, faucet aerators, programmable thermostats, advanced thermostats, pipe wrap, and tier-1 advanced power strips. The implementer is responsible for installing LEDs, low-flow showerheads, faucet aerators, and pipe wrap in tenant units while delivery methods for the advanced and programmable thermostats vary by property. In most cases, property management staff install the thermostats under CMC supervision. However, CMC occasionally leaves thermostats behind for property management staff to install. Before projects are completed, CMC staff verify the installation of all thermostats that were left behind by visiting the units. Similarly, delivery methods for the advanced power strips also vary by property as CMC Energy staff either provide tenants with in-person tutorials about how to use their advanced power strips or they leave the power strips behind for tenants to install (some complexes do not want program staff unplugging tenant TVs or other equipment when the tenant is not present).
- **Common Areas:** The Initiative provides light bulb and occasional water saving faucet adapter replacements in common areas. More specifically, the implementer offers properties medium screw-based standard and specialty LED replacements for incandescent or halogen lamps in interior and exterior settings. They will also place faucet aerators in common areas with sinks. The implementation contractor conducts all common area lighting upgrades indoors.

Leidos also provides several implementation services to support the Multifamily Initiative including developing marketing materials, providing Initiative oversight, and networking and conducting outreach with housing authorities and other trade organizations and community groups. CMC Energy conducts QA/QC inspections on

---

<sup>1</sup> We use the term “property manager” to refer to both property managers and property owners.

direct install measures, and is responsible for managing project submissions, inventory and Initiative tracking data.

Opinion Dynamics conducted surveys with property managers and tenants that received free measures through the AIC Multifamily Initiative in 2018. The primary objectives of the property manager and tenant surveys were to answer the following questions:

- Are participating property managers satisfied with the Initiative's key components? Are tenants living in units that received direct-install measures satisfied with the measures?
- What changes could the Initiative make to improve the customer experience?
- What Non-Energy Impacts (NEIs) might result from the Initiative?
- What are the estimated Net-to-Gross-Ratios (NTGRs) for LEDs, advanced power strips, and advanced thermostats to be applied prospectively?

We describe results related to customers' experience and satisfaction with Initiative processes and measure offerings in more detail in the following sections. We provide a detailed description of the NTGR results for LEDs, advanced thermostats, and advanced power strips in a separate memo. In addition, descriptions of the NEIs that tenants and property managers realized through the Initiative will be included in a forthcoming memo with NEI results from other 2018 AIC residential initiatives.

## Key Findings and Recommendations

The surveys revealed the following key findings and recommendations for AIC, Leidos, and CMC:

- **Key Finding:** Participating customers are satisfied with the Initiative's new advanced power strip and advanced thermostat measure offerings. However, some tenants also reported having trouble using these new measures properly. Several tenants reported they had challenges setting and adjusting their advanced thermostats and many tenants reported using their advanced power strips incorrectly.
- **Key Finding:** Over half of the tenants that were listed as receiving an advanced power strip in the Initiative tracking data reported they either did not receive an advanced power strip or they were not using their power strip.
  - **Recommendation:** AIC and implementation staff should consider providing tenants with leave-behind materials that feature key tips for operating advanced thermostats and power strips. As these new measures offer features that are more complex than traditional thermostats and power strips, Initiative staff may also want to provide customers with information about additional resources if they have follow-up questions about their equipment. Relevant resources may include Nest and TrickleStar customer support phone numbers and websites.
- **Key Finding:** Implementation staff are responsible for briefing property managers about advanced thermostat set up and operation. However, several property managers reported they would like to receive more frequent onsite follow-up visits and improved communication from Initiative staff about the equipment delivery and installation process so they can be better-suited to help tenants utilize their new measures effectively.
  - **Recommendation:** Implementation staff should consider allocating more time to briefing property management staff on advanced thermostat installation and operation to help ensure that property

managers have an opportunity to ask follow-up questions. Designating extra time for briefings can help property managers feel better equipped to advise and support tenants with operating their advanced thermostats.

- **Key Finding:** Databases that track Initiative activity at the facility and the tenant levels do not align.
- **Recommendation:** Implementer and oversight staff should consider conducting regular true-ups throughout the program year to ensure property manager and tenant databases align. This would help support QA/QC efforts, and it would also help ensure accurate counts of units served through the Initiative.

## Methods

### Property Manager Survey

The evaluation team completed Computer-Assisted Telephone Interviews with 16 property managers that participated in the Multifamily Initiative in 2018. We conducted a census attempt of all eligible property managers, yielding a 42% response rate. Full descriptions of the sample frame data cleaning methods and response rates are included in Appendices B and C.

The primary goal of these surveys was to estimate NTGRs for new measures offered through the Initiative including LEDs, advanced thermostats, and advanced power strips. In addition, the survey included process-related questions to understand property manager satisfaction with the Initiative and drivers of participation. We also used these surveys as an opportunity to gather baseline information to better understand the Non-Energy Impacts (NEIs) property managers may realize from the measures installed through Initiative.

### Tenant Survey

The evaluation team fielded a mail-push-to-web survey with 89 tenants living in units that received direct install measures through the Multifamily Initiative in 2018. We sent survey invitations to a random sample of 1,600 tenants yielding an 8% response rate. Full descriptions of the sample development methods and response rates are included in Appendices B and C. The main objectives of the survey were to assess NEIs related to the Initiative and to gauge tenant experiences and satisfaction with the measures they received through the Initiative.

## Results

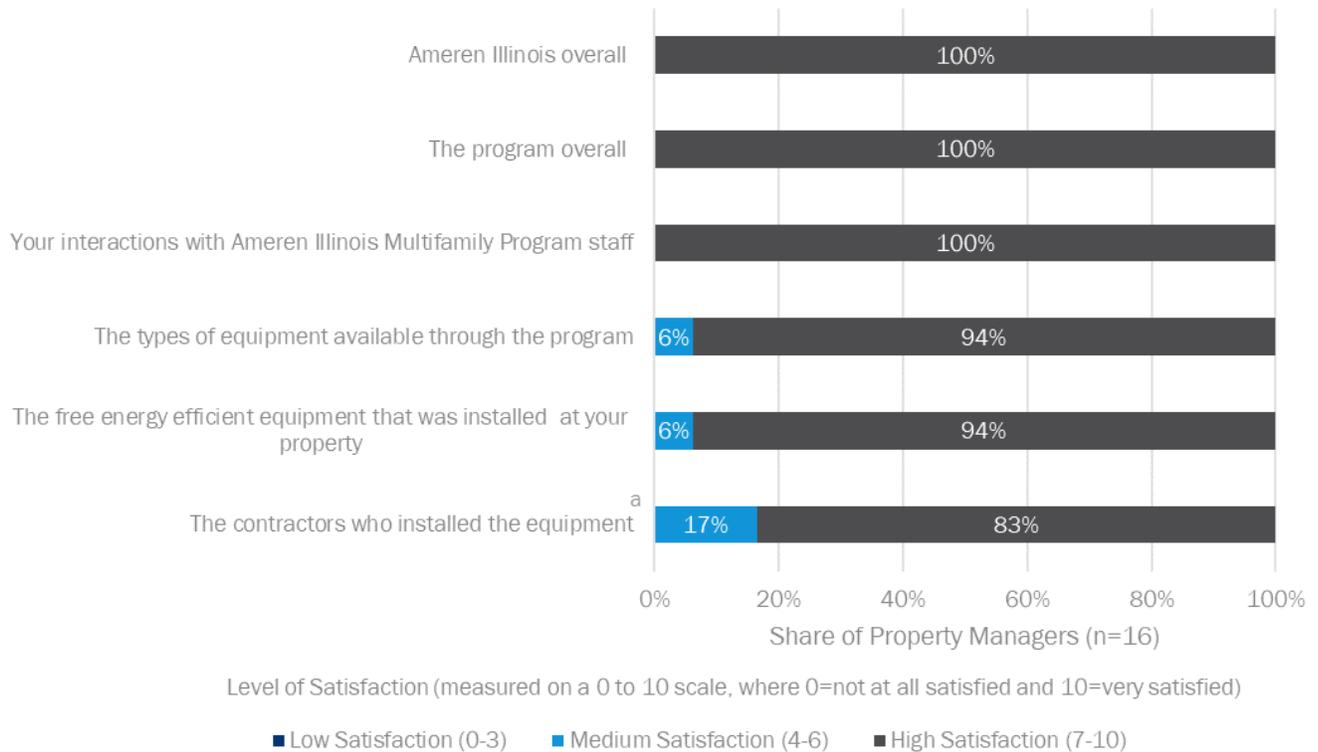
We present findings related to tenant and property manager experiences with the Multifamily Initiative components and processes in the following sections.

### Satisfaction with Initiative Processes

Overall, property managers were very satisfied with the Multifamily Initiative and the measures they received through the Initiative. We asked property managers to rank their satisfaction with the Initiative on a scale of 0 to 10, where 0 is “not at all satisfied” and 10 is “very satisfied.” Figure 1 shows that all property managers had high levels of satisfaction with Ameren Illinois overall, the Initiative overall, and their interactions with Initiative staff. In addition, most property managers had high levels of satisfaction with the free equipment they received through the Initiative, the types of equipment available through the Initiative, and the contractors who installed the equipment at their property. Property managers specifically reported they found the

contractors to be “professional, friendly, informative, and easy to work with.” They also noted that the contractors communicated well with their tenants.

**Figure 1. Property Manager Satisfaction with Multifamily Initiative Components**



<sup>a</sup> Some property managers only used their own internal staff to install the equipment and these respondents were not included in question about the “contractors who installed the equipment” (n=12).

### Opportunities for Initiative Process Improvements

Over half of the property managers we spoke with (66%) believe that AIC could make changes to improve property managers’ experience with the Initiative including improving communication processes (n=16). Four property managers reported they would like to see improvements in the frequency and quality of their communications with Initiative staff and contractors. These property managers specifically requested more onsite follow-up visits and better communication about the equipment delivery and installation processes. Furthermore, these property managers felt they would benefit from Initiative staff taking the time to conduct slower and more thorough initial walk-throughs to allow property managers to fully understand the scope of the project.

“It would be good to have received instructions on how to use/operate the thermostat and the power strip (the new equipment) or have trained maintenance guys on how to operate the system as part of the program.”

-----  
 -Property Manager Respondent

Likewise, some tenants (12%) reported confusion about how to use the advanced thermostats and power strips. As property management staff are often involved in installing or explaining how to use these measures there may be opportunities to provide tenants and property managers with more comprehensive in-person training about how to use these measures during initial installation and follow-up visits.

### Property Manager Interest in Additional Upgrades

Several property managers identified additional opportunities to complete energy efficient upgrades at their facilities (Table 1). However, multifamily properties are eligible to pursue a number of these opportunities through the AIC Business Program’s Custom Initiative (e.g., HVAC, Water Heaters and Exterior Lighting) illustrating shortcomings in cross-promotion of the offering. In particular, most property managers (69%) reported they were not aware that they are eligible to receive additional incentives for these types of advanced energy efficient upgrades through the Custom Initiative (n=16).

Table 1. Property Manager Suggestions for Additional Energy Efficient Upgrades for their Property<sup>2</sup>

Type of Upgrade	Number of Property Managers with Potential to Complete Upgrade (n=16)
Heating and cooling system upgrades <sup>a</sup>	5
Weatherization upgrades (insulation, air sealing, and weather stripping)	4
Exterior lighting <sup>a</sup>	4
New windows or doors	1
Water heater upgrades <sup>a</sup>	1
Other	4

<sup>a</sup> Indicates measures Multifamily customers are eligible to receive incentives for under the AIC Custom Initiative.

<sup>2</sup> Results in the table reflect answers to the following question, “Beyond the upgrades you just completed through the Ameren Illinois Multifamily Program, what changes could you make to your properties to make them more energy efficient?”

## Tenant Experience with Advanced Power Strips

AIC offered advanced power strips through the Multifamily Initiative for the first time in 2018<sup>3</sup> and we found that most tenants that were listed as receiving a power strip in the Initiative tracking data either could not confirm receiving the power strip (36%, n=70) or confirmed receiving the power strip, but reported using it incorrectly (59%, n=45).

Table 2 shows that over half of tenants who confirmed receiving a power strip are not using it properly: 33% reported they either use it like a regular power strip and 24% reported that they are not using the power strip at all. When the 12 tenants who reported not using their advanced power strip were asked why, five tenants explained that they found the power strip confusing or hard to use, and five reported that they did not need an advanced power strip.<sup>4</sup>

Table 2. Tenant Usage of the Advanced Power Strips Provided by the Initiative

How do you use your advanced power strip?	Share of Respondents that Confirmed Receiving an Advanced Power Strip (n=45)
To automatically shut off equipment plugged in to the “switched outlets” when I am not using the equipment plugged into the “control outlet”	40%
I use it like a regular power strip	33%
I am not using my advanced power strip at all / it is not plugged in right now	24%
Other	2%

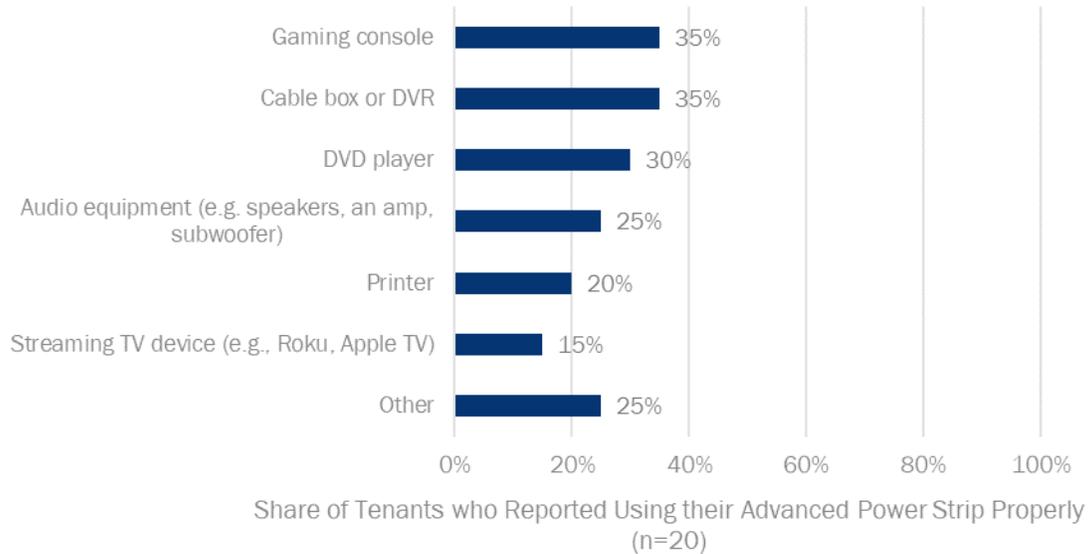
Given that energy savings from advanced power strips depends on what users plug into the “switched” outlets, we explored the types of equipment tenants plug into the power strips. Most tenants that reported using their power strips correctly also reported they plugged the appropriate types of equipment into the “control” and “switched” outlets. These tenants typically plugged TVs (70%) or computers (20%) into the control outlet to manage when the other electronics plugged in to the strip turned on or off (n=20).<sup>5</sup> Tenants that reported using their power strip properly are also generally using their advanced power strips to control energy-intensive electronics including gaming consoles, cable boxes, DVRs, and DVD players (Figure 2).

<sup>3</sup> Advanced power strips detect when an electronic device that is plugged into the “control outlet,” such as a TV, enters standby mode. To conserve energy, the advanced power strip then automatically shuts down devices plugged into the “switched outlets,” such as DVD players or speakers.

<sup>4</sup> One respondent didn’t like that the power strip would turn off equipment in the “switched outlets” and one respondent reported their power strip was stored to move.

<sup>5</sup> One respondent used a lamp (5%) and one respondent provided a don’t know answer (5%)

Figure 2. Types of Equipment Tenants Plugged into the Advanced Power Strip “Switched” Outlets

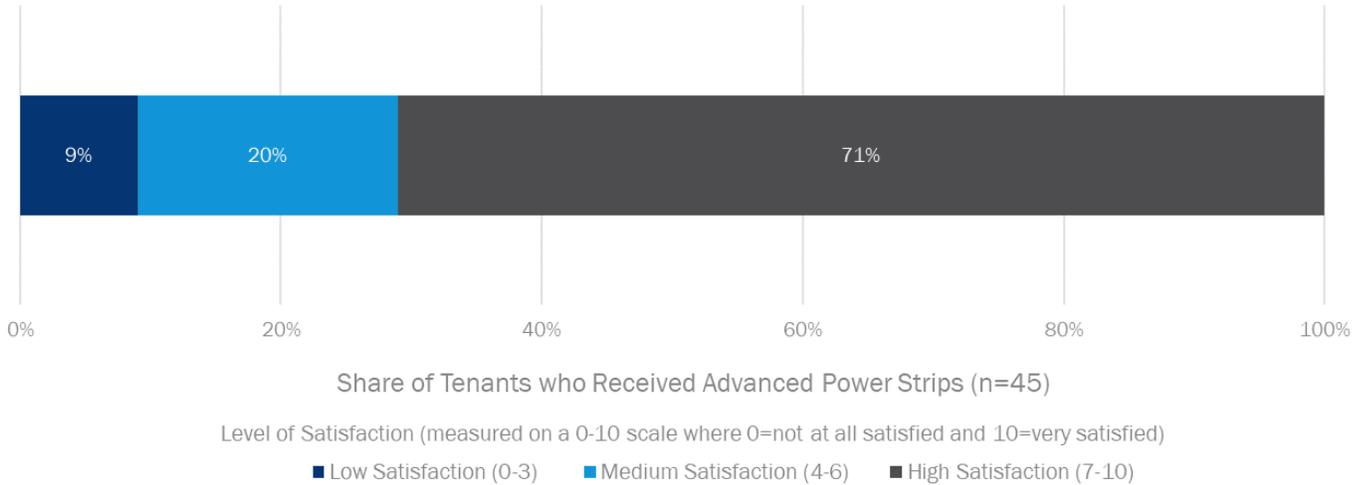


Note: 1. “Other” responses included a coffeemaker, router, TV, and computer monitor.

2. Respondents could select up to four types of equipment, because the advanced power strips they received have four switched outlets.

Most tenants (71%) who confirmed receiving an advanced power strip through the Initiative indicated they had high levels of satisfaction with their new power strip (Figure 3). Tenants also reported they liked several features of their new power strip including the power strip’s multiple outlets (59%) and the functionality to turn off equipment in “switched outlets” automatically when they turned off equipment in the “control” outlet (47%). In addition, tenants reported liking the perceived energy and electricity bill savings resulting from the power strip (38%), and the power strip appearance and size (38%) (n=32).

**Figure 3. Tenant Satisfaction with Advanced Power Strips**

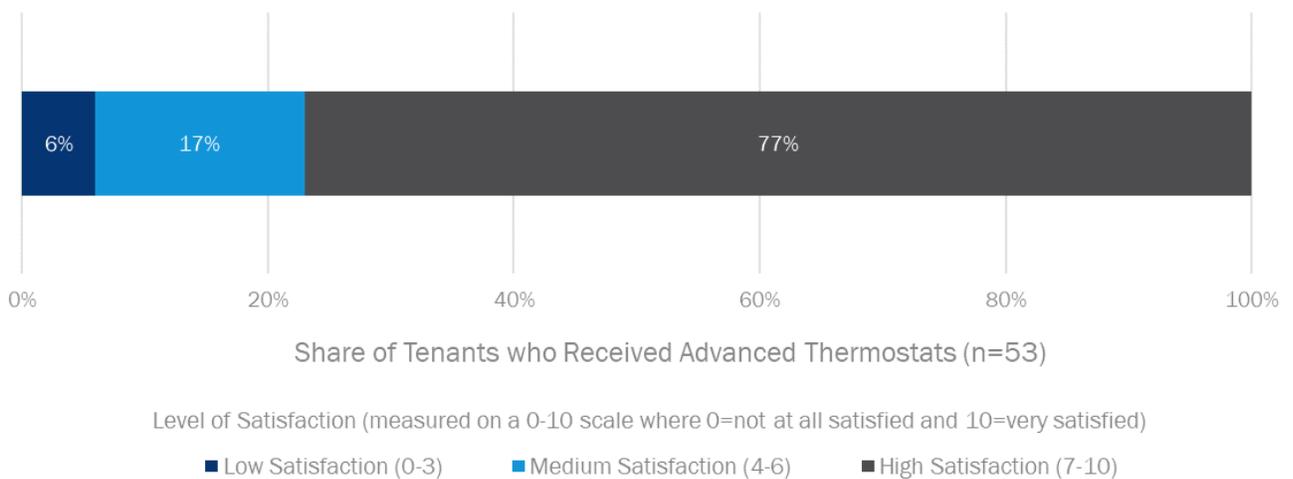


The four tenants that reported having low levels of satisfaction explained that they wanted their equipment in the “switched outlets” to stay “on,” even when the equipment in the “control outlet” was off, they disliked the power strip appearance or size, and they were not sure how to use the advanced power strip (n=4).

### Tenant Experience with Advanced Thermostats

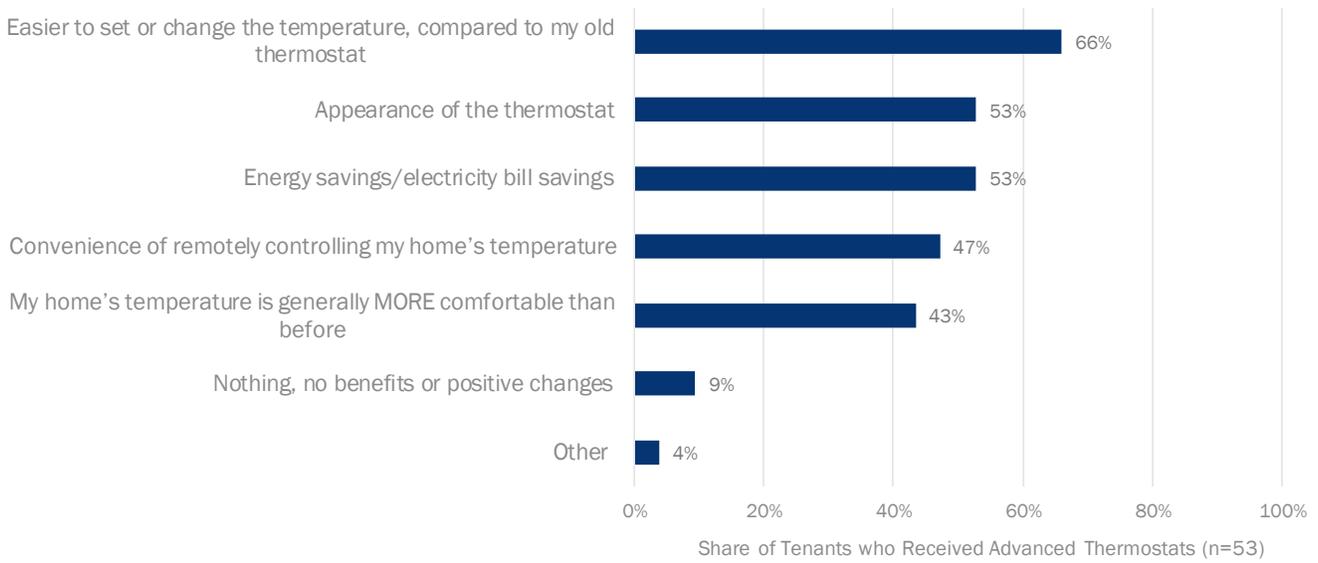
AIC also offered advanced thermostats through the Multifamily Initiative for the first time in 2018 and most tenants reported high verification rates and high levels of satisfaction for this measure, while some tenants also reported having difficulty operating their thermostats. Tenant respondents verified that they received 100% of the advanced thermostats listed in the Initiative tracking database. In addition, over three-quarters of tenant respondents (77%) reported high levels of satisfaction with their advanced thermostat (Figure 4).

**Figure 4. Tenant Satisfaction with Advanced Thermostats**



Tenants reported liking several aspects of their new thermostats including the ease of setting the temperature (66%), the appearance (53%), and the perceived energy bill savings resulting from their use of the thermostat (53%) (Figure 5).

**Figure 5. What do Tenants like about their New Thermostats? (Multiple Response)**



While most tenants who received an advanced thermostat didn't have any dislikes to report, some tenants reported challenges operating their thermostats. Almost one-third of tenant respondents (30%) found it harder to set or change the temperature for their advanced thermostat, compared to their old thermostat (n=53). More specifically, some of these tenants noted they were uncomfortable with how the thermostat adjusted the temperature automatically, that they did not receive an instruction manual for their thermostat, or that they received error messages. A few tenants (13%) also noted they believe their home became less comfortable after they received the thermostat. Furthermore, four tenants reported they would like to receive more detailed instructions on how to operate their thermostat.

## Appendix A. Survey Instruments



Property Manager  
Survey



Tenant Survey

## Appendix B. Sample Development Methodology

### Property Manager Survey

The evaluation team developed the property manager telephone survey sample frame based on the list of property managers who completed projects during 2018 and for whom the Initiative tracking data included adequate contact information. We combined observations with the same contact name or phone number into one contact (resulting in 51 contacts) and dropped one for whom there was no phone number. For the survey, we attempted to contact a census of the remaining fifty property managers.

Table 3 shows the number of measures and unique contacts represented in the property manager survey population, sample, and the number of responses received.

Table 3. Property Manager Sample Frame and Survey Respondents

Initiative Measures	Population		Sample		Completed Surveys	
	No. of Measures	Unique Contacts	No. of Measures	Unique Contacts	No. of Measures	Unique Contacts
LED	13,827	35	11,947	32	982	10
Advanced Power Strip - Tier 1	3,316	42	3,211	41	1,151	14
Advanced Thermostat	2,247	26	2,104	25	806	9
Faucet Aerator	976	18	894	17	42	3
Pipe Insulation	492	11	428	9	154	3
Showerhead	447	11	367	13	11	2
Programmable Thermostat	25	3	25	3	15	2
<b>Total</b>	<b>21,330</b>	<b>54</b>	<b>18,976</b>	<b>50</b>	<b>3,163</b>	<b>16</b>

Note: 1. The total population of unique property managers is the number of unique phone numbers  
 2. Quantities of pipe insulation are measured in linear feet and all other quantities are measured in units of equipment  
 3. The survey questions were primarily focused on new measures – advanced power strips, advanced thermostats, and LEDs, and we provide representation details for other measures for additional context.

### Tenant Survey

The evaluation team completed several data cleaning steps to develop a sample for the tenant survey. These steps were primarily focused on creating clean addresses to ensure survey invitations would reach tenants through the mail. We generated unique tenant addresses by combining property addresses with an Initiative tracking data variable labeled “unit description,” which described the upgraded space in terms of a tenant unit number or other area. We then dropped observations for the following reasons:

- The unit description indicated the unit was a common area (e.g, “Hall”, “Laundry”, and “Gym”)
- The unit description did not clearly provide one distinct unit number
- The resulting combination of the property address and unit description resulted in duplicate addresses

After developing the sample frame, we randomly sampled 900 addresses and sent them to a third-party printing and mailing company with a goal of identifying a sample of 800 addresses that passed US Postal

Service (USPS) mailing database checks. The survey database company then sent survey invitations to 800 sample points that passed the checks. After a week of fielding, the evaluation team decided to pre-emptively send out 800 additional survey invitations to respondents due to low response rates and high screen-out rates, which is a common issue for survey research with tenants. Again, we sent 900 addresses to the third-party, which selected 800 addresses that passed the USPS database test. In total, the third party mailed survey invitations to 1,600 tenant addresses.

Table 4 shows the number of measures and unique contacts represented in the tenant population, the sample, and the number of responses received.

Table 4. Tenant Survey Sample Frame and Survey Respondents

Initiative Measures	Population		Sample		Completed Surveys	
	No. of Measures	Unique Contacts	No. of Measures	Unique Contacts	No. of Measures	Unique Contacts
LED	13,947	1,411	5,198	644	266	28
Advanced Power Strip - Tier 1	3,322	2,352	1,228	1,173	79	70
Advanced Thermostat	2,247	1,395	949	895	62	53
Faucet Aerator	860	360	261	205	16	15
Pipe Insulation	492	85	288	46	3	1
Showerhead	447	216	107	103	5	5
Programmable Thermostat	25	25	18	18	0	0
<b>Total</b>	<b>21,340</b>	<b>3,421</b>	<b>8,049</b>	<b>1,600</b>	<b>431</b>	<b>89</b>

## Appendix C. Survey Disposition and Response Rate

The survey response rate is the number of completed surveys divided by the total number of potentially eligible respondents in the population. We calculated the response rate using standards and formulas set by the American Association for Public Opinion Research (AAPOR) using Response Rate 3 (RR3). The tenant and property manager survey response rates and inputs used to calculate these response rates are included in Table 3. We also include the formulas used to calculate RR3 below. The letters used in the formulas are defined in the survey disposition table that follows.

Equation 1. Formula for RR3

$$RR3 = \frac{I}{(I + N + e1(U1 + e2 * U2))}$$

Where:

$$e1 = \frac{(I + N)}{(I + N + X1)}$$

$$e2 = \frac{(I + N + X1 + U1)}{(I + N + X1 + U1 + X2)}$$

Table 5. Tenant and Property Manager Survey Dispositions and Response Rates

I	Disposition Code	Tenant Survey	Property Manager Survey
N	Complete	89	16
X1	Partial complete - survey eligibility confirmed	6	0
U1	Refused	0	5
U2	No response	1,291	23
Incidence/e1	Ineligible to participate	32	4
e2	Bounced mail/phone	181	2
<b>CR</b>	<b>Cooperation Rate</b>	<b>94%</b>	<b>76%</b>
<b>RR3</b>	<b>Response Rate</b>	<b>8%</b>	<b>42%</b>