



## Efficient Products Program Impact and Process Evaluation

**PROGRAM YEAR 2017**

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**Prepared for:**

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## Executive Summary

Ameren Missouri engaged Cadmus to perform annual process and impact evaluations of its Efficient Products program for a three-year period, from 2016 through 2018. This annual report covers the impact and process evaluation findings for Program Year 2017 (PY17), a period from March 1, 2017, through February 28, 2018—the second year of the three-year program cycle.

### *Program Description*

Ameren Missouri's Efficient Products Program provides its residential customers with rebates for purchasing qualifying energy-efficient equipment. Program rebates partially offset the costs of purchasing more efficient models. To participate, residential customers may purchase the equipment from any retailer, including online sources. Beginning in PY17, the program also began offering smart thermostats directly through the Ameren Missouri Online Store, with the incentive presented as an instant discount rather than requiring a rebate application.

In PY17, the Efficient Products program provided downstream mail-in and online rebates for the following:

- ENERGY STAR®-certified room air conditioners (RACs)
- ENERGY STAR-certified heat pump water heaters (HPWHs)
- ENERGY STAR-certified room air purifiers
- ENERGY STAR-certified multispeed pool pumps
- ENERGY STAR-certified variable-speed pool pumps
- Smart thermostats (selected models)

For PY16–PY18, Ameren Missouri has contracted with ICF International (ICF) to implement the program. ICF markets the program, recruits retailer participation, processes rebate applications, and operates Ameren Missouri's online store. ICF also takes primary responsibility for maintaining a website dedicated to data reporting and for conducting quality control checks. ICF subcontracts a field team (Crossmark) to visit retail locations, providing training and marketing materials, and monitoring stocking practices.

### *Key Impact Evaluation Findings*

The following sections describe Cadmus's key findings for the PY17 evaluation period.

#### **Program Data Adjustments**

During quarterly reviews of tracking data, Cadmus found records for a small number of HPWHs, RACs, room air purifiers, and smart thermostats that did not meet program qualifications. Most of these records, however, were corrected by the implementer before the end of the program year. In many cases, these measures did not qualify originally due to record-keeping errors, though some disqualified



measures were also removed from the tracking data. Measures were disqualified if not ENERGY STAR certified or, in the case of smart thermostats, were not on the list of qualified models.

When Cadmus verified the records in the corrected year-end tracking data, a verification rate of 98% resulted for RACs and 100% for all other measures. In PY17, the program rebated 19,144 verified measures, compared to 19,171 measures reported by Ameren Missouri.

## Gross Impacts

The program achieved realization rates of 100% (or more) for all measures included in the program for PY17, excepting smart thermostats, which had an 83% realization rate. The differences between *ex ante* and *ex post* values were because of differences in the rebated equipment mix in program records (i.e., on average, room air purifiers were more efficient than predicted) and updated parameter values from PY17 survey results (e.g., heating and cooling saturation for HPWH participants). Prior to PY17, smart thermostats received deemed per-unit savings. PY17 is the first year that smart thermostat savings have been calculated using actual program tracking and weather data.

Table 1 summarizes PY17 participation, *ex post* gross per-unit savings, realization and installation rates, and *ex post* total gross savings.

**Table 1. PY17 Summary: Ex Post Program Gross Savings Accounting for Installation Rates**

Measure	PY17 Participation*	Per-Unit Ex Post Savings (kWh/yr)	Realization Rate	Installed and Operating	Total Ex Post Gross Savings (MWh/yr)
<b>Equipment Rebates</b>					
HPWHs	358	2,526	100%	98.9%	895
RACs	1,372	49.8	114%	100%	68
Room air purifiers	2,588	578	104%	98.6%	1,474
Multispeed pool pumps	121	1,800	100%	100%	218
Variable-speed pool pumps	1,012	2,053	100%	100%	2,077
Smart thermostats	13,693	386	83%	98.9%	5,224
<b>Total**</b>	<b>19,144</b>	<b>n/a</b>	<b>90%</b>	<b>n/a</b>	<b>9,956</b>
*Verified measures.					
**Measure gross savings may not sum to total due to rounding.					

## Net Savings

As shown in Table 2, the Efficient Products program achieved an overall savings-weighted net-to-gross (NTG) ratio (excluding NPSO) of 75%. First year NPSO savings are shown below, as are 2023 NPSO savings which have been adjusted to account for measures with an estimated useful life (EUL) that does not extend through 2023. NPSO is added separately to net savings because it is made up of measures with different load shapes than the program and therefore will affect demand NTG differently than energy NTG.

**Table 2. PY17 Net Impact Results Summary**

Measure Group	Ex Post Gross Savings (MWh/yr)	Free Ridership	Participant Spillover	NTG (w/o NPSO)	Net Energy Savings (MWh/yr)	Net Demand Savings - First Year (kW/yr)	Net Demand Savings - Year 2023 (kW/yr)
HPWHs	895	10%	2%	92%	823	73	73
RACs	68	62%	0%	38%	26	25	25
Room air purifiers	1,474	45%	1%	56%	826	385	385
Multispeed pool pumps	218	19%	0%	81%	176	42	42
Variable-speed pool pumps	2,077	19%	0%	81%	1,683	396	396
<b>Products Nonparticipant Spillover</b>	-	-	-	-	<b>134</b>	<b>104</b>	<b>8</b>
Smart thermostats	5,224	27%	2%	75%	3,918	3,712	3,712
<b>Smart Thermostats Nonparticipant Spillover</b>	-	-	-	-	<b>80</b>	<b>63</b>	<b>5</b>
<b>Total*</b>	<b>9,956</b>	<b>27%</b>	<b>1%</b>	<b>75%</b>	<b>7,666</b>	<b>4,799</b>	<b>4,644</b>

\* May not sum to total due to rounding.

As shown in Table 3, the PY17 program achieved 112% of its net energy savings target of 6,847 MWh, specified in the Ameren Missouri’s residential tariff.<sup>1</sup> Appendix A presents the coincidence factors used to calculate demand savings for this program.

<sup>1</sup> Union Electric Company. d/b/a Ameren Missouri’s 2nd Filing to Implement Regulatory Changes in Furtherance of Energy File No. EO-2015-0055 Efficiency as Allowed by MEEIA. Appendix B. MEEIA 2016-2018 Summary

**Table 3. PY17 Efficient Products Savings Comparisons**

Metric	MPSC- Approved Target	<i>Ex Ante</i> Net Savings Reported	<i>Ex Post</i> Gross Savings Determined by EM&V <sup>1</sup>	<i>Ex Post</i> Net Savings Determined by EM&V <sup>2</sup>	Percent of Goal Achieved <sup>3</sup>
<b>Efficient Products</b>					
Energy (MWh)	4,760	4,641	4,732	3,668	77%
Demand – First Year (kW)	1,612	1,278	1,372	1,024	64%
Demand – Year 2023 (kW)	1,612	1,278	1,372	928	58%
<b>Smart Thermostats</b>					
Energy (MWh)	2,087	5,214	5,224	3,998	192%
Demand – First Year (kW)	1,982	4,940	4,949	3,775	190%
Demand – Year 2023 (kW)	1,982	4,940	4,949	3,716	188%
<b>Total</b>					
Energy (MWh)	6,847	9,855	9,956	7,666	112%
Demand – First Year (kW)	3,594	6,218	6,321	4,799	134%
Demand – Year 2023 (kW)	3,594	6,218	6,321	4,644	129%

<sup>1</sup> MWh calculated by multiplying verified program participation by Cadmus’ evaluated per-unit savings values; kW calculated by applying coincident factors provided in Appendix A.

<sup>2</sup> Calculated by multiplying Cadmus’s evaluated gross savings and evaluated NTG ratio and adding the appropriate program-level allocation of NPSO savings.

<sup>3</sup> Compares MPSC Approved Target and *Ex Post* Net Savings Determined by EM&V.

## CSR Impact Evaluation Requirements

According to the Missouri Code of State Regulations (CSR), demand-side programs serving as part of a utility’s preferred resource plan are subject to ongoing process and impact evaluations that meet certain criteria. Specifically, the CSR requires that impact evaluations of demand-side programs satisfy the requirements listed in Table 4. The table also indicates the data Cadmus used to satisfy these impact CSR evaluation requirements for the Efficient Products program. Table 5, at the end of the Process Evaluation section, provides a summary of the process CSR requirements.

**Table 4. Summary Responses to CSR Impact Evaluation Requirements**

CSR Requirement <sup>1</sup>	Method Used	Description of Program Method
<b>Approach: The evaluation must use one or both of the following comparisons to determine the program impact:</b>		
Comparisons of pre-adoption and post-adoption loads of program participants, corrected for the effects of weather and other intertemporal differences	✓	The program compares the pre-adoption load, based on assumed baseline technology, with the post-adoption load, based on program technology. Weather was corrected for by using the average household load from a Chicago metering study (Table E-1, Energy Efficiency/Demand Response Nicor Gas Plan Year 1: Research Report: Furnace Metering Study, Draft, Navigant, August 1 2013) adjusted for Missouri climate regions using Climate Normals HDD data.
Comparisons between loads for program participants and an appropriate control group over the same period		
<b>Data: The evaluation must use one or more of the following types of data to assess program impact:</b>		
Monthly billing data		
Hourly load data		
Load research data		
End-use load metered data		
Building and equipment simulation models	✓	The evaluator used ENERGY STAR calculators to model the usage characteristics of pool pumps and room air purifiers.
Survey responses	✓	The evaluator used survey responses to estimate in-service rates and NTG for program measures, and to gather household data, such as HVAC saturation rates.
<b>Audit and survey data on:</b>		
Equipment type/size efficiency	✓	The evaluator gathered equipment information from homes participating in the survey and from program data.
Household or business characteristics	✓	The evaluator gathered household information from homes participating in the survey and from program data.
Energy-related building characteristics	✓	The evaluator gathered building information from homes participating in the survey and from program data.

<sup>1</sup> State of Missouri. “Administrative Rules: Missouri Code of State Regulations.” Missouri 4 CSR 240-20.093, 4 CSR 240-20.094, 4 CSR 240-22.070(8). Revised January 2016. Available online: <http://www.sos.mo.gov/adrules/csr/csr.asp>

## Key Process Evaluation Findings

Cadmus conducted interviews with program stakeholders, reviewed program tracking data and marketing materials, and surveyed customers and retailers to inform the PY17 process evaluation. Key findings from this research follow. Because this program delivery has not changed significantly, we are not reporting detailed process evaluation results unless we identified a significant area of difference or concern. Results of participant surveys are included in Appendices F, G, and H.

## Program Design

Participants awarded the Efficient Products program high ratings: 99% said they were “very satisfied” or “somewhat satisfied” with the performance of measures that they purchased; 98% gave similar satisfaction ratings for the program overall; and 99% said they would recommend the program to

others. These ratings remained consistent between participants surveyed immediately after receiving rebates and participants surveyed six months later.

## Marketing and Outreach

Ameren Missouri markets the Efficient Products program directly and through participating retailers, which utilize Ameren Missouri's program marketing materials and co-branded materials. Ameren Missouri's marketing includes bill inserts, direct mail postcards, Internet and television advertisements, brochures and tear sheets, and other channels. The Efficient Products program also began selling smart thermostats directly to customers in PY17 through the Ameren Missouri online store, with an immediate discount equal to the rebate amount.

## Program Data

ICF updated and maintained program data through the Vision database. Cadmus reviewed these tracking data for reasonableness and completeness. Though the team identified some data entry errors in the final data set (i.e., typographical errors and equipment listed under the wrong measure category), none were systematic. The addition of smart thermostat sales through Ameren Missouri's online store during PY17 required ICF to integrate new data into the database system, which was resolved by the end of the program year.

## *CSR Process Evaluation Requirements*

As discussed above, the Missouri CSR requires that demand-side programs operating as part of a utility's preferred resource plan are subject to ongoing process and impact evaluations that meet certain criteria. Process evaluations must address, at a minimum, the five questions listed in Table 5. The table provides a summary response for each specified CSR process requirement.

**Table 5. Summary Responses to CSR Process Evaluation Requirements**

CSR Requirement Number <sup>1</sup>	CSR Requirement Description	Summary Response
1	What are the primary market imperfections common to the target market segment?	Less-efficient equipment is available at lower price points. Customers may not understand that more-efficient equipment can cost less to operate in the long run, or they may not be willing or able to pay the higher upfront costs of more efficient equipment. New products coming to market and changes in retail prices can complicate communications about the benefits of more-efficient equipment.
2	Is the target market segment appropriately defined, or should it be further subdivided or merged with other market segments?	The program appropriately targets all residential customers who purchase qualified energy-saving items for use in their homes. Increasing crossover between participants who apply for Heating and Cooling program rebates and smart thermostat rebates could eventually lead to a merging of those segments, although to date most thermostat replacements do not involve HVAC replacement, and Heating and Cooling participants who applied for smart thermostat rebates appear very similar to Efficient Products participants who applied for thermostat rebates without replacing HVAC equipment.
3	Does the mix of end-use measures included in the program appropriately reflect the diversity of end-use energy service needs and existing end-use technologies within the target market segment?	Yes. For equipment other than smart thermostats, the program rebates solely require that equipment has been ENERGY STAR-certified (i.e., the only requirement is energy efficiency). For smart thermostats, equipment is limited to the necessary technological features (i.e., it must be a “learning” model with geofencing capabilities) and includes the most popular models in this emerging market. Ameren Missouri greatly expanded the list of qualified smart thermostats in PY17, in response to new models coming to market. The program includes rebates for a variety of equipment targeting a variety of end-uses (water heating, air conditioning, swimming pools, heating) that were cost-effective. The program does not offer rebates for kitchen or laundry appliances because current market offerings would not produce savings cost effectively. Other cost-effective end-use technologies are targeted through other programs.
4	Are the communication channels and delivery mechanisms appropriate for the target market segment?	Yes. Customers may purchase qualified items from any retailer, within or outside of Ameren Missouri’s service territory. Online purchases are also eligible for rebates, and Ameren Missouri’s implementer began offering smart thermostats to customers through Ameren Missouri’s online store in PY17, with a discount applied to the purchase price rather than a mailed rebate check. Ameren Missouri markets the program directly through a variety of channels and through the several large national retail chains that serve differing, broad, cross-sections of the population. Reviews of program marketing materials found Ameren Missouri follows marketing best practices.

CSR Requirement Number <sup>1</sup>	CSR Requirement Description	Summary Response
5	What can be done to more effectively overcome the identified market imperfections and to increase the rate of customer acceptance and implementation of each end-use measure included in the program?	Program promotions that provide program and energy education can help to overcome market imperfections. Timing product promotions so that they coincide with seasons of high use for a given measure also helps implementation. Adjusting program incentives in response to market changes, and for the purpose of reallocating budget to more cost-effective measures, also improves implementation. In PY17, a higher incentive for RACs led to much higher participation for that measure, while the growing popularity of smart thermostats, accompanied by more models coming to market and falling prices, encouraged Ameren Missouri to lower the smart thermostat incentive to conserve program budget.

<sup>1</sup>State of Missouri. “Administrative Rules: Missouri Code of State Regulations.” Missouri 4 CSR 240-20.093, 4 CSR 240-20.094, 4 CSR 240-22.070(8). Revised January 2016. Available online: <http://www.sos.mo.gov/adrules/csr/csr.asp>

## Key Conclusions and Recommendations

The Efficient Products program—effective, well-received, and well-implemented—encourages Ameren Missouri customers, when making new equipment purchases, to upgrade to efficient equipment.

Cadmus offers the following conclusions and recommendations for improving the program.

### **Conclusion 1. Customers who purchased smart thermostats from Ameren Missouri’s online store exhibited lower free ridership than those who received rebate checks by mail.**

Participants who received rebates by mail for purchasing smart thermostats had an average free ridership score of 29%, compared to 13% free ridership for those who purchased their smart thermostats from the online store. The largest driver of this difference was that 12% of the participants who applied for rebate checks learned of the Ameren Missouri rebate after they had already made their purchase and were scored as 100% free riders. In contrast, none of the online store participants could have made a purchase before learning about the incentive, because their incentive was paid in the form of a discount to the purchase price.

**Recommendation 1.** Continue to offer smart thermostats through the Ameren Missouri online store and consider offering more products through this channel when practical to do so. The Efficient Products program measures with the highest free ridership in PY17 were RACs and air purifiers. Consider offering these measures for sale through the online store if the program can sell them at a cost-effective price point, including shipping costs.

### **Conclusion 2. Although free ridership for RACs decreased in PY17 with higher incentives offered, free ridership for this measure was still higher than other products.**

Cadmus analyzed program tracking data and survey responses to identify drivers of high free ridership and found very little difference in free ridership by SEER level. Larger units tended towards higher free ridership. Respondents with low RAC free ridership scores were more likely to mention cost savings on

bills and replacing aging equipment as factors in their purchase decision, while those assigned high RAC free ridership scores were more likely to mention replacing broken equipment.

**Recommendation 2.** Consider initiating a RAC early retirement program that provides coupons for new units, when old, but operating, units are turned in. This could be designed in concert with an appliance recycling program, or with special “turn-in” events at convenient locations across the service territory or through the retail partners already in the program. This change would increase the gross savings for this measure and could also reduce free ridership.

**Conclusion 3. The Efficient Products program currently has limited offerings.**

The program offered rebates for five types of equipment during PY17. Ameren Missouri explored adding ENERGY STAR kitchen and laundry equipment to the program but did not find any of these measures to be cost effective at the current time.

**Recommendation 3.** Monitor new product offerings in the “smart” and “interactive” technology space that offer the potential to save energy through occupancy sensing, programmable schedules, remote access, and interconnectivity with other devices and systems. These technologies have proven popular with customers, as seen with the rapid adoption of smart thermostats, in part because of their energy-saving potential, but also because customers are enthusiastic about the interactive features of these devices.

## PY16 Recommendation Tracking

Cadmus followed up on Ameren Missouri’s response to the PY16 evaluation’s recommendations, tracking recommendations that have and have not been implemented.

Table 6 presents these actions, as reported by Ameren Missouri.

**Table 6. PY16 Evaluation Recommendation Tracking**

PY16 Recommendation	Recommendation Status	Ameren Missouri Response
As already planned by Ameren Missouri, we recommend increasing the incentive for RACs. Additional marketing should also be considered. Program management reported they plan to increase the RAC incentive to \$50 for PY17; this higher incentive may drive sales, lower free ridership, and affect retailer stocking practices. In particular, the program implementers should try to leverage the raised incentive to encourage retailers to stock more ENERGY STAR models, and fewer non-qualifying models. Further recommendations suggest increasing emphasis on marketing.	Completed	Ameren Missouri Increased the RAC incentive to \$50 prior to the cooling season.
Track residential pool companies in Ameren Missouri territory, and prioritize developing and nurturing relationships with these companies. The program implementer should identify the population of pool equipment companies operating in the territory and set annual goals for recruiting retailer participation. Ameren Missouri should also consider further research into the residential pool market to identify barrier to	Completed	Program field reps continued to send program updates and marketing materials to educate pool pump companies and



PY16 Recommendation	Recommendation Status	Ameren Missouri Response
<p>participation, such as interviews or focus groups with pool equipment sales staff. Other initiatives could include contests with prizes for companies or sales staff who sell the most rebated equipment during a season.</p>		<p>distributors on the benefits of ENERGY STAR participation. This was aided through a full cycle to engage and nurture relationships in PY17.</p>
<p>Marketing materials can be improved. The marketing strategy could be further enhanced by incorporating a promotional strategy—using targeted media and engagement tactics—to spur program interest and activity. Communications should emphasize important information (i.e., use of strategic call-outs through bolding/highlighting of important text), which can be tailored for different equipment (e.g., improved comfort and health were the primary motivations for room air purifier purchases, so materials should reference this benefit). The free-standing Information Insert should be used as a model for other materials. Cadmus also recommends all materials include a strong set of next participation steps to encourage customers’ conversion and to drive their actions upon exposure to materials.</p>	<p>Ongoing</p>	<p>Marketing materials for efficient products were enhanced during PY17, with a more target marketing strategy utilized. Ongoing efforts to improve marketing and outreach.</p>
<p>Try to increase awareness of rebates through online retailers (including the websites of local retail stores). The online retail channel accounted for a significant amount of equipment sales (for smart thermostats in particular), though very few participants learned of Ameren Missouri rebates from retailer websites. This indicates there may be customers making purchases online who may choose different equipment if aware of the rebates. Program implementers should contact major online retailers (as identified through program application records) and suggest that adding information about rebates for Ameren Missouri customers can help drive sales. Ideally, this information would appear based on the customer’s zip code or other geolocation information.</p>	<p>Completed</p>	<p>The implementation contractor works with online store retailers to help promote efficient product rebates. Ameren Missouri added smart thermostats to the company’s online store in June 2017, and completed a Limited Time Offer special promotion on air purifiers.</p>
<p>Explore adding rebates for residential kitchen or laundry equipment, if cost effective. The Efficient Products program is an effective platform for driving retail sales of efficient equipment, which could be expanded to include measures that are not currently covered by program rebates. The program does not currently offer rebates on any kitchen equipment (ENERGY STAR refrigerators, freezers, and dishwashers) or laundry equipment (ENERGY STAR clothes washers and dryers).</p>	<p>Ongoing</p>	<p>Ameren Missouri evaluated efficient products, including kitchen equipment, and found some measures were not cost-effective or the market had transformed. Ameren Missouri will continue to evaluate new efficient product measures in the future.</p>

## Introduction

Ameren Missouri engaged Cadmus to perform annual process and impact evaluations of the Efficient Products program for a three-year period, from 2016 through 2018. This annual report covers the impact and process evaluation findings for Program Year 2017 (PY17)—the period from March 1, 2017, through February 28, 2018, and the second year of the three-year program cycle.

### Program Description

The Efficient Products program provides incentives that encourage customers to purchase technologies to save energy, save money, and improve comfort. The program also seeks to educate customers about energy-efficient product options and to provide energy-savings tips.

The Efficient Products program began in 2009–2012 as the energy-efficient product rebate component of the combined PY09 Lighting and Appliance program. Beginning in PY12, Ameren Missouri discontinued the appliance portion of the combined Lighting and Appliance program and the program focused exclusively on lighting products.

Ameren Missouri and CLEAResult reintroduced RebateSavers in PY13 as a new, standalone appliance program, designed to promote a variety of energy-efficient products in the marketplace. In PY14, Ameren Missouri changed the program name from RebateSavers to Efficient Products. In PY14 and PY15, the program also included energy efficiency kits, which were mailed to customers. The kits, however, became the basis for a separate program in PY16: The Energy Efficiency Kits Program.

In PY16, Ameren Missouri hired ICF as the third-party implementation contractor, to process rebates on Ameren Missouri’s behalf and manage a network of retail partners that sold qualifying equipment.

The PY17 Efficient Products program provided downstream mail-in and online rebates for the measures listed in Table 7. In PY17, the rebate amount for RACs increased from \$20 in PY16 to \$50 in PY17, while the rebate amount for smart thermostats decreased from \$100 to \$50 near the end of PY17.

**Table 7. PY17 Efficient Products Measures**

Measure	Rebate Amount
ENERGY STAR®-certified RACs	\$50
ENERGY STAR-certified HPWHs	\$500
ENERGY STAR-certified room air purifiers	\$50
ENERGY STAR-certified multispeed pool pumps	\$350
ENERGY STAR-certified variable-speed pool pumps	\$350
Smart thermostats (selected models)	\$100 through December 2017 \$50 beginning January 2018

## Program Activity

In PY17, the Efficient Products program delivered 19,171 rebates to Ameren Missouri participants, as shown in Table 8. Overall, the program rebated nearly twice as many items compared with PY16, with participation increasing for every measure except multispeed pool pumps (121 units rebated in PY17 compared to 149 units in PY16). The number of RAC rebates increased by a factor of four from PY16 to PY17, while rebates for room air purifiers and variable speed pool pumps nearly doubled during the same period.

**Table 8. PY17 Efficient Products Program Activity Summary**

Measure	PY17 Totals *
<b>Equipment Rebates</b>	
ENERGY STAR-certified RACs	1,399
ENERGY STAR-certified HPWHs	358
ENERGY STAR-certified room air purifiers	2,588
ENERGY STAR-certified multispeed pool pumps	121
ENERGY STAR-certified variable-speed pool pumps	1,012
Smart thermostats (selected models)	13,693
<b>Total</b>	<b>19,171</b>
*Reported measures.	

## Evaluation Methodology

In evaluating Ameren Missouri’s Efficient Products program, Cadmus identified the following objectives for PY17:

- Identify PY17 program changes
- Estimate the program’s gross energy savings and demand reductions
- Calculate the program’s cost-effectiveness
- Determine measure-specific net-to-gross (NTG) estimates, including participant and nonparticipant spillover (NPSO)
- Measure customer satisfaction with the program and customers’ motivations for participating
- Assess the program’s achievements against goals
- Assess program design implementation and opportunities for improvements

Table 9 lists evaluation activities and briefly explains each activity’s purpose. Descriptions of each activity follow the table.

**Table 9. PY17 Process and Impact Evaluation Activities and Rationale**

Evaluation Activity	Process	Impact	Rationale
Review the Tracking Data	✓	✓	Provide assurance that all necessary program data are tracked accurately and incorporated into savings estimates.
Interview Stakeholders	✓		Identify changes to program delivery and identify successes and challenges.
Conduct Surveys with Program Participants	✓	✓	Collect customer feedback about program processes, satisfaction, and information sources about the program. Confirm equipment disposition.
Review Marketing Materials	✓		Document the program’s marketing and outreach strategies and activities.
Program Benchmarking	✓		Identify gaps and opportunities in program offerings, incentive levels, and results in comparison with similar programs in other territories.
Update Engineering Analysis Variables		✓	Update gross kWh savings estimates.
Key Progress Indicators	✓		Update on key progress indicators developed in PY16 to track progress in subsequent program years.
Conduct a Cost-Effectiveness Analysis		✓	Measure the program’s cost-effectiveness using five standard perspectives: total resource cost, utility cost, societal cost test, participant cost test, and ratepayer impact test.

### Data Tracking Review

Cadmus reviewed program tracking data recorded in the Vision database to identify and assess the variables necessary for impact calculations. Specifically, the team determined whether ICF gathered the

data necessary for an accurate evaluation; these included an assessment of data quality and completeness.

The continuously updated Vision database contained information such as the following:

- Incentive amount
- Measure type
- Customer information
- Building type and HVAC information
- Equipment manufacturer and model number
- Combined Energy Efficiency Ratio (CEER) for RACs
- Pool size for pool pumps
- Delivery channel for smart thermostats (online store discount or mailed check)

## Stakeholder Interviews

In January and February 2018, Cadmus interviewed Efficient Products program stakeholders. The interview design addressed the following:

- Understand program successes and challenges
- Assess changes in program marketing since the prior year
- Assess changes in retailer engagement since the prior year
- Identify the program’s key quality assurance processes

As shown in Table 10, the team spoke with two stakeholders from Ameren Missouri and ICF. Appendix D provides the stakeholder interview guide.

**Table 10. PY17 Completed Stakeholder Interviews**

Stakeholder Group	Interviews Conducted
Ameren Missouri Program Management	1
ICF Program Management	1
<b>Total</b>	<b>2</b>

Throughout PY17, the team regularly spoke with Ameren Missouri program staff to discuss program operations and to coordinate evaluation activities.

## Participant Surveys

Cadmus conducted online surveys with participating customers who provided an email address in the application.<sup>2</sup>

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<sup>2</sup> Eighty-five percent of program records for PY17 included an email address (15,137 out of 17,835 records).

The team conducted two online surveys, administering one shortly after (immediate survey) a customer received a rebate (i.e., a proxy for installation date) and the other six months later (follow-up survey):

- The immediate survey included questions about measure and program satisfaction, measure installation, program free ridership, information sources about the program, contractor roles (if any), and demographic and household characteristics.
- The follow-up survey included some of the same satisfaction and installation questions to compare responses over time. Rather than using a battery of questions to inform program free ridership, this survey included a battery of questions to inform program spillover.

Customers participating earlier in the year received invitations to complete both surveys, while those participating less than six months before the end of the program year only received the immediate survey.<sup>3</sup> When customers purchased multiple measure types, the team selected which measure type that their survey would address.<sup>4</sup> Table 11 shows participant survey response rates.

**Table 11. PY17 Participant Survey Response Rates**

Survey Type	Number of invitations	Number of Responses	Response Rates
Immediate Email Survey	8,702	2,209	25%
Follow-up Email Survey	4,607	763	17%

If customers received rebates for more than one measure type, the team’s survey asked about a single measure type. When customers received multiple rebates for the same measure, the survey wording and response options reflected the number of rebates received by the participant. In PY17, the program began offering smart thermostats for sale through the Ameren Missouri online store, with the rebate amount presented as an instant discount. Online store customers who took the immediate survey were asked slightly different questions than other smart thermostat customers to reflect differences in rebate deliveries and purchase experiences. Online store customers did not receive the follow-up survey in PY17 as their participation began too late in the year to survey six months after participation. Table 12 summarizes the number of measures purchased by survey respondents, including results for smart thermostats purchased through the online store.

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<sup>3</sup> Invitations to the follow-up survey were sent to a census of all participants with valid email addresses. For the immediate survey, the team surveyed a census of program participants with valid email addresses for all measures other than smart thermostats. For four months, when there was a very large number of thermostat rebates, the team sent immediate survey invitations to a randomly selected sample of thermostat participants, capping the number of thermostat surveys at about 150 per month. During the remaining months, the team surveyed a census of thermostat participants.

<sup>4</sup> Because most measures rebated through the program in PY17 were smart thermostats, customers with multiple measure types were asked about their non-thermostat measures with the largest *ex ante* savings.

**Table 12. PY17 Participant Survey Measure Quantities**

Measure Type	Immediate Survey		Follow-Up Survey	
	Responses (Number of Customers)	Rebates Received (Number of Measures)	Responses (Number of Customers)	Rebates Received (Number of Measures)
RACs	154	175	79	91
HPWHs	84	84	20	20
Room air purifiers	318	407	111	146
Pool pumps *	168	168	66	66
Smart thermostats (total)	1,485	1,721	487	546
- Mailed rebate check	1,338	1,542	487	546
- Online store purchase	147	179	0	0
<b>Total</b>	<b>2,209</b>	<b>2,555</b>	<b>763</b>	<b>869</b>

\*Participants who purchased multi- and variable-speed pool pumps received identical survey questions/wording. Survey results for the measures are reported together as “pool pumps.”

## Marketing Review

In PY17, Cadmus reviewed updates to marketing materials occurring since the PY16 strategy assessment, along with marketing materials to support the process evaluation.

## Engineering Analysis

Cadmus estimated gross savings for each record in the program tracking database using engineering algorithms established in the Efficient Products Evaluation Plan, the ENERGY STAR appliances calculator, and the Illinois Statewide TRM.<sup>5</sup> Whenever possible, actual, customer specific inputs were taken from the tracking database or looked up in the ENERGY STAR database. Average values were used for Inputs that were missing from the tracking data or that could not be looked up. The team then compared the deemed per-unit savings, provided in Ameren Missouri’s 2017 Technical Reference Manual (TRM), to Cadmus’ gross savings estimates (presented in this report). For this comparison, the team used per-unit savings estimates that did not include adjustments for installation rates.

## Program Benchmarking

As part of the 2016 process evaluation, Cadmus researched 12 other utilities that offered measures similar to those in Ameren Missouri’s Efficient Products Program. The team conducted secondary research using its benchmarking database, E-Source, and publicly available information to identify programs with the most recent evaluations available and to contain information regarding metrics and topics planned for benchmarking. For the 2017 report, we have updated Ameren Missouri’s offerings, comparing to those same benchmarks, to reflect changes to qualifications and incentive amounts.

<sup>5</sup> The Illinois Statewide *Technical Reference Manual* for Energy Efficiency Version 6.0, February 8, 2017.

## *Key Progress Indicators*

Cadmus plans to track the following key progress indicators for the Efficient Products program across the three-year program cycle:

- Program year electric savings
- Participation by measure
- Free ridership by measure
- Customer satisfaction with upgrades, incentive amounts, the program overall, and Ameren Missouri

## *Cost-Effectiveness Analysis*

Using final PY17 Efficient Products Program participation and implementation data, as well as the *ex post* gross and net savings estimates presented in this report, Ameren Missouri determined the program's cost-effectiveness using DSMore (a financial analysis tool designed to evaluate the costs, benefits, and risks of demand-side management [DSM] programs and services) and Cadmus reviewed the results. As shown in the Cost-Effectiveness Results section, Ameren Missouri assessed cost-effectiveness using all five of the standard perspectives produced by DSMore:

- Total Resource Cost (TRC)
- Utility Cost Test (UCT)
- Societal Cost Test (SCT)
- Participant Cost Test (PART)
- Ratepayer Impact Test (RIM)



## Process Evaluation Findings

This section presents Cadmus’s process evaluation findings for Ameren Missouri’s Efficient Products program. The report organizes the findings in seven sections:

- Program Design
- Program Delivery
- Marketing and Outreach
- Participant Experience
- Smart Thermostat Usage
- Smart Thermostats Purchases from the Online Store
- Smart Thermostats and HVAC Replacement

### Program Design

The Efficient Products program seeks to achieve energy and demand savings by encouraging residential customers to purchase efficient RACs, HPWHs, room air purifiers, pool pumps, and smart thermostats. The program broadly targets residential customers in Ameren Missouri’s service territory, incentivizing them to replace existing or broken equipment with efficient units by offering downstream rebates.

Qualifying equipment became eligible for rebates, whether or not purchased within Ameren Missouri’s territory, although the program partnered with retailers within the territory to promote and support the program. Participants received rebates by mail after approval of their applications, except those purchasing smart thermostats from the Ameren Missouri online store, with the rebates provided in the forms of an immediate discount to the purchase price.

From PY16 through PY18, Ameren Missouri contracted with ICF to implement the program, and ICF managed the program’s marketing and a network of participating retailers, processed rebates, and conducted quality control checks. Table 13 lists Ameren Missouri’s rebate amounts for the Efficient Products program.

**Table 13. Rebated Measures**

Measure	Rebate Amount
ENERGY STAR®-certified RACs	\$50
ENERGY STAR-certified HPWHs	\$500
ENERGY STAR-certified room air purifiers	\$50
ENERGY STAR-certified multispeed pool pumps	\$350
ENERGY STAR-certified variable-speed pool pumps	\$350
Smart thermostats (selected models)	\$100 through December 2017 \$50 beginning January 2018

## *Program Delivery*

This section discusses responses drawn from Cadmus's interviews with program managers. Interviews primarily focused on program changes, successes and challenges, and future program changes.

### **PY17 Program Changes**

In PY17, the Efficient Products program's major changes included the following:

- The RAC rebate increased from \$20 to \$50 at the beginning of the program year
- The list of qualified smart thermostats was updated to include new manufacturers and models not previously available
- Ameren Missouri's online store began selling smart thermostats, offering an immediate discount instead of a mailed check rebate
- In January 2018, the smart thermostats rebate reduced from \$100 to \$50

### **Retailers**

To promote efficient equipment sales and, more broadly, the ENERGY STAR brand, the Efficient Products program actively engaged with retailers that sold equipment rebated through the program. Participating retailers disseminated information about the program, including rebate application forms.

Staff from ICF and subcontractor Crossmark regularly met with staff from participating local retailers at their stores. The meeting sought to provide program updates and to provide local retailers with marketing materials, training, and information. ICF also maintained contacts with corporate-level personnel at national retail chains as well as with some distributors and manufacturers for HPWH equipment and smart thermostats. As the Efficient Products program, however, operated as a downstream rebate program, implementer staff reported that their main goals included affecting retailer stocking practices rather than to affect manufacturer, contractor, or distributor practices.

Participants did not need to purchase equipment from a participating retailer to receive program rebates. Per results from Cadmus's participant survey, the retailer types where different measures were purchased were very similar to those in PY17 and PY16: most RACs, HPWHs, room air purifiers, and smart thermostats rebated by mail occurred at a retail store, but pool pumps were most often sold by the contractor who did the installation. In addition to 10% (1,215 out of 13,693) of all smart thermostat rebates in PY17 delivered through immediate discounts at the Ameren Missouri online store, online retailers also accounted for 42% of smart thermostat sales for rebate checks delivered by mail.

### **Quality Assurance Processes**

Implementer staff reported that the Efficient Products program conducted quality assurance by reviewing every application received. This included confirming that the applicant was an Ameren Missouri residential customer, and that fields crucial for verifying the equipment's qualification were complete. Staff reported that online applications tended to require less follow-up with participants due to participants typing data online rather than writing it by hand. Cadmus also identified records with

qualification issues during PY17, which the implementer followed up on by correcting the tracking data to update measure info or delete the record, as appropriate.

To qualify for the program rebate in PY17, smart thermostats had to be included on a list of 21 qualifying models from eight manufacturers, a significant expansion from six models and five manufacturers in PY16. For other measures, equipment had to be included in a list of ENERGY STAR-certified equipment.

## Rebate Processing Time

Program staff reported that the Efficient Products program sought to process rebates in 20 business days or less (i.e., four weeks). Cadmus asked survey respondents how long it took to receive their rebate payments: 87% (n=1,965) reported receiving their rebates in six weeks or less, while only 3% reported it taking longer than eight weeks to receive their rebates (an improvement from 7% in PY16). Compared to PY16, in PY17 customers' reported time to receive rebates was much more consistent across measures, representing an improvement in processing time for pool pumps and RACs particularly.

## Delivery Successes and Program Achievements

Stakeholders reported the following program aspects worked particularly well in PY17:

- Increased participation for all measures offered through the program showed the popularity of these products with customers as well as the success of the program's substantial marketing efforts from PY16.
- Customers continued to adopt smart thermostat technology at an accelerating pace, with PY17 participation more than doubling the program's initial target (i.e., 5,400 units per year). This technology, which can connect to other devices and be controlled remotely, may provide a platform for innovative energy-saving programs in the future.

## Program Implementation Challenges and Potential Changes

Program stakeholders identified two major challenges and areas for future exploration:

- Participation for every measure in PY17 was far enough above the program's goals that program managers began seeking ways to reach savings targets without exceeding budgeted incentive caps. In January 2018, Ameren Missouri reduced the incentives for smart thermostats and scaled back some PY17 marketing efforts to preserve the program's budget.
- Program management expressed concerns over high free ridership levels, particularly for RACs and room air purifiers, as well as concerns that falling prices for smart thermostats could increase free ridership. As Efficient Products operates as a downstream retail program, many participants did not learn about program rebates until already shopping for equipment, and the rebate may not serve as a major influence in product choice.

## Marketing and Outreach

Ameren Missouri marketed the Efficient Products program directly, providing materials and co-branding opportunities to its participating retailers. This marketing and outreach section provides information about marketing practices and relevant results from the participant surveys.

### Marketing Activity

Ameren Missouri’s Efficient Products program targeted all residential customers for purchases of ENERGY STAR-certified HPWHs, RACs, room air purifiers, pool pumps, and smart thermostats, employing strategic partnerships with local and national retailers. In promoting these products to customers, Ameren Missouri used national ENERGY STAR campaigns and initiatives to work collaboratively with partners and allies within the retail supply chain. Table 14 summarizes PY2017 marketing activities by measure.

**Table 14. Summary of PY2017 Marketing Activity**

Marketing Activity	Efficient Products (All Measures Except Smart Thermostats)	Smart Thermostats
Collateral	✓	✓
Content marketing		✓
Digital display	✓	✓
Digital search	✓	✓
Direct mail	✓	✓
Email blasts	✓	✓
Freestanding inserts	✓	✓
In-store events	✓	✓
Limited time offers	✓	
Point-of-Purchase materials	✓	✓
Social media	✓	✓
Statement messaging	✓	✓
TV spots	✓	✓

### Retailer Marketing Practices

In general, participating stores advertised the program rebates using rebate-qualifying stickers on product boxes and brochures, and/or rebate forms on the shelves, which program representatives set up and rotate. Some retailers also displayed end-cap or pallet displays for qualified products and advertised the program rebates on the retailers’ websites.

### Sources of Participant Program Awareness

Cadmus asked program participants how they learned of the Efficient Products program rebates. As in PY16, responses varied greatly, according to equipment types that customers purchased.

Similar to PY16, most participants who purchased RACs and air purifiers learned about the program rebate from signs and displays in stores where they purchased the equipment, personnel at the stores,

or from rebate applications attached to product packaging in the store. The remaining customers who purchased these measures mostly learned about the program from Ameren Missouri via its website, an email, a monthly energy statement, or a Home Energy Report.

Smart thermostats drew upon broader awareness sources. Customers who received rebates by mail most often learned about the program from friends and family (31%, n=1,314); Ameren Missouri's website (28%); in-store displays (19%); and information accompanying their monthly bills (10%). Customers who purchased smart thermostats from the Ameren Missouri online store most often learned about the program from Ameren Missouri's website (32%, n=142); their monthly bills (19%); emails from Ameren Missouri (18%); friends and family (15%); and Home Energy Reports (11%).

Like PY16, the major awareness source for pool pumps were the contractors that installed the equipment. For HPWHs, also often installed by contractors, the most important awareness sources included Ameren Missouri's website and in-store displays.

## *Participant Experience*

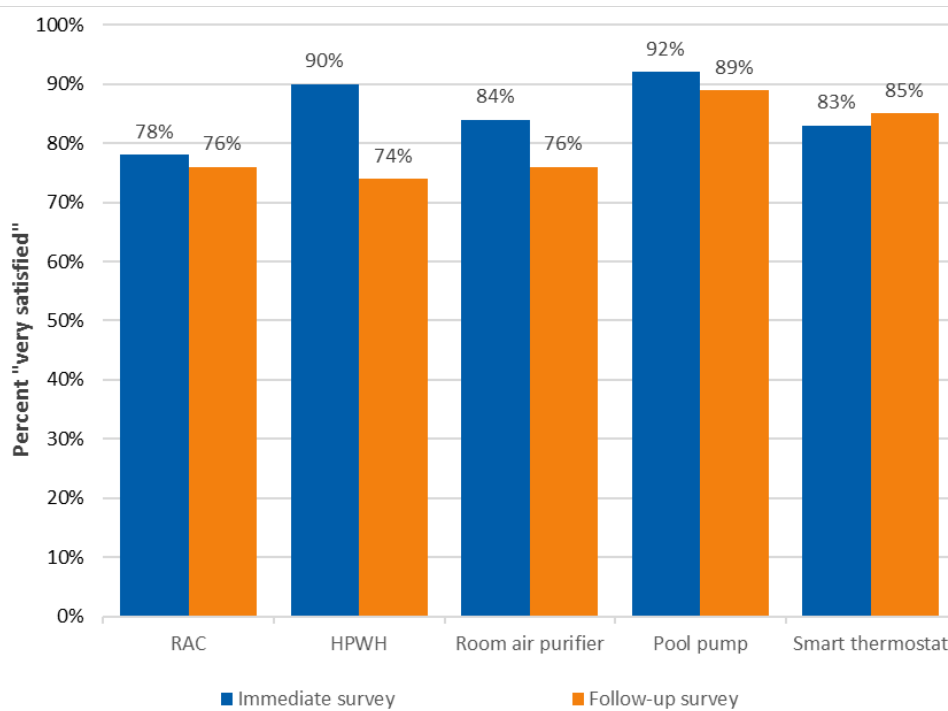
### **Participant Satisfaction**

Cadmus asked participants about their satisfaction with their new equipment, their installing contractors (if applicable), their rebate amounts, the time required to receive their rebates, the Efficient Products program overall, and Ameren Missouri. Participants expressed high satisfaction levels with all program elements.

#### *Satisfaction with Measures*

For PY17, participants expressed high satisfaction levels with their equipment, consistent with PY16's survey responses. Between 74% and 92% of customers in both surveys gave the highest possible *very satisfied* ratings for every measure, as shown in Figure 1. Combining results from both surveys, 1% or 2% of participants assigned *not too satisfied* or *not satisfied at all* ratings for every measure.

**Figure 1. Participant Satisfaction with Measures, by Survey**

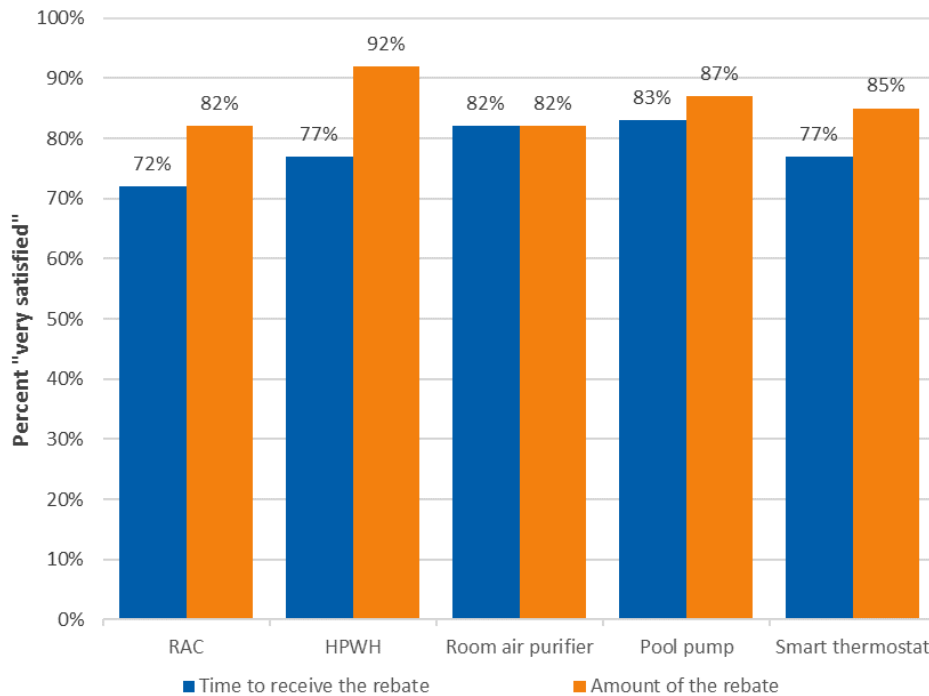


Immediate Participant Survey: D6. “How satisfied are you with the performance of your new [measure]?” RAC n=152, HPWH n=69, Room air purifier n=315, Pool pump n=150, Smart thermostat n=1,423, and Follow-up Participant Survey: B1. “How satisfied are you with the performance of your new [measure]?” RAC n=79, HPWH n=19, Room air purifier n=111, Pool pump n=65, Smart thermostat n=485

### *Satisfaction with Rebate Amounts and Delivery Time*

As shown in Figure 2, most participants expressed high satisfaction levels with the rebates they received and the time required to receive their rebates. More participants reported being *very satisfied* with the time required to receive their rebates in PY17 (78% overall, n=1,997), compared to PY16 (70% overall, n=1,200), a finding consistent with shorter check payment cycles reported above (Rebate Processing Time). For most measures, satisfaction with rebate amounts remained consistent with PY16, except for RACs, which saw a significant increase from 60% (n=30) in PY16 to 82% in PY17, corresponding to an increased rebate amount for this measure between program years.

**Figure 2. Participant Satisfaction with Time to Receive Rebates and Rebate Amounts**



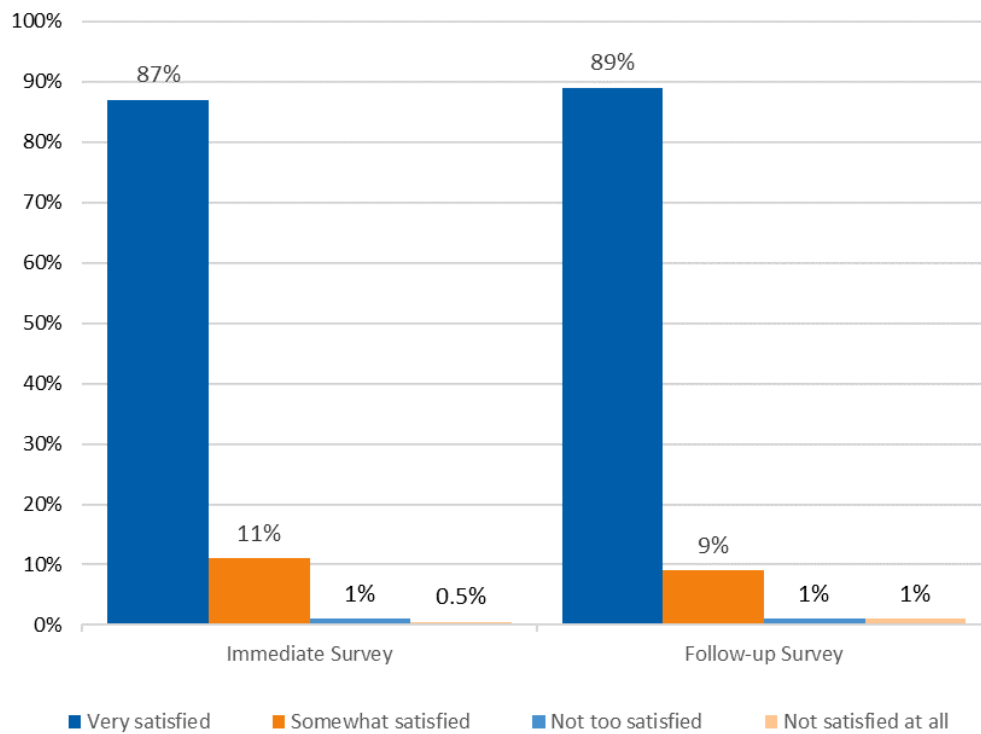
Immediate Participant Survey: D4. “How satisfied are you with the time it took to receive your rebate in the mail?” RAC n=149, HPWH n=84, Room air purifier n=302, Pool pump n=166, Smart thermostat n=1,296 and D5. “How satisfied are you with the amount of the rebate you received?” RAC n=148, HPWH n=84, Room air purifier n=307, Pool pump n=167, Smart thermostat n=1,317

### *Overall Satisfaction and Suggested Improvements*

Cadmus asked participants about their satisfaction levels with the Efficient Products program overall, and if they had suggestions for program improvements. Consistent with the previous program year, participants expressed high satisfaction levels with the program, which persisted from immediately after purchasing a measure to approximately six months after installation (i.e., between the Immediate Participant Survey and Follow-up Survey).

In addition to expressing high satisfaction levels (Figure 3), more than 99% of respondents for both surveys indicated they would recommend the Efficient Products program to friends and family members (Immediate survey n=2,162, Follow-up survey n=747). No significant differences emerged in satisfaction ratings or willingness to recommend the program between customers purchasing different types of measures.

**Figure 3. Participant Satisfaction with the Efficient Products Program**



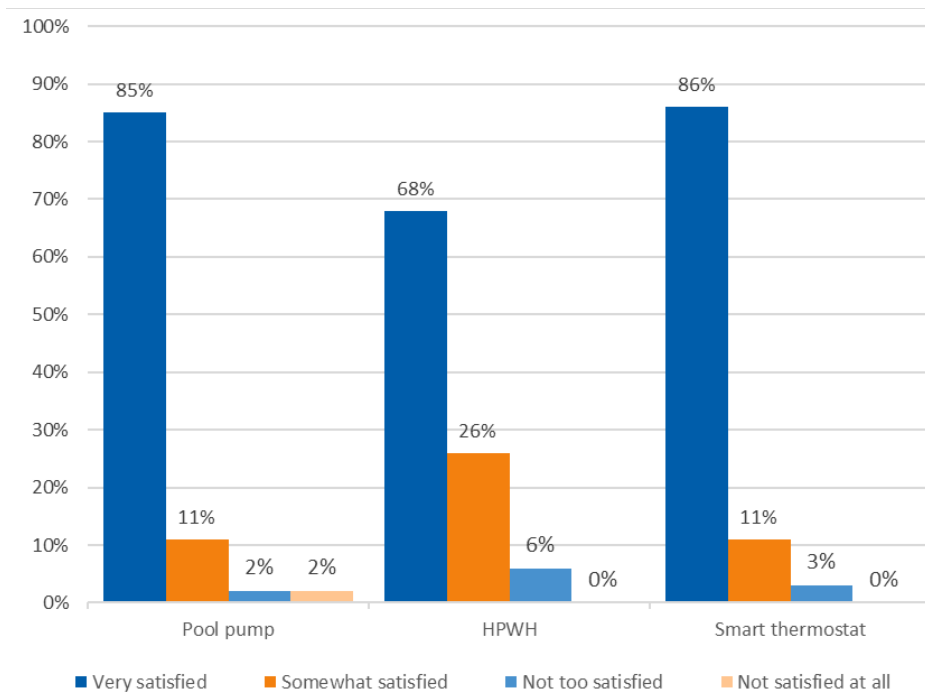
Immediate Participant Survey: D8. “Thinking about your overall satisfaction with Ameren Missouri’s Efficient Products Program, would you say you are:” n=2,186 and Follow-up Participant Survey: B3. “Thinking about your overall satisfaction with Ameren Missouri’s Efficient Products Program, would you say you are:” n=754

### *Satisfaction with the Contractor*

Similar to PY16, survey respondents reported that contractors installed most pool pumps and about one-half of HPWHs, while 10% or fewer of the other measures were installed by contractors. Cadmus asked participants if they used contractors to install their equipment, and how satisfied they were with their contractors; as shown in Figure 4, participants expressed high satisfaction levels. Pool pump participants, however, exhibited relatively lower satisfaction levels, with only 68% *very satisfied* with their contractors. Participants purchasing other measures did not award such ratings.



Figure 4. Participant Satisfaction with Contractors

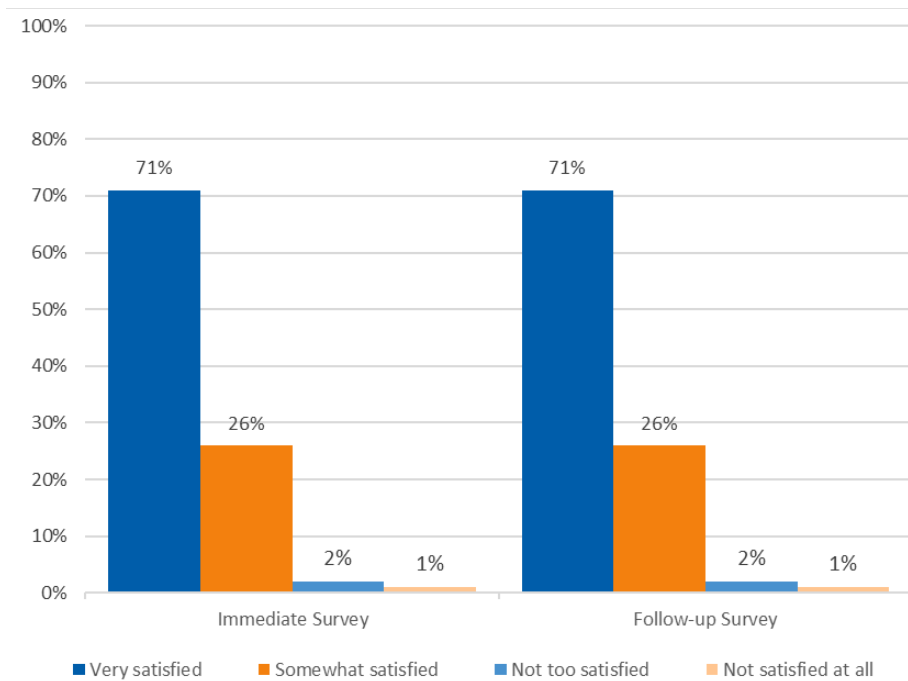


Immediate Participant Survey: D1. “How satisfied are you with the contractor you worked with?”  
 Pool pump n=131, HPWH n=34, Smart thermostat n=147

**Satisfaction with Ameren Missouri**

Cadmus asked participants about their satisfaction levels with Ameren Missouri as their utility. As shown in Figure 5, 71% awarded the utility with the highest possible *very satisfied* rating; just 3% gave ratings of *not too satisfied* or *not satisfied at all*. In PY17, the percentage of participants giving *very satisfied* ratings remained unchanged six months after purchases compared to immediately after purchases, while surveys from PY16 showed an increase in satisfaction over the equivalent time periods. Additionally, a majority of participants in both surveys reported that their satisfaction with Ameren Missouri increased after participating in the Efficient Products program (i.e., immediate survey 58%, follow-up survey 53%), while only 1% stated that their satisfaction decreased (immediate survey n=2,134, follow-up survey n=745). Although these results show most participants becoming more satisfied with Ameren Missouri, it represented a decline from PY16, when 66% of respondents in both surveys said they were more satisfied with Ameren Missouri after participating in the program.

Figure 5. Participant Satisfaction with Ameren Missouri



Immediate Participant Survey: J1. “Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?” n=2,181 and Follow-up Participant Survey: G1 “Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?” n=756

### Participant Purchase Decisions

Cadmus asked participants to provide their primary reasons in purchasing their equipment. Responses varied greatly by measure. Similar to survey results from PY16, a majority of PY17 smart thermostat participants cited saving money on energy costs, which was also cited by about one-third of pool pump and HPWH respondents. Participants purchased most room air purifiers to improve health and safety in the home, while RAC participants most commonly cited improving home comfort. Though replacing aging or broken equipment made up roughly one-half of responses for RACs, HPWHs, and pool pumps, as in PY16, these were rarely mentioned as the primary reason for purchasing smart thermostats or air purifiers.

The team also asked smart thermostat participants why they replaced their previous thermostats. Consistent with the PY16 evaluation, the most common responses were that they wanted to take advantage of the smart thermostat’s features, to save money on their bills, to save energy, and to update their homes with the latest technology. The only notable change from PY16 was an increase in mentions of replacing malfunctioning equipment, which went up from 2% to 10% in PY17 (n=1,377).

Cadmus asked participants when they chose the equipment model and brand to purchase. Smart thermostat participants most likely knew makes and models they wanted before going to a store or talking to a contractor (63% overall); while this continued to hold true, particularly for those buying

thermostats from local retailers (79%), the percentage declined for those deciding prior to visiting online stores (i.e., 48%, including Ameren Missouri online store customers, down from 63% in PY16) and prior to speaking to contractors (i.e., 17%, down from 50% in PY16; n=1,416).

These changes may relate to customers having more options in PY17 due to larger selections of qualifying thermostats (21 models instead of six in PY16). According to program records, Nest models continued to make up a majority of thermostats rebated through the program (61%), with Honeywell (15%), Ecobee (14%), Emerson (5%), Trane (3%), and Lennox (2%) making up most of the remainder. Models from American Standard and Allure Energy combined to comprise less than 1% of PY17 thermostat rebates. The increase in customers deciding which model to purchase after talking to a contractor may relate to the increase in cross-participation between Efficient Products smart thermostats and the Heating and Cooling program, in which contractors played a more significant role.

Most participants purchasing HPWHs also chose brands and models before going to a store or talking to a contractor, as was also the case with PY16 survey respondents. According to program records, the most popular HPWH manufacturers in PY17 included Rheem/Richmond (35%), A.O. Smith (31%), and General Electric (23%). Like PY16, minorities of RAC, air purifier, and pool pump participants knew which model they wanted before shopping.

Cadmus asked participants whether the retailer or contractor informed them about Ameren Missouri's program rebates. Overall, most local stores and contractors informed participants of rebates, and at rates similar to PY16. Customers who purchased measures at online stores (34%, n=585) less likely had been informed by the online store, though this represented an increase from PY16 (28%).

## *Smart Thermostat Usage*

### *Previously Installed Thermostats*

Cadmus asked survey respondents what kind of thermostat they replaced with their new program thermostats. Similar to PY16, a majority of PY17 respondents replaced programmable thermostats, and most of the remainder replaced manual thermostats. Cadmus asked survey respondents what heating and cooling equipment they controlled with their smart thermostats, and the results were similar to PY16: most controlled standard-efficiency CACs and gas furnaces.

### *Installation, Set Up and Programming*

Cadmus asked participants who installed, set up, and programmed their smart thermostats. Like PY16, smart thermostat respondents overwhelmingly installed these thermostats and performed the set up and programming themselves. The team also asked participants performing these tasks on their own to rate the ease of doing so, and very few said they were difficult, similar to PY16.

## *Access and Control Strategies*

During both surveys, the team asked participants how they accessed their smart thermostats. Smart thermostats can be accessed in three ways:

- Interfaces on the units themselves,
- Downloadable apps for smart phones and tablets provided by the manufacturers
- Logging onto websites maintained by manufacturers

Similar to PY16, nearly every respondent accessed their smart thermostat using the app for smart phones and tablets, and a large majority used controls on the thermostat itself. About one-quarter accessed smart thermostats using the website via a personal computer (23% immediate survey, and 28% follow-up survey), which represented a substantial decrease from PY16 (31% and 39%, respectively). The methods smart thermostat respondents used for access most often in the past 30 days remained consistent between surveys in PY17 and PY16, with most using the app and very few using the website to access their thermostats.

Through both the immediate and follow-up surveys, Cadmus asked participants with smart thermostats how they used them to control their home's temperature, and how they controlled previously installed thermostats. As in the PY16 evaluation, almost no change occurred in control strategies used by participants during the immediate survey and the follow-up survey six months later: most thermostats were programmed to follow a schedule, but household members sometimes made manual adjustments.

## *Smart Thermostat Functionality and Features*

Cadmus asked participants with smart thermostats if they used the geofencing function,<sup>6</sup> and if their thermostat connected to the Internet. A large majority of participants confirmed that their geofencing function remained active, and nearly all reported that their thermostats were connected to the Internet. In both surveys for both questions, at least as many participants reported not being as sure as those answering in the negative, indicating a small percentage of participants may not know how their smart thermostats work. The percentage of respondents who answered *don't know* if their thermostat's geofencing was active increased in PY17, to 12% in the immediate survey (up from 8% in PY16) and 9% in the follow-up survey (up from 5% in PY16). This increase became most apparent in responses from Ameren Missouri online store customers, 21% of whom (n=119) did not know if their geofencing function was active.

The team asked participants to rate how easy they found their smart thermostats to use, and a large majority reported that it was "*very easy*" (81%, n=1,417 immediate survey; 79%, n=478 follow-up survey), though fewer gave those ratings in PY17 compared to PY16 (87% and 89%, respectively).

The team asked participants which smart thermostat features they liked best. The PY17 results are mostly similar to PY16, with the largest difference being fewer respondents mentioning their

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<sup>6</sup> The geofencing function uses geolocation technology (i.e., GPS) to create a virtual geographic boundary, enabling software to trigger a response when a mobile device enters or leaves a particular area.

thermostat’s detailed information about energy use in both surveys in PY17 compared to PY16 (down from 52% to 43% in the immediate survey, and from 59% to 51% in the follow-up).

## Smart Thermostats Purchased from the Online Store

In the second half of PY17, the program added a new channel for delivering smart thermostats, offering the measure through Ameren Missouri’s online store (with an immediate discount) instead of a mail-in rebate. This section summarizes differences in program records and survey responses between these two groups of smart thermostat participants.

According to program records, 9% of smart thermostats rebated through Efficient Products in PY17 were sold through Ameren Missouri’s online store (1,215 out of 13,693 measures). While most smart thermostats rebated by mail in PY17 were manufactured by Nest (64%), Honeywell sold the most thermostats through the online store (58%). Although the online store only offered four manufacturers’ models, models not offered through that channel accounted for only 6% of mail-in rebates (e.g., Allure Energy, American Standard, Lennox, and Trane models). Cadmus calculated higher average energy savings for smart thermostats purchased online (451 kWh per year) than those receiving a mailed rebate check (371 kWh per year), due to a higher percentage of homes with electric heat (31% online, 24% rebate by mail). The installation rate, however, from the immediate survey was lower for online customers (95%, n=153 thermostats) compared to mail-in rebate customers (99%, n=1,524 thermostats).<sup>7</sup> Free ridership (FR) estimated from the immediate survey for mail-in rebate customers (29%) was over twice as high as the free ridership estimated for online customers (13%).<sup>8</sup>

Cadmus also found some notable differences between survey responses from online and mail-in rebate customers. Online customers were less likely to know if their geofencing function was turned on (21% online *don’t know*, compared to 12% mail-in rebates), though percentages reporting this function turned off were similar (9% online, 6% mail-in rebate). Online customers also were less likely to report that their thermostat connected to the internet (90% online, 96% mail-in rebate), with larger percentages reporting that their unit was not online (6% online, 2% mail-in rebate), or that they did not know (4% online, 2% mail-in rebate). Online customers also were less likely to report that setting up and programming their smart thermostat was *very easy* (62% online, 70% mail-in rebate).

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<sup>7</sup> The ISR values Cadmus used for calculating energy savings for smart thermostats were based on results from the follow-up survey, conducted six months after installation. The team, however, did not collect survey responses from online store customers through the PY17 follow-up survey as all participants purchased their measures less than six months before the end of the program year. For comparison purposes, this section reports installation rates from the immediate survey (which included online store customers).

<sup>8</sup> A factor accounting for some of the difference is that 12% of mail-in rebate customers in the analysis are estimated as 100% free riders because they found out their smart thermostat qualified for an Ameren Missouri rebate after they made their purchase of the new thermostat. This contrasts with online customers, who did not have the opportunity to purchase a smart thermostat through Ameren Missouri’s online store before they found out that Ameren Missouri offered rebates for smart thermostats.

Survey respondents who purchased a smart thermostat online gave lower satisfaction ratings for different program aspects program and Ameren Missouri, as indicated in Table 15. The largest difference in ratings were for satisfaction with the performance the smart thermostat, with 85% of mail-in rebate customers being “very satisfied” compared to 68% of online customers.

**Table 15. Satisfaction Differences by Smart Thermostat Rebate Channel**

Survey item	Online customers (n=147 surveys)	Mail-in rebate customers (n=1,338 surveys)
“Very satisfied” with performance of thermostat	68%	85%
“Very satisfied” with amount of rebate	79%	85%
“Very satisfied” with program overall	74%	87%
“Very satisfied” with Ameren Missouri overall	61%	72%
Satisfaction with Ameren Missouri increased following program experience	52%	60%

## Smart Thermostats and HVAC Replacement

Cadmus asked smart thermostat participants if they had replaced any other heating or cooling equipment at the same time. Participants reported that 6% of furnaces, 6% of CACs, and 16% of HPs had been replaced at about the same time that smart thermostats were installed; these results were all higher than PY16, especially HPs (up from 2% in PY16).

Cadmus also asked survey questions about smart thermostat usage to 64 Heating and Cooling program participants who received rebates for smart thermostats through the Efficient Products program.<sup>9</sup> Sixty of these respondents received rebates for CAC (n=51) or HP (n=9) installations, while three received Heating and Cooling program rebates for equipment tune ups, and one received a rebate for a furnace fan installed without a new HVAC system. Heating and Cooling program participants who also received smart thermostat rebates represented 14% of CAC and 15% of HP installations rebated through that program, a dramatic increase from PY16 (2% of CAC and 3% of HP). Among Heating and Cooling participants who purchased tune ups, 5% (n=126) also purchased a smart thermostat; among those who purchased a furnace fan without a major system, 11% (n=98) also purchased a smart thermostat.

Similar to PY16, Heating and Cooling participants who also received smart thermostat rebates were very similar to Efficient Products smart thermostat participants who did not receive Heating and Cooling program rebates. The notable exception was that contractors had greater influence over customers who participated in the Heating and Cooling program (most smart thermostat participants in the Efficient Products program did not use contractors).

<sup>9</sup> The Heating and Cooling immediate surveys included questions about smart thermostat usage for participants who also received smart thermostat rebates through the Efficient Products program. These responses were analyzed and reported for the Efficient Products program report.

Although all Heating and Cooling participants purchasing smart thermostats hired a contractor to install their heating and cooling equipment, only 70% (n=63) purchased their smart thermostats through a contractor: 19% shopped at local stores; and 11% purchased their thermostats online. For the PY16 evaluation, far fewer thermostats were purchased from contractors (15%, n=26)—a change probably related to expanding qualified thermostat models for the PY17 program to include models favored by contractors (Trane and Lennox).

Most of these respondents learned of the smart thermostat rebate from contractors, or the Ameren Missouri website. A majority of these respondents (72%, n=58) decided which model to purchase after visiting a store or following a contractor offering them options—another change from PY16, when 68% (n=19) knew which model they wanted prior to shopping or talking to a contractor.

## Gross Impact Evaluation Results

This section details Cadmus’s determination of each measure’s installation rate and calculations of per-unit savings for Ameren Missouri’s Efficient Products program. Cadmus compared these results to unit savings values taken from the current Ameren Missouri TRM. Ameren Missouri updated the TRM during PY17 using values from an interim gross impact analysis performed by Cadmus during 2016. The final gross impact results included updated values, based on participant surveys and program records through the end of the program year (which concluded February 28, 2018).

### Measure Installation Verification

Cadmus used survey results to verify installations of program measures. Six months after rebate payments, the team conducted the follow-up survey, which was used to calculate the percentage of installed and operating units for measures with sufficient survey responses (i.e., 487 smart thermostats, 111 air purifiers, 79 RACs, and 66 pool pumps). Since the follow-up surveys received only 20 HPWH responses, the team combined these results with 84 immediate surveys conducted shortly after payments.<sup>10</sup> Table 16 presents the percentage of measures installed and operating.

**Table 16. Measure Installation**

Measure	Percentage Installed and Operating
ENERGY STAR-certified RACs	100%
ENERGY STAR-certified HPWHs	98.9%
ENERGY STAR-certified room air purifiers	98.6%
ENERGY STAR-certified multispeed pool pumps	100%
ENERGY STAR-certified variable-speed pool pumps	100%
Smart thermostats	98.9%

### Measure-Specific Gross Savings

Cadmus reviewed the 2017 TRM’s deemed per-unit savings for all program measures. The team then compared these assumptions to other TRMs and the latest ENERGY STAR calculators to develop estimated per-unit savings numbers. The remainder of this section outlines estimated per-unit savings for each measure, along with the algorithm and inputs used. Employing engineering algorithms established in the Efficient Products evaluation plan, Illinois Statewide TRM, and ENERGY STAR calculators, the team estimated savings for each record in the PY17 tracking database. The discussion includes descriptions of gross energy savings determined for each measure, along with algorithms and inputs used.

<sup>10</sup> The evaluation used immediate survey responses for participants taking only one survey (only follow-up survey responses were used for those taking both surveys).



## ENERGY STAR Room Air Conditioners

Cadmus estimated per-unit savings for RACs using the following Illinois Statewide TRM algorithm:

$$Energy\ Savings\ (kWh/Year) = \frac{\frac{BTU}{hr} \times \left( \frac{1}{EER_{BASE}} - \frac{1}{EER_{EFF}} \right) \times EFLH_{COOL}}{1,000}$$

Where:

- Btu/hr = Room air conditioner cooling capacity (Btu/hour)
- EER<sub>BASE</sub> = Baseline equipment energy efficiency ratio (Btu/W-hour)
- EER<sub>EFF</sub> = Efficient equipment energy efficiency ratio (Btu/W-hour)
- EFLH<sub>COOL</sub> = Equivalent full-load cooling hours
- 1,000 = Conversion from between Wh to kWh

Table 17 shows the assumed values for each parameter.

**Table 17. Room Air Conditioner Savings Assumptions**

Term	Value	Source
Btu/hr	10,322	Actual from PY17 Efficient Products Program Database
EER <sub>BASE</sub>	10.83	Federal Minimum Efficiency Standard (CEER) based on size of rebated unit
EER <sub>EFF</sub>	11.96	Actual from PY17 Efficient Products Program Database
EFLH <sub>COOL</sub>	537	Missouri climate zones mapped by zip code
1,000	1,000	Conversion factor (Wh/kWh)

Using this engineering algorithm, the team estimated energy savings for each RAC recorded in the tracking database, resulting in an average value of 49.8 kWh per year for each installed and retained RAC, as shown in Table 18. This value equaled 114% of the program’s *ex ante* savings estimate, due to updating unit sizes and EERs based on PY17 program records (rebated units were larger and more efficient relative to the baseline).

**Table 18. TRM and Estimated Savings Comparison for RACs**

TRM Savings/Unit	Cadmus Estimated Savings/Unit	Realization Rate
43.5 kWh/yr	49.8 kWh/yr	114%

## ENERGY STAR Heat Pump Water Heaters

Cadmus estimated per-unit savings for HPWHs using the following Illinois Statewide TRM algorithms:

$$Energy\ Savings\ \left( \frac{kWh}{Year} \right) = \left( \frac{1}{EF_{base}} - \frac{1}{EF_{eff}} \right) \times (HWT - CWT) \times Den \times GPD \times Household \times 365.25 \times C_p \times \frac{1}{3,413} - kWh_{heat} + kWh_{cool}$$

*Heating Interaction (kWh<sub>heat</sub>)*

$$= \left(1 - \frac{1}{EF_{eff}}\right) \times (HWT - CWT) \times Den \times GPD \times Household \times 365.25 \times C_p$$

$$\times \frac{1}{3,413} \times \frac{1}{COP_{cool}} \times LF \times 43\% \times \%ElectricHeat$$

*Cooling Interaction (kWh<sub>heat</sub>)*

$$= \left(1 - \frac{1}{EF_{eff}}\right) \times (HWT - CWT) \times Den \times GPD \times Household \times 365.25 \times C_p$$

$$\times \frac{1}{3,413} \times \frac{1}{COP_{cool}} \times LF \times 53\% \times LM \times \%Cool$$

Where:

EF <sub>base</sub>	=	Energy factor of baseline water heater
EF <sub>eff</sub>	=	Energy factor of program-qualified water heater
HWT	=	Hot water temperature (°F)
CWT	=	Cold water temperature (°F)
Den	=	The water density (lb/gal)
GPD	=	Gallons of hot water used per day per person
Household	=	Number of people per household
365	=	Days/year
C <sub>p</sub>	=	Specific heat of water
3,413	=	Conversion factor from Btu to kWh
kWh <sub>heat</sub>	=	Heating interaction due to heat removed from room to heat water
kWh <sub>cool</sub>	=	Cooling interaction due to heat removed from room to heat water
COP <sub>cool</sub>	=	COP of central air conditioner
LF	=	Location factor (1.0 for conditioned space, 0.0 for unconditioned space)
LM	=	Latent multiplier to account for latent cooling demand
43%	=	Portion of reduced waste heat that results in increased heating load
53%	=	Portion of reduced waste heat that results in cooling savings
%ElectricHeat	=	Percentage of homes with electric heat
%Cool	=	Percentage of homes with central cooling

Table 19 shows the assumed value for each of these parameters.

**Table 19. HPWHs Savings Assumptions**

Term	Value	Source
EFbase	0.94	Federal Minimum Standard based on capacity of rebated unit
EFeff	3.26	Actual from PY17 Efficient Products Database
HWT	125	Illinois Statewide TRM v6
CWT	57.898	Using 40" deep soil temp as a proxy at Powell Gardens SCAN site: 12-month average of available data from 3/28/02–10/11/14
Den	8.33	Density of water (lb/gallon)
GPD	17.6	Residential End Uses of Water Study 2013 Update. Prepared by Deoreo, B., and P. Mayer for the Water Research Foundation, 2014
Household	2.66	Ameren Missouri Efficient Products Impact and Process Evaluation: Planning Year 2015, prepared by Cadmus
C <sub>p</sub>	1	Specific heat of water (Btu/lb-oF)
3,413	3,413	Conversion factor (Btu/kWh)
kWhheat	214	Illinois Statewide TRM algorithm with inputs from PY17 Efficient Products Database
kWhcool	642	Illinois Statewide TRM algorithm with inputs from PY17 Efficient Products Database
LF	0.5	Illinois Statewide TRM v6 value for installation in an unknown location
LM	3.52	Missouri climate zones mapped by zip code, Infiltration Factor Calculation Methodology by Bruce Harley, Senior Manager, Applied Building Science, CLEAResult 11/18/2015
43%	43%	HDD60 portion of days per year for Missouri
53%	53%	CDD65 portion of days per year for Missouri
%ElectricHeat	72%	Actual from PY17 Efficient Products Database
%Cool	100%	Actual from PY17 Efficient Products Database
Days	365.25	Conversion Factor (day/yr)

Using this engineering algorithm, the team estimated energy savings for each HPWH recorded in the tracking database, resulting in an average value of 2,526 kWh per year for each installed and retained HPWH. This value equaled approximately 100% of the program’s *ex ante* value of 2,531 kWh per year, as shown in Table 20. The difference between these estimates resulted from adjustments the team made based on equipment reported in the tracking data.

**Table 20. TRM and Estimated Savings Comparison for HPWHs**

TRM Savings/Unit	Cadmus Estimated Savings/Unit	Realization Rate
2,531 kWh/yr	2,526 kWh/yr	100%

## ENERGY STAR Room Air Cleaners

Cadmus estimated per-unit ENERGY STAR room air cleaner savings using the following ENERGY STAR calculator algorithm:

$$Energy\ Savings\ \left(\frac{kWh}{Year}\right) = CADR \times \left\{ \left(\frac{1}{Eff_{BL}}\right) - \left(\frac{1}{Eff_{ES}}\right) \times (Hr_{oper}) + (SB_{BL} - SB_{ES}) \times (24 - Hr_{oper}) \right\} \times \frac{365}{1,000}$$

Where:

- CADR = Clean air recovery rate for dust
- Eff<sub>BL</sub> = Clean air recovery rate for dust per watt for baseline unit
- Eff<sub>ES</sub> = Clean air recovery rate for dust per watt for ENERGY STAR unit
- Hr<sub>oper</sub> = Hours per day of operation
- SB<sub>BL</sub> = Standby for baseline unit
- SB<sub>ES</sub> = Standby for ENERGY STAR unit
- 365 = Days/year
- 1,000 = Conversion factor (Wh/kWh)

Table 21 shows the assumed values for each of these parameters.

**Table 21. ENERGY STAR Room Air Cleaner Savings Assumptions**

Term	Value	Source
Eff <sub>BL</sub>	1.00	ENERGY STAR Appliance Calculator**
Eff <sub>ES</sub>	3.02	Actual from PY17 Efficient Products Program Database
Hr <sub>oper</sub>	16	ENERGY STAR Appliance Calculator**
SB <sub>BL</sub>	1.00	ENERGY STAR Appliance Calculator **
SB <sub>ES</sub>	0.366	Actual from PY17 Efficient Products Program Database
Clean air recovery rate for dust	150.2	Actual from PY17 Efficient Products Program Database
**Available online: <a href="https://www.energystar.gov/sites/default/files/asset/document/appliance_calculator.xlsx">https://www.energystar.gov/sites/default/files/asset/document/appliance_calculator.xlsx</a>		

Using this engineering algorithm, the team estimated savings for each ENERGY STAR room air cleaner recorded in the tracking database, resulting in an average per-unit savings value of 578 kWh per year for each ENERGY STAR room air cleaner, as shown in Table 22. This value equaled approximately 104% of the program’s *ex ante* savings estimate of 556 kWh per year. The difference between estimates resulted from updates to the clean-air delivery rate for dust and from standby energy consumption, based on PY17 program data.

**Table 22. TRM and Estimated Savings Comparison for ENERGY STAR Room Air Cleaners**

TRM Savings/Unit	Cadmus Estimated Savings/Unit	Realization Rate
556 kWh/yr	578 kWh/yr	104%

## ENERGY STAR Multispeed Pool Pumps

Cadmus estimated per-unit multispeed pool pump savings using the following algorithms:

$$Energy\ Savings\ \left(\frac{kWh}{Year}\right) = Days_{oper} \times \left\{ \left(\frac{kWh_{ss}}{Day}\right) - \left(\frac{kWh_{ds}}{Day}\right) \right\}$$

Where:

$$\left(\frac{kWh_{ss}}{Day}\right) = \frac{(RT_{ss} \times GPM_{ss} \times 60)}{(EF_{ss} \times 1,000)}$$

$$\left(\frac{kWh_{ds}}{Day}\right) = \left(\frac{kWh_{hs}}{Day}\right) + \left(\frac{kWh_{ls}}{Day}\right)$$

$$\left(\frac{kWh_{hs}}{Day}\right) = \frac{(RT_{hs} \times GPM_{hs} \times 60)}{(EF_{hs} \times 1,000)}$$

$$\left(\frac{kWh_{ls}}{Day}\right) = \frac{(RT_{ls} \times GPM_{ls} \times 60)}{(EF_{ls} \times 1,000)}$$

Where:

- Days<sub>oper</sub> = Days/year of operation
- RT<sub>ss</sub> = Runtime in hours/day using single-speed pump
- GPM<sub>ss</sub> = Gallons per minute using single-speed pump
- EF<sub>ss</sub> = Energy factor using single-speed pump
- RT<sub>hs</sub> = Runtime in hours/day in high speed using multispeed pump
- GPM<sub>hs</sub> = Gallons per minute in high speed using multispeed pump
- EF<sub>hs</sub> = Energy factor in high speed using multispeed pump
- RT<sub>ls</sub> = Runtime in hours/day in low speed using multispeed pump
- GPM<sub>ls</sub> = Gallons per minute in low speed using multispeed pump
- EF<sub>ls</sub> = Energy factor in low speed using multispeed pump
- 1,000 = Conversion factor (Wh/kWh)

Table 23 shows the assumed value for each of these parameters.

**Table 23. ENERGY STAR Multispeed Pool Pump Savings Assumptions**

Term	Value	Source
Days <sub>oper</sub>	121.6	ENERGY STAR Pool Pump Calculator adjusted for multispeed in Missouri*
RT <sub>ss</sub>	11.4	
RT <sub>ls</sub>	9.8	
RT <sub>hs</sub>	2.0	
GPM <sub>ss</sub>	64.4	
GPM <sub>ls</sub>	31.0	
GPM <sub>hs</sub>	56.0	
EF <sub>ss</sub>	2.1	
EF <sub>ls</sub>	5.4	
EF <sub>hs</sub>	2.4	

\*Available online: <https://www.energystar.gov/sites/default/files/asset/document/Pool%20Pump%20Calculator.xlsx>

Using this engineering algorithm, the team estimated a per-unit saving value of 1,800 kWh per year for multispeed pool pumps, as shown in Table 24. This value equals the program’s *ex ante* savings estimate.

**Table 24. TRM and Estimated Savings Comparison for ENERGY STAR Multispeed Pool Pumps**

TRM Savings/Unit	Cadmus Estimated Savings/Unit	Realization Rate
1,800 kWh/yr	1,800 kWh/yr	100%

## ENERGY STAR Variable Speed Pool Pumps

Cadmus estimated per-unit variable speed pool pump savings using the following algorithms:

$$Energy\ Savings\ \left(\frac{kWh}{Year}\right) = Days_{oper} \times \left\{ \left(\frac{kWh_{ss}}{Day}\right) - \left(\frac{kWh_{vs}}{Day}\right) \right\}$$

Where:

$$\left(\frac{kWh_{ss}}{Day}\right) = \frac{(RT_{ss} \times GPM_{ss} \times 60)}{(EF_{ss} \times 1,000)}$$

$$\left(\frac{kWh_{vs}}{Day}\right) = \left(\frac{kWh_{hs}}{Day}\right) + \left(\frac{kWh_{ls}}{Day}\right)$$

$$\left(\frac{kWh_{hs}}{Day}\right) = \frac{(RT_{hs} \times GPM_{hs} \times 60)}{(EF_{hs} \times 1,000)}$$

$$\left(\frac{kWh_{ls}}{Day}\right) = \frac{(RT_{ls} \times GPM_{ls} \times 60)}{(EF_{ls} \times 1,000)}$$

Where:

- Day<sub>Soper</sub> = Days/year of operation
- RT<sub>ss</sub> = Runtime in hours/day using single-speed pump
- GPM<sub>ss</sub> = Gallons per minute using single-speed pump
- EF<sub>ss</sub> = Energy factor using single-speed pump
- RT<sub>hs</sub> = Runtime in hours/day in high speed using variable-speed pump
- GPM<sub>hs</sub> = Gallons per minute in high speed using variable-speed pump
- EF<sub>hs</sub> = Energy factor in high speed using variable-speed pump
- RT<sub>ls</sub> = Runtime in hours/day in low speed using variable-speed pump
- GPM<sub>ls</sub> = Gallons per minute in low speed using variable-speed pump
- EF<sub>ls</sub> = Energy factor in low speed using variable-speed pump
- 1,000 = Conversion factor (Wh/kWh)

Table 25 shows the assumed value for each of these parameters.

**Table 25. ENERGY STAR Variable Speed Pool Pump Savings Assumptions**

Term	Value	Source
Days <sub>oper</sub>	121.6	ENERGY STAR Pool Pump Calculator* (version last updated December 2013), adjusted for variable speed in Missouri
RT <sub>ss</sub>	11.4	
GPM <sub>ss</sub>	64.4	
EF <sub>ss</sub>	2.1	
RT <sub>hs</sub>	2.0	
GPM <sub>ls</sub>	30.6	
EF <sub>ls</sub>	7.3	
RT <sub>ls</sub>	10.0	
GPM <sub>hs</sub>	50.0	
EF <sub>hs</sub>	3.8	

\*Available online: <https://www.energystar.gov/sites/default/files/asset/document/Pool%20Pump%20Calculator.xlsx>

Using this engineering algorithm, the team estimated a per-unit saving value of 2,053 kWh per year for variable speed pool pumps, as shown in Table 26. This value equaled the program’s *ex ante* savings estimate.

**Table 26. TRM and Estimated Savings Comparison for ENERGY STAR Variable Speed Poop Pumps**

TRM Savings/Unit	Cadmus Estimated Savings/Unit	Realization Rate
2,053 kWh/yr	2,053 kWh/yr	100%

## Smart Thermostats

Cadmus estimated per-unit savings for smart thermostats using the following Illinois Statewide TRM algorithms:

$$Energy\ Savings\ \left(\frac{kWh}{Year}\right) = \Delta kWh\ heating + \Delta kWh\ cooling$$

$$\Delta kWh\ heating = \%ElectricHeat \times HeatingConsumption\ electric \times HF \times HeatingReduction + (\Delta Therms \times Fe \times 29.3)$$

$$\Delta Therms = \%FossilHeat \times HeatingConsumption\ gas \times HF \times HeatingReduction$$

$$\Delta kWh\ cooling = \%AC \times EFLHcool \times Capacity\ cool \times \frac{1}{SEER} \times \frac{1}{1000} \times CoolingReduction$$

Where:

- %ElectricHeat = Percentage of homes with electric heat
- HeatingConsumption electric = Annual household electric heating consumption
- HF = Household factor to adjust for non-single-family homes
- HeatingReduction = Percent reduction in household electric heating consumption
- Fe = Furnace fan energy use as percent of fuel consumption

%FossilHeat	=	Percentage of homes with gas heat
HeatingConsumption gas	=	Percent reduction in household gas heating consumption
29.3	=	Conversion factor (kWh/therm)
%AC	=	Percentage of homes with central cooling
EFLHcool	=	Equivalent full load hours of air conditioning
Capacity cool	=	Capacity of air cooling system
SEER	=	Cooling equipment's Seasonal Energy Efficiency Ratio
1/1000	=	Conversion factor (kBtu/Btu)
CoolingReduction	=	Percent reduction in household cooling consumption

Table 27 shows the assumed value for each of these parameters.



**Table 27. Smart Thermostat Savings Assumptions**

Term	Value	Source
%ElectricHeat	24.5%	Actual from PY17 Efficient Products Database
HeatingConsumption electric	12,383	Average household heating load from Chicago based on Illinois furnace metering study ('Table E-1, Energy Efficiency/Demand Response Nicor Gas Plan Year 1: Research Report: Furnace Metering Study, Draft, Navigant, August 1 2013) converted to Missouri based on HDD60
HF	96.6%	Actual from PY17 Efficient Products Database
HeatingReduction	6.7%	Navigant's IL TRM Workpaper on Impact Analysis from Preliminary Gas savings findings
Fe	3.14%	Calculation based on the certified values for fuel energy (Ef in MMBTU/yr) and Eae (kWh/yr) from a sample of 300 records
%FossilHeat	75.5%	Actual from PY17 Efficient Products Database
HeatingConsumption gas	682	Average household heating load from Chicago based on Illinois furnace metering study ('Table E-1, Energy Efficiency/Demand Response Nicor Gas Plan Year 1: Research Report: Furnace Metering Study, Draft, Navigant, August 1 2013) converted to Missouri based on HDD60
29.3	29.3	Conversion factor (kWh/therm)
%AC	100%	Actual from PY17 Efficient Products Database
EFLHcool	856	ENERGY STAR calculator value reduced by 28.5% based on the evaluation results in Ameren territory suggesting an appropriate EFLH of 869. The other climate region values are calculated using the relative Climate Normals Cooling Degree Day ratios (at 65F set point).
Capacity cool	36,065	Actual from PY17 Heating and Cooling Program Database or nominal BTU/hour for 3-ton system if unknown (36,000) *
SEER	13.1	Actual from PY17 Heating and Cooling Program Database or minimum federal standard if unknown (13.0) *
1/1000	1/1000	Conversion factor (kBtu/Btu)
CoolingReduction	8.0%	Illinois Statewide TRM v6

\* Cadmus used cooling capacity and SEER values from the PY17 Heating and Cooling program database for customers who received rebates for installing heating and cooling systems and smart thermostats (crossover participants), which accounted for a minority of smart thermostat rebates. Actual cooling capacity and SEER values were not available for other smart thermostat participants.

Using this engineering algorithm, the team estimated savings for each smart thermostat recorded in the tracking database, resulting in an average per-unit savings value of 386 kWh per year for each thermostat, as shown in Table 28. This value equaled approximately 83% of the program's *ex ante* savings estimate of 462 kWh per year.

**Table 28. TRM and Estimated Savings Comparison for Smart Thermostats**

TRM Savings/Unit	Cadmus Estimated Savings/Unit	Realization Rate
462 kWh/yr	386 kWh/yr	83%

*Ex ante* input assumptions were not available for direct comparison, however the variable with the greatest potential to influence savings was %ElectricHeat, as per-unit savings were more than three times greater for electrically heated homes than for gas heated homes. Additional factors affecting the realization rate include the following:

- The team applied a household factor per the Illinois Statewide TRM which serves to adjust heating consumption for non-single-family homes, thus decreasing savings. About 3.4% of participant households were multifamily.
- The team calculated savings assuming a baseline thermostat mixture of manual and programmable thermostats based on participant survey data. The resulting average heating reduction is 6.7% compared to the Illinois Statewide TRM blended value of 7.4%.
- Heating savings were calculated based on weighted average heating consumption values at the household level, irrespective of heating system sizes or efficiencies. As a result, for participants purchasing multiple thermostats, the team did not attribute additional heating savings to thermostats beyond the first installed. Cooling savings were multiplied by quantity as normal. About 2.1% of participant households were electrically heated and received more than one thermostat rebate.

## Summary

Table 29 lists per-unit, *ex ante* and *ex post* gross savings by measure (kWh); Table 30 lists the same for demand reduction (KW).

**Table 29. PY17 Summary: Comparison of *Ex Ante* and *Ex Post* Per-Unit Gross Savings**

Measure	<i>Ex Ante</i> (kWh/yr)	<i>Ex Post</i> (kWh/yr)	Realization Rate
<b>Equipment Rebates</b>			
ENERGY STAR-certified RACs	43.5	49.8	114%
ENERGY STAR-certified HPWHs	2,531	2,526	100%
ENERGY STAR-certified room air purifiers	556	578	104%
ENERGY STAR-certified multispeed pool pumps	1,800	1,800	100%
ENERGY STAR-certified variable-speed pool pumps	2,053	2,053	100%
Smart thermostats (selected models)	462	386	83%

**Table 30. PY17 Summary: Comparison of *Ex Ante* and *Ex Post* Per-Unit Gross Demand Reduction**

Measure	<i>Ex Ante</i> (KW/yr)	<i>Ex Post</i> (KW/yr)	Realization Rate
<b>Equipment Rebates</b>			
ENERGY STAR-certified RACs	0.041	0.047	114%
ENERGY STAR-certified HPWHs	0.225	0.224	100%
ENERGY STAR-certified room air purifiers	0.259	0.269	104%
ENERGY STAR-certified multispeed pool pumps	0.424	0.424	100%
ENERGY STAR-certified variable-speed pool pumps	0.483	0.483	100%
Smart thermostats (selected models)	0.438	0.365	83%

To estimate the program’s total gross energy savings, the team applied the per-unit values shown in Table 29 to the Efficient Products PY17 participation rates, shown in Table 31.

**Table 31. PY17 Summary: *Ex Post* Program Gross Savings Accounting for Installation Rates**

Measure	PY17 Participation (Verified)	Per-Unit <i>Ex Post</i> Savings (kWh/hr)	Percent Installed and Operating	Total <i>Ex Post</i> Savings (MWh/yr)
ENERGY STAR-certified RACs	1,372	49.8	100%	68
ENERGY STAR-certified HPWHs	358	2,526	98.9%	895
ENERGY STAR-certified room air purifiers	2,588	578	98.6%	1,474
ENERGY STAR-certified multispeed pool pumps	121	1,800	100%	218
ENERGY STAR-certified variable-speed pool pumps	1,012	2,053	100%	2,077
Smart thermostats (selected models)	13,693	386	98.9%	5,224
<b>Total</b>	<b>19,144</b>	<b>N/A</b>	<b>N/A</b>	<b>9,956</b>

## Net Impact Evaluation Results

Cadmus determined total programs net impacts by calculating total gross savings by measure group and then by applying the following:

- Participant Free Ridership
- Participant Spillover
- Nonparticipant spillover (NPSO)

Cadmus estimated participant free ridership and spillover ratios using participant surveys completed during PY17.

Free ridership equals the percentage of savings that would likely have occurred in a program’s absence. As free rider measures incur program costs but provide none of its benefits, they decrease a program’s net savings.

Participant spillover equals savings that occur when program participants undertake additional energy-efficiency measures or perform energy-efficient activities without receiving financial assistance from the program. Unlike free ridership, spillover savings do not generate program costs; rather, they generate energy-saving benefits which increase net savings.

Similarly, NPSO is a result of program or general energy-efficiency marketing and education that caused nonparticipating customers to undertake additional energy-efficiency measures or perform energy-efficient activities without financial assistance. Cadmus conducted a survey with 2,373 nonparticipating Ameren Missouri customers (from Ameren Missouri’s residential customer database) to assess the influence of the program on their decision to purchase or implement energy-efficient measures without a program incentive.

To calculate the Efficient Products program’s NTG, the Cadmus team used the following formula:

$$NTG = 1 - \textit{Freeridership} + \textit{Participant Spillover}$$

Cadmus applied the resulting NTG ratio to the *ex post* gross savings for each program measure to calculate net savings for the program measures, then added the Efficient Products generated NPSO savings to arrive at total net program savings. Because NPSO is of significant size and does not have the same load shape as the program, we did not include NPSO in the NTG ratio associated with the program, but rather added the net energy and demand impacts separately.

Table 32 shows our estimates of the PY17 program’s net impacts.

Table 32. PY17 Net Impact Results Summary

Program Measure	Ex Post Gross Savings (kWh/yr)	Free Ridership	Participant Spillover	NTG (w/o NPSO)	Net Savings (MWh/yr)
ENERGY STAR-certified RACs	68,273	62%	0%	38%	26
ENERGY STAR-certified HPWHs	894,523	10%	2%	92%	823
ENERGY STAR-certified room air purifiers	1,474,451	45%	1%	56%	826
ENERGY STAR-certified multispeed pool pumps	217,768	19%	0%	81%	176
ENERGY STAR-certified variable-speed pool pumps	2,077,483	19%	0%	81%	1,683
Smart thermostats	5,223,845	27%	2%	75%	3,918
<b>NPSO</b>	-	-	-	-	<b>214</b>
<b>Program Total</b>	<b>9,956,343</b>	<b>27%</b>	<b>1%</b>	<b>75%</b>	<b>7,666</b>

### Free Ridership Results

Cadmus used a participant self-report approach to determine free ridership ratios for 2,137 participants who chose to install an Efficient Products program measure. This approach relied on a standard battery of questions that focused on the following key areas:

- Would the participant have installed a high-efficiency replacement without the program incentive?
- How soon would the participant have taken the action with the program rebate?
- Did the program rebate cause the participant to purchase a system with a higher efficiency rating than they would have purchased without the program?
- How important was the program rebate in the participant’s decision to purchase and install a high-efficiency system?
- How important was the advice from the contractor in the participant’s decision to purchase and install the high-efficiency system?

Cadmus applied a free ridership score ranging from 0% to 100% to individual participants based on their cumulative responses to the set of survey questions. Cadmus then averaged individual free ridership scores (weighted by evaluated gross energy savings) to arrive at measure category level free ridership estimates for the program.

Cadmus used the following process for determining a participant’s free ridership score:

- We categorized customers as 0% free riders if:
  - They had no plans to install the measure in the absence of the program’s incentives and would not have installed the measure within one year in the program’s absence;
  - They considered installing the measure before learning about the program, but would not have done so without program incentives; or
  - In the absence of program incentives, they would have purchased or installed less-efficient equipment.

- We categorized customers as 100% free riders if they had installed the measure before learning about the program, or if they would have installed the same measure at the same time without the program and if they confirmed the program rebate was “not at all important” in their decision to purchase the high efficiency equipment.<sup>11</sup>
- We assigned a partial free ridership score (ranging from 12.5% to 75%) to customers who already had plans to install the measure, but who said their decisions about which product to purchase or when they would purchase it was influenced by the program. For customers highly likely to install the energy-efficient equipment right away and for whom the program had less influence over their decisions, we assigned a higher free ridership percentage than for those whom the program may not have had as large an influence (or whose purchases may have occurred later in the program’s absence).<sup>12</sup>
- Cadmus applied a 25% reduction to a participant’s free ridership estimate for each “don’t know” response to the key free ridership questions. The free ridership scoring methodology treated “don’t know” responses not as *fully* indicative of free ridership but as *partially* indicative of free ridership.<sup>13</sup> This is consistent with the State and Local Energy Efficiency Action Network’s Energy Efficiency Program Impact Evaluation Guide, dated December 2012<sup>14</sup> which states that “A participant is a total free rider if he or she would have absolutely installed the same project at the exact same time, at the same price, even if the program did not exist – and they know that”. Accordingly, someone that “doesn’t know” is not a total free rider. If a participant responded with “don’t know” to four or more of the free ridership questions Cadmus dropped the participant from the free ridership analysis.

After translating survey responses into each participant’s free ridership score, we calculated an average free ridership estimate, weighted by evaluated savings, for each program measure category. (Free Ridership Scoring Tables, Table 49 and Table 50, shows the conversion of each raw survey response option into free ridership scoring matrix values, and the free ridership score combinations and scoring legend we used to categorize customer survey responses for incentive-based measures.)

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<sup>11</sup> When respondents reported that a contractor was involved in the customer’s purchasing decision a separate free ridership question was asked of participants to rate the importance of the advice from the contractor on their purchasing decision.

<sup>12</sup> The PY16 free ridership analysis applied a 25% decrement to a participant’s free ridership estimate if they answered that the program rebate or the advice from their contractor were “not very important” in their decision to purchase and install the high-efficiency system, while in the PY17 free ridership analysis, Cadmus did not apply a decrement to a participant’s free ridership estimate.

<sup>13</sup> Applying a 0% reduction for a “don’t know” response implies that the response is fully indicative of free ridership, though it clearly does not have as strong an association with free ridership as a response such as “installed to same level efficiency” or “installed around the same time.”

<sup>14</sup> [https://www4.eere.energy.gov/seeaction/system/files/documents/emv\\_ee\\_program\\_impact\\_guide\\_0.pdf](https://www4.eere.energy.gov/seeaction/system/files/documents/emv_ee_program_impact_guide_0.pdf)

## Free Ridership Results

Table 33 provides PY17 free ridership estimates by measure.

**Table 33. Efficient Products Free Ridership Results**

Measure	n	Total Weighted Free Ridership Estimate*
ENERGY STAR-certified RACs	149	62%
ENERGY STAR-certified HPWHs	73	10%
ENERGY STAR-certified room air purifiers	313	45%
ENERGY STAR-certified multispeed pool pumps	164	19%
ENERGY STAR-certified variable-speed pool pumps		
Smart thermostats	1,438	27%
*Estimates are weighted by <i>ex post</i> gross program savings.		

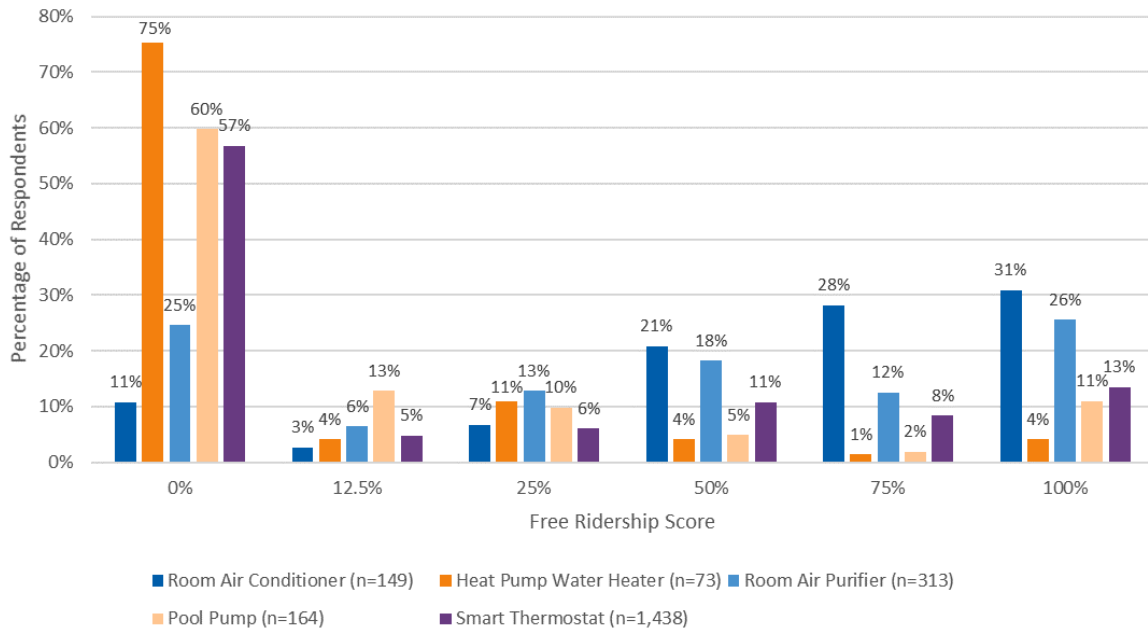
## Free Ridership Scoring

*Free Ridership Scoring Tables*, Table 51 to Table 55, contains: the full set of free ridership responses for the Efficient Products measures, free ridership survey response combinations, the free ridership score assigned to each combination, and the number of responses. Responses of “yes,” “no,” or “partial” relate to whether the specific response indicates free ridership.

## Distribution of Free Ridership Scores

Figure 6 shows the distribution of assigned free ridership scores by measure. Out of all measures, room air conditioner participants had the lowest percentage (11%) of respondents estimated as 0% free riders and the highest percentage (31%) of respondents estimated as 100% free riders. The heat pump water heater measure had the highest percentage (75%) of respondents estimated as 0% free riders and the lowest percentage (4%) of respondents estimated as 100% free riders.

Figure 6. Overall Distribution of Free Ridership Scores by Measure



### Free Ridership Scores and Incentives

Cadmus calculated the average purchase price for each measure from program records.<sup>15</sup> These results are shown in Table 34 along with the incentive-to-price ratio and estimated free ridership for each measure.

Table 34. Incentive Relative to Price Compared with Free Ridership Scores by Measure

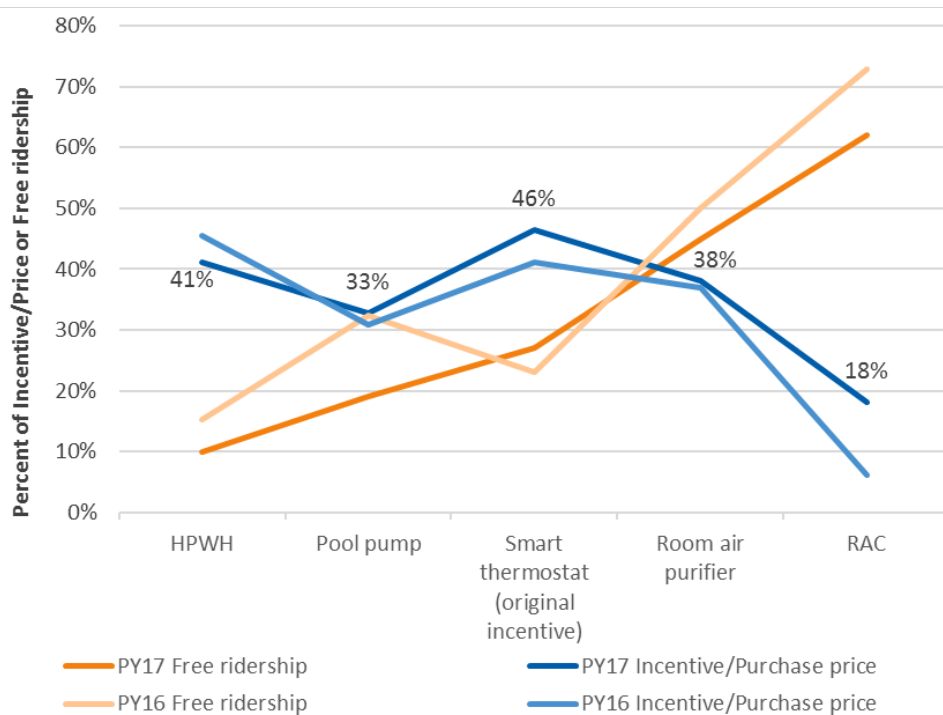
Measure	Incentive	Average Purchase Price	Incentive as Percent of Purchase Price	Free Ridership Estimate
ENERGY STAR-certified RACs	\$50	\$276	18%	62%
ENERGY STAR-certified HPWHs	\$500	\$1,221	41%	10%
ENERGY STAR-certified room air purifiers	\$50	\$132	38%	45%
ENERGY STAR-certified multispeed pool pumps	\$350	\$1,070	33%	19%
ENERGY STAR-certified variable-speed pool pumps				
Smart thermostats	\$100 through December 2017 \$50 beginning January 2018	\$216	46% (\$100) 23% (\$50)	27%

<sup>15</sup> Program records included valid purchase price data for 99% of rebated measures (19,060 measures used in this analysis). Cadmus found that participants paid similar average purchase prices for multispeed (\$1,094) and variable-speed (\$1,067) pool pumps, so these measures were reported together.



Figure 7 shows the distribution of assigned free ridership scores by measure in PY17 and PY16, plotted with the incentive amount as a percent of the average cost of each measure. There is an inverse relationship between the relative amount of the incentive and free ridership, with measures that have lower free ridership tending to have higher incentive-to-price ratios. The general trend from PY16 to PY17 was declining free ridership (the dark orange line is mostly below the light orange), while the incentive-to-price ratio increased (the dark blue line is mostly above the light blue).

**Figure 7. Incentive Relative to Price Compared with Free Ridership Scores by Measure**



For most measures, the lower incentive-to-price ratio in PY17 was due to customers paying lower retail prices for their measures (e.g., the average price paid for a smart thermostat fell from \$243 in PY16 to \$216 in PY17.) The exception was that participants who purchased HPWHs in PY17 paid an average of 11% more than PY16 participants paid.

Ameren Missouri increased the incentive for RACs from \$20 to \$50 in PY17, but this measure still had the highest free ridership for any measure in the program (62%), and the lowest incentive-to-price ratio (18%). Smart thermostats were the only measure with higher free ridership in PY17 than PY16, despite having the highest incentive-to-price ratio in PY17 (46%); in January 2018 (two months before the end of PY17), Ameren Missouri lowered the incentive for smart thermostats from \$100 to \$50.

## Free Ridership Drivers for RAC

Cadmus analyzed program tracking data and survey results to determine which factors are associated with high and low free ridership scores for RAC participants, who had the highest free ridership rates in the program. Table 35 summarizes some notable differences between respondents assigned higher and lower free ridership scores.

**Table 35. Free Ridership Drivers for RACs**

Survey or Tracking Data Item	Assigned free ridership 0%	Assigned free ridership 75% to 100%
Factor in purchase decision: cost savings on energy bills	63%	44%
Factor in purchase decision: equipment qualified for Ameren Missouri rebate	75%	33%
Factor in purchase decision: had specific features I was looking for	19%	49%
Primary reason for purchasing new RAC: replace broken equipment	6%	23%
Primary reason for purchasing new RAC: replace aging equipment	38%	24%
Models listed in program tracking data: average CEER	12.0	11.9
Models listed in program tracking data: average BTU/hour	8,150	11,015

## Participant Spillover Results

Cadmus asked Efficient Products program participants whether they had undertaken additional energy-efficient actions since participating in the program. To calculate spillover, we asked them to rate the importance of the following factors on their decisions to purchase additional energy efficient equipment:

1. Receiving funding through Ameren Missouri’s Efficient Products Program
2. Information they heard from Ameren Missouri or a retailer contractor about the benefits of installing additional equipment

Survey respondents reported installing 27 additional energy-efficient measures after participating in the Efficient Products Program and said their experience in the Program was “very important” to the subsequent decision to purchase a high-efficiency appliance rather than a standard efficiency model.

We estimated energy savings for the participants’ spillover responses, and then divided the total Efficient Products program survey sample spillover savings for each program measure group by the survey sample Efficient Products Program gross program savings, drawn from the survey sample, and as described in the following equation:

$$Spillover \% = \frac{\sum [Spillover kWh savings for all program measure group respondents]}{\sum [Program kWh savings for all program measure group respondents]}$$

Table 36 presents the spillover details by program measure group.<sup>16</sup>

**Table 36. Participant Spillover Savings**

Measure Group	Spillover Measure	Quantity	Participant Spillover kWh/year Savings*	Total Survey Sample Spillover kWh/year Savings
ENERGY STAR-certified HPWHs	Ductless Minisplit Heat Pump	1	925.7*	925.7
ENERGY STAR-certified room air purifiers	Central Air Conditioner	1	319.7*	479.3
	ENERGY STAR Clothes Washer	1	60.0**	
	ENERGY STAR Room AC	2	49.8***	
ENERGY STAR-certified pool pumps	Air Source Heat Pump	1	562.9*	581.4
	ENERGY STAR Refrigerator	1	18.5†	
Smart thermostats	Efficient Central Air Conditioner	1	319.7*	5,036.7
	ENERGY STAR Clothes Washer	1	60.0**	
	ENERGY STAR Dehumidifier	2	100.0††	
	Efficient Electric Water heater	2	157†††	
	Efficient Faucet Aerator	2	248.6^	
	ENERGY STAR Freezer	2	30.5^^	
	Efficient Insulation	3	192.3^^^	
	ENERGY STAR Pool Pump	1	1,799.7***	
	Recycled a Refrigerator or Freezer	2	247.2^^^^	
	ENERGY STAR Refrigerator	2	18.5†	
Efficient Showerhead	2	338.4^		

\*Based on savings calculated for the PY17 Heating and Cooling program.

\*\* Deemed savings for electric water heating and unknown dryer fuel, from the Illinois TRM Version 5.0 Volume 3. Reduced by one half due to high market shares of ENERGY STAR clothes washers.

\*\*\*Based on savings calculated for the PY17 Efficient Products program.

†Deemed savings for ENERGY STAR Refrigerator from the Illinois TRM Version 5.0 Volume 3. Reduced by one half due to high market shares of ENERGY STAR refrigerators.

††Deemed savings for ENERGY STAR Dehumidifier from the Illinois TRM Version 5.0 Volume 3.

††† Based on deemed savings from Ameren Missouri 2012 Energy Efficiency Filing Appendix A TRM.

^ Based on savings calculated for the PY17 Energy Efficient Kits program.

^^Deemed savings for ENERGY STAR Freezer from Illinois TRM Version 5.0 Volume 3. Reduced by one half due to high market shares of ENERGY STAR freezers.

^^^Average ceiling insulation savings per home, calculated for the PY15 Home Energy Analysis program.

^^^^Based on ½ the savings calculated for the PY15 Refrigerator Recycling evaluation. Adjusting program savings by ½ account for the uncertainty about the type of refrigerator, and if it was disposed of in other ways besides recycling.

<sup>16</sup> No spillover activity was attributed to Ameren Missouri by room air conditioner respondents and the participant spillover estimate for the measure group is 0%.

Table 37 presents the spillover percent estimates by measure group.<sup>17</sup> The measure group specific spillover estimates were weighted by *ex post* gross population savings to arrive at the 1.4% participant spillover estimate for the overall program

**Table 37. Participant Spillover Results by Measure Group**

Measure Group	Survey Sample Spillover kWh Savings	Survey Sample Gross Program kWh Savings	Spillover %	Ex Post Gross Population Savings (MWh/yr)
ENERGY STAR-certified RACs	0.0	4,528.3	0%	68
ENERGY STAR-certified HPWHs	925.7	50,529.2	2%	895
ENERGY STAR-certified room air purifiers	479.3	84,361.0	1%	1,474
ENERGY STAR-certified pool pumps	581.4	135,488.1	0%	2,295
Smart thermostats	5,022.5	210,614.4	2%	5,224
<b>Total*</b>			<b>1%</b>	<b>9,956</b>

\* Total may not equal sum of measures due to rounding.

## Nonparticipant Spillover

Effective program marketing and outreach generates program participation *and* increases general energy-efficiency awareness among customers. Sustained utility program and general marketing can affect customers’ perceptions of their energy usage, and, in some cases, motivate them to take efficiency actions outside of the utility’s program. The energy savings caused by—but not rebated through—a utility’s demand-side management activities are referred to as nonparticipant spillover (NPSO).

During PY17, Ameren Missouri spent \$344,759 to market individual residential efficiency programs (excluding Low Income and Home Energy Report).<sup>18</sup> To understand whether Ameren Missouri’s program-specific marketing efforts generated energy-efficiency improvements outside of the incentive programs, Cadmus implemented a large online survey of PY17 nonparticipating residential customers (see Appendix I for the survey instrument). While this survey has been implemented annually since PY13, the PY17 version garnered the greatest number of respondents. Moreover, the PY17 version updated the questions asking why respondents took efficiency actions to include several predefined responses for respondents to select, such as “to save money,” or “like the style.” Compared with the PY16 version, which asked respondents to provide open-ended responses, the PY17 version reduces uncertainty around the interpretation of responses.

<sup>17</sup> Measure group spillover estimates are rounded to the nearest whole percent. No spillover activity was attributed to Ameren Missouri by room air conditioner respondents and the participant spillover estimate for the measure group is 0%.

<sup>18</sup> The Home Energy Report program is evaluated using billing analysis, which accounts for both program savings and spillover savings. Thus, it is excluded from this NPSO analysis.

## Methodology

### *Survey Sampling and Disposition*

As a departure from the phone surveys conducted during previous program years, Cadmus and Ameren Missouri agreed to administer an online survey to most efficiently increase the number of survey completes. Sample design relied on analysis of the PY16 survey results to determine the sample size necessary to achieve 90/10 confidence/precision in PY17.

Out of 198 survey respondents in PY16, six (or 3%) reported like measures that qualified for NPSO. Based on this result, Cadmus estimated that 3% of all nonparticipants in the population adopted like measures with  $\pm 2\%$  absolute precision at 90% confidence. We also analyzed confidence/precision around NPSO savings for each type of like measure. Individual measures' absolute precision values varied from  $\pm 31\%$  to  $\pm 41\%$ . Based on stakeholders' desire for higher precision at the measure level for nonparticipant spillover, Cadmus estimated a sample size of approximately 2,244 needed to achieve more-reliable precision values for NPSO overall and, to the extent predictable, for individual measures. It is hard to determine precision predictions for individual measures before conducting the survey.

From Ameren Missouri's entire residential customer base, Cadmus selected customers who did not participate in any Ameren Missouri programs in PY17 (including the Home Energy Report program); these 731,725 customers served as the nonparticipant survey population.<sup>19</sup> From this population, the evaluation team randomly selected 62,500 customers for the sample, assuming a conservative response rate (about 4%) would achieve the quota of completes. The team mailed postcard invitations, asking customers to enter a web address that would take them to the online survey administered through Qualtrics (an online survey software vendor). To thank customers for completing the survey, the team entered them into a drawing for one of five \$100 Visa gift cards. If customers expressed interest in completing the survey but did not have access to a computer linked with the Internet, the team arranged for them to complete the survey over the phone with a Cadmus employee. Within a three-week fielding period, Cadmus achieved the target quota with 2,373 online and 58 phone completes.<sup>20</sup>

### *Like NPSO Measures*

The survey asked respondents if they adopted any of 13 energy-efficiency measures offered through Ameren Missouri programs (i.e., the "like" measures shown in Table 38). We excluded all products in the Lighting program and most products in the Heating and Cooling program to avoid double-counting NPSO savings captured through those programs' like NPSO analyses (described in those programs' reports).

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<sup>19</sup> Cadmus removed invalid or duplicate phone numbers from the sample frame as well as Home Energy Report participants.

<sup>20</sup> About 7% of respondents completing the survey (n=187) self-reported that they participated in an Ameren Missouri program in PY17; so were not counted as part of the 2,431 nonparticipant completes.

**Table 38. PY17 Like Measures**

Like Measure
Room Air Conditioner
Room Air Purifier
Pool Pump
Showerhead
Kitchen Faucet Aerator
Bathroom Faucet Aerator
Hot Water Pipe Insulation for your Hot Water Heater
Furnace Fan with ECM (Electronically Commutated Motor)
Filter Whistle
Heat Pump Water Heater
Learning or “Smart” Thermostat
Air Conditioner Tune up
Heat Pump Tune up

Customers also could adopt energy efficiency measures or perform energy-saving actions outside of Ameren Missouri’s PY17 program offerings (i.e., “non-like” NPSO). These were not considered as part of the NPSO estimate.<sup>21</sup>

***NPSO Qualification Criteria***

To confirm a relationship between Ameren Missouri’s energy efficiency programs and measures adopted by nonparticipants, Cadmus created a set of selection criteria and operationalized these into survey questions. To qualify for NPSO savings, respondents had to meet all following criteria (see Appendix J for the NPSO qualification flow charts):

- a) Familiarity with at least one Ameren Missouri program, rebate, or discount.
- b) At least one element of Ameren Missouri’s program marketing and outreach motivated them to adopt the measure.
- c) They had a valid reason for considering the adopted measure energy efficient.
- d) They had not received a rebate from Ameren Missouri, had not tried to receive a rebate from Ameren Missouri, and stated a valid reason for not applying for an Ameren Missouri measure rebate.
- e) They had a valid reason for deciding to install the measure.
- f) The adopted measure generated electric savings, not gas savings.

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<sup>21</sup> In PY16, the team estimated that non-like NPSO savings equated to 15.1% of the total portfolio evaluated savings. However, in subsequent discussions with stakeholders, Ameren Missouri agreed not to count these savings toward overall spillover estimates in PY17 or future years.

For criterion a, respondents had to have seen or heard of Ameren Missouri’s energy efficiency programs, or be aware that Ameren Missouri offered rebates and discounts for energy-saving equipment in customers’ homes.

For criterion b, the team asked respondents to rate the importance of several Ameren Missouri program marketing and outreach elements (shown in Table 39) in motivating them to adopt the spillover measure, rating these “very important,” “important,” “not important,” or “not important at all.” For like measures, the measure in question met criterion b if the respondent found at least one element “very important” or “important” in deciding to adopt the measure.

**Table 39. Ameren Missouri Marketing and Outreach Elements for Criterion B**

Statement
Information about energy savings from Ameren Missouri’s marketing or bill-inserts
Ameren Missouri’s marketing information from a contractor or retailer
Information from colleagues or friends who installed energy-efficient equipment and received a rebate from Ameren Missouri
If applicable, past participation in an Ameren Missouri rebate program
If applicable, information from a home energy assessment conducted through Ameren Missouri

Criterion c helped ensure that like measures actually generated energy savings. For all measures except air conditioning and heat pump tune ups, the team asked respondents how they knew their product was energy efficient. Responses passing criterion c included: “It’s ENERGY STAR rated” or “the retailer/dealer/contractor told me it was.” Responses such as “common sense” or “my son” did not pass the criterion.

The team asked whether respondents received a rebate from Ameren Missouri (to double-check that respondents truly did not participate in the program). The team then asked why respondents or their contractor did not apply for a rebate through Ameren Missouri. If respondents reported that they applied for a rebate but did not receive it or that their product or tune up did not qualify, their adopted measure did not pass criterion d. Responses such as “was not aware of rebate” or “just forgot about it” passed the criterion.

For criterion e, the team asked respondents why they decided to adopt the measure. If the response did not relate to saving energy or saving money, the measure did not pass criterion e. For example, one respondent reported installing a “learning or ‘smart’ thermostat” because it was a “cool gadget.” As this response did not relate to energy efficiency, the measure did not qualify as NPSO.

As the PY17 evaluation covered only electric savings generated by Ameren Missouri’s programs, the team asked respondents for their water heater and heating system fuel types. Reported like measures with water heating and heating end uses satisfied criterion f if the measures had a corresponding electric water heater or electric heat.

## Results

Of 2,431 verified nonparticipant respondents, 77 respondents adopted a total of 109 like measures that were not incentivized and passed all six NPSO criteria (see Appendix K). None of these 77 respondents received an incentive from Ameren Missouri for any measure. They were influenced by Ameren Missouri program marketing and outreach and adopted NPSO measures on their own.

### Like NPSO Measures

Table 40 shows like measures and gross evaluated kWh savings attributed to Ameren, achieving average savings of 189 kWh per like measure (Variable A).

**Table 40. PY17 Like NPSO Response Summary**

Individual Reported Like Measures	Importance of Ameren Missouri Influence on Adoption	Measure Savings (kWh)*	Allocated Savings	Quantity	Total Allocated kWh Savings	Avg kWh Per Spillover Measure
Heat pump water heater	Somewhat	2,526	50%	1	1,263	Variable A
Hot water pipe insulation for your hot water heater	Very	3	100%	19	48	
Hot water pipe insulation for your hot water heater	Somewhat	3	50%	12	15	
Kitchen faucet aerator	Very	41	100%	4	163	
Kitchen faucet aerator	Somewhat	41	50%	1	20	
Pool pump	Very	1,800	100%	1	1,800	
Room air conditioner	Very	50	100%	1	50	
Room air conditioner	Somewhat	50	50%	1	25	
Room air purifier	Very	578	100%	2	1,156	
Showerhead	Very	59	100%	3	178	
Showerhead	Somewhat	59	50%	1	30	
Air conditioner Tune up	Very	318	100%	36	11,440	
Air conditioner Tune up	Somewhat	318	50%	26	4,131	
Heat pump Tune up	Very	318	100%	1	318	
<b>Total (n=109)</b>					<b>20,637</b>	

\*Based on savings calculated for PY17 programs.

### Like NPSO Confidence Precision Analysis

As shown in Table 41, the absolute precision—with 90% confidence—for each of nine qualified like measure types was within  $\pm 10\%$ . For some measure types where the percentage of respondents adopting the measure was 3% or less, Cadmus could not accurately estimate the incidence of these measures within the population. However, we are confident with the proportion of nonparticipants reporting some type of like measure (3% or 77/2,431), which has an absolute precision of  $\pm 0.58\%$  with 90% confidence.



**Table 41. PY17 Confidence/Precision Results for Like Measures**

Like Measure	Number of respondents	Percentage of respondents	Absolute Precision with 90% confidence
Heat pump water heater	1	1%	2%
Hot water pipe insulation for your hot water heater	6	8%	5%
Kitchen faucet aerator	5	6%	5%
Pool pump	1	1%	2%
Room air conditioner	2	3%	3%
Room air purifier	2	3%	3%
Showerhead	3	4%	4%
Air conditioner Tune up	62	81%	8%
Heat pump Tune up	1	1%	2%
<b>Total of Respondents Who Reported like Measures</b>	<b>77</b>	<b>3%*</b>	<b>0.58%</b>

\*Note that 3% is the proportion of all survey respondents (n = 2,431) who reported like measures, whereas the Proportions for the measure types are out of the respondents who reported like measures (n = 77).

### *Like NPSO Extrapolation to Nonparticipant Population*

To determine total like NPSO generated by Ameren’s marketing in PY17, Cadmus extrapolated like NPSO savings per like measure to the entire PY17 residential nonparticipant population. Table 42 presents the like NPSO analysis, resulting in like NPSO total evaluated savings of 6,212 MWh portfolio level.

**Table 42. PY17 Like NPSO Analysis**

Variable	Metric	Value	Source
A	Average kWh Savings per Like Measure	189	Survey Data; PY17 Impact Evaluation
B	Number of Like Measures	109	Survey Data
C	Number of Nonparticipant Respondents	2,431	Survey Disposition
D	Total Residential Population Minus PY17 Participants	731,725	Customer Database
E	Total Like NPSO MWh Savings Applied to Population	6,212	$((B \div C) \times A) \times D / 1000$

Like NPSO savings in PY17 (6,212 MWh) are greater than savings reported in PY16 (5,050 MWh). This is due to two direct factors: the average kWh savings per like measure increased from 176 kWh in PY16 to 189 kWh in PY17, and the average like measure per nonparticipant increased from 0.035 in PY16 to 0.045 in PY17.

### *Spillover Allocation to Individual Programs*

The observed 6,212 MWh of like NPSO equates to 7.6% of the total portfolio evaluated savings. As in previous years, the team allocated the NPSO based on marketing budget and savings for each program. This approach remained consistent with the theory that NPSO resulted from the cumulative effects of program-specific marketing and program activity over a period—not necessarily by a single, program-specific marketing effort. In addition, while NPSO was most commonly associated with mass media marketing campaigns, the scale of program activity also counted as a factor.

For example, even without a significant marketing campaign, a program’s size can drive NPSO through word-of-mouth and in-store program messaging. The team found this approach accurately reflected and attributed NSPO to programs, ensuring those total costs (including marketing) and total benefits (net savings including NPSO) were properly accounted for when assessing overall program cost-effectiveness.

Other alternatives for allocating the observed like NPSO to individual programs included the following:

- **Even Allocation:** The most straightforward approach allocated NPSO evenly across the residential programs (i.e., made a 7.6% adjustment to each program’s NTG). This equaled applying NPSO at the portfolio-level, and, therefore, assumed all programs contributed equally to generating NPSO.
- **“Like” Programs:** Another approach allocated NSPO savings to specific programs, based on the measure that the nonparticipant respondent installed. For example, if a respondent reported installing a smart thermostat, motivated by Ameren’s marketing. Using this approach, the team assigned NPSO savings associated with the installation to the Efficient Products program.

While this approach established a clear connection between a reported spillover measure and Ameren’s program (which promoted that measure), the research found this direct measure-program relationship did not prove as straightforward as it appeared. For example, although all 20 respondents reporting like NPSO equipment measures knew of Ameren Missouri programs, only a fifth of them were familiar with the specific program corresponding to the measure they installed.<sup>22</sup> This indicated that Ameren Missouri generated NPSO through the cumulative effects of various program-specific marketing efforts, and mapping spillover measures solely to the program offering the specific measure could undervalue the overall impact of cumulative and sustained energy efficiency messaging.

The allocation approach is based on the combined savings and marketing budget and illustrated in Table 43.

**Table 43. PY17 Combined Savings and Marketing Allocation**

Program	Program Ex Post Gross Savings (MWh)	Percentage of Portfolio Savings	Program Marketing	Percentage of Total Marketing	Combined Savings & Marketing (AxB)	Percentage of Combined Savings & Marketing
Lighting	22,733	27.7%	\$33,729	9.8%	2.7%	6.9%
<b>Efficient Products</b>	<b>4,732</b>	<b>5.8%</b>	<b>\$50,634</b>	<b>14.7%</b>	<b>0.8%</b>	<b>2.2%</b>
Heating and Cooling	44,089	53.7%	\$225,424	65.4%	35.1%	89.3%
<b>Smart Thermostats</b>	<b>5,224</b>	<b>6.4%</b>	<b>\$27,564</b>	<b>8.0%</b>	<b>0.5%</b>	<b>1.3%</b>
EE Kits	5,367	6.5%	\$7,408	2.1%	0.1%	0.4%
<b>Total</b>	<b>82,144</b>	<b>100%</b>	<b>\$344,759</b>	<b>100%</b>	<b>39%</b>	<b>100%</b>

Using the allocation method based on marketing budget and program size, the team distributed the portfolio-level result of 6,212 MWh NPSO to each of Ameren’s residential programs. As shown in Table

<sup>22</sup> C5 “Are you familiar with the following programs?”

44, the results of this approach reflected each program’s impact on the nonparticipant population, proxied by the combined effect of marketing expenditures and program savings. Efficient Products non-thermostat measures achieved 2.2% of the total NPSO, at 134 MWh, with smart thermostats achieving 1.3% of the total NPSO, at 80 MWh.

**Table 44. PY17 NPSO by Program**

Program	Program Gross Savings (MWh)	Total NPSO (MWh)	Percentage of Combined Savings/ Marketing	Program-Specific NPSO (MWh)
Lighting	22,733	6,212	6.9%	428
<b>Efficient Products</b>	<b>4,732</b>		<b>2.2%</b>	<b>134</b>
Heating and Cooling	44,089		89.3%	5,547
<b>Smart Thermostats</b>	<b>5,224</b>		<b>1.3%</b>	<b>80</b>
EE Kits	5,367		0.4%	22
<b>Total</b>	<b>82,144</b>		<b>100%</b>	<b>6,212</b>

## Benchmarking

For the PY17 evaluation, Cadmus researched 12 other utilities offering measures similar to those of Ameren Missouri’s Efficient Products Program. The team conducted secondary research using its benchmarking database, E-Source, and publicly available information to identify programs with the most recent available evaluations and those containing information regarding metrics and topics planned for benchmarking. Table 45 compares the following:

- Measure incentive levels
- Program participation
- *Ex post* per-kit savings (kWh)
- *Ex post* per-kit savings (kW)
- NTG

**Table 45. Efficient Product Program Measure Comparisons**

Utility	Program	Incentive Amount	Participation	<i>Ex Post</i> Per Unit Savings (kWh/yr)	<i>Ex Post</i> Per Unit Savings (kW/yr)	NTG
<b>HPWHs</b>						
Ameren Missouri	2017 Efficient Products Program	\$500	358	2,526	0.224	0.92
Ameren Missouri	2016 Efficient Products Program	\$500	341	2,531	0.225	0.848
Baltimore Gas and Electric	2015 Appliance Rebate Program	\$500	226	1,889	N/A	0.86
Delmarva Power	2015 Appliance Rebate Program	\$500	37	1,892	N/A	0.86
Dayton Power and Light	2015 Heating and Cooling Rebate	\$800	4	1,297	0.25	N/A
Entergy Arkansas	2015 Residential Lighting and Appliances Program	\$350	5	4,180	0.36	0.875
Indiana Michigan Power	2015 Residential Energy Efficient Products	\$350	17	1,297	0.18	N/A
Potomac Edison	2015 Appliance Rebate Program	\$500	80	1,888	N/A	0.86
PPL Electric Utilities	2016 Residential Retail Program	\$300–\$400	1,235	2,117	N/A	0.69
Southern Maryland Electric Cooperative	2015 Appliance Rebate Program	\$500	70	1,900	N/A	0.86
Vectren Indiana	2015 Residential Efficient Products Program	\$300	7	2,291	0.31	0.55

Utility	Program	Incentive Amount	Participation	Ex Post Per Unit Savings (kWh/yr)	Ex Post Per Unit Savings (kW/yr)	NTG
<b>Pool Pumps</b>						
Ameren Missouri	2017 Efficient Products Program	\$350	1,133	Multispeed: 1,800, Variable-speed: 2,053	Multispeed: 0.424, Variable-speed: 0.483	0.81
Ameren Missouri	2016 Efficient Products Program	\$350	699	Multispeed: 1,800, Variable-speed: 2,053	Multispeed: 0.424, Variable-speed: 0.483	0.678
Baltimore Gas and Electric	2015 Appliance Rebate Program	\$400	415	595	N/A	0.53
Delmarva Power	2015 Appliance Rebate Program	\$400	19	579	N/A	0.57
Indiana Michigan Power	2015 Residential Energy Efficient Products	\$50	13	1,383	2.02	N/A
Southern Maryland Electric Cooperative	2015 Appliance Rebate Program	\$400	17	588	N/A	0.56
Potomac Edison	2015 Appliance Rebate Program	\$400	31	581	N/A	0.55
Public Service Company of New Mexico	2014 Residential Stay Cool Program	\$300	74	1,041	0.40	1.00
Potomac Electric Power Company	2015 Appliance Rebate Program	\$400	109	596	N/A	0.52
PPL Electric Utilities	PY7 Residential Home Comfort (Efficient Products component)	\$150	248	1,190	1.05	0.72
Vectren Indiana	2015 Residential Efficient Products Program	\$300	70	1,173	1.72	0.55
<b>RACs</b>						
Ameren Missouri	2017 Efficient Products Program	\$50	1,399	50	0.047	0.38
Ameren Missouri	2016 Efficient Products Program	\$20	346	45	0.042	0.598
Entergy Arkansas	2015 Residential Lighting and Appliances Program	\$25	1	300	0.3	0.5
Public Service Company of New Mexico	2014 Residential Stay Cool Program	\$25	316	80	0.14	0.4
<b>Smart Thermostats</b>						
Ameren Missouri	2017 Efficient Products Program	\$100 through Dec. 2017, \$50 since Jan. 2018	13,693	386	0.365	0.74
Ameren Missouri	2016 Efficient Products Program	\$100	8,200	462	0.438	0.826

Utility	Program	Incentive Amount	Participation	Ex Post Per Unit Savings (kWh/yr)	Ex Post Per Unit Savings (kW/yr)	NTG
Dayton Power and Light	2015 Heating and Cooling Rebate	\$75	18	218 <sup>1</sup>	0	N/A
Northern Indiana Public Service Company	2015 Energy Efficiency Rebate Program	\$50	492	157 <sup>2</sup>	0.2	0.46
Vectren Indiana	2015 Residential Efficient Products Program	\$100	1,462	412	N/A	0.55

<sup>1</sup> Dayton Power and Light’s smart thermostat rebates were provided through an HVAC rebate program, and accompanied the installation of an HVAC system. Therefore, savings for these smart thermostats would be expected to be lower than a standalone smart thermostat rebate.

<sup>2</sup> Northern Indiana Public Service Company’s thermostat rebate program included models without a geolocation function which would not qualify under Ameren Missouri’s program. Therefore, savings for these smart thermostats would be expected to be lower than a smart thermostat rebate program with more stringent equipment qualifications.

Benchmarking results showed that Ameren Missouri’s rebates were comparable to those of other utility programs. NTGs (by measure) also were generally comparable to other programs, although Ameren Missouri’s Efficient Products program had the highest NTGs observed for HPWHs, pool pumps and smart thermostats. For RACs, Ameren Missouri increased rebate amounts in PY17 to be larger than those offered by other utilities, and participation increased four-fold. Ameren Missouri’s NTG for RACs fell from PY16, though this was due to high participant spillover calculated from a small base of participants during that year; the PY17 NTG is more in line with other utilities.

Cadmus could not find a program offering rebates for room air purifiers to compare to the Efficient Products program.

Additionally, the team reviewed eligible smart thermostats offered by four other utilities. All five utilities (including Ameren Missouri) offered rebates for Allure Energy, Ecobee, Honeywell, and Nest smart thermostats, and four of the five offered rebates for Lennox and Radio Thermostat models (Ameren Missouri’s Efficient Products program included the former but not the latter). During PY17, Ameren Missouri added models from four manufacturers to the list of thermostats that qualified for rebates. Note that Ameren Missouri’s program only rebates units that have a geolocation function as well as wi-fi and internet capabilities, whereas some of the other programs include units without geolocation. Table 46 shows smart thermostat brands rebated by these utilities.

Table 46. Smart Thermostat Brands Offered by Utility

Brand	Utility				
	Ameren Missouri	Consumers Energy	Dayton Power and Light	Northern Indiana Public Service Company	Vectren Indiana
Allure Energy	•	•	•	•	•
Ecobee	•	•	•	•	•
Honeywell	•	•	•	•	•
Lennox	•	•	•		•
Nest	•	•	•	•	•
Allure Energy (added by Ameren Missouri in PY17)	•				
Amana					•
American Standard (added by Ameren Missouri in PY17)	•	•			
Bryant Housewise			•		
Carrier			•		
Coleman				•	
ComfortNet				•	
Emerson (added by Ameren Missouri in PY17)	•			•	
Home Automation				•	
Lux		•			
Luxaire				•	
Observer				•	
Radio Thermostat		•	•	•	•
Trane (added by Ameren Missouri in PY17)	•	•		•	
White Rogers				•	
York				•	

## Key Performance Indicators

Cadmus tracks the following key performance indicators for the Efficient Products program:

- Program electric savings
- Participation by measure
- Free ridership by measure
- Satisfaction with upgrades
- Satisfaction with incentive amounts
- Satisfaction with the Efficient Products program
- Satisfaction with Ameren Missouri

Table 47 shows the Efficient Products program’s key performance metrics for PY16 and PY17.

**Table 47. Key Performance Indicators**

Metric	PY16	PY17
Gross Evaluated Electric Savings (MWh)	6,671	9,956
Participation by measure: HPWHs	341	358
Participation by measure: RACs	346	1,399
Participation by measure: pool pumps	699	1,133
Participation by measure: air purifiers	1,300	2,588
Participation by measure: smart thermostats	8,200	13,693
Free ridership by measure: HPWHs	15%	10%
Free ridership by measure: RACs	73%	62%
Free ridership by measure: pool pumps	32%	19%
Free ridership by measure: air purifiers	50%	45%
Free ridership by measure: smart thermostats	23%	28%
Percentage of participants expressing that they are “very satisfied” with their upgrades	87%	84%
Percentage of participants expressing that they are “very satisfied” with program incentives	83%	85%
Percentage of participants expressing that they are “very satisfied” with the Efficient Products program	86%	87%
Percentage of participants expressing that they are “very satisfied” with Ameren Missouri	70%	71%



## Cost-Effectiveness

Ameren Missouri assessed cost-effectiveness using the following five tests, as defined by the California Standard Practice Manual:<sup>23</sup>

- Total Resource Cost (TRC) Test
- Utility Cost Test (UCT)
- Ratepayer Impact Measure Test (RIM)
- Participant Cost Test (PART)
- Societal Cost Test (SCT)

DSMore takes hourly prices and hourly energy savings from specific measures installed through the Efficient Products program, and correlates prices and savings to 33 years of historic weather data. Using long-term weather ensures that the model captures low-probability, high-consequence weather events, and appropriately values these. As a result, the model produces an accurate evaluation of the demand-side efficiency measure relative to other alternative supply options.

Key assumptions include the following:

- Discount Rate = 6.46%
- Line Losses = 5.72%
- Summer Peak would occur during the 16<sup>th</sup> hour of a July weekday, on average
- Avoided Electric costs from the 2014 Integrated Resource Plan (IRP) filing were used for measures delivered between March 1, 2017 and September 28, 2017. Avoided costs from the 2017 IRP that was filed October 1, 2017 were used for all measures delivered on or after October 1, 2017
- Escalation rates for different costs occur at the component level, with separate escalation rates for fuel, capacity, generation, T&D, and customer rates carried out over 25 years

Ameren Missouri used evaluation results as model inputs (e.g., PY17-specific Efficient Products program participation counts, per-unit gross savings, NTG, NPSO).

Particularly, measure load shapes drove model assumptions, as indicated when the model should apply savings during the day. This ensured that the load shape for an end use matched the system peak impacts of that end use and provided the correct summer coincident savings. Ameren Missouri used measure lifetime assumptions and incremental costs based on the program database, the Ameren Missouri TRM, or the original Batch Tool.

A key step in the analysis process required PY17 Ameren Missouri program-spending data: actual spending, broken down into contractor administration, incentives, and marketing costs. Ameren

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<sup>23</sup> *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*. October 2001.

Missouri applied these costs at the program level. Other costs—including R&D, EM&V, Educational Outreach, Portfolio Administration, Potential Study, and Data Tracking—were allocated to programs based upon program benefits. DSMore reports results in 2016 dollars and any inputs and outputs reported by DSMore are discounted from the 2017 spending inputs.

Table 48 summarizes cost-effectiveness findings by test. Any benefit-cost score above 1.0 passed the test as cost-effective. As shown, the Efficient Products program passed the UCT, TRC, Societal, and PART tests. Ameren Missouri conducted the cost-effectiveness analysis separately for smart thermostats and other measures in the Efficient Products program. We therefore present the cost-effectiveness results for smart thermostats separately from the rest of the portfolio.

**Table 48. Cost-Effectiveness Results (PY17)**

Program	UCT	TRC	RIM	SCT	PART
Efficient Products	1.82	1.48	0.44	1.76	4.91
Smart Thermostats	2.08	1.51	0.61	1.78	2.57

# Appendix A. End Use Load Shapes and Coincidence Factors

Appendix E

End-Use Category Energy Load Shapes  
 % Energy by Month

Month	Residential End-Use Category Load Shape								
	Building Shell	Cooling	Freezer	HVAC	Lighting	Miscellaneous	Pool Spa	Refrigeration	Water Heating
January	11.1297%	0.1200%	7.9579%	11.1297%	10.1182%	8.4893%	8.6451%	7.7053%	10.3527%
February	9.3077%	0.1100%	7.2518%	9.3077%	8.8441%	7.7366%	7.1145%	7.2169%	9.0720%
March	7.0042%	0.3130%	8.1080%	7.0042%	9.2879%	8.4863%	8.6052%	8.0272%	9.5543%
April	3.7116%	1.5047%	7.9918%	3.7116%	8.4645%	8.2144%	8.0702%	7.8752%	8.4799%
May	4.0888%	6.5410%	8.4083%	4.0888%	7.9393%	8.4847%	8.6052%	8.5646%	8.3600%
June	10.3973%	21.0823%	8.5730%	10.3973%	6.8508%	8.2122%	8.0702%	8.9112%	7.7065%
July	14.0100%	28.4780%	9.6095%	14.0100%	6.7864%	8.4883%	8.6451%	9.4239%	6.7712%
August	13.3207%	27.0766%	9.6095%	13.3207%	7.0565%	8.4840%	8.5653%	9.4212%	6.3688%
September	6.6759%	12.6605%	8.4277%	6.6759%	7.3792%	8.2136%	8.3032%	8.4971%	6.9373%
October	3.7011%	1.8472%	8.2582%	3.7011%	8.4539%	8.4869%	8.6052%	8.5653%	7.9644%
November	5.9593%	0.1444%	7.8465%	5.9593%	8.9880%	8.2122%	8.1088%	7.8717%	8.4752%
December	10.6937%	0.1222%	7.9579%	10.6937%	9.8312%	8.4915%	8.6619%	7.9204%	9.9577%

End-Use Category Energy to Coincident Peak Demand Factors

	Building Shell	Cooling	Freezer	HVAC	Lighting	Miscellaneous	Pool Spa	Refrigeration	Water Heating
	0.0004660805	0.0009474181	0.0001685722	0.0004660805	0.0001492529	0.0001148238	0.0002354459	0.0001285253	0.0000887318

Source: Ameren Missouri 2016-2018 Energy Efficiency Plan. MPSC file number EO-2015-0055  
 Appendix E to evaluated energy saving

## Appendix B. Free Ridership Scoring Tables

Table 49 illustrates how initial non-smart thermostat survey responses are translated into whether the response is “yes,” “no,” or “partially” indicative of free ridership (in parentheses). The value in brackets is the scoring decrement associated with each response option. Each participant free ridership score starts with 100%, which we decrement based on their responses to the eight questions, as shown in Table 49. The number of “Don’t know” responses is listed after each freeridership question.

Table 49. Raw Survey Responses Translation to Free Ridership Scoring Matrix Terminology – Non-Smart Thermostat Measures

F1. Did you first find out about the Ameren Missouri rebate before or after you purchased your new [MEASURETYPE]? (6 Don't Know Responses)	F2. [ASK IF F1=2] Please confirm: You purchased your new [MEASURETYPE] and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct? (2 Don't Know Responses)	F3. Before you knew about the incentive from Ameren Missouri, were you already planning to install a [MEASURETYPE] in 2016? (24 Don't Know Responses)	F4. [ASK IF MEASURE QTY > 1] Without the incentive from Ameren Missouri, would you have installed same amount of [MEASURETYPE]s? (2 Don't Know Responses)	F5. Without Ameren Missouri's rebate, would you have installed the [MEASURETYPE]...? (76 Don't Know Responses)	F6. [ASK IF F5 = 1, 2] Would you have installed the same exact [MEASURETYPE] without the rebate from Ameren Missouri? (113 Don't Know Responses)	F7. [ASK IF F6 = 2, 98, 99] Just so I understand, would you have installed a different [MEASURETYPE] without the Ameren Missouri rebate or would you have decided to not purchase one at all? (171 Don't Know Responses)	F8. [ASK IF F7 = 1] Without Ameren Missouri's rebate, would you have installed a lower efficiency [MEASURETYPE], the same efficiency [MEASURETYPE], or a higher efficiency [MEASURETYPE]...? (41 Don't Know Responses)	F9. How important was the Ameren Missouri rebate on your decision to purchase and install the [MEASURETYPE]? (12 Don't Know Responses)	F10. [ASK IF B2=3 OR B6=2] How important was the advice from your contractor on your decision to purchase and install the [MEASURETYPE]? (8 Don't Know Responses)
Learned of rebate before purchase (Yes) [-0%]	Yes (Yes) [100% FR]	Yes (Yes) [-0%]	Yes, the same amount (Yes) [-0%]	Around the same time (Yes) [-0%]	Yes (Yes) [-0%]	I would have installed a different [MEASURETYPE] (Yes) [-0%]	Lower efficiency (No) [-100%]	Very important (No) [-50%]	Very important (No) [-50%]
Learned of rebate after purchase (No) [-0%]	No, that is not correct (No) [-0%]	No (No) [-50%]	No, would have installed less (Partial2) [-50%]	Later in the same year (Partial) [-25%]	No (No) [-50%]	I would have decided not to purchase one at all (No) [-100%]	Same efficiency (Yes) [-0%]	Somewhat important (Partial) [-25%]	Somewhat important (Partial) [-25%]
Don't Know (Partial) [-0%]	Don't Know (Partial) [-0%]	Don't Know (Partial) [-25%]	No, would have installed more (Yes) [-0%]	In one or two years (No) [-100%]	Don't Know (Partial) [-25%]	Don't Know (Partial) [-25%]	Higher efficiency (Yes) [-0%]	Not very important (Yes) [-0%]	Not very important (Yes) [-0%]
			No, would have installed any at all (No) [-100%]	After more than three years (No) [-100%]			Don't Know (Partial) [-25%]	Not at all important (Yes) [-0%]	Not at all important (Yes) [-0%]
			Don't Know (Partial) [-25%]	Never (No) [-100%]				Don't Know (Partial) [-25%]	Don't Know (Partial) [-25%]
				Don't Know (Partial) [-25%]					

Table 50 illustrates how initial smart thermostat survey responses are translated into whether the response is “yes,” “no,” or “partially” indicative of free ridership (in parentheses). The value in brackets is the scoring decrement associated with each response option. Each participant free ridership score starts with 100%, which we decrement based on their responses to the eight questions, as show in Table 50. The number of “Don’t know” responses is listed after each freeridership question.

Table 50. Raw Survey Responses Translation to Free Ridership Scoring Matrix Terminology – Smart Thermostat Measure

11. Did you first find out about the Ameren Missouri rebate before or after you purchased your new thermostat? (0 Don't Know Responses)	12. [ASK IF I1=2] Please confirm: You purchased your new smart thermostat and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct? (0 Don't Know Responses)	13. Before you knew about the rebate from Ameren Missouri, were you already planning to install a smart thermostat this year? (104 Don't Know Responses)	14. Without Ameren Missouri's rebate, would you have installed a smart thermostat ...? (320 Don't Know Responses)	15. [ASK IF I4 = 1, 2] Would you have installed the same smart thermostat without the rebate from Ameren Missouri? (208 Don't Know Responses)	16. [ASK IF I5 = 2, 98, 99] Just so I understand, would you have installed a different thermostat without the Ameren Missouri rebate or would you have decided not to replace it? (341 Don't Know Responses)	17. [ASK IF I6 = 1] When you say you would have installed a thermostat without the rebate from Ameren Missouri, would you have installed...? (8 Don't Know Responses)	18. How important was the Ameren Missouri rebate on your decision to purchase and install the smart thermostat? (20 Don't Know Responses)	19. [ASK IF B2=3 OR B6=2] How important was the advice from the contractor in your decision to purchase and install the smart thermostat? Would you say... (20 Don't Know Responses)
Yes (Yes) [-0%]	Yes (Yes) [100% FR]	Yes (Yes) [-0%]	Around the same time (Yes) [-0%]	Yes (Yes) [-0%]	I would have installed a different thermostat (Yes) [-0%]	A smart thermostat (Yes) [-0%]	Very important (No) [-50%]	Very important (No) [-50%]
No (No) [-0%]	No, that is not correct (No) [-0%]	No (No) [-50%]	Later in the same year (Partial) [-25%]	No (No) [-50%]	I would have decided not to replace it (No) [-100%]	A programmable thermostat (No) [-100%]	Somewhat important (Partial) [-25%]	Somewhat important (Partial) [-25%]
Don't Know (Partial) [-0%]	Don't Know (Partial) [-0%]	Don't Know (Partial) [-25%]	In one or two years (No) [-100%]	Don't Know (Partial) [-25%]	Don't Know (Partial) [-25%]	A traditional/manual thermostat (Yes) [-100%]	Not very important (Yes) [-0%]	Not very important (Yes) [-0%]
			After more than three years (No) [-100%]			Would not have installed a new thermostat (No) [-100%]	Not at all important (Yes) [-0%]	Not at all important (Yes) [-0%]
			Never (No) [-100%]			Don't Know (Partial) [-25%]	Don't Know (Partial) [-25%]	Don't Know (Partial) [-25%]
			Don't Know (Partial) [-25%]					

Below, we illustrate the unique response combinations from pool pump participants answering the Ameren Missouri Efficient Products Program free ridership survey questions (actual responses mapped to “yes,” “no,” or “partial,” as indicative of free ridership); the free ridership score assigned to each combination; and the number of responses (see Table 51).

**Table 51. Frequency of Pool Pump Free Ridership Scoring Combinations**

F1. Did you first find out about the Ameren Missouri rebate before or after you purchased your new [MEASURETYPE]?	F2. [ASK IF F1=2] Please confirm: You purchased your new [MEASURETYPE] and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?	F3. Before you knew about the incentive from Ameren Missouri, were you already planning to install a [MEASURETYPE] in 2016?	F4. [ASK IF MEASURE QTY > 1] Without the incentive from Ameren Missouri, would you have installed same amount of [MEASURETYPE]s?	F5. Without Ameren Missouri's rebate, would you have installed the [MEASURETYPE]...?	F6. [ASK IF F5 = 1, 2] Would you have installed the same exact [MEASURETYPE] without the rebate from Ameren Missouri?	F7. [ASK IF F6 = 2, 98, 99] Just so I understand, would you have installed a different [MEASURETYPE] without the Ameren Missouri rebate or would you have decided to not purchase one at all?	F8. [ASK IF F7 = 1] Without Ameren Missouri's rebate, would you have installed a lower efficiency [MEASURETYPE], the same efficiency [MEASURETYPE], or a higher efficiency [MEASURETYPE]...?	F9. How important was the Ameren Missouri rebate on your decision to purchase and install the [MEASURETYPE]?	F10. [ASK IF B2=3 OR B6=2] How important was the advice from your contractor on your decision to purchase and install the [MEASURETYPE]?	FR Score	Count
Yes	Yes	x	x	x	x	x	x	x	x	100%	15
Yes	No	Yes	x	Yes	Yes	x	x	Partial	No	25%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	No	50%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	x	100%	3
No	x	Yes	x	Yes	Yes	x	x	Partial	Partial	50%	3
No	x	Yes	x	Yes	Yes	x	x	Partial	No	25%	9
No	x	Yes	x	Yes	Yes	x	x	Partial	x	75%	3
No	x	Yes	x	Yes	Yes	x	x	No	No	12.5%	9
No	x	Yes	x	Yes	No	Yes	Yes	Partial	Partial	50.0%	1
No	x	Yes	x	Yes	No	Yes	Yes	No	No	12.5%	3
No	x	Yes	x	Yes	No	Yes	Yes	No	x	50%	1
No	x	Yes	x	Yes	No	Yes	Partial	Partial	No	12.5%	1
No	x	Yes	x	Yes	No	Yes	Partial	No	No	0%	1
No	x	Yes	x	Yes	No	Yes	No	x	x	0%	18
No	x	Yes	x	Yes	No	Partial	x	Partial	No	12.5%	3
No	x	Yes	x	Yes	No	Partial	x	Partial	x	50%	2
No	x	Yes	x	Yes	No	Partial	x	No	No	0%	2
No	x	Yes	x	Yes	No	Partial	x	No	x	25%	3
No	x	Yes	x	Partial	Yes	x	x	No	x	25%	1
No	x	Yes	x	Partial	No	Yes	No	x	x	0%	1
No	x	Yes	x	Partial	x	Yes	No	x	x	0%	3
No	x	Yes	x	Partial	x	Partial	x	Yes	No	12.5%	1
No	x	Yes	x	Partial	x	Partial	x	Partial	Partial	12.5%	1
No	x	Yes	x	Partial	x	Partial	x	Partial	No	0%	1
No	x	Yes	x	Partial	x	Partial	x	Partial	No	0%	1
No	x	Yes	x	Partial	x	Partial	x	No	No	0%	1
No	x	Yes	x	No	x	x	x	x	x	0%	7
No	x	Partial	x	Yes	Yes	x	x	No	No	0%	1
No	x	Partial	x	Yes	No	Partial	x	Partial	x	25%	1
No	x	Partial	x	Partial	Yes	x	x	Yes	No	12.5%	1
No	x	Partial	x	Partial	x	Yes	No	x	x	0%	1
No	x	Partial	x	Partial	x	Partial	x	Partial	No	0%	1
No	x	Partial	x	No	x	x	x	x	x	0%	1
No	x	No	x	Yes	Yes	x	x	Yes	No	12.5%	2
No	x	No	x	Yes	Yes	x	x	Partial	Partial	12.5%	1
No	x	No	x	Yes	Yes	x	x	Partial	No	0%	1
No	x	No	x	Yes	Yes	x	x	No	No	0%	2
No	x	No	x	Yes	No	Yes	No	x	x	0%	3
No	x	No	x	Yes	No	Partial	x	Partial	Partial	0%	1
No	x	No	x	Yes	No	Partial	x	Partial	No	0%	4
No	x	No	x	Yes	No	Partial	x	No	No	0%	1
No	x	No	x	Partial	Yes	x	x	Partial	No	0%	1
No	x	No	x	Partial	No	Partial	x	Partial	No	0%	1
No	x	No	x	Partial	x	Yes	Partial	Partial	No	0%	1
No	x	No	x	Partial	x	Yes	Partial	No	No	0%	1
No	x	No	x	Partial	x	Yes	No	x	x	0%	2
No	x	No	x	Partial	x	Partial	x	Partial	Partial	0%	2
No	x	No	x	Partial	x	Partial	x	No	No	0%	1
No	x	No	x	Partial	x	Partial	x	No	x	0%	1
No	x	No	x	Partial	x	No	x	x	x	0%	2
No	x	No	x	No	x	x	x	x	x	0%	2
No	x	No	x	No	x	x	x	x	x	0%	35

Below, we illustrate the unique response combinations from room air purifier participants answering the Ameren Missouri Efficient Products free ridership survey questions (actual responses mapped to “yes,” “no,” or “partial,” as indicative of free ridership); the free ridership score assigned to each combination; and the number of responses (see Table 52).

Table 52. Frequency of Room Air Purifier Free Ridership Scoring Combinations

F1. Did you first find out about the Ameren Missouri rebate before or after you purchased your new [MEASURETYPE]?	F2. [ASK IF F1=2] Please confirm: You purchased your new [MEASURETYPE] and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?	F3. Before you knew about the incentive from Ameren Missouri, were you already planning to install a [MEASURETYPE] in 2016?	F4. [ASK IF MEASURE QTY > 1] Without the incentive from Ameren Missouri, would you have installed same amount of [MEASURETYPE]s?	F5. Without Ameren Missouri's rebate, would you have installed the [MEASURETYPE]...?	F6. [ASK IF F5 = 1, 2] Would you have installed the same exact [MEASURETYPE] without the rebate from Ameren Missouri?	F7. [ASK IF F6 = 2, 98, 99] Just so I understand, would you have installed a different [MEASURETYPE] without the Ameren Missouri rebate or would you have decided to not purchase one at all?	F8. [ASK IF F7 = 1] Without Ameren Missouri's rebate, would you have installed a lower efficiency [MEASURETYPE], the same efficiency [MEASURETYPE], or a higher efficiency [MEASURETYPE]...?	F9. How important was the Ameren Missouri rebate on your decision to purchase and install the [MEASURETYPE]?	F10. [ASK IF B2=3 OR B6=2] How important was the advice from your contractor on your decision to purchase and install the [MEASURETYPE]?	FR Score	Count
Yes	Yes	x	x	x	x	x	x	x	x	100%	59
Yes	No	Yes	Yes	Partial	x	Partial	x	Yes	x	50%	1
Yes	No	Yes	x	Yes	Yes	x	x	Yes	x	100%	1
Yes	No	Yes	x	Yes	Yes	x	x	Partial	x	75%	1
Yes	No	Yes	x	Yes	No	Yes	Yes	No	x	50%	1
Yes	No	Yes	x	Yes	No	Partial	x	Partial	x	50%	1
Yes	No	Partial	x	Yes	Yes	x	x	Yes	x	75%	1
Yes	No	No	No	x	x	x	x	x	x	0%	1
Yes	No	No	x	Partial	Yes	x	x	Partial	x	12.5%	1
No	x	Yes	Yes	Yes	Yes	x	x	Yes	x	100%	2
No	x	Yes	Yes	Yes	Yes	x	x	Partial	x	75%	3
No	x	Yes	Yes	Yes	Yes	x	x	No	x	50%	2
No	x	Yes	Yes	Yes	No	Partial	x	Yes	x	75%	1
No	x	Yes	Yes	Yes	No	Partial	x	Partial	x	50%	3
No	x	Yes	Yes	Yes	No	Partial	x	No	x	25%	2
No	x	Yes	Yes	Partial	Yes	x	x	Partial	x	50%	1
No	x	Yes	Yes	Partial	Yes	x	x	No	x	25%	2
No	x	Yes	Yes	Partial	No	Yes	Yes	No	x	25%	1
No	x	Yes	Yes	Partial	x	Partial	x	Partial	x	25%	1
No	x	Yes	Partial	Partial	No	Partial	x	Partial	x	12.5%	1
No	x	Yes	Partial	Partial	x	Yes	Partial	No	x	0%	1
No	x	Yes	Partial2	Yes	Yes	x	x	Yes	x	50%	1
No	x	Yes	Partial2	Yes	Yes	x	x	Partial	x	25%	3
No	x	Yes	Partial2	Yes	Yes	x	x	No	x	12.5%	2
No	x	Yes	Partial2	Yes	No	Yes	Partial	Partial	x	12.5%	1
No	x	Yes	Partial2	Yes	No	Yes	No	x	x	0%	4
No	x	Yes	Partial2	Yes	No	Partial	x	No	x	0%	5
No	x	Yes	Partial2	Partial	No	Partial	x	No	x	0%	2
No	x	Yes	Partial2	Partial	No	No	x	x	x	0%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	Yes	100%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	x	100%	1
No	x	Yes	x	Yes	Yes	x	x	Partial	x	75%	28
No	x	Yes	x	Yes	Yes	x	x	No	x	50%	9
No	x	Yes	x	Yes	No	Yes	Yes	Partial	x	75%	2
No	x	Yes	x	Yes	No	Yes	Yes	No	x	50%	3
No	x	Yes	x	Yes	No	Yes	Partial	Partial	x	50%	8
No	x	Yes	x	Yes	No	Yes	Partial	No	x	25%	3
No	x	Yes	x	Yes	No	Yes	No	x	x	0%	6
No	x	Yes	x	Yes	No	Partial	x	Yes	x	75%	2
No	x	Yes	x	Yes	No	Partial	x	Partial	x	50%	17
No	x	Yes	x	Yes	No	Partial	x	No	x	25%	8
No	x	Yes	x	Partial	Yes	x	x	Partial	x	50%	6
No	x	Yes	x	Partial	Yes	x	x	No	x	25%	3
No	x	Yes	x	Partial	No	Yes	Yes	Partial	x	50%	1
No	x	Yes	x	Partial	No	Yes	Yes	No	x	25%	1
No	x	Yes	x	Partial	No	Yes	Yes	No	x	25%	1
No	x	Yes	x	Partial	No	Yes	Partial	No	x	12.5%	1
No	x	Yes	x	Partial	No	Partial	x	Partial	x	25%	7
No	x	Yes	x	Partial	No	Partial	x	No	x	12.5%	3
No	x	Yes	x	Partial	x	Yes	Partial	No	x	12.5%	1
No	x	Yes	x	Partial	x	Partial	x	Yes	x	50%	2
No	x	Yes	x	Partial	x	Partial	x	Partial	x	25%	3
No	x	Yes	x	Partial	x	Partial	x	No	x	12.5%	6
No	x	Yes	x	Partial	x	No	x	x	x	0%	1
No	x	Yes	x	No	x	x	x	x	x	0%	5
No	x	Partial	Yes	Yes	Yes	x	x	Partial	x	50%	1
No	x	Partial	Yes	Partial	x	Yes	Partial	No	x	0%	1
No	x	Partial	Partial2	Yes	No	Yes	Partial	No	x	0%	1
No	x	Partial	No	x	x	x	x	x	x	0%	1
No	x	Partial	x	Yes	Yes	x	x	Partial	x	50%	1
No	x	Partial	x	Partial	Yes	x	x	Partial	x	25%	1
No	x	Partial	x	Partial	No	Partial	x	Partial	x	12.5%	2
No	x	Partial	x	Partial	x	Yes	Partial	No	x	0%	1
No	x	Partial	x	Partial	x	Partial	x	No	x	0%	3
No	x	Partial	x	Partial	x	No	x	x	x	0%	1
No	x	Partial	x	No	x	x	x	x	x	0%	1
No	x	No	Yes	Partial	No	Yes	Partial	No	x	0%	1
No	x	No	Partial2	Yes	No	Partial	x	No	x	0%	1
No	x	No	Partial2	Partial	x	Partial	x	No	x	0%	1
No	x	No	Partial2	No	x	x	x	x	x	0%	1
No	x	No	x	x	x	x	x	x	x	0%	4
No	x	No	x	Yes	Yes	x	x	Yes	x	50%	1
No	x	No	x	Yes	Yes	x	x	No	x	12.5%	2
No	x	No	x	Yes	No	Partial	x	Yes	x	25%	1
No	x	No	x	Partial	Yes	x	x	No	x	0%	1
No	x	No	x	Partial	No	Yes	Partial	Partial	x	0%	1
No	x	No	x	Partial	No	Partial	x	Partial	x	0%	3
No	x	No	x	Partial	x	Yes	Yes	No	x	0%	1
No	x	No	x	Partial	x	Yes	Partial	No	x	0%	1
No	x	No	x	Partial	x	Yes	Partial	No	x	0%	1
No	x	No	x	Partial	x	Partial	x	Partial	x	0%	3
No	x	No	x	Partial	x	Partial	x	No	x	0%	8
No	x	No	x	Partial	x	No	x	x	x	0%	5
No	x	No	x	No	x	x	x	x	x	0%	8



Below, we illustrate the unique response combinations from heat pump water heater participants answering the Ameren Missouri Efficient Products free ridership survey questions (actual responses mapped to “yes,” “no,” or “partial,” as indicative of free ridership); the free ridership score assigned to each combination; and the number of responses (see Table 53).

**Table 53. Frequency of Heat Pump Water Heater Free Ridership Scoring Combinations**

F1. Did you first find out about the Ameren Missouri rebate before or after you purchased your new [MEASURETYPE]?	F2. [ASK IF F1=2] Please confirm: You purchased your new [MEASURETYPE] and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?	F3. Before you knew about the incentive from Ameren Missouri, were you already planning to install a [MEASURETYPE] in 2016?	F4. [ASK IF MEASURE QTY > 1] Without the incentive from Ameren Missouri, would you have installed same amount of [MEASURETYPE]s?	F5. Without Ameren Missouri's rebate, would you have installed the [MEASURETYPE]...?	F6. [ASK IF F5 = 1, 2] Would you have installed the same exact [MEASURETYPE] without the rebate from Ameren Missouri? all?	F7. [ASK IF F6 = 2, 98, 99] Just so I understand, would you have installed a different [MEASURETYPE] without the Ameren Missouri rebate or would you have decided to not purchase one at all?	F8. [ASK IF F7 = 1] Without Ameren Missouri's rebate, would you have installed a lower efficiency [MEASURETYPE], the same efficiency [MEASURETYPE], or a higher efficiency [MEASURETYPE]...?	F9. How important was the Ameren Missouri rebate on your decision to purchase and install the [MEASURETYPE]?	F10. [ASK IF B2=3 OR B6=2] How important was the advice from your contractor on your decision to purchase and install the [MEASURETYPE]?	FR Score	Count
Yes	Yes	x	x	x	x	x	x	x	x	100%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	x	100%	2
No	x	Yes	x	Yes	Yes	x	x	Partial	Yes	75%	1
No	x	Yes	x	Yes	Yes	x	x	Partial	x	75%	1
No	x	Yes	x	Yes	Yes	x	x	No	x	50%	1
No	x	Yes	x	Yes	No	Yes	Partial	No	Yes	25%	1
No	x	Yes	x	Yes	No	Yes	Partial	No	x	25%	2
No	x	Yes	x	Yes	No	Yes	No	x	x	0%	21
No	x	Yes	x	Yes	No	Partial	x	Partial	Yes	50%	1
No	x	Yes	x	Yes	No	Partial	x	Partial	Partial	25%	1
No	x	Yes	x	Yes	No	Partial	x	No	x	25%	1
No	x	Yes	x	Partial	No	Yes	Yes	No	x	25%	1
No	x	Yes	x	Partial	No	Yes	No	x	x	0%	1
No	x	Yes	x	Partial	x	Yes	No	x	x	0%	3
No	x	Yes	x	Partial	x	Partial	x	Partial	Partial	12.5%	1
No	x	Yes	x	Partial	x	Partial	x	Partial	x	25%	1
No	x	Yes	x	Partial	x	Partial	x	No	x	12.5%	1
No	x	Yes	x	No	x	x	x	x	x	0%	5
No	x	No	x	Yes	Yes	x	x	Partial	x	25%	1
No	x	No	x	Yes	No	Yes	Partial	No	x	0%	1
No	x	No	x	Yes	No	Yes	No	x	x	0%	5
No	x	No	x	Yes	No	Partial	x	Partial	x	12.5%	1
No	x	No	x	Yes	No	Partial	x	No	x	0%	2
No	x	No	x	Partial	No	Yes	No	x	x	0%	1
No	x	No	x	Partial	x	Yes	Yes	No	x	0%	1
No	x	No	x	Partial	x	Yes	No	x	x	0%	3
No	x	No	x	Partial	x	No	x	x	x	0%	1
No	x	No	x	No	x	x	x	x	x	0%	11

Below, we illustrate the unique response combinations from room air conditioner participants answering the Ameren Missouri Efficient Products free ridership survey questions (actual responses mapped to “yes,” “no,” or “partial,” as indicative of free ridership); the free ridership score assigned to each combination; and the number of responses (see Table 54).

Table 54. Frequency of Room Air Conditioner Free Ridership Scoring Combinations

F1. Did you first find out about the Ameren Missouri rebate before or after you purchased your new [MEASURETYPE]?	F2. [ASK IF F1=2] Please confirm: You purchased your new [MEASURETYPE] and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?	F3. Before you knew about the incentive from Ameren Missouri, were you already planning to install a [MEASURETYPE] in 2016?	F4. [ASK IF MEASURE QTY > 1] Without the incentive from Ameren Missouri, would you have installed same amount of [MEASURETYPE]s?	F5. Without Ameren Missouri's rebate, would you have installed the [MEASURETYPE]...?	F6. [ASK IF F5 = 1, 2] Would you have installed the same exact [MEASURETYPE] without the rebate from Ameren Missouri?	F7. [ASK IF F6 = 2, 98, 99] Just so I understand, would you have installed a different [MEASURETYPE] without the Ameren Missouri rebate or would you have decided to not purchase one at all?	F8. [ASK IF F7 = 1] Without Ameren Missouri's rebate, would you have installed a lower efficiency [MEASURETYPE], the same efficiency [MEASURETYPE], or a higher efficiency [MEASURETYPE]...?	F9. How important was the Ameren Missouri rebate on your decision to purchase and install the [MEASURETYPE]?	F10. [ASK IF B2=3 OR B6=2] How important was the advice from your contractor on your decision to purchase and install the [MEASURETYPE]?	FR Score	Count
Yes	Yes	x	x	x	x	x	x	x	x	100%	31
Yes	No	Yes	x	Yes	No	Partial	x	Partial	x	50%	1
No	x	Yes	Yes	Yes	Yes	x	x	Yes	x	100%	1
No	x	Yes	Yes	Yes	Yes	x	x	Partial	Yes	75%	1
No	x	Yes	Yes	Yes	Yes	x	x	Partial	x	75%	4
No	x	Yes	Yes	Yes	Yes	x	x	No	x	50%	1
No	x	Yes	Yes	Yes	No	Partial	x	Partial	x	50%	2
No	x	Yes	Yes	Yes	No	Partial	x	No	x	25%	1
No	x	Yes	Yes	Partial	No	Yes	Yes	No	x	25%	1
No	x	Yes	Partial2	Yes	Yes	x	x	Partial	x	25%	1
No	x	Yes	No	x	x	x	x	x	x	0%	1
No	x	Yes	x	Yes	x	x	x	Yes	Yes	100%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	Partial	75%	1
No	x	Yes	x	Yes	Yes	x	x	Yes	x	100%	13
No	x	Yes	x	Yes	Yes	x	x	Partial	Yes	75%	1
No	x	Yes	x	Yes	Yes	x	x	Partial	Partial	50%	1
No	x	Yes	x	Yes	Yes	x	x	Partial	x	75%	29
No	x	Yes	x	Yes	Yes	x	x	No	x	50%	7
No	x	Yes	x	Yes	No	Yes	Yes	Partial	Yes	75%	1
No	x	Yes	x	Yes	No	Yes	Yes	Partial	x	75%	2
No	x	Yes	x	Yes	No	Yes	Yes	No	x	50%	2
No	x	Yes	x	Yes	No	Yes	Partial	Yes	x	75%	1
No	x	Yes	x	Yes	No	Yes	Partial	Partial	Yes	50%	1
No	x	Yes	x	Yes	No	Yes	Partial	Partial	x	50%	3
No	x	Yes	x	Yes	No	Yes	Partial	No	x	25%	2
No	x	Yes	x	Yes	No	Yes	No	x	x	0%	7
No	x	Yes	x	Yes	No	Partial	x	Yes	x	75%	1
No	x	Yes	x	Yes	No	Partial	x	Partial	x	50%	10
No	x	Yes	x	Yes	No	Partial	x	No	x	25%	1
No	x	Yes	x	Yes	No	No	x	x	x	0%	1
No	x	Yes	x	Partial	Yes	x	x	Partial	x	50%	1
No	x	Yes	x	Partial	No	Partial	x	No	x	12.5%	1
No	x	Yes	x	Partial	x	Yes	Partial	No	x	12.5%	1
No	x	Yes	x	No	x	x	x	x	x	0%	2
No	x	Partial	x	Yes	Yes	x	x	Yes	x	75%	1
No	x	Partial	x	Yes	No	Partial	x	Partial	x	25%	1
No	x	Partial	x	No	x	x	x	x	x	0%	1
No	x	No	Yes	Yes	Yes	x	x	Partial	x	25%	1
No	x	No	Yes	Yes	Yes	Yes	x	No	x	12.5%	1
No	x	No	Yes	Yes	No	Yes	Partial	No	x	0%	1
No	x	No	x	Yes	Yes	x	x	Yes	x	50%	2
No	x	No	x	Yes	Yes	x	x	Partial	x	25%	1
No	x	No	x	Yes	No	Yes	No	x	x	0%	1
No	x	No	x	Yes	No	Partial	x	Partial	x	12.5%	1
No	x	No	x	Partial	x	Yes	Yes	Yes	x	25%	1
No	x	No	x	Partial	x	No	x	x	x	0%	1
No	x	No	x	No	x	x	x	x	x	0%	1

Below, we illustrate the unique response combinations from smart thermostat participants answering the Ameren Missouri Efficient Products free ridership survey questions (actual responses mapped to “yes,” “no,” or “partial,” as indicative of free ridership); the free ridership score assigned to each combination; and the number of responses (see Table 55).

Table 55. Frequency of Smart Thermostat Free Ridership Scoring Combinations

11. Did you first find out about the Ameren Missouri rebate before or after you purchased your new thermostat?	12. [ASK IF I1=2] Please confirm: You purchased your new smart thermostat and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?	13. Before you knew about the rebate from Ameren Missouri, were you already planning to install a smart thermostat this year?	14. Without Ameren Missouri's rebate, would you have installed a smart thermostat ...?	15. [ASK IF I4 = 1, 2] Would you have installed the same smart thermostat without the rebate from Ameren Missouri?	16. [ASK IF I5 = 2, 98, 99] Just so I understand, would you have installed a different thermostat without the Ameren Missouri rebate or would you have decided not to replace it?	17. [ASK IF I6 = 1] When you say you would have installed a thermostat without the rebate from Ameren Missouri, would you have installed...?	18. How important was the Ameren Missouri rebate on your decision to purchase and install the smart thermostat?	19. [ASK IF B2=3 OR B6=2] How important was the advice from the contractor in your decision to purchase and install the smart thermostat? Would you say...	FR Score	Count
Yes	Yes	x	x	x	x	x	x	x	100%	155
Yes	No	Yes	Yes	No	Partial	x	No	x	25%	1
Yes	No	Yes	Partial	Yes	x	x	Partial	x	50%	1
Yes	No	Yes	Partial	No	Partial	x	Partial	x	25%	1
Yes	No	No	Yes	Yes	x	x	Yes	Partial	25%	1
No	x	Yes	Yes	Yes	x	x	Yes	Yes	100%	3
No	x	Yes	Yes	Yes	x	x	Yes	Partial	75%	1
No	x	Yes	Yes	Yes	x	x	Yes	No	50%	3
No	x	Yes	Yes	Yes	x	x	Yes	x	100%	33
No	x	Yes	Yes	Yes	x	x	Partial	Yes	75%	15
No	x	Yes	Yes	Yes	x	x	Partial	Partial	50%	3
No	x	Yes	Yes	Yes	x	x	Partial	No	25%	1
No	x	Yes	Yes	Yes	x	x	Partial	x	75%	85
No	x	Yes	Yes	Yes	x	x	No	Yes	50%	5
No	x	Yes	Yes	Yes	x	x	No	Partial	25%	1
No	x	Yes	Yes	Yes	x	x	No	No	12.5%	3
No	x	Yes	Yes	Yes	x	x	No	x	50%	33
No	x	Yes	Yes	No	Yes	Yes	Yes	x	100%	1
No	x	Yes	Yes	No	Yes	Yes	Partial	Yes	75%	1
No	x	Yes	Yes	No	Yes	Yes	Partial	x	75%	6
No	x	Yes	Yes	No	Yes	Yes	No	Partial	25%	1
No	x	Yes	Yes	No	Yes	Yes	No	No	12.5%	1
No	x	Yes	Yes	No	Yes	Yes	No	x	50%	7
No	x	Yes	Yes	No	Yes	Partial	No	x	25%	3
No	x	Yes	Yes	No	Yes	No	x	x	0%	7
No	x	Yes	Yes	No	Partial	x	Yes	x	75%	4
No	x	Yes	Yes	No	Partial	x	Partial	Yes	50%	2
No	x	Yes	Yes	No	Partial	x	Partial	Partial	25%	1
No	x	Yes	Yes	No	Partial	x	Partial	x	50%	12
No	x	Yes	Yes	No	Partial	x	No	Partial	12.5%	1
No	x	Yes	Yes	No	Partial	x	No	No	0%	2
No	x	Yes	Yes	No	Partial	x	No	x	25%	5
No	x	Yes	Yes	No	No	x	x	x	0%	6
No	x	Yes	Partial	Yes	x	x	Yes	Yes	75%	1
No	x	Yes	Partial	Yes	x	x	Yes	x	75%	3
No	x	Yes	Partial	Yes	x	x	Partial	Yes	50%	3
No	x	Yes	Partial	Yes	x	x	Partial	Partial	25%	1
No	x	Yes	Partial	Yes	x	x	Partial	x	50%	60
No	x	Yes	Partial	Yes	x	x	No	Yes	25%	1
No	x	Yes	Partial	Yes	x	x	No	No	0%	2
No	x	Yes	Partial	Yes	x	x	No	x	25%	27
No	x	Yes	Partial	No	Yes	Yes	Partial	x	50%	2
No	x	Yes	Partial	No	Yes	Yes	No	x	25%	5
No	x	Yes	Partial	No	Yes	Partial	No	x	12.5%	1
No	x	Yes	Partial	No	Yes	No	x	x	0%	14
No	x	Yes	Partial	No	Partial	x	Yes	x	50%	2
No	x	Yes	Partial	No	Partial	x	Partial	Yes	25%	2
No	x	Yes	Partial	No	Partial	x	Partial	Partial	12.5%	1
No	x	Yes	Partial	No	Partial	x	Partial	x	25%	14
No	x	Yes	Partial	No	Partial	x	No	Yes	12.5%	1
No	x	Yes	Partial	No	Partial	x	No	Partial	0%	1
No	x	Yes	Partial	No	Partial	x	No	x	12.5%	23
No	x	Yes	Partial	No	No	x	x	x	0%	16
No	x	Yes	No	x	x	x	x	x	0%	111
No	x	Partial	Yes	Yes	x	x	Partial	No	12.5%	1
No	x	Partial	Yes	Yes	x	x	Partial	x	50%	3
No	x	Partial	Yes	No	Yes	Yes	Partial	Partial	25%	1
No	x	Partial	Yes	No	Partial	x	Partial	x	25%	1
No	x	Partial	Yes	No	No	x	x	x	0%	1
No	x	Partial	Partial	Yes	x	x	Yes	x	50%	1
No	x	Partial	Partial	Yes	x	x	Partial	Yes	25%	1
No	x	Partial	Partial	Yes	x	x	Partial	x	25%	4
No	x	Partial	Partial	Yes	x	x	No	x	12.5%	4
No	x	Partial	Partial	No	Yes	Yes	Partial	No	0%	1

Table 56. Frequency of Smart Thermostat Free Ridership Scoring Combinations (continued)

11. Did you first find out about the Ameren Missouri rebate before or after you purchased your new thermostat?	12. [ASK IF I1=2] Please confirm: You purchased your new smart thermostat and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?	13. Before you knew about the rebate from Ameren Missouri, were you already planning to install a smart thermostat this year?	14. Without Ameren Missouri's rebate, would you have installed a smart thermostat ...?	15. [ASK IF I4 = 1, 2] Would you have installed the same smart thermostat without the rebate from Ameren Missouri?	16. [ASK IF I5 = 2, 98, 99] Just so I understand, would you have installed a different thermostat without the Ameren Missouri rebate or would you have decided not to replace it?	17. [ASK IF I6 = 1] When you say you would have installed a thermostat without the rebate from Ameren Missouri, would you have installed...?	18. How important was the Ameren Missouri rebate on your decision to purchase and install the smart thermostat?	19. [ASK IF B2=3 OR B6=2] How important was the advice from the contractor in your decision to purchase and install the smart thermostat? Would you say...	FR Score	Count
No	x	Partial	Partial	No	Yes	Yes	Partial	x	25%	2
No	x	Partial	Partial	No	Yes	Yes	No	Partial	0%	1
No	x	Partial	Partial	No	Yes	Yes	No	No	0%	1
No	x	Partial	Partial	No	Yes	Yes	No	x	12.5%	1
No	x	Partial	Partial	No	Yes	Partial	No	x	0%	1
No	x	Partial	Partial	No	Yes	No	x	x	0%	4
No	x	Partial	Partial	No	Partial	x	Partial	x	12.5%	5
No	x	Partial	Partial	No	Partial	x	No	Partial	0%	1
No	x	Partial	Partial	No	Partial	x	No	x	0%	5
No	x	Partial	Partial	No	No	x	x	x	0%	18
No	x	Partial	No	x	x	x	x	x	0%	47
No	x	No	Yes	Yes	x	x	Yes	x	50%	2
No	x	No	Yes	Yes	x	x	Partial	x	25%	6
No	x	No	Yes	Yes	x	x	No	No	0%	1
No	x	No	Yes	Yes	x	x	No	x	12.5%	3
No	x	No	Yes	No	Yes	Partial	No	x	0%	1
No	x	No	Yes	No	Yes	No	x	x	0%	2
No	x	No	Yes	No	Partial	x	Partial	No	0%	1
No	x	No	Yes	No	Partial	x	Partial	x	12.5%	3
No	x	No	Yes	No	Partial	x	No	x	0%	1
No	x	No	Partial	Yes	x	x	Yes	No	0%	1
No	x	No	Partial	Yes	x	x	Partial	Yes	12.5%	3
No	x	No	Partial	Yes	x	x	Partial	Partial	0%	1
No	x	No	Partial	Yes	x	x	Partial	x	12.5%	12
No	x	No	Partial	Yes	x	x	No	Yes	0%	1
No	x	No	Partial	Yes	x	x	No	No	0%	1
No	x	No	Partial	Yes	x	x	No	x	0%	31
No	x	No	Partial	No	Yes	Yes	Partial	x	12.5%	1
No	x	No	Partial	No	Yes	Yes	No	x	0%	4
No	x	No	Partial	No	Yes	No	x	x	0%	15
No	x	No	Partial	No	Partial	x	Yes	x	12.5%	1
No	x	No	Partial	No	Partial	x	Partial	Yes	0%	1
No	x	No	Partial	No	Partial	x	Partial	Partial	0%	4
No	x	No	Partial	No	Partial	x	Partial	No	0%	4
No	x	No	Partial	No	Partial	x	Partial	x	0%	11
No	x	No	Partial	No	Partial	x	No	Yes	0%	4
No	x	No	Partial	No	Partial	x	No	No	0%	3
No	x	No	Partial	No	Partial	x	No	x	0%	37
No	x	No	Partial	No	No	x	x	x	0%	101
No	x	No	No	x	x	x	x	x	0%	268
x	x	Yes	Yes	Yes	x	x	Yes	Yes	100%	1
x	x	Yes	Yes	Yes	x	x	Partial	x	75%	5
x	x	Yes	Yes	Yes	x	x	No	x	50%	4
x	x	Yes	Yes	No	Yes	Yes	No	x	50%	1
x	x	Yes	Yes	No	Partial	x	Partial	x	50%	2
x	x	Yes	Yes	No	Partial	x	No	x	25%	1
x	x	Yes	Yes	No	No	x	x	x	0%	2
x	x	Yes	Partial	Yes	x	x	Partial	x	50%	6
x	x	Yes	Partial	Yes	x	x	No	x	25%	2
x	x	Yes	Partial	No	Yes	Yes	Partial	x	50%	1
x	x	Yes	Partial	No	Yes	Yes	No	No	0%	1
x	x	Yes	Partial	No	Yes	Yes	No	x	25%	2
x	x	Yes	Partial	No	Yes	No	x	x	0%	3
x	x	Yes	Partial	No	Partial	x	Partial	x	25%	2
x	x	Yes	Partial	No	Partial	x	No	Partial	0%	1
x	x	Yes	Partial	No	Partial	x	No	x	12.5%	4
x	x	Yes	Partial	No	No	x	x	x	0%	1
x	x	Yes	No	x	x	x	x	x	0%	20
x	x	No	Partial	Yes	x	x	No	x	0%	1
x	x	No	Partial	No	Yes	No	x	x	0%	1
x	x	No	Partial	No	Partial	x	Partial	x	0%	1
x	x	No	Partial	No	Partial	x	No	x	0%	7
x	x	No	Partial	No	No	x	x	x	0%	10
x	x	No	No	x	x	x	x	x	0%	35

## Appendix C. Benchmarking Sources

Cadmus used the following reports in conducting the benchmarking research.

ADM Associates, Inc. *Evaluation of Residential Incentive Program Portfolio*. Prepared for Indiana Michigan Power. 2015

ADM Associates, Inc., and Research & Polling, Inc. *Evaluation of 2014 Public Service Company of New Mexico Energy Efficiency & Demand Response Portfolio*. Prepared for New Mexico Energy Efficiency Evaluation Committee. 2015.

Cadmus. *ENERGY STAR Appliances Rebate Program Evaluation Report*. Presented to Consumers Energy Company. 2015.

Cadmus. *Entergy Final Energy Efficiency Portfolio Evaluation Report 2015 Program Year*. Prepared for Entergy Arkansas, Inc. 2016.

Cadmus. *Pennsylvania Act 129 of 2008 Energy Efficiency and Conservation Plan*. Prepared for PPL Electric Utilities. 2016.

Cadmus. *2015 Demand-Side Management Programs Evaluation Report*. Prepared for Indianapolis Power & Light. 2016.

Cadmus. *2015 DSM Portfolio Evaluation Report*. Prepared for Vectren Energy Delivery of Indiana. 2016.

Cadmus. *2015 Evaluation, Measurement, and Verification Report*. Prepared for Dayton Power and Light. 2016.

Cadmus and Navigant. *Appliance Rebate Program, EY6 Impact Results Memo*. Presented to EmPOWER Maryland Utilities. 2016.

## Appendix D. Stakeholder Interview Guide

Respondent name: \_\_\_\_\_

Respondent phone: \_\_\_\_\_

Interview date: \_\_\_\_\_ Interviewer initials: \_\_\_\_\_

For the PY17 evaluation, Cadmus will interview stakeholders (Ameren and ICF program managers) annually. The interview will focus on program changes since PY16, assess the program at year end, and identify recommendations for improving subsequent programs.

### Introduction

3. Please state your title, and explain your company’s role in Ameren Missouri’s Efficient Products Program.
4. What are your main roles and responsibilities for Ameren Missouri’s Efficient Products Program? Has this changed since PY16?
5. Who do you coordinate with regarding the program? [Probe: internal and external program stakeholders]
  - a. What types of communication do you have with these program stakeholders (i.e., formal or informal)? [Probe: frequency, satisfaction, challenges, etc.]
6. Have there been any changes in how the program handles communications with participating retailers and contractors? [Probe: Crossmark’s role, meeting frequency, who is included]

### Program Goals

7. Appendix B24 showed that you anticipated installation of 21,678 measures plus 5,444 learning thermostats, with an estimated annual savings of 2,087 MWh for thermostats and 4,760 for the other products, and demand reductions of 1.982 MW for the thermostats and 1.612 MW for the other products.]
  - a. Are these the correct PY17 program goals?
  - b. If goals changed, how were changes determined?
8. In your opinion, how has the program performed so far in PY17 (in general, as well as savings/participation goals)?
  - a. Why do you think this is?
9. Are there benchmarks in place to monitor progress throughout the year?

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<sup>24</sup> State of Missouri. “In the Matter of Union Electric Company d/b/a Ameren Missouri’s 2<sup>nd</sup> Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA.” File No. EO-2015-0055. February 5, 2016. Refer to Appendix B.

- a. Have you identified triggers for contingency plans in case goals are not being met?

## *Program Design and Implementation*

- 10. Since we talked last year, have there been any changes to the objectives of the Efficient Products Program, or critical factors for achieving those objectives? If so, what is driving these changes?
- 11. How else has the program changed since PY16?
  - a. Current status of the online store? (Smart thermostats, anything else planned or considered? How well would you say this channel is working?)
  - b. Any delivery changes to equipment rebates?
  - c. Did these changes have the desired outcomes?
- 12. Does the program have any process or non-impact goals for PY17? [Probe: increased awareness, market transformation, spillover measures such as duct sealing or insulation]

## *Measures*

- 13. When you expanded the list of qualifying thermostats this year, how did you determine which new ones to include (or exclude)?
  - a. Do you have any thoughts on the benefits of, or concerns about, current eligibility requirements for thermostats or any other measures?
  - b. Are you considering any further changes to eligibility requirements for thermostats or other measures? (If so, how and why?)
- 14. In your opinion, should any additional measures be considered for inclusion in future programs? If so, what measures?
- 15. Conversely, should any current measures be excluded?
- 16. Are you considering changes to the incentive levels for any measures? (If so, what changes and why?)

## *Marketing Efforts*

- 17. Have there been any significant changes to marketing materials or channels this year? (If there are notable new materials, can you share copies?)
- 18. Have there been any changes in roles or procedures for developing and placing marketing materials? (Utility, implementer, Crossmark, anyone else?)
- 19. What types of in-store marketing does the program use? Do you customize in-store marketing for different retailers in anyway?
- 20. Do you track the effectiveness of any of those marketing techniques? (In-store, Coupons, online codes, etc.)

21. Can you describe what you perceive as the impact of the program on the overall efficient products market so far, over the past eight years of implementation? What evidence do you have to support your views?

## *Retailer Participation*

22. Has the program made any changes in efforts to recruit retailers, contractors, or manufacturers and encourage their participation? (Any new relationships added, being pursued, or previous relationships terminated in the last year?)
23. Have you tracked or analyzed online sales compare to storefront sales?
  - a. Are there different barriers and opportunities associated with online retailers compared to “brick and mortar” stores?

## *Rebate Processing and Data Management*

24. Has anything changed since last year on your rebate processing?
25. Do you have a goal for rebate processing times?
26. Have there been any issues or difficulties with rebate processing so far?
27. How is the Vision database working? (Any issues?)

## *Quality Control*

28. In your own words, please explain how the program’s quality control process works.
29. Has anything changed in your processes since last years?

## *Summary and Conclusion*

30. What would you say is working particularly well so far in PY17? Why is that?
31. Conversely, what is not working as well as anticipated? Why is that?
32. From your perspective, what are the biggest challenges facing the program in PY18?
  - a. Do you have any suggestions for how to improve the program (that we haven’t already discussed)?
  - b. What changes are being planned or considered for PY18 (that we haven’t already discussed)?
33. Are there any issues you would like the evaluation to help solve?
34. Do you have any feedback about last year’s evaluation or anything you would like to be different?
35. Is there anything else you’d like us to know?



## Appendix E. Immediate Participant Survey, Follow-up Participant Survey

### Ameren Missouri 2017 Efficient Products Immediate Online Survey

Researchable Questions	Survey Question Mapping
How do participants learn about this program?	A5
What are the reasons why customers are purchasing new equipment, and which factors influence the type of product they purchase?	B1, B3, B4, B5
From whom do participants purchase the eligible equipment, and how effective are these upstream actors in promoting the program?	B2, B8, B9, C2
How satisfied were participants with the process and the products?	B, 0, 0, B1
How satisfied are participants with the program?	0, 0
What is the installation rate?	Section 0 (all measures except thermostats), Section 0 (thermostats)
Are participants using measures correctly?	Section 0 (thermostats)
Would the participant have purchased the product without the program? (Free ridership)	Section 0 (all measures except thermostats), Section 0 (thermostats)
How satisfied are participants with their utility?	P, G3
Participant Demographics	Section 0

**Red text = programming instructions (not visible to respondents)**

**[MEASURENAME] = full descriptive name of measure, imported from panel data**

**[MEASURETYPE] = short version of measure to be surveyed, imported from panel data**

**[QTY] = quantity installed of survey measure, imported from panel data**

**[THERMOSTAT BRAND] = make/model of rebated thermostat, imported from panel data**

**[ONLINE] = flag for smart thermostats purchased through the Ameren Missouri online store, imported from panel data (1=purchased at online store, 0=submitted a regular rebate application)**

**Green text = open-ended responses**

(Skipped) responses are not visible (99 = code for nothing selected / skipped question)

Measure types to be surveyed (import data from panel file – **[MEASURETYPE]** will be replaced with the text in parentheses):

- Smart thermostat (smart thermostat)
- Heat pump water heater (water heater)
- ENERGY STAR room air conditioner (room air conditioner)
- ENERGY STAR room air purifier (room air purifier)
- Pool pump (pool pump) – *for both multiple speed and variable speed*

## Verification and Program Awareness

- A1. **[WORDING IF ONLINE=0]** Thank you for participating in Ameren Missouri’s Efficient Products rebate program. We would like to know more about your experience with the program. Our records indicate that you received a rebate for purchasing **[MEASURENAME]**(s). Is this correct? **[WORDING IF ONLINE=1]** Thank you for participating in Ameren Missouri’s Efficient Products rebate program. We would like to know more about your experience with the program. Our records indicate that you received an instant rebate (discounted price) when you purchased smart thermostat(s) from the Ameren Missouri Online Store. Is this correct?  
**[FORCED RESPONSE (NO SKIP)]**
1. Yes
  2. No
  98. Don’t Know **[TERMINATE]**
- A2. **[ASK IF A1=2]** Why did you not receive a rebate?
1. I did not participate in the Ameren Missouri Efficient Products rebate program **[TERMINATE]**
  2. I participated in the Ameren Missouri Efficient Products rebate program, but my rebate has not arrived yet **[TERMINATE]**
  3. **[SHOW RESPONSE IF ONLINE=1]** I did not receive a rebate, I received a discounted price when I purchased smart thermostat(s) through the Ameren Missouri Online Store.
  4. Some other reason, please specify: **[SPECIFY: \_\_\_\_\_]** **[TERMINATE]**
  98. Don’t Know **[TERMINATE]**
  99. (Skipped) **[TERMINATE]**

- A3. Are you or any members of your household employed by Ameren Missouri? **[FORCED RESPONSE (NO SKIP OR DK)]**
1. Yes, I or someone in my household works for Ameren Missouri **[TERMINATE]**
  2. No one in my household works for Ameren Missouri
- A4. **[ASK IF ONLINE=0]** Prior to this survey, were you aware that the rebate you received after you purchased your new **[MEASURETYPE](s)** was provided by Ameren Missouri?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- A5. **[WORDING IF ONLINE=0]** How did you hear about Ameren Missouri's Efficient Products rebate program? (check all that apply) **[WORDING IF ONLINE=1]** How did you hear about discounted smart thermostats for sale through the Ameren Missouri Online Store? (check all that apply) **[RANDOMIZE ORDER, CHECK ALL THAT APPLY]**
1. From my contractor or installer
  2. Ameren's Web site
  3. Other Web site
    - A5a. Which site? **[SPECIFY:\_\_\_\_\_]**
  4. On my Monthly Energy Statement (bill)
  5. A brochure
    - A5b. Where did you find this brochure, or who gave or sent it to you? **[SPECIFY:\_\_\_\_\_]**
  6. **[SHOW RESPONSE IF ONLINE=0]** When my rebate check arrived
  7. Door hanger
  8. Family, friend or co-worker
  9. Newspaper
  10. Radio
  11. Television
  12. Ameren Missouri representative
  13. Ameren Missouri Home Energy Report
  14. Email from Ameren Missouri
  15. **[SHOW RESPONSE IF ONLINE=0]** The rebate form was attached to the product when I bought it
  16. **[SHOW RESPONSE IF ONLINE=0]** Signs or displays in a store
  17. **[SHOW RESPONSE IF ONLINE=1]** While shopping or browsing at the Ameren Missouri Online Store
  18. Store representative or salesperson
  19. Social Media (Facebook, Twitter)
  20. Some other way
    - A5c. Please specify: **[SPECIFY:\_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

## Purchase Patterns and Decision-making

B1. What was the primary reason you purchased a new **[MEASURETYPE]**? **[RANDOMIZE RESPONSE ORDER, SELECT ONE RESPONSE]**

1. To replace broken equipment
2. To replace aging equipment
3. To improve the comfort of my home
4. To improve health or safety in my home
5. The purchase was part of a larger home renovation
6. The equipment is for a newly constructed home
7. To save money on energy costs
8. To help the environment
9. Some other reason

Please specify: **[SPECIFY: \_\_\_\_\_]**

98. Don't Know

99. (Skipped)

B2. **[ASK IF ONLINE=0]** Did you purchase the **[MEASURETYPE]**(s) at a store, or from a contractor? **[SELECT ONE RESPONSE]**

1. Local retail store
2. Online store
3. Contractor
4. Other

Please specify: **[SPECIFY: \_\_\_\_\_]**

98. Don't Know

99. (Skipped)

B3. At what point did you determine the exact model and brand you wanted to buy?

1. I knew which model I wanted before **[IF B2=1 or 2: "visiting the store", IF B2=3: "calling a contractor"]**
2. **[IF B2=1 OR 2 OR ONLINE=1]** I decided at the **[IF B2=1: "store", IF B2=2 OR ONLINE=1: "online store"]**
3. **[IF B2=3]** I decided after the contractor provided me with options

98. Don't Know

99. (Skipped)

B4. Which factors were important in your decision to purchase the specific model and brand you selected? Please select all that apply. **[RANDOMIZE RESPONSE ORDER, CHECK ALL THAT APPLY]**

1. Price
2. Quality/reputation
3. Cost savings on energy bills
4. The store representative recommended it to me
5. My contractor or installer recommended it to me
6. A friend, neighbor, colleague or family member recommended it to me

7. **[WORDING IF ONLINE=0]** It qualified for an Ameren Missouri rebate
8. **[WORDING IF ONLINE=1]** The Ameren Missouri instant rebate (discounted price)
9. It had specific features I was looking for
10. Impact on the environment
11. It was available when I needed it
12. Compatibility with other equipment I already own
13. Other  
Please specify: **[SPECIFY: \_\_\_\_\_]**
98. Don't Know
99. (Skipped)

B5. **[ASK IF MORE THAN ONE RESPONSE IS CHECKED IN B4]** If you had to choose just one, which factor would you say was the *most* important in your decision to purchase the specific model and brand you selected? **[ONLY SHOW RESPONSES CHECKED IN B4; SELECT ONE RESPONSE]**

1. Price
2. Quality/reputation
3. Cost savings on energy bills
4. The store representative recommended it to me
5. My contractor or installer recommended it to me
6. A friend, neighbor, colleague or family member recommended it to me
7. **[WORDING IF ONLINE=0]** It qualified for an Ameren Missouri rebate
8. **[WORDING IF ONLINE=1]** The Ameren Missouri instant rebate (discounted price)
9. It had specific features I was looking for
10. Impact on the environment
11. It was available when I needed it
12. Compatibility with other equipment I already own
13. **[Other specify response from B4]**
98. Don't Know
99. (Skipped)

B6. **[ASK IF MEASURETYPE IS NOT "AIR PURIFIER"]** Did you or someone else in your household install the **[MEASURETYPE]**, or did you have a contractor install it?

1. I installed it myself OR someone else in the household installed it
2. A contractor installed it
3. Not installed yet
98. Don't Know
99. (Skipped)

- B7. **[IF B6 = 1 AND MEASURETYPE = "SMART THERMOSTAT"]** How easy was the smart thermostat to install? Would you say it was...?
1. Very easy
  2. Somewhat easy
  3. Not too easy
  4. Not at all easy
  98. Don't Know
  99. (Skipped)
- B8. **[ASK IF B2=1]** Did a store representative or display inform you that the **[MEASURETYPE]** qualified for an Ameren Missouri Rebate? **[OR ASK IF B2=2]** Did the online store that you purchased your **[MEASURETYPE]** from inform you that this equipment qualified for an Ameren Missouri Rebate?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- B9. **[ASK IF B2=3 OR B6=2]** Did your contractor inform you that the **[MEASURETYPE]** qualified for an Ameren Missouri Rebate?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)

## Participation Process – Contractors

- C1. **[ASK IF B6=2]** How did you select the contractor who installed your **[MEASURETYPE]**? **[RANDOMIZE ORDER, CHECK ALL THAT APPLY]**
1. I have used this contractor before
  2. The contractor approached me about the program
  3. Ameren website
  4. The contractor was referred to me by a family member, friend, or colleague
  5. The installation contractor was provided by the retailer who sold the equipment
  6. Online advertisement
  7. I saw contractor's newspaper/TV/radio advertisement
  8. Through business owners in my neighborhood or network
  9. Yellow pages
  10. Angie's List, or similar consumer information source
  11. Better Business Bureau
  12. Some other way  
Please specify **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

- C2. **[ASK IF B2=3 OR B6=2]** Please check any options listed below that your contractor discussed with you prior to installing your new **[MEASURETYPE]**. Please note, options listed below may or may not have been applicable to your situation. **[RANDOMIZE ORDER, CHECK ALL THAT APPLY]**
1. Rebates from Ameren Missouri for high efficiency equipment
  2. Contractor or manufacturer rebates
  3. Additional energy-efficient equipment or home improvements
  4. Energy saving tips
  5. Contractor did not discuss any of the above
98. Don't know  
99. (Skipped)
- C3. **[ASK IF C2 = 2]** How much was the rebate you received from the contractor or manufacturer?  
**[RECORD RESPONSE: \_\_\_\_\_]**
98. (Skipped)

## Participant Satisfaction

- D1. **[ASK IF B2=3 OR B6=2]** How satisfied are you with the contractor you worked with?
1. Very satisfied
  2. Somewhat satisfied
  3. Not too satisfied
  4. Not satisfied at all
98. Don't Know  
99. (Skipped)
- D2. **[ASK IF D1 = 1, 2, 3 OR 4]** Why are you "[RATING FROM D1]" with the contractor?  
**[RECORD RESPONSE: \_\_\_\_\_]**
98. (Skipped)
- D3. **[ASK IF ONLINE=0]** After you submitted the rebate application and documentation for the purchase of your **[MEASURETYPE]**(s), how long did it take to receive the rebate check from Ameren Missouri?
1. Less than 4 weeks
  2. Between 4 and 6 weeks
  3. Between 6 and 8 weeks
  4. Between 8 and 10 weeks
  5. More than 10 weeks
  5. Have not received the rebate yet
98. Don't know  
99. (Skipped)
- D4. **[ASK IF ONLINE=0]** How satisfied are you with the time it took to receive your rebate in the mail?
1. Very satisfied
  2. Somewhat satisfied

3. Not too satisfied
4. Not satisfied at all
98. Don't know
99. (Skipped)

D5. **[WORDING IF ONLINE=0]** How satisfied are you with the amount of the rebate you received?  
**[WORDING IF ONLINE=1]** How satisfied are you with the amount of the instant rebate (discount) you received?

1. Very satisfied
2. Somewhat satisfied
3. Not too satisfied
4. Not satisfied at all
98. Don't know
99. (Skipped)

D6. How satisfied are you with the performance of your new **[MEASURETYPE]**?

1. Very satisfied
2. Somewhat satisfied
3. Not too satisfied
4. Not satisfied at all
98. Don't Know
99. (Skipped)

D7. **[ASK IF D6 = 1, 2, 3 or 4]** Why are you "**[RATING FROM D6]**" with your new **[MEASURETYPE]**(s)? Please give us further details on what you like or dislike about the performance of your new **[MEASURETYPE]**(s) (check all that apply). **[ALLOW MULTIPLE RESPONSES; SHOW ALL RESPONSE OPTIONS IF B1=2 OR 3, SHOW RESPONSE OPTIONS 1-6 & 13, 98 IF B1=1, SHOW RESPONSES OPTIONS 7-13 & 98 IF B1=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON'T KNOW]**

1. Satisfied with energy/cost savings experienced after installation
2. Satisfied with overall operation and performance of the equipment
3. Satisfied with the price of the equipment including the rebate
4. Satisfied with features of the new equipment
5. Quiet operation of the equipment
6. My home is more comfortable with this equipment installed
7. Noisy operation of the equipment
8. Did not notice energy/cost savings after installation
9. Poor performance of equipment
10. Features did not perform as expected
11. Difficulty with installation
12. High cost of equipment
13. Other reasons or comments, please specify **[SPECIFY: \_\_\_\_\_]**
98. Don't Know
99. (Skipped)

D8. Thinking about your overall satisfaction with Ameren Missouri's Efficient Products rebate program, would you say you are:

1. Very satisfied



- 2. Somewhat satisfied
- 3. Not too satisfied
- 4. Not satisfied at all
- 98. Don't Know
- 99. (Skipped)

D9. **[ASK IF D8 = 3 or 4]** Why are you “[**RATING FROM D8**]” with Ameren Missouri’s Efficient Products rebate program? Please give us further details on what you like or dislike about this rebate program (check all that apply). **[ALLOW MULTIPLE RESONSES; SHOW ALL RESPONSE OPTIONS IF 0= 2 OR 3, SHOW RESPONSE OPTIONS 1-5 & 12, 98 IF 0= 2, SHOW RESPONSE OPTIONS 6-11 & 98 IF 0= 4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON'T KNOW]**

- 1. **[WORDING FOR ONLINE=0]** Satisfied with the amount of the rebate **[WORDING FOR ONLINE=1]** Satisfied with the amount of the instant rebate (discounted price)
- 2. Participating in this rebate program was convenient/easy
- 3. Satisfied with energy/cost savings experienced after installation
- 4. Satisfied with the performance and operation of the equipment
- 5. **[APPEARS IF B2=3 OR B6=2]** Satisfied with the contractor who did the installation
- 6. **[WORDING FOR ONLINE=0]** Dissatisfied with the amount of the rebate **[WORDING FOR ONLINE=1]** Dissatisfied with the amount of the instant rebate (discounted price)
- 7. Dissatisfied with communications about the rebate program
- 8. Dissatisfied by the limits on equipment covered by the rebate program
- 9. **[APPEARS IF ONLINE=0]** Dissatisfied with the rebate application process
- 10. **[APPEARS IF ONLINE=0]** Dissatisfied with delays in rebate processing
- 11. **[APPEARS IF B2=3 OR B6=2]** Dissatisfied with the contractor who did the installation
- 12. Other reasons or comments, please specify **[SPECIFY: \_\_\_\_\_]**
- 98. Don't Know
- 99. (Skipped)

D10. Would you recommend Ameren Missouri’s Efficient Products program to friends or family members?

- 1. Yes
- 2. No
- 98. Don't Know
- 99. (Skipped)

D11. What suggestions, if any, do you have for improving this program?  
Specify suggestions: **[RECORD: \_\_\_\_\_]**

## Measure Installation (Except for Thermostats)

**ASK THIS SECTION OF PARTICIPANTS WHO HAVE INSTALLED MEASURES OTHER THAN SMART THERMOSTATS**

# CADMUS

Next, we have a few questions about the **[MEASURETYPE]**(s) that you purchased. The answers to these questions are important because they will help Ameren Missouri determine how much energy is being saved as a direct result of their energy efficiency program.

- E1. **[IF QTY=1 AND B6 ≠ 3: “Is the [MEASURETYPE] currently installed?” IF QTY =2 AND B6 ≠ 3: “Are both of the [MEASURETYPE]s currently installed?” IF QTY =3 AND B6 ≠ 3: “Are all three of the [MEASURETYPE]s currently installed?”**
1. Yes **[SKIP TO E10]**
  2. No
  98. Don't Know **[SKIP TO B]**
  99. (Skipped) **[SKIP TO B]**
- E2. **[ASK IF QTY >1 AND E1 =2]** How many of your new **[MEASURETYPE]**s are currently installed?
1. None
  2. One
  3. **[IF QTY=3]: Two**
  98. Don't Know
  99. (Skipped)
- E3. **[ASK IF QTY =1 AND (E1 =2 OR B6 = 3)]** Why isn't the **[MEASURETYPE]** currently installed? **[ASK IF QTY =2 AND (E1 =2 OR B6 = 3)]** Why aren't both of the **[MEASURETYPE]**s currently installed? **[ASK IF QTY =3 AND (E1 =2 OR B6 = 3)]** Why aren't all three of the **[MEASURETYPE]**s currently installed? **[RANDOMIZE ORDER, ALLOW UP TO 3 RESPONSES]**
1. **[MEASURETYPE]** failed or is broken
  2. **[IF MEASURETYPE IS NOT “WATER HEATER”]:** I plan to install the **[MEASURETYPE]** during the appropriate season
  3. We installed the **[MEASURETYPE]** at one time, but then removed it
  4. Have not had time to install **[MEASURETYPE]** yet
  5. **[MEASURETYPE]** is in storage
  6. **[MEASURETYPE]** is back up equipment to install when other equipment fails
  7. Some other reason  
Please specify **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- E4. **[ASK IF E3 =3]** Why did you remove the **[MEASURETYPE]**?  
**[RECORD RESPONSE: \_\_\_\_\_]**
98. (Skipped)

- E5. **[ASK IF MEASURETYPE ="ROOM AC" AND D1 =2 AND E3<>3, 4]** Was the room air conditioner you purchased installed at any point this summer?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- E6. **[ASK IF MEASURETYPE ="ROOM AC" AND (E1 =1 OR E2=2, 3) OR E5=1]** Where were the air conditioners that you purchased installed? **[CHECK UP TO QTY OF RESPONSES]**
1. My primary residence
  2. A vacation property or part-year residence
  3. Property that I own but rent to someone else
  4. Someone else's residence (such as a relative)
  5. Some other situation, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- E7. **[ASK IF MEASURETYPE ="ROOM AC" AND E6 = 2,3,4,5]** Is Ameren Missouri the electricity provider for the property where your room air conditioner(s) were installed?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- E8. **[ASK IF MEASURETYPE ≠"ROOM AC" AND (E1 =1 OR E2=2,3)]** Where were the **[MEASURETYPE](s)** that you purchased installed?
1. My primary residence
  2. A vacation property or part-year residence
  3. Property that I own but rent to someone else
  4. Someone else's residence (such as a relative)
  5. Some other situation, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- E9. **[ASK IF MEASURETYPE ≠"ROOM AC" AND E8 =2,3,4,5]** Is Ameren Missouri the electricity provider for the property where your **[MEASURETYPE](s)** were installed?
13. Yes
  14. No
  98. Don't Know
  99. (Skipped)
- E10. **[ASK IF MEASURETYPE ="ROOM AC" AND E1 =1 OR E5 =1 OR E3=3] [IF QTY=1]:** In which room did you install the room air conditioner? **[CHECK ONE] [IF QTY>1]:** In which rooms did you install the room air conditioners? **[CHECK ALL THAT APPLY]**

1. Bedroom
2. Living Room
3. Dining Room
4. Kitchen
5. Office
6. Bathroom
7. Some other location  
Please specify **[SPECIFY:\_\_\_\_\_]**
98. Don't Know
99. (Skipped)

E11. **[ASK IF MEASURETYPE ="ROOM AC"]** In total, how many room or window air conditioning units are installed in your home during the summer, including the room air conditioner(s) you recently purchased that were rebated by Ameren Missouri?

1. One
2. Two
3. Three
4. Four or more
5. None
98. Don't Know
99. (Skipped)

E12. **[ASK IF MEASURETYPE ="ROOM AC"]** Please check all of the heating and cooling equipment that is currently installed in your home in addition to room or window air conditioners. **[MARK ALL THAT APPLY]**

1. High-efficiency central air conditioner
2. Standard-efficiency central air conditioner
3. Air Source Heat Pump
4. Ground Source Heat Pump
5. Ductless Heat Pump
6. High-efficiency gas furnace
7. Standard-efficiency gas furnace
8. High-efficiency electric furnace
9. Standard-efficiency electric furnace
10. Baseboard electric system
11. Some other heating or cooling system  
Please specify **[SPECIFY:\_\_\_\_\_]**
98. Don't Know
99. (Skipped)

- E13. **[ASK IF MEASURETYPE = "HEAT PUMP WATER HEATER" AND E1 = 1]** Please check all of the heating and cooling equipment that is currently installed in your home. **[MARK ALL THAT APPLY]**
1. High-efficiency central air conditioner
  2. Standard-efficiency central air conditioner
  3. Room or window air conditioners
  4. Air Source Heat Pump
  5. Ground Source Heat Pump
  6. Ductless Heat Pump
  7. High-efficiency gas furnace
  8. Standard-efficiency gas furnace
  9. High-efficiency electric furnace
  10. Standard-efficiency electric furnace
  11. Baseboard electric system
  12. Some other heating or cooling system  
Please specify **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

**[IF (QTY = 1 AND E1= 2) OR (QTY > 1 AND E2 = 1) AND E3 ≠ 2 AND E5 ≠ 1 THEN SKIP TO P NOW]**

## Free Ridership (Measures Except for Thermostats)

**ASK THIS SECTION OF PARTICIPANTS WHO HAVE INSTALLED MEASURES OTHER THAN SMART THERMOSTATS**

- F1. Did you first find out about the Ameren Missouri rebate before or after you purchased your new **[MEASURETYPE](s)**? **[FORCED RESPONSE – NO SKIP]**
1. Learned of rebate before purchase
  2. Learned of rebate after purchase
  98. Don't Know
- F2. **[ASK IF F1=2]** Please confirm: You purchased your new **[MEASURETYPE]** and *then* found out it qualified for a rebate from Ameren Missouri afterwards, is that correct? **[FORCED RESPONSE – NO SKIP]**
1. Yes, that is correct **[SKIP TO F9]**
  2. No, that is not correct
  98. Don't Know
- F3. Before you knew about the incentive from Ameren Missouri, were you already planning to install a **[MEASURETYPE]** in 2017? **[FORCED RESPONSE – NO SKIP]**
1. Yes,
  2. No
  98. Don't Know

- F4. **[ASK IF MEASURE QTY > 1]** Without the incentive from Ameren Missouri, would you have installed same number of **[MEASURETYPE]**s? **[FORCED RESPONSE – NO SKIP]**
1. Yes, the same amount
  2. No, would have installed fewer
    - E1a. How many **[MEASURETYPES]** would you have installed without the rebate?  
**[SPECIFY: \_\_\_\_\_]**
  3. No, would have installed more
  4. No, would not have installed any at all
98. Don't Know
- F5. Without Ameren Missouri's rebate, would you have installed the **[MEASURETYPE]**...? **[FORCED RESPONSE – NO SKIP]**
1. Around the same time
  2. Later in the same year
  3. In one or two years
  4. After more than three years
  5. Never
98. Don't Know
- F6. **[ASK IF F5 = 1, 2]** Would you have installed the exact same **[MEASURETYPE]**(s) without the rebate from Ameren Missouri? **[FORCED RESPONSE – NO SKIP]**
1. Yes
  2. No
98. Don't Know
- F7. **[ASK IF F6 = 2, 98, 99]** Would you have installed a different **[MEASURETYPE]** without the Ameren Missouri rebate or would you have decided to not purchase one at all? **[FORCED RESPONSE – NO SKIP]**
3. I would have installed a different **[MEASURETYPE]**
  4. I would have decided not to purchase one at all
98. Don't Know
- F8. **[ASK IF F7 = 1]** Without Ameren Missouri's rebate, would you have installed a lower efficiency **[MEASURETYPE]**, the same efficiency **[MEASURETYPE]**, or a higher efficiency **[MEASURETYPE]**...? **[FORCED RESPONSE – NO SKIP]**
1. Lower efficiency
  2. Same efficiency
  3. Higher efficiency
98. Don't Know
- F9. How important was the Ameren Missouri rebate on your decision to purchase and install the **[MEASURETYPE]**? **[FORCED RESPONSE – NO SKIP]**
1. Very important
  2. Somewhat important
  3. Not very important
  4. Not at all important
98. Don't Know

- F10. **[ASK IF B2=3 OR B6=2]** How important was the advice from your contractor on your decision to purchase and install the **[MEASURETYPE]**? **[FORCED RESPONSE – NO SKIP]**
1. Very important
  2. Somewhat important
  3. Not very important
  4. Not at all important
  98. Don't Know

## Smart Thermostat Installation

**ASK THIS SECTION IF MEASURETYPE = "SMART THERMOSTAT".**

Next, we have a few questions about the Smart Thermostat(s) that you purchased and installed. The answers to these questions are important because they will help Ameren Missouri determine how much energy is being saved as a direct result of their energy efficiency program.

- G1. **[ASK IF ONLINE=0]** **[IF QTY=1:** Our records indicate that you purchased a **[THERMOSTAT BRAND]** "smart" thermostat, is this correct? **IF QTY > 1:** Our records indicate that you purchased **[QTY]** **[THERMOSTAT BRAND]** "smart" thermostats, is this correct?
1. Yes
  2. No
- G2a. What kind of thermostat(s) did you purchase? **[SPECIFY:\_\_\_\_\_]**
98. Don't Know
  99. (Skipped)
- G2. **[IF QTY=1 AND B6 ≠ 3:** Is the smart thermostat currently installed in your home? **[IF QTY>1 AND B6 ≠ 3:** Are all of the smart thermostats that you purchased currently installed in your home?
1. Yes
  2. **[INCLUDE OPTION IF QTY> 1:** Only one is installed
  3. **[INCLUDE OPTION IF QTY> 2:** Only two are installed
  4. **[IF QTY=1:** No **[IF QTY>1:** None are installed
  98. Don't Know
  99. (Skipped)

- G3. **[ASK IF E2 = 4 AND QTY =1]** Was the smart thermostat . . . ? **[OR ASK IF E2 = 3 AND QTY =3 OR IF E2 = 2 AND QTY =2]** Was your smart thermostat that is not currently installed . . . ? **[ASK IF E2 = 4 AND QTY >1 OR IF E2 = 2 AND QTY =3]** Were any of these smart thermostats installed and then removed, or have some of them not been installed yet?
1. **[IF QTY=1 OR IF E2 = 3 AND QTY =3 OR IF E2 = 2 AND QTY =2:** Installed and removed **[IF E2 = 4 AND QTY >1 OR IF E2 = 2 AND QTY =3:** Installed and then removed all (other) thermostats
  2. **[INCLUDE OPTION IF E2 = 4 AND QTY > 1:** Installed and removed one thermostat, the rest have not been installed yet
  3. **[INCLUDE OPTION IF E2 = 2 AND QTY =3:** Installed and removed two thermostats, the other has not been installed yet
  4. **[IF QTY=1 OR IF E2 = 3 AND QTY =3 OR IF E2 = 2 AND QTY =2:** Not installed yet **[IF E2 = 4 AND QTY >1 OR IF E2 = 2 AND QTY =3:** None have been installed yet
  5. Given to someone else / installed at another property
  98. Don't Know
  99. (Skipped)
- G4. **[ASK IF E3= 1, 2, 3]** Why did you install and then remove the smart thermostat(s)? **[RANDOMIZE RESPONSE ORDER, MARK ALL THAT APPLY]**
1. Too difficult to use
  2. Did not adjust temperatures correctly
  3. Thermostat broke
  4. Did not think it was saving energy
  5. I preferred my previous thermostat(s)
  6. Other (please specify) **[RECORD RESPONSE \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- G5. **[ASK IF E3 = 4 AND QTY=1 OR B6 = 3]** Why has the smart thermostat not been installed in your home yet? **[OR IF (E3 = 4 OR B6 = 3) AND QTY>1, OR E3 = 2 ,3]** Why have your smart thermostats not all been installed in your home yet?
1. Haven't had time
  2. Don't know how to install it
  3. Installed in someone else's home / a different property
  4. Other reason (please specify), **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)



- G6. **[ASK IF E2=1,2,3 OR G3 DISPLAYED AND G3≠4]** Where were the smart thermostat(s) that you purchased installed?
1. My primary residence
  2. A vacation property or part-year residence
  3. Property that I own but rent to someone else
  4. Someone else's residence (such as a relative)
  5. Some other situation, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- G7. **[ASK IF E6 = 2,3,4,5 OR IF G5=3]** Is Ameren Missouri the electricity provider for this property?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- [IF E2 = 4 THEN SKIP TO P NOW]**
- G8. **[ASK IF E2 = 1 AND QTY=1]** What types of heating and cooling system is the smart thermostat currently connected to? **[OR IF E2 = 1, 2, 3 AND QTY>1]** What types of heating and cooling system are your smart thermostats connected to? **[MARK ALL THAT APPLY]**
1. High-efficiency central air conditioner
  2. Standard-efficiency central air conditioner
  3. Air Source Heat Pump
  4. Ground Source Heat Pump
  5. Ductless Heat Pump
  6. High-efficiency gas furnace
  7. Standard-efficiency gas furnace
  8. High-efficiency electric furnace
  9. Standard-efficiency electric furnace
  10. Some other heating or cooling system  
Please specify **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- G9. **[ASK IF G8 = 1, 2]** About what year was your central air conditioning installed?
1. Installed at the same time as the new smart thermostat(s)
  2. Installed previously, in the year: **[RECORD RESPONSE: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- G10. **[ASK IF G8 = 7, 8, 9, 10]** About what year was your furnace installed?
3. Installed at the same time as the new smart thermostat(s)
  4. Installed previously, in the year: **[RECORD RESPONSE: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

- G11. **[ASK IF G8 = 4, 5, 6]** About what year was your heat pump installed?
5. Installed at the same time as the new smart thermostat(s)
  6. Installed previously, in the year: **[RECORD RESPONSE: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- G12. **[ASK IF E2 = 1 AND QTY=1]** What type of thermostat did you replace with the smart thermostat?  
**[SELECT ONE] [OR IF E2 = 1, 2, 3 AND QTY>1]** What type of thermostats did you replace with the smart thermostats? **[SELECT UP TO 2 IF QTY=2, SELECT UP TO 3 IF QTY=3]**
1. My new smart thermostat(s) are installed in a newly-constructed home
  2. My new smart thermostat(s) replaced other smart thermostats (may also be called "learning" thermostats)
  3. Replaced a programmable thermostat (a thermostat that can be programmed, but is not "smart" or connected to communication devices)
  4. Replaced a traditional/manual thermostat
  98. Don't Know
  99. (Skipped)
- G13. **[IF G12 ≠ 1]** Which option best represents how you most often used or interacted with your OLD thermostat(s)? **[RECORD ONE RESPONSE]**
1. Kept thermostat(s) set at a constant temperature throughout each season
  2. **[OPTION APPEARS IF G12 = 2 OR 3]** Relied on the programmed schedule of temperatures, and never manually changed the temperature
  3. **[OPTION APPEARS IF G12 = 2 OR 3]** Relied on the programmed schedule of temperatures, but sometimes manually changed the temperature
  4. Manually adjusted temperature using a regular schedule by changing the temperature for different times of the day or week
  5. Manually adjusted temperature using no regular schedule
  6. Some other way **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

- G14. [IF G12 ≠ 1] Why did you replace your old thermostat(s)? [RANDOMIZE ORDER, MARK ALL THAT APPLY]
1. To save energy
  2. To save money on my utility bills
  3. The Ameren Missouri rebate
  4. Other rebates or coupons (not from Ameren Missouri)
  5. Part of a “package deal” with other equipment being replaced at the same time
  6. To update my home with the latest technology
  7. To take advantage of the features of the smart thermostat
  8. Old thermostat was broken or malfunctioning
  9. Some other reason [SPECIFY: \_\_\_\_\_]
  98. Don't Know
  99. (Skipped)

## Smart Thermostat Usage

**ASK THIS SECTION OF PARTICIPANTS WHO HAVE INSTALLED SMART THERMOSTATS.**

- H1. How easy is the smart thermostat to use?
2. Very easy
  3. Somewhat easy
  4. Not too easy
  5. Not at all easy
  98. Don't Know
  99. (Skipped)
- H2. Is the function on your smart thermostat that senses when you are home or away working? (This function is also called "geofencing" or "occupancy sensing")?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- H3. Is your smart thermostat connected to the internet?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)

- H4. What features of your smart thermostat do you like best? [**RANDOMIZE ORDER, MARK ALL THAT APPLY**]
1. Thermostat design / aesthetics
  2. Thermostat ease of use
  3. Automatically programs itself / automatically adjusts the temperature when you're away
  4. Gives me detailed information about my energy use
  5. Dehumidifying capabilities (When thermostat uses HVAC system to lower indoor humidity level)
  6. Maintenance reminders
  7. Mobile app
  8. Remote monitoring of household temperature and thermostat settings
  9. Ability to check local weather from thermostat and smartphone/tablet app
  10. Integration with other connected devices (Alexa, Echo, IFTTT)
  11. Other features [**PLEASE SPECIFY \_\_\_\_\_**]
  12. None of the above
  98. Don't Know
  99. (Skipped)
- H5. In what ways have you ever accessed your thermostat since it was first installed, to do things such as changing your temperature settings or schedules? [**MARK ALL THAT APPLY**]
1. The thermostat itself
  2. Website on a PC or laptop
  3. Smartphone or tablet app
  4. I have not accessed my thermostat since it was installed
  98. Don't Know
  99. (Skipped)
- H6. In the past 30 days, how have you most often accessed your new thermostat? [**SELECT ONE**]
1. The thermostat itself
  2. Website on a PC or laptop
  3. Smartphone or tablet app
  4. I have not accessed my thermostat in the past month
  98. Don't Know
  99. (Skipped)

- H7. How do you currently use your thermostat's interactive capabilities? **[RANDOMIZE ORDER, CHECK ALL THAT APPLY]**
1. Check how much energy I have used
  2. Adjust the temperature while at home
  3. Adjust the temperature while away from home
  4. Modify my thermostat schedule while at home
  5. Modify my thermostat schedule while away from home
  6. Check inside or outside temperature
  7. Just checked it out to see what it has to offer
  8. Have not used interactive capabilities
  9. Other, **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- H8. Did you or someone in your household set up and program the thermostat, or did a contractor set it up for you?
1. I or someone in my household set up/programmed it
  2. Contractor set up/programmed it
  3. No one set up or programmed the thermostat
  98. Don't Know
  99. (Skipped)
- H9. **[ASK IF H8 = 1]** How easy was it to set up and program your smart thermostat? Would you say it was...?
1. Very easy
  2. Somewhat easy
  3. Not too easy
  4. Not at all easy
  98. Don't Know
  99. (Skipped)
- H10. How is your smart thermostat currently controlled? **[SELECT ONE]**
1. I keep it at a constant temperature throughout the season
  2. I rely on the programmed schedule of temperatures, and never manually change the temperature
  3. I rely on the programmed schedule of temperatures, but sometimes manually change the temperature
  4. I manually adjust the temperature using a regular schedule by changing the temperature for different times of the day or week
  5. I manually adjust the temperature using no regular schedule
  6. Some other way **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

## Free Ridership for Smart Thermostats

**ASK THIS SECTION OF PARTICIPANTS WHO HAVE INSTALLED SMART THERMOSTATS.**

11. **[ASK IF ONLINE=0]** Did you first find out about the Ameren Missouri rebate before or after you purchased your new thermostat? **[FORCED RESPONSE – NO SKIP]**
  1. Learned of rebate before purchase
  2. Learned of rebate after purchase
  98. Don't Know
  
12. **[ASK IF I1=2]** Please confirm: You purchased your new smart thermostat and *then* found out it qualified for a rebate from Ameren Missouri afterwards, is that correct? **[FORCED RESPONSE – NO SKIP]**
  1. Yes, that is correct **[SKIP TO D.I8]**
  2. No, that is not correct
  98. Don't Know
  
13. Before you knew about the rebate from Ameren Missouri, were you already planning to install a smart thermostat this year? **[FORCED RESPONSE – NO SKIP]**
  1. Yes
  2. No
  - 98. Don't Know
  
14. Without Ameren Missouri's rebate, would you have installed a smart thermostat ...? **[FORCED RESPONSE – NO SKIP]**
  1. Around the same time
  2. Later in the same year
  3. In one or two years
  4. After more than three years
  98. Don't Know
  
15. **[ASK IF I3 = 1, 2, 98, 99]** Would you have installed the same smart thermostat without the rebate from Ameren Missouri? **[FORCED RESPONSE – NO SKIP]**
  1. Yes
  2. No
  98. Don't Know
  
16. **[ASK IF I5 = 2, 98, 99]** Would you have installed a different thermostat without the Ameren Missouri rebate or would you have decided not to purchase one at all)? **[FORCED RESPONSE – NO SKIP]**
  1. I would have installed a different thermostat
  2. I would have decided not to purchase new thermostats(s) at all
  98. Don't Know
  
17. **[ASK IF I6 = 1]** When you say you would have installed a thermostat without the rebate from Ameren Missouri, would you have installed...? **[FORCED RESPONSE – NO SKIP]**

1. A smart thermostat (also called a “learning” thermostat)
  2. A programmable thermostat (a thermostat that can be programmed, but is not “smart” or connected to communication devices)
  3. A traditional/manual thermostat
  4. Would not have installed a new thermostat
  98. Don’t Know
- I8. How important was the Ameren Missouri rebate on your decision to purchase and install the smart thermostat? [**FORCED RESPONSE – NO SKIP**]
1. Very important
  2. Somewhat important
  3. Not very important
  4. Not at all important
  98. Don’t Know
- I9. [**ASK IF B2=3 OR B6=2**] How important was the advice from the contractor in your decision to purchase and install the smart thermostat? Would you say... [**FORCED RESPONSE – NO SKIP**]
1. Very important
  2. Somewhat important
  3. Not very important
  4. Not at all important
  98. Don’t Know

## *Satisfaction with Ameren Missouri*

- J1. Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?
1. Very satisfied
  2. Somewhat satisfied
  3. Not too satisfied
  4. Not satisfied at all
  98. Don’t Know
  99. (Skipped)

- J2. **[ASK IF J1 = 1, 2, 3 or 4]** Why are you “[**RATING FROM J1**]” with Ameren Missouri as your utility? Please give us further details on what you like or dislike about Ameren Missouri (check all that apply). **[ALLOW MULTIPLE RESPONSE; show all response options if P=2 or 3, show response options 1-4 & 9, 98 if P=1, show response options 5-9 & 98 if P=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON'T KNOW]**
1. Satisfied with reliable and dependable service (outages are rare/brief)
  2. Satisfied with Ameren Missouri’s Efficient Products rebate program
  3. Satisfied with customer service / interactions with Ameren Missouri staff
  4. Satisfied with utility rates
  5. Dissatisfied with utility rates or rate increases
  6. Dissatisfied with the reliability of service (outages)
  7. Dissatisfied with lack of choice in utility providers
  8. Dissatisfied with customer service / interactions with Ameren Missouri staff
  9. Other reasons or comments, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don’t know **[EXCLUSIVE RESPONSE]**
  99. (Skipped)
- J3. Based on your experience with the Efficient Products rebate program, would you say your satisfaction with Ameren Missouri has:
1. Increased
  2. Stayed about the same, or
  3. Decreased
  98. Don’t know
  99. (Skipped)

## Customer Demographics

We are almost finished! There are just a few final questions about your home that will help us with our analysis.

- K1. Is the energy used in your home . . .
1. All electric,
  2. Natural gas and electric,
  3. Or some other combination of energy sources?
  98. Don’t Know
  99. (Skipped)
- K2. Which of the following best describes your home or residence? **[SELECT ONE RESPONSE]**
1. Single-family home (not a duplex, townhome, or apartment)
  2. Manufactured or modular home
  3. Mobile home
  4. Row house or townhome
  5. Two or three family attached residence
  6. Apartment with four or more units
  7. Condominium



- 8. Other
  - a. Please specify: [SPECIFY: \_\_\_\_\_]

98. Don't Know

99. (Skipped)

K3. Do you own or rent this residence?

1. Own

2. Rent

98. Don't know

99. (Skipped)

K4. Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider "lived in".

- 1. Less than 1,000 square feet
- 2. 1,000 to less than 1,500 square feet
- 3. 1,500 to less than 2,000 square feet
- 4. 2,000 to less than 2,500 square feet
- 5. 2,500 to less than 3,000 square feet
- 6. 3,000 or more square feet

98. Don't Know

99. (Skipped)

K5. When was your home built?

1. After 2008

2. 2005-2008

3. 2001-2004

4. 1980-2000

5. Before 1980

98. Don't Know

99. (Skipped)

K6. Counting yourself, how many people normally live in your household on a full-time basis? Please include everyone who lives in your home, whether or not they are related to you, and exclude anyone just visiting or children who may be away at college or in the military.

1. Please enter a number: [RECORD NUMERIC RESPONSE: \_\_\_\_\_]

2. I prefer not to answer this question

99. (SKIPPED)

## CLOSING

This completes the survey. We appreciate your participation and thank you for your time.

## Ameren Missouri 2017 Efficient Products Follow-up Online Survey

Researchable Questions	Survey Question Mapping
How satisfied were participants with the process, products and program?	Section 0
Has the program influenced participants to install additional measures on their own? (Spillover)	Section 0
What is the installation rate for each measure (six months after participation)?	Section 0 (all measures except thermostats), Section 0(thermostats)
How are participants using their smart thermostats (six months after participation)?	Section 0
How satisfied are participants with their utility?	Section 0
Participant Demographics	Section 0

**Red text = programming instructions (not visible to respondents)**

**[MEASURETYPE] = measure to be surveyed, imported from panel data**

**[MEASURENAME] = long name of measure, imported from panel data**

**[QTY] = quantity installed of survey measure, imported from panel data**

**[THERMOSTAT BRAND] = make/model of rebated thermostat, imported from panel data**

**[ONLINE] = flag for smart thermostats purchased through the Ameren Missouri online store (1=purchased at online store, 0=submitted a regular rebate application)**

(Skipped) responses are not visible (99 = code for nothing selected / skipped question)

Measure names and types to be surveyed (import data from panel file – **[MEASURETYPE]** will be replaced with the text in parentheses):

- Smart thermostat (smart thermostat)
- Heat pump water heater (water heater)
- ENERGY STAR room air conditioner (room air conditioner)
- ENERGY STAR room air purifier (room air purifier)
- Pool pump (pool pump) – *for both multiple speed and variable speed*

## Verification and Program Awareness

- A1. **[WORDING IF ONLINE=0]** Thank you for participating in Ameren Missouri’s Efficient Products rebate program. We would like to know more about your experience with the program. Our records indicate that you received a rebate for purchasing **[MEASURENAME]**(s). Is this correct? **[WORDING IF ONLINE=1]** Thank you for participating in Ameren Missouri’s Efficient Products rebate program. We would like to know more about your experience with the program. Our records indicate that you received an instant rebate (discounted price) when you purchased smart thermostat(s) from the Ameren Missouri Online Store. Is this correct?  
**[FORCED RESPONSE (NO SKIP)]**
1. Yes
  2. No
  99. Don’t Know **[TERMINATE]**
- A2. **[ASK IF A1=2]** Why did you not receive a rebate?
1. I did not participate in the Ameren Missouri Efficient Products rebate program **[TERMINATE]**
  2. I participated in the Ameren Missouri Efficient Products rebate program, but my rebate has not arrived yet **[TERMINATE]**
  3. **[SHOW RESPONSE IF ONLINE=1]** I did not receive a rebate, I received a discounted price when I purchased smart thermostat(s) through the Ameren Missouri Online Store.
  4. Some other reason, please specify: **[SPECIFY: \_\_\_\_\_]** **[TERMINATE]**
  98. Don’t Know **[TERMINATE]**
  99. (Skipped) **[TERMINATE]**
- A3. Are you or any members of your household employed by Ameren Missouri? **[FORCED RESPONSE (NO SKIP OR DK)]**
1. Yes, I or someone in my household works for Ameren Missouri **[TERMINATE]**
  2. No one in my household works for Ameren Missouri

## Participant Satisfaction

- B1. How satisfied are you with the performance of your new **[MEASURETYPE]**?
1. Very satisfied
  2. Somewhat satisfied
  3. Not too satisfied
  4. Not satisfied at all
  98. Don’t Know
  99. (Skipped)

B2. **[ASK IF B1= 1, 2, 3 or 4]** Why are you “[**RATING FROM B1**]” with your new [**MEASURETYPE**](s)? Please give us further details on what you like or dislike about the performance of your new [**MEASURETYPE**](s) (check all that apply). **[ALLOW MULTIPLE RESPONSES; SHOW ALL RESPONSE OPTIONS IF B1=2 OR 3, SHOW RESPONSE OPTIONS 1-6 & 13, 98 IF B1=1, SHOW RESPONSES OPTIONS 7-13 & 98 IF B1=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON'T KNOW]**

1. Satisfied with energy/cost savings experienced after installation
2. Satisfied with overall operation and performance of the equipment
3. Satisfied with the price of the equipment including the rebate
4. Satisfied with features of the new equipment
5. Quiet operation of the equipment
6. My home is more comfortable with this equipment installed
7. Noisy operation of the equipment
8. Did not notice energy/cost savings after installation
9. Poor performance of equipment
10. Features did not perform as expected
11. Difficulty with installation
12. High cost of equipment
13. Other reasons or comments, please specify **[SPECIFY: \_\_\_\_\_]**
98. Don't Know
99. (Skipped)

B3. Thinking about your overall satisfaction with Ameren Missouri's Efficient Products rebate program, would you say you are:

1. Very satisfied
2. Somewhat satisfied
3. Not too satisfied
4. Not satisfied at all
98. Don't Know
99. (Skipped)

- B4. **[ASK IF B3 = 3 or 4]** Why are you “[**RATING FROM B3**]” with Ameren Missouri’s Efficient Products rebate program? Please give us further details on what you like or dislike about this rebate program (check all that apply). **[ALLOW MULTIPLE RESONSES; SHOW ALL RESPONSE OPTIONS IF B3= 2 OR 3, SHOW RESPONSE OPTIONS 1-5 & 12, 98 IF B3= 2, SHOW RESPONSE OPTIONS 6-11 & 98 IF B3= 4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW]**
1. **[WORDING FOR ONLINE=0]** Satisfied with the amount of the rebate **[WORDING FOR ONLINE=1]** Satisfied with the amount of the instant rebate (discounted price)
  2. Participating in this rebate program was convenient/easy
  3. Satisfied with energy/cost savings experienced after installation
  4. Satisfied with the performance and operation of the equipment
  5. Satisfied with the contractor who did the installation
  6. **[WORDING FOR ONLINE=0]** Dissatisfied with the amount of the rebate **[WORDING FOR ONLINE=1]** Dissatisfied with the amount of the instant rebate (discounted price)
  7. Dissatisfied with communications about the rebate program
  8. Dissatisfied by the limits on equipment covered by the rebate program
  9. **[APPEARS IF ONLINE=0]** Dissatisfied with the rebate application process
  10. **[APPEARS IF ONLINE=0]** Dissatisfied with delays in rebate processing
  11. Dissatisfied with the contractor who did the installation
  12. Other reasons or comments, please specify **[SPECIFY: \_\_\_\_\_]**
    100. Don’t Know
    101. (Skipped)
- B5. Would you recommend Ameren Missouri’s Efficient Products program to friends or family members?
3. Yes
  4. No
    98. Don’t Know
  99. (Skipped)
- B6. What suggestions, if any, do you have for improving this program?  
Specify suggestions: **[RECORD: \_\_\_\_\_]**

## Spillover Questions

- C1. Since participating in the Efficient Products rebate program, have you added any other energy-efficient products in your home or had any other energy-related services performed that were not discounted through Ameren Missouri?
1. Yes
  2. No **[SKIP TO NEXT SECTION]**
  98. Don’t Know **[SKIP TO NEXT SECTION]**
  99. (Skipped) **[SKIP TO NEXT SECTION]**

C2. **[IF C1=1]** Please select the energy-efficient products or services that you purchased (and installed, if applicable) since your experience with Ameren Missouri's Efficient Products rebate program.

**[RANDOMIZE ORDER, CHECK ALL THAT APPLY]**

1. Home/building audit
2. Recycled a refrigerator
3. Recycled a freezer
4. Constructed an ENERGY STAR New Home
5. ENERGY STAR refrigerator
6. ENERGY STAR freezer
7. ENERGY STAR clothes washer
8. ENERGY STAR dishwasher
9. ENERGY STAR room air conditioner
- b. How many? **[SPECIFY: \_\_\_\_\_]**
10. ENERGY STAR room air purifier
  - A1a. How many? **[SPECIFY: \_\_\_\_\_]**
11. Variable speed pool pump
12. ENERGY STAR dehumidifier
13. Efficient water heater (other than heat pump water heater)
14. Efficient showerheads
  - c. How many of these are currently installed in your home? **[SPECIFY: \_\_\_\_\_]**
15. Efficient faucet aerators
  - d. How many of these are currently installed in your home? **[SPECIFY: \_\_\_\_\_]**
16. Efficient central air conditioner
17. Air source heat pump
18. Geothermal heat pump
19. Ductless heat pump
20. Dual-fuel heat pump
21. Efficient furnace fan
22. Heat pump water heater
23. Programmable (but not "smart") thermostat
24. Learning or "smart" thermostat
25. Insulation
26. Windows
27. Solar panels
28. Other items
  - e. Please specify: **[SPECIFY: \_\_\_\_\_]**
98. Don't Know **[SKIP TO NEXT SECTION]**
99. (Skipped)

**[PRESENT THIS MESSAGE IF 0=1 AND NOTHING SELECTED IN C2]**

You did not check any products or services for the last question.

If you did purchase and install any energy-efficient products or services, please use the back arrow below to return to that question and select one or more answers (select "other items" if you do not see your products or services on the list).

If you did NOT purchase and install any energy-efficient products or services, please use the forward arrow below to continue the survey.

C3. **[Ask if C2=1]** What kind of changes did you make to your home as a result of the audit?

1. **[RECORD RESPONSE: \_\_\_\_\_]**

99. (Skipped)

98.

C4. **[Ask if C2=23 or 24]** Did you install your new **[INSERT RESPONSE from C2]** when you installed your **[MeasureType]**?

1. Yes

2. No

98. Don't Know

99. (Skipped)

98.

C5. **[Ask if C2=23 or 24]** What kind of thermostat did you replace with the **[“programmable thermostat” or “smart thermostat” from C2]**?

1. **[IF C2=24 “ANOTHER”]** Smart thermostat

2. **[IF C2=23 “ANOTHER”]** Programmable (but not “smart”) thermostat

3. Manual thermostat

98. Don't Know

99. (Skipped)

- C6. **[Ask if C2=13, 14, 15, 16, 17, 18, 19, 20, 22, 25, 26 – ask for each]** How do you know that the **[C2 RESPONSE]** is energy efficient? **[ALLOW MULTIPLE RESPONSE]**
1. Efficiency rating **[RECORD NUMERIC RESPONSE: \_\_\_\_\_]**
    - If C2=13 then display 'Energy Factor (EF) rating'**
    - If C2=14 or 15 then display 'Gallons per minute (GPM)'**
      - If C2=16 or 19 then display 'Seasonal Energy Efficiency Ratio (SEER)'**
      - If C2=17 then display 'Heat Season Performance Factor (HSPF)'**
      - If C2=18 then display 'Energy Efficiency Ratio (EER)'**
      - If C2=19 then display 'Heat Season Performance Factor (HSPF)'**
      - If C2=20 then display 'Energy Efficiency Ratio (EER)' and 'Coefficient of Performance (COP)'**
        - If C2=22 then display 'Energy Factor (EF) rating'**
        - If C2=25 then display 'R-Value (thermal resistance)'**
    - If C2=26 then display 'U-Factor'**
  2. Other **[RECORD RESPONSE: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
  - 99.
- C7. **[ASK if C2 = 25]** How many square feet of insulation did you have installed?
1. **[RECORD NUMERIC RESPONSE: \_\_\_\_\_]**
  99. (Skipped)
  - 98.
- C8. **[ASK if C2 = 26]** How many square feet of windows did you have installed?
1. **[RECORD NUMERIC RESPONSE: \_\_\_\_\_]**
  99. (Skipped)
  - 98.
- C9. **[ASK if C2 = 25]** In what location in your home was the insulation installed?
1. **[RECORD RESPONSE: \_\_\_\_\_]**
  99. (Skipped)
- C10. **[ASK if C2 = 26]** In what location in your home were the windows installed?
1. **[RECORD RESPONSE: \_\_\_\_\_]**
  99. (Skipped)



98.

C11. **[ASK ONCE FOR EACH ITEM CHECKED IN C2]** Why did you choose to purchase or install the items listed below? **[INSERT TABLE OF CHECKED RESPONSES FROM C2]**

1. **[RECORD RESPONSE]:** \_\_\_\_\_

99. (Skipped)

C12. Did you receive a rebate, discount, or tax credit for any of the items listed below? **(If yes, check all that apply.) [INSERT TABLE OF CHECKED RESPONSES FROM C2 – ALLOW MULTIPLE RESPONSE]**

1. Yes, from Ameren Missouri
2. Yes, from another organization

3. No

98. Don't Know

99. (Skipped)

98.

C13. **[ASK FOR EACH ITEM WHERE C12 = 2]** What organizations besides Ameren Missouri paid the rebates, or provided discounts or tax credits for the items listed below? **[INSERT TABLE OF CHECKED RESPONSES FROM C2]**

1. **[RECORD RESPONSE:** \_\_\_\_\_ ]

99. (Skipped)

98.

C14. **[FOR MEASURES for which Ameren provides incentives (9, 10, 11, 16, 17, 18, 19, 20, 21, 22, 24), ASK FOR EACH ITEM WHERE C12= 2 or 3]** Why didn't you apply for a rebate from Ameren Missouri for the purchase of your **[C2 RESPONSE]**?

1. **[RECORD RESPONSE]:** \_\_\_\_\_

99. (Skipped)

98.

C15. How important was your rebate in the Ameren Missouri program on your decision to purchase or install the **[C2 RESPONSE]**? **[INSERT TABLE OF CHECKED RESPONSES FROM C2]**

1. Not at all important
2. Not too important
3. Somewhat important
4. Very important

98. Don't Know

99. (Skipped)

99.

C16. **[ASK FOR EACH CHECKED ITEM FROM C2]** Prior to purchasing or installing the items listed below, had you heard or read about the benefits of installing this equipment from your contractor, Ameren Missouri, or Ameren Missouri’s Act on Energy campaign?

	Yes (1)	No (2)	Don’t know (98)
<b>[INSERT 1<sup>st</sup> CHECKED RESPONSE FROM C2]</b>			
<b>[INSERT 2<sup>nd</sup> CHECKED RESPONSE FROM C2]</b>			
<b>[INSERT 3<sup>rd</sup> CHECKED RESPONSE FROM C2]</b>			
<b>[INSERT 4<sup>th</sup> CHECKED RESPONSE FROM C2]</b>			

C17. **[ASK FOR EACH YES RESPONSE IN C16]** How important was the information the contractor or Ameren Missouri provided about the energy efficiency or money saving benefits of your decision to purchase or install the items listed below? **[INSERT TABLE OF ALL “YES” RESPONSES FROM C16]**

1. Not at all important
2. Not too important
3. Somewhat important
4. Very important
98. Don’t Know
99. (Skipped)

## Measure Installation (Except for Thermostats)

### **ASK THIS SECTION OF PARTICIPANTS WHO HAVE INSTALLED MEASURES OTHER THAN SMART THERMOSTATS**

Next, we have a few questions about the **[MEASURETYPE]**(s) that you purchased. The answers to these questions are important because they will help Ameren Missouri determine how much energy is being saved as a direct result of their energy efficiency program.

D1. **[IF QTY=1]** Is the **[MEASURETYPE]** currently installed? **[IF QTY =2]** Are both of the **[MEASURETYPE]**s currently installed? **[IF QTY >=3]** Are all of the **[MEASURETYPE]**s currently installed?

1. Yes **[SKIP TO D6]**
2. No
98. Don’t Know **[SKIP TO D6]**
99. (Skipped) **[SKIP TO D6]**

- D2. **[ASK IF QTY >1 AND D1 =2]** How many of your new **[MEASURETYPE]**s are currently installed?
1. None
  2. One
  3. **[IF QTY=3]:** Two
    98. Don't Know
    99. (Skipped)
- D3. **[ASK IF QTY =1 AND D1 =2]** Why isn't the **[MEASURETYPE]** currently installed? **[ASK IF QTY =2 AND D1 =2]** Why aren't both of the **[MEASURETYPE]**s currently installed? **[ASK IF QTY >=3 AND D1 =2]** Why aren't all of the **[MEASURETYPE]**s currently installed? **[RANDOMIZE ORDER, ALLOW UP TO 3 RESPONSES]**
1. **[MEASURETYPE]** failed or is broken
  2. **[IF MEASURETYPE IS NOT "WATER HEATER"]:** I plan to install the **[MEASURETYPE]** during the appropriate season
  3. We installed the **[MEASURETYPE]** at one time, but then removed it
  4. Have not had time to install **[MEASURETYPE]** yet
  5. **[MEASURETYPE]** is in storage
  6. **[MEASURETYPE]** is back up equipment to install when other equipment fails
  7. Some other reason  
Please specify **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- D4. **[ASK IF D3 =3]** Why did you remove the **[MEASURETYPE]**?
1. **[RECORD RESPONSE: \_\_\_\_\_]**
  99. (Skipped)
- D5. **[ASK IF MEASURETYPE ="ROOM AC" AND D1 =2 AND D3<>3, 4]** Was the room air conditioner you purchased installed at any point this summer?
1. Yes
  2. No
    98. Don't Know
    99. (Skipped)
- D6. **[ASK IF MEASURETYPE ="ROOM AC" AND (D1 =1 OR D2=2, 3) OR D5=1]** Where were the air conditioners that you purchased installed? **[CHECK UP TO QTY OF RESPONSES]**
1. My primary residence
  2. A vacation property or part-year residence
  3. Property that I own but rent to someone else
  4. Someone else's residence (such as a relative)
  5. Some other situation, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

- D7. **[ASK IF MEASURETYPE ="ROOM AC" AND D6 = 2, 3, 4 OR 5]** Is Ameren Missouri the electricity provider for the property where your room air conditioner(s) were installed?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- D8. **[ASK IF MEASURETYPE ≠"ROOM AC" AND (D1 =1 OR D2=2,3)]** Where were the **[MEASURETYPE](s)** that you purchased installed?
1. My primary residence
  2. A vacation property or part-year residence
  3. Property that I own but rent to someone else
  4. Someone else's residence (such as a relative)
  5. Some other situation, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- D9. **[ASK IF MEASURETYPE ≠"ROOM AC" AND D8 DISPLAYED AND D8≠1]** Is Ameren Missouri the electricity provider for the property where your **[MEASURETYPE](s)** were installed?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)

## Smart Thermostat Installation

**ASK THIS SECTION IF MEASURETYPE = "SMART THERMOSTAT".**

Next, we have a few questions about the Smart Thermostat(s) that you purchased and installed. The answers to these questions are important because they will help Ameren Missouri determine how much energy is being saved as a direct result of their energy efficiency program.

- E1. **[ASK IF ONLINE=0] [IF QTY=1]** Our records indicate that you purchased a **[THERMOSTAT BRAND]** "smart" thermostat, is this correct? **[IF QTY > 1]** Our records indicate that you purchased **[QTY]** **[THERMOSTAT BRAND]** "smart" thermostats, is this correct?
1. Yes
  2. No
  - E1a. What kind of thermostat(s) did you purchase? **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

- E2. **[IF QTY=1]** Is the smart thermostat currently installed in your home? **[IF QTY>1]** Are all of the smart thermostats that you purchased currently installed in your home?
1. Yes
  2. **[INCLUDE OPTION IF QTY> 1]** Only one is installed
  3. **[INCLUDE OPTION IF QTY> 2]** Only two are installed
  4. **[IF QTY=1]** No **[IF QTY>1]** None are installed
  98. Don't Know
  99. (Skipped)
- E3. **[ASK IF E2 = 4 AND QTY =1]** Was the smart thermostat . . . ? **[OR ASK IF E2 = 3 AND QTY =3 OR IF E2 = 2 AND QTY =2]** Was your smart thermostat that is not currently installed . . . ? **[ASK IF E2 = 4 AND QTY >1 OR IF E2 = 2 AND QTY =3]** Were any of these smart thermostats installed and then removed, or have some of them not been installed yet?
1. **[IF QTY=1 OR IF E2 = 3 AND QTY =3 OR IF E2 = 2 AND QTY =2:** Installed and removed **[IF E2 = 4 AND QTY >1 OR IF E2 = 2 AND QTY =3:** Installed and then removed all (other) thermostats
  2. **[INCLUDE OPTION IF E2 = 4 AND QTY> 1:** Installed and removed one thermostat, the rest have not been installed yet
  3. **[INCLUDE OPTION IF E2 = 2 AND QTY =3:** Installed and removed two thermostats, the other has not been installed yet
  4. **[IF QTY=1 OR IF E2 = 3 AND QTY =3 OR IF E2 = 2 AND QTY =2:** Not installed yet **[IF E2 = 4 AND QTY >1 OR IF E2 = 2 AND QTY =3:** None have been installed yet
  5. Given to someone else / installed at another property
  98. Don't Know
  99. (Skipped)
- E4. **[ASK IF E3= 1, 2, 3]** Why did you install and then remove the smart thermostat(s)? **[RANDOMIZE RESPONSE ORDER, MARK ALL THAT APPLY]**
1. Too difficult to use
  2. Did not adjust temperatures correctly
  3. Thermostat broke
  4. Did not think it was saving energy
  5. I preferred my previous thermostat(s)
  6. Other (please specify) **[RECORD RESPONSE \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)

- E5. **[ASK IF E3 = 4 AND QTY=1]** Why has the smart thermostat not been installed in your home yet?  
**[OR IF E3 = 4 AND QTY>1, OR E3 = 2,3]** Why have your smart thermostats not all been installed in your home yet?
1. Haven't had time
  2. Don't know how to install it
  3. Installed in someone else's home / a different property
  4. Other reason (please specify), **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- E6. **[ASK IF E2=1,2,3 OR E3 DISPLAYED AND E3≠4]** Where did you install the smart thermostat(s) that you purchased?
1. My primary residence
  2. A vacation property or part-year residence
  3. Property that I own but rent to someone else
  4. Someone else's residence (such as a relative)
  5. Some other situation, please specify: **[SPECIFY: \_\_\_\_\_]**
  98. Don't Know
  99. (Skipped)
- E7. **[ASK IF E6 DISPLAYED AND E6≠1 OR IF E5=3]** Is Ameren Missouri the electricity provider for this property?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)

## Smart Thermostat Usage

### **ASK THIS SECTION OF PARTICIPANTS WHO HAVE INSTALLED SMART THERMOSTATS.**

- F1. How easy is the smart thermostat to use?
1. Very easy
  2. Somewhat easy
  3. Not too easy
  4. Not at all easy
  98. Don't Know
  99. (Skipped)
- F2. Is the function on your smart thermostat that senses when you are home or away working? (This function is also called "geofencing" or "occupancy sensing")?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)

- F3. Is your smart thermostat connected to the internet?
1. Yes
  2. No
  98. Don't Know
  99. (Skipped)
- F4. What features of your smart thermostat do you like best? [**RANDOMIZE ORDER, MARK ALL THAT APPLY**]
1. Thermostat design / aesthetics
  2. Thermostat ease of use
  3. Automatically programs itself / automatically adjusts the temperature when you're away
  4. Gives me detailed information about my energy use
  5. Dehumidifying capabilities (When thermostat uses HVAC system to lower indoor humidity level)
  6. Maintenance reminders
  7. Mobile app
  8. Remote monitoring of household temperature and thermostat settings
  9. Ability to check local weather from thermostat and smartphone/tablet app
  10. Integration with other connected devices (Alexa, Echo, IFTTT)
  11. Other features [**PLEASE SPECIFY \_\_\_\_\_**]
  12. None of the above
  98. Don't Know
  99. (Skipped)
- F5. In what ways have you ever accessed your thermostat since it was first installed, to do things such as changing your temperature settings or schedules? [**MARK ALL THAT APPLY**]
1. The thermostat itself
  2. Website on a PC or laptop
  3. Smartphone or tablet app
  4. I have not accessed my thermostat since it was installed
  98. Don't Know
  99. (Skipped)
- F6. In the past 30 days, how have you most often accessed your new thermostat? [**SELECT ONE**]
1. The thermostat itself
  2. Website on a PC or laptop
  3. Smartphone or tablet app
  4. I have not accessed my thermostat in the past month
  98. Don't Know
  99. (Skipped)

- F7. How do you currently use your thermostat's interactive capabilities? [**RANDOMIZE ORDER, CHECK ALL THAT APPLY**]
1. Check how much energy I have used
  2. Adjust the temperature while at home
  3. Adjust the temperature while away from home
  4. Modify my thermostat schedule while at home
  5. Modify my thermostat schedule while away from home
  6. Check inside or outside temperature
  7. Just checked it out to see what it has to offer
  8. Have not used interactive capabilities
  9. Other, [**SPECIFY: \_\_\_\_\_**]
  98. Don't Know
  99. (Skipped)
- F8. How is your smart thermostat currently controlled? [**SELECT ONE**]
1. I keep it at a constant temperature throughout the season
  2. I rely on the programmed schedule of temperatures, and never manually change the temperature
  3. I rely on the programmed schedule of temperatures, but sometimes manually change the temperature
  4. I manually adjust the temperature using a regular schedule by changing the temperature for different times of the day or week
  5. I manually adjust the temperature using no regular schedule
  6. Some other way [**SPECIFY: \_\_\_\_\_**]
  98. Don't Know
  99. (Skipped)

## Satisfaction with Ameren Missouri

- G1. Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?
1. Very satisfied
  2. Somewhat satisfied
  3. Not too satisfied
  4. Not satisfied at all
98. Don't Know  
99. (Skipped)
- G2. [**ASK IF G1= 1, 2, 3 OR 4**] Why are you [**RATING FROM G1**] with Ameren Missouri as your utility? Please give us further details on what you like or dislike about Ameren Missouri (check all that apply). [**ALLOW MULTIPLE RESPONSE; show all response options if G1=2 or 3, show response**]



options 1-4 & 9, 98 if G1=1, show response options 5-9 & 98 if D=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON'T KNOW]

1. Satisfied with reliable and dependable service (outages are rare/brief)
2. Satisfied with Ameren Missouri's Efficient Products rebate program
3. Satisfied with customer service / interactions with Ameren Missouri staff
4. Satisfied with utility rates
5. Dissatisfied with utility rates or rate increases
6. Dissatisfied with the reliability of service (outages)
7. Dissatisfied with lack of choice in utility providers
8. Dissatisfied with customer service / interactions with Ameren Missouri staff
9. Other reasons or comments, please specify: [SPECIFY: \_\_\_\_\_]

98. Don't know [EXCLUSIVE RESPONSE]

99. (Skipped)

G3. Based on your experience with the Efficient Products rebate program, would you say your satisfaction with Ameren Missouri has:

1. Increased
2. Stayed about the same, or
3. Decreased

98. Don't know

99. (Skipped)

## Customer Demographics

H1. Is the energy used to heat your home . . .

1. All electric,
2. All natural gas,
3. Natural gas and electric,
4. Some other combination of energy sources?

98. Don't Know

99. (Skipped)

H2. Is your hot water heater electric or gas?

1. Electric
  2. Gas
98. Don't Know
99. (Skipped)

## CLOSING

This completes the survey. We appreciate your participation and thank you for your time.

Appendix F. Survey Responses Efficient Products 1

Appendix G. Survey Responses Efficient Products 2

Appendix H. Survey Responses Efficient Products  
Thermostats

Appendix I. Nonparticipant Spillover Survey  
Instrument

Appendix J. Nonparticipant Spillover Flowcharts

Appendix K. Nonparticipant Spillover Data

## Appendix F, G, H. Immediate Survey Responses

This appendix provides the responses to questions in the Efficient Products Immediate Survey. This survey was sent by email to PY17 participants approximately one month after receiving their rebates. In PY17, 2,209 respondents completed this survey.

The tables below provide the number of responses to answers to the survey questions. They also provide the percentage of the various responses, where the denominator is the total number of respondents who gave valid answers to the question. Respondents who replied “don’t know” are not included in the base of valid responses, except for awareness and freeridership questions.

We did not report initial screening questions that would have disqualified respondents from taking the survey, or open-ended responses.

### A. Verification and Program Awareness

**Table 1. Survey Question A4 Responses**

Prior to this survey, were you aware that the rebate you received after you purchased your new [MEASURETYPE](s) was provided by Ameren Missouri?												
Response	Pool Pumps (n=167)		RACs (n=153)		Air Purifiers (n=314)		Smart thermostats (n=1,328)		HPWHs (n=83)		Total (n=2,045)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	154	92%	129	84%	270	86%	1,254	94%	80	96%	1,887	92%
No	13	8%	24	16%	44	14%	74	6%	3	4%	158	8%
Don't Know	1		1		2		10		1		15	

Table 2. Survey Question A5 Responses

[WORDING IF NOT ONLINE STORE] How did you hear about Ameren Missouri's Efficient Products rebate program? (check all that apply) [WORDING IF ONLINE STORE] How did you hear about discounted smart thermostats for sale through the Ameren Missouri Online Store? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (n=168)		RACs (n=153)		Air Purifiers (n=316)		Smart thermostats (n=1,456)		HPWHs (n=84)		Total (n=2,177)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Ameren's Web site	22	13%	18	12%	36	11%	411	28%	30	36%	517	24%
Family, friend or co-worker	10	6%	3	2%	25	8%	428	29%	7	8%	473	22%
Signs or displays in a store	11	7%	42	27%	69	22%	250	17%	29	35%	401	18%
The rebate form was attached to the product when I bought it	12	7%	68	44%	152	48%	84	6%	3	4%	319	15%
On my Monthly Energy Statement	16	10%	15	10%	21	7%	153	11%	15	18%	220	10%
Store representative / salesperson	38	23%	19	12%	20	6%	95	7%	7	8%	179	8%
A brochure	25	15%	8	5%	27	9%	97	7%	13	15%	170	8%
From my contractor or installer	77	46%	0	0%	3	1%	39	3%	5	6%	124	6%
Other Web site (Which site?)	1	1%	8	5%	4	1%	107	7%	7	8%	127	6%
Ameren Missouri Home Energy Report	8	5%	5	3%	11	3%	92	6%	7	8%	123	6%
Email from Ameren Missouri	3	2%	3	2%	18	6%	76	5%	4	5%	104	5%
Social Media (Facebook, Twitter)	3	2%	0	0%	1	0.3%	50	3%	1	1%	55	3%
Television	3	2%	3	2%	6	2%	22	2%	2	2%	36	2%
Ameren Missouri representative	0	0%	1	1%	0	0%	9	1%	1	1%	11	1%
Radio	0	0%	1	1%	1	0.3%	10	1%	0	0%	12	1%
Newspaper	1	1%	3	2%	1	0.3%	3	0.2%	0	0%	8	0.4%
When my rebate check arrived	0	0%	0	0%	2	1%	2	0.2%	0	0%	4	0.2%
Door hanger	0	0%	0	0%	0	0%	2	0.2%	0	0%	2	0.1%
Some other way	7	4%	4	3%	5	2%	54	4%	7	8%	77	4%
Ameren Missouri Online Store	0	0%	0	0%	0	0%	13	1%	0	0%	13	1%
Don't Know	0		1		1		28		0		30	

B. Purchase Patterns and Decision-making

Table 3. Survey Question B1 Responses

What was the primary reason you purchased a new [MEASURETYPE]? [RANDOMIZE RESPONSE ORDER, SELECT ONE RESPONSE]												
Response	Pool Pumps (n=168)		RACs (n=154)		Air Purifiers (n=317)		Smart thermostats (n=1,448)		HPWHs (n=84)		Total (n=2,207)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
To save money on energy costs	53	32%	12	8%	6	2%	965	67%	25	30%	1,061	48%
To improve the comfort of my home	0	0%	53	34%	65	21%	177	12%	2	2%	297	13%
To replace aging equipment	48	29%	38	25%	8	3%	150	10%	30	36%	274	12%
To improve the health or safety of my home	0	0%	3	2%	201	63%	14	1%	0	0%	218	10%
To replace broken equipment	49	29%	32	21%	16	5%	52	4%	20	24%	169	8%
To help the environment	0	0%	1	1%	5	2%	37	3%	0	0%	43	2%
The purchase was part of a larger home renovation	7	4%	5	3%	1	0%	26	2%	1	1%	40	2%
The equipment is for a newly constructed home	5	3%	1	1%	0	0%	12	1%	5	6%	23	1%
Some other reason	6	4%	9	6%	15	5%	15	1%	1	1%	82	4%
Don't Know	0		0		0		1		0		1	

Table 4. Survey Question B2 Responses

[ASK IF NOT ONLINE STORE] Did you purchase the [MEASURETYPE](s) at a store, or from a contractor?												
Response	Pool Pumps (n=165)		RACs (n=153)		Air Purifiers (n=313)		Smart thermostats (n=1,315)		HPWHs (n=82)		Total (n=2,028)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Local retail store	54	33%	140	92%	247	79%	721	55%	69	84%	1,231	61%
Online store	39	24%	11	7%	57	18%	547	42%	9	11%	663	33%
Contractor	69	42%	1	1%	1	0%	23	2%	4	5%	98	5%
Other	3	2%	1	1%	8	3%	24	2%	0	0%	36	2%
Don't Know	0		0		1		2		0		3	

Table 5. Survey Question B3 Responses

At what point did you determine the exact model and brand you wanted to buy?												
STORE	Pool Pumps (n=53)		RACs (n=135)		Air Purifiers (n=243)		Smart thermostats (n=710)		HPWHs (n=67)		Total (n=1,208)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I knew which model I wanted before visiting the store	15	28%	51	38%	48	20%	564	79%	40	60%	718	59%
I decided at the store	38	72%	84	62%	195	80%	146	21%	27	40%	490	41%
Don't Know	1		2		1		10		2		16	
ONLINE STORE	Pool Pumps (n=38)		RACs (n=11)		Air Purifiers (n=56)		Smart thermostats (n=683)		HPWHs (n=9)		Total (n=797)	
I knew which model I wanted before visiting the store	19	50%	1	9%	8	14%	331	48%	1	11%	360	45%
I decided at the online store	19	50%	10	91%	48	86%	352	52%	8	89%	437	55%
Don't Know	1		0		1		11		0		13	
CONTRACTOR	Pool Pumps (n=65)		RACs (n=0)		Air Purifiers (n=1)		Smart thermostats (n=23)		HPWHs (n=4)		Total (n=93)	
I knew which model I wanted before calling a contractor	5	8%	0		1	100%	4	17%	3	75%	13	14%
I decided after the contractor provided me with options	60	92%	0		0	0%	19	83%	1	25%	80	86%
Don't Know	4		1		0		0		0		5	
TOTAL	Pool Pumps (n=156)		RACs (n=146)		Air Purifiers (n=300)		Smart thermostats (n=1,416)		HPWHs (n=80)		Total (n=2,098)	
I knew which model I wanted before	39	25%	52	36%	57	19%	899	63%	44	55%	1,091	52%
I decided at store / after options	117	75%	94	64%	243	81%	517	37%	36	45%	1,007	48%
Don't Know	6		3		2		21		2		34	

Table 6. Survey Question B4 Responses

Which factors were important in your decision to purchase the specific model and brand you selected? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (n=168)		RACs (n=152)		Air Purifiers (n=315)		Smart thermostats (n=1,478)		HPWHs (n=83)		Total (n=2,196)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
It qualified for an Ameren Missouri rebate	93	55%	64	42%	179	57%	838	57%	68	82%	1,242	57%
Cost savings on energy bills	113	67%	74	49%	65	21%	824	56%	64	77%	1,140	52%
It had specific features I was looking for	49	29%	64	42%	158	50%	782	53%	29	35%	1,082	49%
Price	30	18%	83	55%	153	49%	596	40%	25	30%	887	40%
Quality/reputation	45	27%	33	22%	106	34%	631	43%	30	36%	845	38%
Compatibility with other equipment I already own	49	29%	11	7%	7	2%	385	26%	5	6%	457	21%
A friend, neighbor, colleague or family member recommended it to me	6	4%	1	1%	19	6%	351	24%	8	10%	385	18%
Impact on the environment	30	18%	21	14%	42	13%	241	16%	21	25%	355	16%
It was available when I needed it	18	11%	57	38%	74	23%	166	11%	14	17%	329	15%
My contractor or installer recommended it to me	72	43%	0	0%	2	1%	31	2%	6	7%	111	5%
The Ameren Missouri instant rebate (discounted price)	0	0%	0	0%	0	0%	89	6%	0	0%	89	4%
The store representative recommended it to me	34	20%	5	3%	10	3%	16	1%	3	4%	68	3%
Other	2	1%	7	5%	14	4%	29	2%	2	2%	54	2%
Don't Know	0		2		2		2		1		7	



Table 7. Survey Question B5 Responses

[ASK IF MORE THAN ONE RESPONSE IS CHECKED IN B4] If you had to choose just one, which factor would you say was the most important in your decision to purchase the specific model and brand you selected? [ONLY SHOW RESPONSES CHECKED IN B4; SELECT ONE RESPONSE]												
Response	Pool Pumps (n=115)		RACs (n=103)		Air Purifiers (n=206)		Smart thermostats (n=1,096)		HPWHs (n=71)		Total (n=1,591)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
It qualified for an Ameren Missouri rebate	28	24%	8	8%	66	32%	261	24%	28	39%	391	25%
Cost savings on energy bills	43	37%	21	20%	10	5%	267	24%	31	44%	372	23%
It had specific features I was looking for	8	7%	18	17%	53	26%	218	20%	4	6%	301	19%
Quality/reputation	8	7%	7	7%	23	11%	112	10%	4	6%	154	10%
Price	2	2%	24	23%	30	15%	65	6%	0	0%	121	8%
Compatibility with other equipment I already own	1	1%	3	3%	0	0%	63	6%	0	0%	67	4%
A friend, neighbor, colleague or family member recommended it to me	0	0%	0	0%	2	1%	44	4%	0	0%	46	3%
The Ameren Missouri instant rebate (discounted price)	0	0%	0	0%	0	0%	32	3%	0	0%	32	2%
It was available when I needed it	0	0%	18	17%	10	5%	2	0%	1	1%	31	2%
My contractor or installer recommended it to me	17	15%	0	0%	0	0%	5	0%	2	3%	24	2%
Impact on the environment	1	1%	1	1%	4	2%	17	2%	1	1%	24	2%
The store representative recommended it to me	7	6%	0	0%	1	0%	1	0%	0	0%	9	1%
Other	0	0%	3	3%	7	3%	9	1%	0	0%	19	1%
Don't Know	0		0		3		5		0		8	

Table 8. Survey Question B6 Responses

[ASK IF MEASURETYPE IS NOT "AIR PURIFIER"] Did you or someone else in your household install the [MEASURETYPE], or did you have a contractor install it?												
	Pool Pumps (n=166)		RACs (n=152)		Air Purifiers (not asked)		Smart thermostats (n=1,476)		HPWHs (n=80)		Total (n=1,874)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I installed it myself OR someone else in the household installed it	32	19%	141	93%			1,281	87%	41	51%	1,495	80%
A contractor installed it	130	78%	9	6%			148	10%	34	43%	321	17%
Not installed yet	4	2%	2	1%			47	3%	5	6%	58	3%
Don't Know	2		1				1		2		6	

Table 9. Survey Question B7 Responses

[IF B6 = 1 AND MEASURETYPE = "SMART THERMOSTAT"] How easy was the smart thermostat to install? Would you say it was...?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,275)		HPWHs (not asked)		Total (n=1,275)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very easy							680	53%			680	53%
Somewhat easy							523	41%			523	41%
Not too easy							57	4%			57	4%
Not at all easy							15	1%			15	1%
Don't Know							6				6	

Table 10. Survey Question B8 and B9 Responses

<b>[ASK IF B2=1] Did a store representative or display inform you that the [MEASURETYPE] qualified for an Ameren Missouri Rebate? [OR ASK IF B2=2] Did the online store that you purchased your [MEASURETYPE] from inform you that this equipment qualified for an Ameren Missouri Rebate?</b>												
<b>STORE</b>	<b>Pool Pumps (n=53)</b>		<b>RACs (n=137)</b>		<b>Air Purifiers (n=235)</b>		<b>Smart thermostats (n=652)</b>		<b>HPWHs (n=62)</b>		<b>Total (n=1,139)</b>	
<b>Response</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>
Yes	52	98%	79	58%	139	59%	319	49%	38	61%	627	55%
No	1	2%	58	42%	96	41%	333	51%	24	39%	512	45%
Don't Know	1		3		12		67		7		90	
<b>ONLINE STORE</b>	<b>Pool Pumps (n=33)</b>		<b>RACs (n=10)</b>		<b>Air Purifiers (n=50)</b>		<b>Smart thermostats (n=484)</b>		<b>HPWHs (n=8)</b>		<b>Total (n=585)</b>	
Yes	6	18%	6	60%	15	30%	166	34%	3	38%	196	34%
No	27	82%	4	40%	35	70%	318	66%	5	63%	389	66%
Don't Know	6		1		7		62		1		77	
<b>[ASK IF B2=3 OR B6=2] Did your contractor inform you that the [MEASURETYPE] qualified for an Ameren Missouri Rebate?</b>												
<b>CONTRACTOR</b>	<b>Pool Pumps (n=126)</b>		<b>RACs (n=10)</b>		<b>Air Purifiers (n=1)</b>		<b>Smart thermostats (n=145)</b>		<b>HPWHs (n=31)</b>		<b>Total (n=313)</b>	
Yes	110	87%	1	10%	0	0%	47	32%	11	35%	169	54%
No	16	13%	9	90%	1	100%	98	68%	20	65%	144	46%
Don't Know	4		0		0		5		2		11	
<b>COMBINED RESULTS FOR B8 AND B9 ABOVE</b>												
<b>TOTAL</b>	<b>Pool Pumps (n=212)</b>		<b>RACs (n=157)</b>		<b>Air Purifiers (n=286)</b>		<b>Smart thermostats (n=1,281)</b>		<b>HPWHs (n=101)</b>		<b>Total (n=2,037)</b>	
Yes	168	79%	86	55%	154	54%	532	42%	52	51%	992	49%
No	44	21%	71	45%	132	46%	749	58%	49	49%	1045	51%
Don't Know	11		4		19		134		10		178	

C. Participation Process – Contractors

Table 11. Survey Question C1 Responses

[ASK IF B6=2] How did you select the contractor who installed your [MEASURETYPE]? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (n=130)		RACs (n=8)		Air Purifiers (not asked)		Smart thermostats (n=145)		HPWHs (n=34)		Total (n=317)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I have used this contractor before	65	50%	6	75%			81	56%	11	32%	163	51%
The contractor was referred to me by a family member, friend, or colleague	21	16%	2	25%			24	17%	4	12%	51	16%
The installation contractor was provided by the retailer who sold the equipment	31	24%	0	0%			5	3%	13	38%	49	15%
Through business owners in my neighborhood or network	5	4%	0	0%			5	3%	1	3%	11	3%
Angie's list, or similar consumer information source	2	2%	0	0%			7	5%	1	3%	10	3%
Online advertisement	2	2%	0	0%			2	1%	2	6%	6	2%
Ameren website	0	0%	0	0%			4	3%	0	0%	4	1%
I saw contractor's newspaper/TV/radio advertisement	2	2%	0	0%			1	1%	1	3%	4	1%
Yellow pages	0	0%	0	0%			1	1%	0	0%	1	0.3%
Better Business Bureau	1	1%	0	0%			0	0%	0	0%	1	0.3%
The contractor approached me about the program	0	0%	0	0%			0	0%	0	0%	0	0%
Some other way	8	6%	0	0%			22	15%	3	9%	33	10%
Don't Know	0		1				3		0		4	

Table 12. Survey Question C2 Responses

[ASK IF B2=3 OR B6=2] Please check any options listed below that your contractor discussed with you prior to installing your new [MEASURETYPE]. Please note, options listed below may or may not have been applicable to your situation. [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (n=126)		RACs (n=9)		Air Purifiers (not asked)		Smart thermostats (n=130)		HPWHs (n=32)		Total (n=297)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Rebates from Ameren Missouri for high efficiency equipment	92	73%	0	0%	0		32	25%	8	25%	132	44%
Contractor or manufacturer rebates	43	34%	0	0%	0		4	3%	0	0%	47	16%
Additional energy-efficient equipment or home improvements	18	14%	1	11%	0		26	20%	9	28%	54	18%
Energy saving tips	61	48%	2	22%	0		33	25%	10	31%	106	36%
Contractor did not discuss any of the above	21	17%	7	78%	0		75	58%	18	56%	121	41%
Don't know	2		1		1		16		1		21	

## D. Participant Satisfaction

**Table 13. Survey Question D1 Responses**

<b>[ASK IF B2=3 OR B6=2] How satisfied are you with the contractor you worked with?</b>												
	<b>Pool Pumps (n=131)</b>		<b>RACs (n=9)</b>		<b>Air Purifiers (n=0)</b>		<b>Smart thermostats (n=147)</b>		<b>HPWHs (n=34)</b>		<b>Total (n=321)</b>	
<b>Response</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>
Very satisfied	112	85%	8	89%	0		126	86%	23	68%	269	84%
Somewhat satisfied	15	11%	0	0%	0		16	11%	9	26%	40	12%
Not too satisfied	2	2%	0	0%	0		5	3%	2	6%	9	3%
Not satisfied at all	2	2%	1	11%	0		0	0%	0	0%	3	1%
Don't Know	0		1		1		3		0		5	

**Table 14. Survey Question D3 Responses**

<b>[ASK IF NOT ONLINE STORE] After you submitted the rebate application and documentation for the purchase of your [MEASURETYPE](s), how long did it take to receive the rebate check from Ameren Missouri?</b>												
	<b>Pool Pumps (n=159)</b>		<b>RACs (n=142)</b>		<b>Air Purifiers (n=297)</b>		<b>Smart thermostats (n=1,289)</b>		<b>HPWHs (n=78)</b>		<b>Total (n=1,965)</b>	
<b>Response</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>	<b>Count</b>	<b>Valid Percent</b>
Less than 4 weeks	81	51%	64	45%	160	54%	715	55%	51	65%	1,071	55%
Between 4 and 6 weeks	62	39%	55	39%	95	32%	407	32%	14	18%	633	32%
Between 6 and 8 weeks	10	6%	9	6%	21	7%	76	6%	10	13%	126	6%
Between 8 and 10 weeks	1	1%	3	2%	4	1%	22	2%	2	3%	32	2%
More than 10 weeks	4	3%	4	3%	4	1%	22	2%	1	1%	35	2%
Have not received the rebate yet	1	1%	7	5%	13	4%	47	4%	0	0%	68	3%
Don't Know	7		11		17		48		4		87	

Table 15. Survey Question D4 Responses

[ASK IF NOT ONLINE STORE] How satisfied are you with the time it took to receive your rebate in the mail?												
	Pool Pumps (n=166)		RACs (n=149)		Air Purifiers (n=302)		Smart thermostats (n=1,296)		HPWHs (n=84)		Total (n=1,997)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	138	83%	108	72%	249	82%	1,001	77%	65	77%	1,561	78%
Somewhat satisfied	21	13%	32	21%	43	14%	230	18%	16	19%	342	17%
Not too satisfied	5	3%	4	3%	7	2%	50	4%	3	4%	69	3%
Not satisfied at all	2	1%	5	3%	3	1%	15	1%	0	0%	25	1%
Don't Know	1		4		14		39		0		58	

Table 16. Survey Question D5 Responses

[WORDING IF NOT ONLINE STORE] How satisfied are you with the amount of the rebate you received? [WORDING IF ONLINE STORE] How satisfied are you with the amount of the instant rebate (discount) you received?												
	Pool Pumps (n=167)		RACs (n=148)		Air Purifiers (n=307)		Smart thermostats (n=1,464)		HPWHs (n=84)		Total (n=2,170)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	145	87%	121	82%	273	89%	1,235	84%	77	92%	1,851	85%
Somewhat satisfied	21	13%	24	16%	34	11%	204	14%	7	8%	290	13%
Not too satisfied	1	1%	2	1%	0	0%	13	1%	0	0%	16	1%
Not satisfied at all	0	0%	1	1%	0	0%	12	1%	0	0%	13	1%
Don't know	1		3		10		14		0		28	

Table 17. Survey Question D6 Responses

How satisfied are you with the performance of your new [MEASURETYPE]?												
Response	Pool Pumps (n=150)		RACs (n=152)		Air Purifiers (n=315)		Smart thermostats (n=1,423)		HPWHs (n=69)		Total (n=2,109)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	138	92%	119	78%	265	84%	1,185	83%	62	90%	1,769	84%
Somewhat satisfied	11	7%	31	20%	50	16%	214	15%	6	9%	312	15%
Not too satisfied	0	0%	2	1%	0	0%	16	1%	0	0%	18	1%
Not satisfied at all	1	1%	0	0%	0	0%	8	1%	1	1%	10	0%
Don't Know	18		2		2		55		12		89	



Table 18. Survey Question D7 Responses

[ASK IF D6 IS NOT “Don’t know”] Why are you “[RATING FROM D6]” with your new [MEASURETYPE](s)? Please give us further details on what you like or dislike about the performance of your new [MEASURETYPE](s). [Show all response options if D6=2 or 3; Show response options 1-6 & 13, 98 if D6=1; Show Responses options 7-13 & 98 if D6=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, SELECT ALL THAT APPLY]

Response	Pool Pumps (n=150)		RACs (n=151)		Air Purifiers (n=312)		Smart thermostats (n=1,414)		HPWHs (n=69)		Total (n=2,096)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Satisfied with energy/cost savings experienced after installation	76	51%	45	30%	57	18%	534	38%	38	55%	750	36%
Satisfied with overall operation and performance of the equipment	110	73%	86	57%	198	63%	903	64%	49	71%	1,346	64%
Satisfied with the price of the equipment including the rebate	65	43%	80	53%	161	52%	699	49%	37	54%	1,042	50%
Satisfied with features of the new equipment	84	56%	53	35%	111	36%	951	67%	31	45%	1,230	59%
Quiet operation of the equipment	112	75%	51	34%	129	41%	233	16%	17	25%	542	26%
My home is more comfortable with this equipment installed	2	1%	81	54%	133	43%	554	39%	8	12%	778	37%
Noisy operation of the equipment	0	0%	13	9%	14	4%	0	0%	2	3%	29	1%
Did not notice energy/cost savings after installation	2	1%	5	3%	4	1%	77	5%	2	3%	90	4%
Poor performance of equipment	0	0%	2	1%	1	0%	12	1%	0	0%	15	1%
Features did not perform as expected	0	0%	4	3%	5	2%	54	4%	1	1%	64	3%
Difficulty with installation	1	1%	2	1%	0	0%	30	2%	0	0%	33	2%
High cost of equipment	1	1%	2	1%	3	1%	19	1%	0	0%	25	1%
Other reasons or comments	12	8%	10	7%	19	6%	91	6%	8	12%	140	7%
Don't know	0		1		1		7		0		9	

Table 19. Survey Question D8 Responses

Thinking about your overall satisfaction with Ameren Missouri's Efficient Products rebate program, would you say you are:												
Response	Pool Pumps (n=168)		RACs (n=153)		Air Purifiers (n=317)		Smart thermostats (n=1,465)		HPWHs (n=83)		Total (n=2,186)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	153	91%	136	89%	287	91%	1,259	86%	73	88%	1,908	87%
Somewhat satisfied	12	7%	14	9%	28	9%	178	12%	8	10%	240	11%
Not too satisfied	1	1%	2	1%	2	1%	21	1%	2	2%	28	1%
Not satisfied at all	2	1%	1	1%	0	0%	7	0%	0	0%	10	0%
Don't Know	0		1		0		14		0		15	

Table 20. Survey Question D9 Responses (Satisfied)

[ASK IF D8 IS NOT “Don’t know”] Why are you “[RATING FROM D8]” with Ameren Missouri’s Efficient Products rebate program? Please give us further details on what you like or dislike about this rebate program. [Show all response options if D8= 2 or 3, Show response options 1-5 & 12, 98 if D8= 2, Show response options 6-11 & 98 if D8= 4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, SELECT ALL THAT APPLY]

Response	Pool Pumps (n=165)		RACs (n=149)		Air Purifiers (n=312)		Smart thermostats (n=1,450)		HPWHs (n=80)		Total (n=2,156)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Participating in this rebate program was convenient/easy	124	75%	108	72%	242	78%	1051	72%	63	79%	1588	74%
Satisfied with the amount of the rebate ( <i>not online store</i> )	119	72%	94	63%	200	64%	881	61%	54	68%	1348	63%
Satisfied with the performance and operation of the equipment	93	56%	67	45%	148	47%	582	40%	36	45%	926	43%
Satisfied with energy/cost savings experienced after installation	73	44%	46	31%	74	24%	494	34%	28	35%	715	33%
Satisfied with the contractor who did the installation	74	45%	2	1%	0	0%	55	4%	13	16%	144	7%
Satisfied with the amount of the instant rebate (discounted price)	0	0%	0	0%	0	0%	86	6%	0	0%	86	4%

Table 21. Survey Question D9 Responses (Dissatisfied)

[ASK IF D8 IS NOT “Don’t know”] Why are you “[RATING FROM D8]” with Ameren Missouri’s Efficient Products rebate program? Please give us further details on what you like or dislike about this rebate program. [Show all response options if D8= 2 or 3, Show response options 1-5 & 12, 98 if D8= 2, Show response options 6-11 & 98 if D8= 4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, CHECK ALL THAT APPLY]

Response	Pool Pumps (n=165)		RACs (n=149)		Air Purifiers (n=312)		Smart thermostats (n=1,450)		HPWHs (n=80)		Total (n=2,156)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Dissatisfied with delays in rebate processing	3	2%	6	4%	9	3%	51	4%	4	5%	73	3%
Dissatisfied with the rebate application process	5	3%	4	3%	3	1%	31	2%	2	3%	45	2%
Dissatisfied with communications about the rebate program	2	1%	1	1%	4	1%	28	2%	0	0%	35	2%
Dissatisfied with the amount of the rebate ( <i>not online store</i> )	0	0%	1	1%	3	1%	22	2%	2	3%	28	1%
Dissatisfied by the limits on equipment covered by the rebate program	0	0%	3	2%	2	1%	22	2%	1	1%	28	1%
Dissatisfied with the amount of the instant rebate (discounted price)	0	0%	0	0%	0	0%	4	0.3%	0	0%	4	0.2%
Dissatisfied with the contractor who did the installation	0	0%	1	1%	0	0%	1	0.1%	0	0%	2	0.1%
Other reasons or comments	6	4%	9	6%	13	4%	72	5%	8	10%	108	5%
Don't know	1		4		2		9		2		18	

Table 22. Survey Question D10 Responses

Would you recommend Ameren Missouri's Efficient Products program to friends or family members?												
	Pool Pumps (n=165)		RACs (n=147)		Air Purifiers (n=314)		Smart thermostats (n=1,453)		HPWHs (n=83)		Total (n=2,162)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	164	99%	147	100%	313	99.7%	1,447	99.6%	83	100%	2,154	99.6%
No	1	1%	0	0%	1	0.3%	6	0.4%	0	0%	8	0.4%
Don't Know	0		4		3		23		0		30	

E. Measure Installation (Except for Thermostats)

Table 23. Survey Question E1 Responses

[IF QTY=1 AND B6 ≠ 3: "Is the [MEASURETYPE] currently installed?" IF QTY =2 AND B6 ≠ 3: "Are both of the [MEASURETYPE]s currently installed?" IF QTY =3 AND B6 ≠ 3: "Are all three of the [MEASURETYPE]s currently installed?"												
	Pool Pumps (n=163)		RACs (n=152)		Air Purifiers (n=317)		Smart thermostats (not asked)		HPWHs (n=77)		Total (n=621)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	161	99%	147	97%	314	99%			73	95%	611	98%
No	2	1%	5	3%	3	1%			4	5%	10	2%
Don't Know	1		0		0				0		1	

Table 24. Survey Question E2 Responses

[ASK IF QTY >1 and E1 =2] How many of your new [MEASURETYPE]s are currently installed?												
Response	Pool Pumps (n=0)		RACs (n=2)		Air Purifiers (n=2)		Smart thermostats (not asked)		HPWHs (n=0)		Total (n=4)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
None			2	100%	1	50%					3	75%
One			0	0%	1	50%					1	25%

Table 25. Survey Question E3 Responses

[ASK IF QTY =1 and (E1 =2 OR B6 = 3)] Why isn't the [MEASURETYPE] currently installed? [ASK IF QTY =2 and (E1 =2 OR B6 = 3)] Why aren't both of the [MEASURETYPE]s currently installed? [ASK IF QTY =3 and (E1 =2 OR B6 = 3)] Why aren't all three of the [MEASURETYPE]s currently installed? [RANDOMIZE RESPONSE ORDER, ALLOW UP TO 3 RESPONSES]												
Response	Pool Pumps (n=6)		RACs (n=7)		Air Purifiers (n=3)		Smart thermostats (not asked)		HPWHs (n=9)		Total (n=20)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I plan to install the [MEASURE] during the appropriate season	3	50%	3	43%	0	0%			0	0%	5	25%
We installed the [MEASURE] at one time, but then removed it	0	0%	2	29%	1	33%			0	0%	1	5%
Have not had time to install [MEASURE] yet	1	17%	2	29%	1	33%			5	56%	7	35%
[MEASURE] is in storage	0	0%	2	29%	0	0%			0	0%	1	5%
[MEASURE] is back up equipment to install when other equipment fails	0	0%	1	14%	0	0%			1	11%	2	10%
Some other reason	2	33%	1	14%	2	67%			3	33%	7	35%
Don't Know	0		0		0				0		0	



Table 28. Survey Question E7 Responses

[ASK IF MEASURETYPE ="ROOM AC" AND E6 = 2,3,4,5] Is Ameren Missouri the electricity provider for the property where your room air conditioner(s) were installed?												
	Pool Pumps (not asked)		RACs (n=14)		Air Purifiers (not asked)		Smart thermostats (not asked)		HPWHs (not asked)		Total (n=14)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes			13	93%							13	93%
No			1	7%							1	7%

Table 29. Survey Question E8 Responses

[ASK IF MEASURETYPE IS NOT "ROOM AC" AND (E1 =1 OR E2=2,3)] Where were the [MEASURETYPE](s) that you purchased installed?												
	Pool Pumps (n=77)		RACs (not asked)		Air Purifiers (n=170)		Smart thermostats (n=1,426)		HPWHs (n=46)		Total (n=1,719)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
My primary residence	76	99%			157	92%	1,358	95%	44	96%	1,635	95%
A vacation property or part-year residence	1	1%			3	2%	48	3%	1	2%	53	3%
Property that I own but rent to someone else	0	0%			0	0%	3	0%	1	2%	4	0%
Someone else's residence (such as a relative)	0	0%			4	2%	10	1%	0	0%	14	1%
Some other situation	0	0%			6	4%	7	0%	0	0%	13	1%
Don't know	0				0		3		0		3	









Table 34. Survey Question E13 Responses

[ASK IF MEASURETYPE ="heat pump water heater" AND E1 =1] Please check all of the heating and cooling equipment that is currently installed in your home. [MARK ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (not asked)		HPWHs (n=73)		Total (n=73)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
High-efficiency central air conditioner									19	26%	19	26%
Standard-efficiency central air conditioner									41	56%	41	56%
Room or window air conditioners									4	5%	4	5%
Air source heat pump									22	30%	22	30%
Ground source heat pump									1	1%	1	1%
Ductless heat pump									3	4%	3	4%
High-efficiency gas furnace									11	15%	11	15%
Standard-efficiency gas furnace									7	10%	7	10%
High-efficiency electric furnace									5	7%	5	7%
Standard-efficiency electric furnace									23	32%	23	32%
Baseboard electric system									2	3%	2	3%
Some other heating or cooling system									2	3%	2	3%
Don't know									0		0	

F. Free Ridership (Measures Except for Thermostats)

Table 35. Survey Question F1 Responses

Did you first find out about the Ameren Missouri rebate before or after you purchased your new [MEASURETYPE](s)? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (n=165)		RACs (n=151)		Air Purifiers (n=315)		Smart thermostats (not asked)		HPWHs (n=73)		Total (n=704)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Learned of rebate before purchase	147	89%	116	77%	243	77%			72	99%	578	82%
Learned of rebate after purchase	17	10%	32	21%	67	21%			1	1%	117	17%
Don't Know	1	1%	3	2%	5	2%			0	0%	9	1%

Table 36. Survey Question F2 Responses

[ASK IF F1=2] Please confirm: You purchased your new [MEASURETYPE] and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (n=17)		RACs (n=32)		Air Purifiers (n=67)		Smart thermostats (not asked)		HPWHs (n=1)		Total (n=117)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes, that is correct	15	88%	31	97%	59	88%			1	100%	106	91%
No, that is not correct	1	6%	0	0%	7	10%			0	0%	8	7%
Don't Know	1	6%	1	3%	1	1%			0	0%	3	3%

Table 37. Survey Question F3 Responses

Before you knew about the incentive from Ameren Missouri, were you already planning to install a [MEASURETYPE] in 2017? [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (n=150)		RACs (n=120)		Air Purifiers (n=256)		Smart thermostats (not asked)		HPWHs (n=72)		Total (n=598)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	80	53%	104	87%	194	76%			45	63%	423	71%
No	64	43%	11	9%	45	18%			27	38%	147	25%
Don't Know	6	4%	5	4%	17	7%			0	0%	28	5%

Table 38. Survey Question F4 Responses

[ASK IF QTY > 1] Without the incentive from Ameren Missouri, would you have installed same number of [MEASURETYPE]s? [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (n=0)		RACs (n=16)		Air Purifiers (n=56)		Smart thermostats (not asked)		HPWHs (n=0)		Total (n=72)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes, the same number			14	88%	23	41%					37	51%
No, would have installed fewer			1	6%	23	41%					24	33%
No, would have installed more			0	0%	1	2%					1	1%
No, would not have installed any at all			1	6%	6	11%					7	10%
Don't Know			0	0%	3	5%					3	4%

Table 39. Survey Question F5 Responses

Without Ameren Missouri's rebate, would you have installed the [MEASURETYPE]...? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (n=150)		RACs (n=120)		Air Purifiers (n=256)		Smart thermostats (not asked)		HPWHs (n=72)		Total (n=598)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Around the same time	82	55%	107	89%	148	58%			42	58%	379	63%
Later in the same year	5	3%	3	3%	45	18%			3	4%	56	9%
In one or two years	34	23%	4	3%	13	5%			9	13%	60	10%
After more than three years	8	5%	1	1%	0	0%			3	4%	12	2%
Never	1	1%	0	0%	6	2%			4	6%	11	2%
Don't Know	20	13%	5	4%	44	17%			11	15%	80	13%
Around the same time	82	55%	107	89%	148	58%			42	58%	379	63%

Table 40. Survey Question F6 Responses

[ASK IF F5 = 1, 2] Would you have installed the exact same [MEASURETYPE](s) without the rebate from Ameren Missouri? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (n=87)		RACs (n=110)		Air Purifiers (n=193)		Smart thermostats (not asked)		HPWHs (n=45)		Total (n=435)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	40	46%	68	62%	92	48%			6	13%	206	47%
No	27	31%	19	17%	38	20%			31	69%	115	26%
Don't Know	20	23%	23	21%	63	33%			8	18%	114	26%

Table 41. Survey Question F7 Responses

**[ASK IF F6 = 2, 98, 99] Would you have installed a different [MEASURETYPE] without the Ameren Missouri rebate or would you have decided to not purchase one at all? [FORCED RESPONSE – NO SKIP]**

Response	Pool Pumps (n=110)		RACs (n=52)		Air Purifiers (n=164)		Smart thermostats (not asked)		HPWHs (n=66)		Total (n=392)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I would have installed a different [MEASURETYPE]	46	42%	25	48%	47	29%			50	76%	168	43%
I would have decided not to purchase one at all	20	18%	5	10%	19	12%			4	6%	48	12%
Don't Know	44	40%	22	42%	98	60%			12	18%	176	45%

**Table 42. Survey Question F8 Responses**

**[ASK IF F7 = 1] Without Ameren Missouri's rebate, would you have installed a lower efficiency [MEASURETYPE], the same efficiency [MEASURETYPE], or a higher efficiency [MEASURETYPE]? [FORCED RESPONSE – NO SKIP]**

Response	Pool Pumps (n=46)		RACs (n=25)		Air Purifiers (n=47)		Smart thermostats (not asked)		HPWHs (n=50)		Total (n=168)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Lower efficiency	36	78%	8	32%	13	28%			44	88%	101	60%
Same efficiency	5	11%	8	32%	11	23%			1	2%	25	15%
Higher efficiency	0	0%	0	0%	0	0%			1	2%	1	1%
Don't Know	5	11%	9	36%	23	49%			4	8%	41	24%



Table 43. Survey Question F9 Responses

How important was the Ameren Missouri rebate on your decision to purchase and install the [MEASURETYPE]? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (n=165)		RACs (n=151)		Air Purifiers (n=315)		Smart thermostats (not asked)		HPWHs (n=73)		Total (n=704)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very important	92	56%	29	19%	123	39%			53	73%	297	42%
Somewhat important	56	34%	80	53%	123	39%			18	25%	277	39%
Not very important	7	4%	20	13%	30	10%			1	1%	58	8%
Not at all important	7	4%	17	11%	32	10%			1	1%	57	8%
Don't Know	3	2%	5	3%	7	2%			0	0%	15	2%

Table 44. Survey Question F10 Responses

[ASK IF B2=3 OR B6=2] How important was the advice from your contractor on your decision to purchase and install the [MEASURETYPE]? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (n=130)		RACs (n=10)		Air Purifiers (n=1)		Smart thermostats (not asked)		HPWHs (n=30)		Total (n=171)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very important	104	80%	0	0%	0	0%			7	23%	111	65%
Somewhat important	20	15%	3	30%	0	0%			8	27%	31	18%
Not very important	1	1%	1	10%	0	0%			4	13%	6	4%
Not at all important	2	2%	6	60%	0	0%			7	23%	15	9%
Don't Know	3	2%	0	0%	1	100%			4	13%	8	5%

## G. Smart Thermostat Installation

Table 45. Survey Question G1 Responses

[ASK IF ONLINE=0] [IF QTY=1: Our records indicate that you purchased a [THERMOSTAT BRAND] “smart” thermostat, is this correct? IF QTY > 1: Our records indicate that you purchased [QTY] [THERMOSTAT BRAND] “smart” thermostats, is this correct?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,333)		HPWHs (not asked)		Total (n=1,333)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							1,328	99.6%			1,328	99.6%
No, purchased another kind of thermostat							5	0.4%			5	0.4%
Don't know							3				3	

Table 46. Survey Question G2 Responses

[IF QTY=1 AND B6 ≠ 3: Is the smart thermostat currently installed in your home? [IF QTY>1 AND B6 ≠ 3: Are all of the smart thermostats that you purchased currently installed in your home?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,434)		HPWHs (not asked)		Total (n=1,434)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							1,412	98%			1,412	98%
Only one is installed							8	1%			8	1%
Only two are installed							2	0.1%			2	0.1%
No / None are installed							12	1%			12	1%
Don't Know							1				1	

Table 47. Survey Question G3 Responses

[ASK IF G2 = 4 and QTY =1] Was the smart thermostat . . . ? [OR ASK IF G2 = 3 and QTY =3 OR IF G2 = 2 and QTY =2] Was your smart thermostat that is not currently installed . . . ? [ASK IF G2 = 4 and QTY >1 or IF G2 = 2 and QTY =3] Were any of these smart thermostats installed and then removed, or have some of them not been installed yet?

Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=20)		HPWHs (not asked)		Total (n=20)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Installed and removed							6	30%			6	30%
Installed and removed one thermostat, the rest have not been installed yet							1	5%			1	5%
Not installed yet							6	30%			6	30%
Given to someone else / installed at another property							7	35%			7	35%
Don't Know							2				2	

Table 48. Survey Question G4 Responses

[ASK IF G3= 1, 2, 3] Why did you install and then remove the smart thermostat(s)? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=7)		HPWHs (not asked)		Total (n=7)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I preferred my previous thermostat(s)							0	0%			0	0%
Too difficult to use							1	14%			1	14%
Did not adjust temperatures correctly							3	43%			3	43%
Thermostat broke							2	29%			2	29%
Did not think it was energy saving							1	14%			1	14%
Other							2	29%			2	29%
Don't Know							0				0	

Table 49. Survey Question G5 Responses

ASK IF G3 = 4 AND QTY=1 OR B6 = 3] Why has the smart thermostat not been installed in your home yet? [OR IF (G3 = 4 OR B6 = 3) AND QTY>1, OR G3 = 2 ,3] Why have your smart thermostats not all been installed in your home yet?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=52)		HPWHs (not asked)		Total (n=52)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Haven't had time							24	46%			24	46%
Don't know how to install it							6	12%			6	12%
Other reason							22	42%			22	42%
Don't Know							2				2	

Table 50. Survey Question G6 Responses

[ASK IF G2=1,2,3 OR G3 DISPLAYED AND G3≠4] Where were the smart thermostat(s) that you purchased installed?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,426)		HPWHs (not asked)		Total (n=1,426)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
My primary residence							1,358	95%			1,358	95%
A vacation property or part-year residence							48	3%			48	3%
Property that I own but rent to someone else							3	0.2%			3	0.2%
Someone else's residence (such as a relative)							10	1%			10	1%
Some other situation							7	0.5%			7	0.5%
Don't know							3				3	

Table 51. Survey Question G7 Responses

[ASK IF G6 = 2,3,4,5 OR IF G5=3] Is Ameren Missouri the electricity provider for this property?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=68)		HPWHs (not asked)		Total (n=68)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							67	99%			67	99%
No							1	1%			1	1%
Don't know							0				0	

Table 52. Survey Question G8 Responses

[ASK IF G2 = 1 and QTY=1] What types of heating and cooling system is the smart thermostat currently connected to? [OR IF G2 = 1, 2, 3 and QTY>1] What types of heating and cooling system are your smart thermostats connected to? [SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,359)		HPWHs (not asked)		Total (n=1,359)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
High-efficiency central air conditioner							311	28%			311	28%
Standard-efficiency central air conditioner							780	66%			780	66%
Air source heat pump							64	5%			64	5%
Ground source heat pump							9	1%			9	1%
Ductless heat pump							1	0.1%			1	0.1%
High-efficiency gas furnace							219	19%			219	19%
Standard-efficiency gas furnace							525	45%			525	45%
High-efficiency electric furnace							36	3%			36	3%
Standard-efficiency electric furnace							137	11%			137	11%
Some other heating or cooling system							7	1%			7	1%
Don't Know							55				55	

Table 53. Survey Question G9 Responses

[ASK IF G8 = 1, 2] About what year was your central air conditioning installed?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,269)		HPWHs (not asked)		Total (n=1,269)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Installed at the same time as the new thermostat(s)							80	6%			80	6%
Installed previously [RECORD YEAR]							701	55%			701	55%
Don't Know							488	38%			488	38%

Table 54. Survey Question G10 Responses

[ASK IF G8 = 7, 8, 9, 10] About what year was your furnace installed?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,060)		HPWHs (not asked)		Total (n=1,060)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Installed at the same time as the new thermostat(s)							63	6%			63	6%
Installed previously [RECORD YEAR]							576	54%			576	54%
Don't Know							421	40%			421	40%

Table 55. Survey Question G11 Responses

[ASK IF G8 = 4, 5, 6] About what year was your heat pump installed?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=82)		HPWHs (not asked)		Total (n=82)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Installed at the same time as the new thermostat(s)							13	16%			13	16%
Installed previously [RECORD YEAR]							47	57%			47	57%
Don't Know							22	27%			22	27%

Table 56. Survey Question G12 Responses

[ASK IF G2 = 1 and QTY=1] What type of thermostat did you replace with the smart thermostat? [SELECT ONE] [OR IF G2 = 1, 2, 3 and QTY>1] What type of thermostats did you replace with the smart thermostats? [SELECT UP TO 2 IF QTY=2, SELECT UP TO 3 IF QTY=3]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,396)		HPWHs (not asked)		Total (n=1,396)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Newly constructed home							35	3%			35	3%
Other smart thermostats (may also be called "learning" thermostats)							50	4%			50	4%
Replaced a programmable thermostat							740	53%			740	53%
Replaced a traditional/manual thermostat							578	41%			578	41%
Don't Know							20				20	



Table 57. Survey Question G13 Responses

[IF G12 ≠ 1] Which option best represents how you most often used or interacted with your OLD thermostat(s)?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,354)		HPWHs (not asked)		Total (n=1,354)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Kept thermostat(s) set at a constant temperature throughout each season							281	21%			281	21%
Relied on the programmed schedule of temperatures, and never manually changed the temperature							48	4%			48	4%
Relied on the programmed schedule of temperatures, but sometimes manually changed the temperature							375	28%			375	28%
Manually adjusted temperature using a regular schedule by changing the temperature for different times of the day or week							186	14%			186	14%
Manually adjusted temperature using no regular schedule							450	33%			450	33%
Some other way							14	1%			14	1%
Don't Know							28				28	

Table 58. Survey Question G14 Responses

[IF G12 ≠ 1] Why did you replace your old thermostat(s)? [RANDOMIZE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,377)		HPWHs (not asked)		Total (n=1,377)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
To take advantage of the features of the smart thermostat							989	72%			989	72%
To save money on my utility bills							875	64%			875	64%
To save energy							793	58%			793	58%
The Ameren Missouri rebate							775	56%			775	56%
To update my home with the latest technology							646	47%			646	47%
Old thermostat was broken or malfunctioning							139	10%			139	10%
Other rebates or coupons (not from Ameren Missouri)							138	10%			138	10%
Part of a "package deal" with other equipment being replaced at the same time							11	1%			11	1%
Some other reason							28	2%			28	2%
Don't Know							5				5	

## H. Smart Thermostat Usage

Table 59. Survey Question H1 Responses

How easy is the smart thermostat to use?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,417)		HPWHs (not asked)		Total (n=1,417)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very easy							1,142	81%			1,142	81%
Somewhat easy							255	18%			255	18%
Not too easy							16	1%			16	1%
Not at all easy							4	0.3%			4	0.3%
Don't Know							3				3	

Table 60. Survey Question H2 Responses

Is the function on your smart thermostat that senses when you are home or away working? (This function is also called "geofencing" or "occupancy sensing")?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,417)		HPWHs (not asked)		Total (n=1,417)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							1,158	82%			1,158	82%
No							83	6%			83	6%
Don't Know							176	12%			176	12%

Table 61. Survey Question H3 Responses

Is your smart thermostat connected to the internet?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,417)		HPWHs (not asked)		Total (n=1,417)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							1,357	96%			1,357	96%
No							32	2%			32	2%
Don't Know							28	2%			28	2%

Table 62. Survey Question H4 Responses

What features of your smart thermostat do you like best? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,398)		HPWHs (not asked)		Total (n=1,398)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Remote monitoring of household temperature and thermostat settings							990	71%			990	71%
Mobile app							956	68%			956	68%
Thermostat ease of use							836	60%			836	60%
Automatically programs itself/automatically adjusts the temperature when you're away							780	56%			780	56%
Gives me detailed information about my energy use							600	43%			600	43%
Thermostat design/aesthetics							564	40%			564	40%
Integration with other connected devices (Alexa, Echo, IFTTT)							400	29%			400	29%
Ability to check local weather from thermostat and smartphone/tablet app							324	23%			324	23%
Maintenance reminders							186	13%			186	13%
Dehumidifying capabilities (when thermostat uses HVAC system to lower indoor humidity level)							85	6%			85	6%
Other features							27	2%			27	2%
None of the above							7	1%			7	1%
Don't Know							19				19	

Table 63. Survey Question H5 Responses

In what ways have you ever accessed your thermostat since it was first installed, to do things such as changing your temperature settings or schedules? [SELECT ALL THAT APPLY]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,398)		HPWHs (not asked)		Total (n=1,398)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
The thermostat itself							1,178	84%			1,178	84%
Website on a PC or laptop							315	23%			315	23%
Smartphone or tablet app							1,283	92%			1,283	92%
I have not accessed my thermostat since it was installed							5	0.4%			5	0.4%
Don't Know							10				10	

Table 64. Survey Question H6 Responses

In the past 30 days, how have you most often accessed your new thermostat? [SELECT ONE]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,407)		HPWHs (not asked)		Total (n=1,407)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
The thermostat itself							463	33%			463	33%
Website on a PC or laptop							23	2%			23	2%
Smartphone or tablet app							903	64%			903	64%
I have not accessed my thermostat in the past month							18	1%			18	1%
Don't Know							7				7	

Table 65. Survey Question H7 Responses

How do you currently use your thermostat's interactive capabilities? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,397)		HPWHs (not asked)		Total (n=1,397)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Adjust the temperature while at home							938	67%			938	67%
Adjust the temperature while away from home							879	63%			879	63%
Modify my thermostat schedule while away from home							610	44%			610	44%
Modify my thermostat schedule while at home							582	42%			582	42%
Check inside or outside temperature							557	40%			557	40%
Check how much energy I have used							482	35%			482	35%
Just checked it out to see what it has to offer							155	11%			155	11%
Have not used interactive capabilities							41	3%			41	3%
Other							6	0.4%			6	0.4%
Don't Know							19				19	

Table 66. Survey Question H8 Responses

Did you or someone in your household set up and program the thermostat, or did a contractor set it up for you?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,404)		HPWHs (not asked)		Total (n=1,404)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I or someone in my household set up/programmed it							1,340	95%			1,340	95%
Contractor set up/programmed it							42	3%			42	3%
No one set up or programmed the thermostat							22	2%			22	2%
Don't Know							10				10	

Table 67. Survey Question H9 Responses

[ASK IF H8 = 1] How easy was it to set up and program your smart thermostat? Would you say it was...?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,334)		HPWHs (not asked)		Total (n=1,334)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very easy							925	69%			925	69%
Somewhat easy							378	28%			378	28%
Not too easy							26	2%			26	2%
Not at all easy							5	0%			5	0%
Don't Know							3				3	



Table 68. Survey Question H10 Responses

How is your smart thermostat currently controlled? [SELECT ONE]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,402)		HPWHs (not asked)		Total (n=1,402)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I keep it at a constant temperature throughout the season							98	7%			98	7%
I rely on the programmed schedule of temperatures, and never manually change the temperature							144	10%			144	10%
I rely on the programmed schedule of temperatures, but sometimes manually change the temperature							962	69%			962	69%
I manually adjust the temperature using a regular schedule by changing the temperature for different times of the day or week							85	6%			85	6%
I manually adjust the temperature using no regular schedule							91	6%			91	6%
Some other way							22	2%			22	2%
Don't Know							15				15	

I. Free Ridership for Smart Thermostats

Table 69. Survey Question I1 Responses

<b>[ASK IF NOT ONLINE STORE] Did you first find out about the Ameren Missouri rebate before or after you purchased your new thermostat? [FORCED RESPONSE – NO SKIP]</b>												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,304)		HPWHs (not asked)		Total (n=1,304)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Learned of rebate before purchase							1,144	88%			1,144	88%
Learned of rebate after purchase							149	11%			149	11%
Don't Know							11	1%			11	1%

Table 70. Survey Question I2 Responses

<b>[ASK IF I1=2] Please confirm: You purchased your new smart thermostat and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct? [FORCED RESPONSE – NO SKIP]</b>												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=149)		HPWHs (not asked)		Total (n=149)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes, that is correct							145	97%			145	97%
No, that is not correct							4	3%			4	3%
Don't Know							0	0%			0	0%

Table 71. Survey Question I3 Responses

Before you knew about the rebate from Ameren Missouri, were you already planning to install a smart thermostat this year? [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,278)		HPWHs (not asked)		Total (n=1,278)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							582	46%			582	46%
No							560	44%			560	44%
Don't Know							136	11%			136	11%

Table 72. Survey Question I4 Responses

Without Ameren Missouri's rebate, would you have installed a smart thermostat ...? [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,278)		HPWHs (not asked)		Total (n=1,278)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Around the same time							276	22%			276	22%
Later in the same year							187	15%			187	15%
In one or two years							388	30%			388	30%
After more than three years							87	7%			87	7%
Don't Know							340	27%			340	27%

Table 73. Survey Question I5 Responses

[ASK IF I4 = 1, 2, 98, 99] Would you have installed the same smart thermostat without the rebate from Ameren Missouri? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=803)		HPWHs (not asked)		Total (n=803)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							370	46%			370	46%
No							207	26%			207	26%
Don't Know							226	28%			226	28%

Table 74. Survey Question I6 Responses

[ASK IF I5 = 2, 98, 99] Would you have installed a different thermostat without the Ameren Missouri rebate or would you have decided not to purchase one at all)? [FORCED RESPONSE – NO SKIP]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=908)		HPWHs (not asked)		Total (n=908)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I would have installed a different thermostat							155	17%			155	17%
I would have decided not to purchase new thermostat(s) at all							390	43%			390	43%
Don't Know							363	40%			363	40%

Table 75. Survey Question I7 Responses

[ASK IF I6 = 1] When you say you would have installed a thermostat without the rebate from Ameren Missouri, would you have installed...? [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=155)		HPWHs (not asked)		Total (n=155)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
A smart thermostat (also called a "learning" thermostat)							65	42%			65	42%
A programmable thermostat (a thermostat that can be programmed, but is not "smart" or connected to communication devices)							67	43%			67	43%
A traditional/manual thermostat							13	8%			13	8%
Would not have installed a new thermostat							2	1%			2	1%
Don't Know							8	5%			8	5%

Table 76. Survey Question I8 Responses

How important was the Ameren Missouri rebate on your decision to purchase and install the smart thermostat? [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=1,423)		HPWHs (not asked)		Total (n=1,423)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very important							816	57%			816	57%
Somewhat important							441	31%			441	31%
Not very important							67	5%			67	5%
Not at all important							72	5%			72	5%
Don't Know							27	2%			27	2%

Table 77. Survey Question I9 Responses

[ASK IF B2=3 OR B6=2] How important was the advice from the contractor in your decision to purchase and install the smart thermostat? Would you say... [FORCED RESPONSE – NO SKIP]												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=148)		HPWHs (not asked)		Total (n=148)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very important							30	20%			30	20%
Somewhat important							30	20%			30	20%
Not very important							15	10%			15	10%
Not at all important							53	36%			53	36%
Don't Know							20	14%			20	14%

J. Satisfaction with Ameren Missouri

Table 78. Survey Question J1 Responses

Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?												
	Pool Pumps (n=168)		RACs (n=150)		Air Purifiers (n=313)		Smart thermostats (n=1,466)		HPWHs (n=84)		Total (n=2,181)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	126	75%	106	71%	226	72%	1,039	71%	55	65%	1,552	71%
Somewhat satisfied	40	24%	38	25%	81	26%	394	27%	24	29%	577	26%
Not too satisfied	1	1%	5	3%	3	1%	26	2%	5	6%	40	2%
Not satisfied at all	1	1%	1	1%	3	1%	7	0.5%	0	0%	12	1%
Don't Know	0		3		3		14		0		20	

Table 79. Survey Question J2 Responses

[ASK IF J1 IS NOT “Don’t know”] Why are you “[RATING FROM J1]” with Ameren Missouri as your utility? Please give us further details on what you like or dislike about Ameren Missouri. [Show all response options if I1=2 or 3, show response options 1-4 & 9, 98 if I1=1, show response options 5-9 & 98 if I1=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, SELECT ALL THAT APPLY]

Response	Pool Pumps (n=165)		RACs (n=149)		Air Purifiers (n=304)		Smart thermostats (n=1,406)		HPWHs (n=83)		Total (n=2,107)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Satisfied with Ameren Missouri’s Efficient Products rebate program	125	76%	90	60%	203	67%	969	69%	70	84%	1457	69%
Satisfied with reliable and dependable service (outages are rare/brief)	107	65%	88	59%	189	62%	868	62%	52	63%	1304	62%
Satisfied with customer service / interactions with Ameren Missouri staff	68	41%	55	37%	92	30%	463	33%	29	35%	707	34%
Satisfied with utility rates	25	15%	29	19%	50	16%	272	19%	16	19%	392	19%
Dissatisfied with utility rates or rate increases	25	15%	26	17%	47	15%	234	17%	17	20%	349	17%
Dissatisfied with lack of choice in utility providers	5	3%	7	5%	14	5%	98	7%	6	7%	130	6%
Dissatisfied with the reliability of service (outages)	4	2%	5	3%	8	3%	33	2%	2	2%	52	2%
Dissatisfied with customer service / interactions with Ameren Missouri staff	0	0%	1	1%	2	1%	27	2%	4	5%	34	2%
Other reasons or comments	3	2%	9	6%	17	6%	56	4%	10	12%	95	5%
Don’t know	3		1		7		42		1		54	

Table 80. Survey Question J3 Responses

Based on your experience with the Efficient Products rebate program, would you say your satisfaction with Ameren Missouri has:												
Response	Pool Pumps (n=165)		RACs (n=151)		Air Purifiers (n=305)		Smart thermostats (n=1,431)		HPWHs (n=82)		Total (n=2,134)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Increased	106	64%	62	41%	177	58%	851	59%	49	60%	1,245	58%
Stayed about the same	57	35%	87	58%	126	41%	565	39%	32	39%	867	41%
Decreased	2	1%	2	1%	2	1%	15	1%	1	1%	22	1%
Don't Know	1		2		7		35		2		47	

K. Customer Demographics

Table 81. Survey Question K1 Responses

Is the energy used in your home . . .												
Response	Pool Pumps (n=167)		RACs (n=149)		Air Purifiers (n=314)		Smart thermostats (n=1,440)		HPWHs (n=82)		Total (n=2,152)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
All electric,	28	17%	27	18%	91	29%	268	19%	54	66%	468	22%
Natural gas and electric,	129	77%	106	71%	210	67%	1,139	79%	19	23%	1,603	74%
Or some other combination of energy sources?	10	6%	16	11%	13	4%	33	2%	9	11%	81	4%
Don't Know	0		2		1		28		0		31	



Table 82. Survey Question K2 Responses

Which of the following best describes your home or residence? [SELECT ONE RESPONSE]												
Response	Pool Pumps (n=166)		RACs (n=150)		Air Purifiers (n=314)		Smart thermostats (n=1,459)		HPWHs (n=82)		Total (n=2,171)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Single-family home (not a duplex, townhome, or apartment)	166	100%	124	83%	237	75%	1,293	89%	76	93%	1,896	87%
Manufactured or modular home	0	0%	3	2%	8	3%	4	0.3%	1	1%	16	1%
Mobile home	0	0%	4	3%	2	1%	6	0.4%	0	0%	12	1%
Row house or townhome	0	0%	1	1%	12	4%	35	2%	1	1%	49	2%
Two or three family attached residence	0	0%	8	5%	7	2%	31	2%	3	4%	49	2%
Apartment with four or more units	0	0%	7	5%	35	11%	25	2%	1	1%	68	3%
Condominium	0	0%	2	1%	10	3%	62	4%	0	0%	74	3%
Other	0	0%	1	1%	3	1%	3	0.2%	0	0%	7	1%
Don't Know	0		1		0		13		0		14	

Table 83. Survey Question K3 Responses

Do you own or rent this residence?												
Response	Pool Pumps (n=167)		RACs (n=148)		Air Purifiers (n=310)		Smart thermostats (n=1,458)		HPWHs (n=81)		Total (n=2,164)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Own	167	100%	132	89%	252	81%	1,387	95%	80	99%	2,018	93%
Rent	0	0%	16	11%	58	19%	71	5%	1	1%	146	7%
Don't Know	0		2		2		9		0		13	

Table 84. Survey Question K4 Responses

Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider "lived in".												
Response	Pool Pumps (n=162)		RACs (n=139)		Air Purifiers (n=295)		Smart thermostats (n=1,434)		HPWHs (n=81)		Total (n=2,111)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Less than 1,000 square feet	0	0%	22	16%	51	17%	85	6%	5	6%	163	8%
1,000 to less than 1,500 square feet	5	3%	46	33%	89	30%	347	24%	16	20%	503	24%
1,500 to less than 2,000 square feet	29	18%	33	24%	72	24%	386	27%	21	26%	541	26%
2,000 to less than 2,500 square feet	36	22%	24	17%	43	15%	232	16%	14	17%	349	17%
2,500 to less than 3,000 square feet	32	20%	7	5%	22	7%	197	14%	15	19%	273	13%
3,000 or more square feet	60	37%	7	5%	18	6%	187	13%	10	12%	282	13%
Don't Know	4		12		17		38		1		72	

Table 85. Survey Question K5 Responses

When was your home built?												
Response	Pool Pumps (n=166)		RACs (n=144)		Air Purifiers (n=290)		Smart thermostats (n=1,417)		HPWHs (n=81)		Total (n=2,098)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
After 2008	15	9%	1	1%	16	6%	182	13%	15	19%	229	11%
2005-2008	9	5%	5	3%	19	7%	96	7%	8	10%	137	7%
2001-2004	24	14%	5	3%	25	9%	113	8%	9	11%	176	8%
1980-2000	62	37%	28	19%	97	33%	410	29%	23	28%	620	30%
Before 1980	56	34%	105	73%	133	46%	616	43%	26	32%	936	45%
Don't Know	1		7		23		52		1		84	

Table 86. Survey Question K6 Responses

Counting yourself, how many people normally live in your household on a full-time basis? Please include everyone who lives in your home, whether or not they are related to you, and exclude anyone just visiting or children who may be away at college or in the military.												
	Pool Pumps (n=166)		RACs (n=149)		Air Purifiers (n=315)		Smart thermostats (n=1,459)		HPWHs (n=81)		Total (n=2,170)	
Overall Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Please enter a number <i>[numeric response]</i>	153	92%	130	87%	266	84%	1,306	90%	71	88%	1,926	89%
I prefer not to answer this question	13	8%	19	13%	49	16%	153	10%	10	12%	244	11%
Numeric Response	Pool Pumps (n=152)		RACs (n=127)		Air Purifiers (n=266)		Smart thermostats (n=1,300)		HPWHs (n=69)		Total (n=1,914)	
One	5	3%	19	15%	56	21%	126	10%	3	4%	209	11%
Two	66	43%	59	46%	112	42%	539	41%	27	39%	803	42%
Three to five	73	48%	46	36%	88	33%	598	46%	35	51%	840	44%
Six or more	8	5%	3	2%	10	4%	37	3%	4	6%	62	3%

## Follow-up Survey Responses

This appendix provides the responses to questions in the Efficient Products Follow-up Survey. This survey was sent by email to PY17 participants six months after receiving their rebates. In PY17, 763 respondents completed this survey.

The tables below provide the number of responses to answers to the survey questions. They also provide the percentage of the various responses, where the denominator is the total number of respondents who gave valid answers to the question. Respondents who replied “don’t know” are not included in the base of valid responses, except for awareness questions.

We did not report initial screening questions that would have disqualified respondents from taking the survey, or open-ended responses. We do not report spillover questions because the analysis is done in a dynamic function and not based on raw frequencies.

### B. Participant Satisfaction

**Table 87. Survey Question B1 Responses**

How satisfied are you with the performance of your new [MEASURETYPE]?												
Response	Pool Pumps (n=65)		RACs (n=79)		Air Purifiers (n=111)		Smart thermostats (n=485)		HPWHs (n=19)		Total (n=759)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	58	89%	60	76%	84	76%	410	85%	14	74%	626	82%
Somewhat satisfied	6	9%	17	22%	22	20%	71	15%	4	21%	120	16%
Not too satisfied	1	2%	2	3%	5	5%	2	0.4%	0	0%	10	1%
Not satisfied at all	0	0%	0	0%	0	0%	2	0.4%	1	5%	3	0.4%
Don't Know	1		0		0		2		1		4	

Table 88. Survey Question B2 Responses

[ASK IF B1 IS NOT “Don’t know”] Why are you “[RATING FROM B1]” with your new [MEASURETYPE](s)? Please give us further details on what you like or dislike about the performance of your new [MEASURETYPE](s). [Show all response options if B1=2 or 3, Show response options 1-6 & 13, 98 if B1=1, Show Responses options 7-13 & 98 if B1=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, SELECT ALL THAT APPLY]

Response	Pool Pumps (n=65)		RACs (n=79)		Air Purifiers (n=109)		Smart thermostats (n=484)		HPWHs (n=19)		Total (n=756)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Satisfied with overall operation and performance of the equipment	48	74%	51	65%	72	66%	352	73%	16	84%	539	71%
Satisfied with the price of the equipment including the rebate	40	62%	58	73%	63	58%	315	65%	13	68%	489	65%
Satisfied with features of the new equipment	45	69%	31	39%	43	39%	359	74%	11	58%	489	65%
Satisfied with energy/cost savings experienced after installation	39	60%	27	34%	25	23%	285	59%	12	63%	388	51%
My home is more comfortable with this equipment installed	0	0%	42	53%	47	43%	220	45%	5	26%	314	42%
Quiet operation of the equipment	45	69%	26	33%	46	42%	151	31%	7	37%	275	36%
Did not notice energy/cost savings after installation	4	6%	4	5%	12	11%	28	6%	3	16%	51	7%
Features did not perform as expected	0	0%	2	3%	4	4%	21	4%	1	5%	28	4%
Noisy operation of the equipment	0	0%	8	10%	9	8%	0	0%	3	16%	20	3%
Poor performance of equipment	0	0%	4	5%	3	3%	2	0.4%	2	11%	11	1%
Difficulty with installation	0	0%	1	1%	0	0%	7	1%	1	5%	9	1%
High cost of equipment	1	2%	0	0%	1	1%	6	1%	1	5%	9	1%
Other reasons or comments	3	5%	4	5%	6	6%	27	6%	4	21%	44	6%
Don't know	0		0		1		0		0		1	

Table 89. Survey Question B3 Responses

Thinking about your overall satisfaction with Ameren Missouri's Efficient Products rebate program, would you say you are:												
Response	Pool Pumps (n=66)		RACs (n=77)		Air Purifiers (n=108)		Smart thermostats (n=483)		HPWHs (n=20)		Total (n=754)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	55	83%	70	91%	89	82%	439	91%	18	90%	671	89%
Somewhat satisfied	9	14%	6	8%	15	14%	37	8%	1	5%	68	9%
Not too satisfied	2	3%	1	1%	0	0%	5	1%	0	0%	8	1%
Not satisfied at all	0	0%	0	0%	4	4%	2	0.4%	1	5%	7	1%
Don't Know	0		2		1		3		0		6	

Table 90. Survey Question B4 Responses

[ASK IF B3 IS NOT “Don’t know”] Why are you “[RATING FROM B3]” with Ameren Missouri’s Efficient Products rebate program? Please give us further details on what you like or dislike about this rebate program. [Show all response options if B3= 2 or 3, Show response options 1-5 & 12, 98 if B3= 2, Show response options 6-11 & 98 if B3= 4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, SELECT ALL THAT APPLY]

Response	Pool Pumps (n=66)		RACs (n=77)		Air Purifiers (n=107)		Smart thermostats (n=476)		HPWHs (n=20)		Total (n=746)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Participating in this rebate program was convenient/easy	49	74%	60	78%	80	75%	377	79%	15	75%	581	78%
Satisfied with the amount of the (instant) rebate	46	70%	57	74%	70	65%	345	72%	16	80%	534	72%
Satisfied with the performance and operation of the equipment	35	53%	38	49%	53	50%	226	47%	11	55%	363	49%
Satisfied with energy/cost savings experienced after installation	34	52%	25	32%	20	19%	224	47%	10	50%	313	42%
Satisfied with the contractor who did the installation	28	42%	5	6%	1	1%	24	5%	6	30%	64	9%
Dissatisfied with the rebate application process	4	6%	2	3%	3	3%	11	2%	0	0%	20	3%
Dissatisfied with delays in rebate processing	5	8%	1	1%	3	3%	11	2%	0	0%	20	3%
Dissatisfied with communications about the rebate program	2	3%	0	0%	1	1%	10	2%	0	0%	13	2%
Dissatisfied with the amount of the (instant) rebate	1	2%	0	0%	1	1%	8	2%	1	5%	11	1%
Dissatisfied by limits on the equipment covered by program	0	0%	0	0%	1	1%	7	1%	0	0%	8	1%
Dissatisfied with the contractor who did the installation	0	0%	0	0%	0	0%	1	0.2%	0	0%	1	0.1%
Other reasons or comments	4	6%	3	4%	6	6%	15	3%	2	10%	30	4%
Don't know	0		0		0		2		0		2	

Table 91. Survey Question B5 Responses

Would you recommend Ameren Missouri's Efficient Products program to friends or family members?												
Response	Pool Pumps (n=64)		RACs (n=77)		Air Purifiers (n=105)		Smart thermostats (n=481)		HPWHs (n=20)		Total (n=747)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	64	100%	77	100%	102	97%	476	99%	19	95%	738	99%
No	0	0%	0	0%	3	3%	5	1%	1	5%	9	1%
Don't Know	2		2		5		6		0		15	

C. Spillover Questions

We do not report spillover questions because the analysis is done in a dynamic function and not based on raw frequencies.









Table 98. Survey Question D8 Responses

[ASK IF MEASURETYPE = "ROOM AC" AND D6 = 2, 3, 4 OR 5] Is Ameren Missouri the electricity provider for the property where your room air conditioner(s) were installed?												
Response	Pool Pumps (n=65)		RACs (not asked)		Air Purifiers (n=98)		Smart thermostats (not asked)		HPWHs (n=19)		Total (n=182)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
My primary residence	64	98%			97	99%			19	100%	180	99%
A vacation property or part-year residence	0	0%			1	1%			0	0%	1	1%
Property that I own but rent to someone else	0	0%			0	0%			0	0%	0	0%
Someone else's residence (such as a relative)	0	0%			0	0%			0	0%	0	0%
Some other situation	1	2%			0	0%			0	0%	1	1%
Don't know	1				0				0		1	

Table 99. Survey Question D9 Responses

[ASK IF MEASURETYPE IS NOT "ROOM AC" AND D8 DISPLAYED AND D8≠1] Is Ameren Missouri the electricity provider for the property where your [MEASURETYPE](s) were installed?												
Response	Pool Pumps (n=2)		RACs (not asked)		Air Purifiers (n=1)		Smart thermostats (not asked)		HPWHs (n=0)		Total (n=3)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes	2	100%			0	0%			0		2	67%
No	0	0%			1	100%			0		1	33%
Don't know	0				0				0		0	

E. Smart Thermostat Installation

Table 100. Survey Question E1 Responses

[ASK IF NOT ONLINE STORE] [IF QTY=1] Our records indicate that you purchased a [THERMOSTAT BRAND] “smart” thermostat, is this correct? [if QTY > 1] Our records indicate that you purchased [QTY] [THERMOSTAT BRAND] “smart” thermostats, is this correct?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=485)		HPWHs (not asked)		Total (n=485)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							483	99.6%			483	99.6%
No, purchased another kind of thermostat							2	0.4%			2	0.4%
Don't know							1				1	

Table 101. Survey Question E2 Responses

[IF QTY=1] Is the smart thermostat currently installed in your home? [IF QTY>1] Are all of the smart thermostats that you purchased currently installed in your home?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=485)		HPWHs (not asked)		Total (n=485)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							478	99%			478	99%
Only one is installed							0	0%			0	0%
Only two are installed							1	0.2%			1	0.2%
No / None are installed							6	1%			6	1%
Don't know							0				0	

Table 102. Survey Question E3 Responses

[ASK IF E2 = 4 and QTY =1] Was the smart thermostat . . . ? [OR ASK IF E2 = 3 and QTY =3 OR IF E2 = 2 and QTY =2] Was your smart thermostat that is not currently installed . . . ? [ASK IF E2 = 4 and QTY >1 or IF E2 = 2 and QTY =3] Were any of these smart thermostats installed and then removed, or have some of them not been installed yet?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=7)		HPWHs (not asked)		Total (n=7)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Installed and removed							4	57%			4	57%
Not installed yet							2	29%			2	29%
Given to someone else / installed at another property							1	14%			1	14%

Table 103. Survey Question E4 Responses

[ASK IF E3= 1, 2, 3] Why did you install and then remove the smart thermostat(s)? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=5)		HPWHs (not asked)		Total (n=5)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Too difficult to use							0	0%			0	0%
Did not adjust temperatures correctly							0	0%			0	0%
Thermostat broke							1	20%			1	20%
Did not think it was saving energy							0	0%			0	0%
I preferred my previous thermostat(s)							1	20%			1	20%
Other							3	60%			3	60%
Don't Know							0				0	

Table 104. Survey Question E5 Responses

[ASK IF E3 = 4 AND QTY=1] Why has the smart thermostat not been installed in your home yet? [OR IF E3 = 4 AND QTY>1, OR E3 = 2 ,3] Why have your smart thermostats not all been installed in your home yet?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=2)		HPWHs (not asked)		Total (n=2)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Haven't had time							1	50%			1	50%
Don't know how to install it							0	0%			0	0%
Installed in someone else's home / a different property							0	0%			0	0%
Other reason							1	50%			1	50%
Don't Know							1				1	

Table 105. Survey Question E6 Responses

[ASK IF E2=1,2,3 OR E3 DISPLAYED AND E3≠4] Where did you install the smart thermostat(s) that you purchased?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=482)		HPWHs (not asked)		Total (n=482)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
My primary residence							460	95%			460	95%
A vacation property or part-year residence							17	4%			17	4%
Property that I own but rent to someone else							2	0.4%			2	0.4%
Some other situation							3	0.6%			3	0.6%
Don't know							1				1	

Table 106. Survey Question E7 Responses

[ASK IF E6 DISPLAYED AND E6≠1 OR IF E5=3] Is Ameren Missouri the electricity provider for this property?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=24)		HPWHs (not asked)		Total (n=24)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							22	92%			22	92%
No							2	8%			2	8%
Don't know							0				0	



F. Smart Thermostat Usage

Table 107. Survey Question F1 Responses

How easy is the smart thermostat to use?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=478)		HPWHs (not asked)		Total (n=478)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very easy							378	79%			378	79%
Somewhat easy							95	20%			95	20%
Not too easy							4	1%			4	1%
Not at all easy							1	0.2%			1	0.2%
Don't know							0				0	

Table 108. Survey Question F2 Responses

Is the function on your smart thermostat that senses when you are home or away working? (This function is also called "geofencing" or "occupancy sensing")?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=479)		HPWHs (not asked)		Total (n=479)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							414	86%			414	86%
No							23	5%			23	5%
Don't Know							42	9%			42	9%

Table 109. Survey Question F3 Responses

Is your smart thermostat connected to the internet?												
	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=479)		HPWHs (not asked)		Total (n=479)	
Response	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Yes							453	95%			453	95%
No							12	3%			12	3%
Don't Know							14	3%			14	3%

Table 110. Survey Question F4 Responses

What features of your smart thermostat do you like best? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=476)		HPWHs (not asked)		Total (n=476)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Remote monitoring of household temperature and thermostat settings							367	77%			367	77%
Mobile app							354	74%			354	74%
Thermostat ease of use							335	70%			335	70%
Automatically programs itself/automatically adjusts the temperature when you're away							300	63%			300	63%
Gives me detailed information about my energy use							241	51%			241	51%
Thermostat design/aesthetics							235	49%			235	49%
Ability to check local weather from thermostat and smartphone/tablet app							144	30%			144	30%
Integration with other connected devices (Alexa, Echo, IFTTT)							127	27%			127	27%
Maintenance reminders							94	20%			94	20%
Dehumidifying capabilities (when thermostat uses HVAC system to lower indoor humidity level)							34	7%			34	7%
Other features							4	1%			4	1%
None of the above							2	0.4%			2	0.4%
Don't Know							2				2	

Table 111. Survey Question F5 Responses

In what ways have you ever accessed your thermostat since it was first installed, to do things such as changing your temperature settings or schedules? [SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=474)		HPWHs (not asked)		Total (n=474)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
The thermostat itself							406	86%			406	86%
Website on a PC or laptop							134	28%			134	28%
Smartphone or tablet app							449	95%			449	95%
I have not accessed my thermostat since it was installed							0	0%			0	0%
Don't Know							2				2	

Table 112. Survey Question F6 Responses

In the past 30 days, how have you most often accessed your new thermostat? [SELECT ONE]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=477)		HPWHs (not asked)		Total (n=477)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
The thermostat itself							165	35%			165	35%
Website on a PC or laptop							2	0.4%			2	0.4%
Smartphone or tablet app							299	63%			299	63%
I have not accessed my thermostat in the past month							11	2%			11	2%
Don't Know							2				2	

Table 113. Survey Question F7 Responses

How do you currently use your thermostat's interactive capabilities? [RANDOMIZE RESPONSE ORDER, SELECT ALL THAT APPLY]												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=469)		HPWHs (not asked)		Total (n=469)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Adjust the temperature while at home							376	80%			376	80%
Adjust the temperature while away from home							317	68%			317	68%
Modify my thermostat schedule while away from home							238	51%			238	51%
Modify my thermostat schedule while at home							228	49%			228	49%
Check inside or outside temperature							212	45%			212	45%
Check how much energy I have used							177	38%			177	38%
Just checked it out to see what it has to offer							40	9%			40	9%
Have not used interactive capabilities							7	1%			7	1%
Other							3	1%			3	1%
Don't Know							7				7	

Table 114. Survey Question F8 Responses

How is your smart thermostat currently controlled?												
Response	Pool Pumps (not asked)		RACs (not asked)		Air Purifiers (not asked)		Smart thermostats (n=471)		HPWHs (not asked)		Total (n=471)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
I keep it at a constant temperature throughout the season							39	8%			39	8%
I rely on the programmed schedule of temperatures, and never manually change the temperature							46	10%			46	10%
I rely on the programmed schedule of temperatures, but sometimes manually change the temperature							310	66%			310	66%
I manually adjust the temperature using a regular schedule by changing the temperature for different times of the day or week							35	7%			35	7%
I manually adjust the temperature using no regular schedule							35	7%			35	7%
Some other way							6	1%			6	1%
Don't Know							4				4	

G. Satisfaction with Ameren Missouri

Table 115. Survey Question G1 Responses

Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?												
Response	Pool Pumps (n=65)		RACs (n=77)		Air Purifiers (n=111)		Smart thermostats (n=483)		HPWHs (n=20)		Total (n=756)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Very satisfied	46	71%	58	75%	72	65%	352	73%	10	50%	538	71%
Somewhat satisfied	16	25%	18	23%	34	31%	119	25%	10	50%	197	26%
Not too satisfied	3	5%	0	0%	4	4%	8	2%	0	0%	15	2%
Not satisfied at all	0	0%	1	1%	1	1%	4	1%	0	0%	6	1%
Don't Know	1		2		0		4		0		7	

Table 116. Survey Question G2 Responses

[ASK IF G1 IS NOT “Don’t know”] Why are you [RATING FROM G1] with Ameren Missouri as your utility? Please give us further details on what you like or dislike about Ameren Missouri. [Show all response options if G1=2 or 3, show response options 1-4 & 9, 98 if G1=1, show response options 5-9 & 98 if G1=4. RANDOMIZE ORDER EXCEPT FOR OTHER AND DON’T KNOW, SELECT ALL THAT APPLY] \*

Response	Pool Pumps (n=61)		RACs (n=75)		Air Purifiers (n=105)		Smart thermostats (n=468)		HPWHs (n=19)		Total (n=728)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Satisfied with reliable and dependable service (outages are rare/brief)	19	31%	24	32%	28	27%	167	36%	3	16%	241	33%
Satisfied with Ameren Missouri’s Efficient Products rebate program	17	28%	15	20%	34	32%	134	29%	6	32%	206	28%
Dissatisfied with utility rates or rate increases	3	5%	7	9%	12	11%	61	13%	2	11%	85	12%
Satisfied with customer service / Ameren Missouri staff	5	8%	12	16%	14	13%	40	9%	1	5%	72	10%
Satisfied with utility rates	5	8%	4	5%	5	5%	16	3%	1	5%	31	4%
Dissatisfied with lack of choice in utility providers	1	2%	1	1%	2	2%	10	2%	0	0%	14	2%
Dissatisfied with the reliability of service (outages)	2	3%	2	3%	2	2%	6	1%	1	5%	13	2%
Dissatisfied with customer service / interactions with Ameren Missouri staff	0	0%	1	1%	1	1%	2	0.4%	1	5%	5	1%
Other reasons or comments	9	15%	9	12%	7	7%	32	7%	4	21%	61	8%
Don't know	4		1		3		11		1		20	

\* Question G2 was intended to be asked as a question allowing multiple responses, however, due to a programming error, respondents were only allowed to select one response.



Table 117. Survey Question G3 Responses

Based on your experience with the Efficient Products rebate program, would you say your satisfaction with Ameren Missouri has:												
Response	Pool Pumps (n=65)		RACs (n=76)		Air Purifiers (n=107)		Smart thermostats (n=477)		HPWHs (n=20)		Total (n=745)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Increased	36	55%	32	42%	44	41%	269	56%	12	60%	393	53%
Stayed about the same, or	29	45%	44	58%	60	56%	202	42%	8	40%	343	46%
Decreased	0	0%	0	0%	3	3%	6	1%	0	0%	9	1%
Don't Know	0		2		2		5		0		9	

H. Customer Demographics

Table 118. Survey Question H1 Responses

Question												
Response	Pool Pumps (n=64)		RACs (n=78)		Air Purifiers (n=109)		Smart thermostats (n=482)		HPWHs (n=20)		Total (n=753)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
All electric,	13	20%	13	17%	36	33%	103	21%	10	50%	175	23%
Natural gas and electric,	47	73%	63	81%	66	61%	363	75%	5	25%	544	72%
Or some other combination of energy sources?	4	6%	2	3%	7	6%	16	3%	5	25%	34	5%
Don't Know	1		0		1		2		0		4	

Table 119. Survey Question H2 Responses

Is your hot water heater electric or gas?												
Response	Pool Pumps (n=64)		RACs (n=75)		Air Purifiers (n=105)		Smart thermostats (n=463)		HPWHs (n=20)		Total (n=727)	
	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent	Count	Valid Percent
Electric	19	30%	22	29%	47	45%	131	28%	19	95%	238	33%
Gas	45	70%	53	71%	58	55%	332	72%	1	5%	489	67%
Don't Know	1		3		5		21		0		30	

## Immediate Survey Responses HVAC Survey Thermostats

This appendix provides the responses to questions in the Heating and Cooling Program Immediate Survey for customers who purchased smart thermostats. This survey was sent by email to PY17 HVAC participants between one and two months after installing their equipment. In PY17, 64 respondents completed the smart thermostat section of this survey.

The tables below provide the number of responses to answers to the survey questions. They also provide the percentage of the various responses, where the denominator is the total number of respondents who answered the question, not including respondents who replied “don’t know”.

We did not report initial screening questions that would have disqualified respondents from taking the survey. We did not report spillover questions because the analysis is done in a dynamic function and not based on raw frequencies.

### H. Smart Thermostat

**Table 1. Survey Question H1 Responses (n=67)**

Our records indicate that you purchased a “smart” thermostat, is this correct?		
Response	Count of Response	Percent of Respondents
Yes	64	95.5%
No, purchased another kind or number of thermostats (please specify):	3	4.5%
Don't Know	1	

**Table 2. Survey Question H2a Responses (n=53)**

Is the smart thermostat currently installed in your home?		
Response	Count of Response	Percent of Respondents
Yes	51	96.2%
No	2	3.8%
Don't Know	2	

**Table 3. Survey Question H2b Responses (n=11)**

Are all of the smart thermostats that you purchased currently installed in your home?		
Response	Count of Response	Percent of Respondents
Yes	10	90.9%
Only one is installed	1	9.1%
Don't Know	0	

**Table 4. Survey Question H3a Responses (n=1)**

<b>Was the smart thermostat installed and then removed, or has it not been installed yet?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Not installed yet	1	100.0%
Don't Know	1	

**Table 5. Survey Question H3b Responses (n=1)**

<b>Were any of these thermostats installed and then removed, or have they not been installed yet?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Installed and removed	1	100.0%
Don't Know	0	

**Table 6. Survey Question H4 Responses (n=1)**

<b>Why did you install and then remove the smart thermostat(s)?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Thermostat broke	1	100.0%
Don't Know	0	

**Table 7. Survey Question H6a Responses (n=49)**

<b>What types of heating and cooling systems is the smart thermostat connected to?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
High-efficiency central air conditioner	39	79.6%
Standard-efficiency central air conditioner	5	10.2%
Air source heat pump	5	10.2%
High-efficiency gas furnace	27	55.1%
Standard-efficiency gas furnace	8	16.3%
High-efficiency electric furnace	2	4.1%
Standard-efficiency electric furnace	1	2.0%
Don't Know	2	

**Table 8. Survey Question H6b Responses (n=10)**

<b>What types of heating and cooling systems are your smart thermostats connected to?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
High-efficiency central air conditioner	8	80.0%
Standard-efficiency central air conditioner	1	10.0%
Air source heat pump	1	10.0%
High-efficiency gas furnace	6	60.0%
Standard-efficiency gas furnace	1	10.0%
High-efficiency electric furnace	1	10.0%
Don't Know	1	

**Table 9. Survey Question H7a Responses (n=49)**

<b>What type of thermostat did you replace with the smart thermostat?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Replaced a traditional/manual thermostat	22	44.9%
Replaced a programmable thermostat (a thermostat that can be programmed, but is not "smart" or connected)	26	53.1%
My new thermostat replaced another smart thermostat (may also be called "learning" thermostats)	1	2.0%
Don't Know	2	

**Table 10. Survey Question H7b Responses (n=11)**

<b>What type(s) of thermostat did you replace with the smart thermostats?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
My new thermostats are installed in a newly constructed home	1	9.1%
Replaced a programmable thermostat (a thermostat that can be programmed, but is not "smart" or connected)	8	72.7%
Replaced a traditional/manual thermostat	2	18.2%
Don't Know	0	

**Table 11. Survey Question H8 Responses (n=60)**

<b>Which option best represents how you most often used or interacted with your OLD thermostat(s)?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Relied on the programmed schedule of temperatures, but sometimes manually changed the temperature	20	33.3%
Relied on the programmed schedule of temperatures, and never manually changed the temperature	2	3.3%
Manually adjusted temperature using no regular schedule	18	30.0%
Manually adjusted temperature using a regular schedule by changing the temperature for different time	6	10.0%
Kept thermostat(s) set at a constant temperature throughout each season	14	23.3%
Don't Know	1	

**Table 12. Survey Question H9 Responses (n=59)**

<b>Why did you replace your existing thermostat(s)?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
To save energy	17	28.8%
To save money on my utility bills	21	35.6%
The Ameren Missouri rebate	25	42.4%
Other rebates or coupons (not from Ameren Missouri)	6	10.2%
Part of a "package deal" with other equipment being replaced at the same time	32	54.2%
To update my home with the latest technology	20	33.9%
To take advantage of the features of the smart thermostat	32	54.2%
Some other reason (Specify)	1	1.7%
Don't Know	1	

**Table 13. Survey Question H10 Responses (n=66)**

<b>Did you purchase the thermostat at a store, or from a contractor?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Online Store	7	10.6%
Local retail store	13	19.7%
Contractor	46	69.7%
Don't Know	0	

**Table 14. Survey Question H11 Responses (n=61)**

<b>At what point did you determine the exact model and brand you wanted to buy?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
I knew which model I wanted before visiting the store	15	24.6%
I knew which model I wanted before calling a contractor	2	3.3%
I decided at the online store	5	8.2%
I decided after the contractor provided me with options	39	63.9%
Don't Know	5	

**Table 15. Survey Question H12 Responses (n=64)**

<b>Which factors were important in your decision to purchase the specific model and brand you selected? Please select all that apply</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Price	21	32.8%
Quality/reputation	29	45.3%
Cost savings on energy bills	32	50.0%
The store representative recommended it to me	2	3.1%
My contractor recommended it to me	37	57.8%
It qualified for an Ameren Missouri rebate	29	45.3%
It had specific features I was looking for	28	43.8%
Impact on the environment	9	14.1%
It was available when I needed it	8	12.5%
Other (please specify)	1	1.6%
Don't Know	3	

**Table 16. Survey Question H13 Responses (n=44)**

<b>If you had to choose just one, which factor would you say was the most important in your decision to purchase the specific model and brand you selected?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Quality/reputation	2	4.5%
Price	3	6.8%
My contractor recommended it to me	9	20.5%
It was available when I needed it	1	2.3%
It qualified for an Ameren Missouri rebate	6	13.6%
It had specific features I was looking for	15	34.1%
Impact on the environment	1	2.3%
Cost savings on energy bills	7	15.9%
Don't Know	0	

**Table 17. Survey Question H14 Responses (n=63)**

<b>How did you learn that the thermostat qualified for an Ameren Missouri Rebate?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
From the contractor	40	63.5%
From a representative at the store	4	6.3%
Ameren Missouri website	16	25.4%
Other (please specify)	3	4.8%
Don't Know	4	

**Table 18. Survey Question H15 Responses (n=59)**

<b>How easy is the smart thermostat to use?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Very easy	44	74.6%
Somewhat easy	13	22.0%
Not too easy	2	3.4%
Don't Know	0	

**Table 19. Survey Question H16 Responses (n=36)**

<b>Is the function on your smart thermostat that senses when you are home or away working? (This function is also called "geofencing" or "occupancy sensing.")</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Yes	26	72.2%
No	10	27.8%
Don't Know	24	

**Table 20. Survey Question H17 Responses (n=56)**

<b>Is your smart thermostat connected to the internet?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Yes	46	82.1%
No	10	17.9%
Don't Know	4	



**Table 21. Survey Question H18 Responses (n=56)**

<b>Which features of your smart thermostat do you like best?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Thermostat design/aesthetic	19	33.9%
Thermostat ease of use	39	69.6%
Automatically programs itself/automatically adjusts the temperature when you're away	19	33.9%
Gives me detailed information about my energy use	11	19.6%
Dehumidifying capabilities (when thermostat uses HVAC system to lower indoor humidity level)	14	25.0%
Maintenance reminders	7	12.5%
Mobile app	23	41.1%
Remote monitoring of household temperature and thermostat settings	36	64.3%
Ability to check local weather from thermostat and smartphone/tablet app	14	25.0%
Other features (please specify)	3	5.4%
None of the above	1	1.8%
Don't Know	4	

**Table 22. Survey Question H19 Responses (n=97)**

<b>In what ways have you ever accessed your thermostat since it was first installed, to do things such as changing your temperature settings or schedules?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
The thermostat itself	51	52.6%
Website on a PC or laptop	7	7.2%
Smartphone or tablet app	38	39.2%
I have not accessed my thermostat since it was installed	1	1.0%
Don't Know	0	

**Table 23. Survey Question H20 Responses (n=59)**

<b>In the past 30 days, how have you most often accessed your smart thermostat?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
The thermostat itself	35	59.3%
Smartphone or tablet app	23	39.0%
I have not accessed my thermostat in the past month	1	1.7%
Don't Know	1	

**Table 24. Survey Question H21 Responses (n=58)**

<b>How do you currently use your thermostat's interactive capabilities?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Check how much energy I have used	11	19.0%
Adjust the temperature while at home	35	60.3%
Adjust the temperature while away from home	21	36.2%
Modify my thermostat schedule while at home	17	29.3%
Modify my thermostat schedule while away from home	12	20.7%
Check inside or outside temperature	17	29.3%
Just checked it out to see what it has to offer	8	13.8%
Have not used interactive capabilities	7	12.1%
Other (please specify)	1	1.7%
Don't Know	2	

**Table 25. Survey Question H22 Responses (n=58)**

<b>Did you or someone in your household set up and program the thermostat, or did the contractor set it up for you?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
I or someone in my household set up/programmed it	31	53.4%
Contractor set up/programmed it	27	46.6%
Don't Know	1	

**Table 26. Survey Question H23 Responses (n=31)**

<b>How easy was it to set up your thermostat? Would you say it was...?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Very easy	18	58.1%
Somewhat easy	12	38.7%
Not too easy	1	3.2%
Don't Know	0	

**Table 27. Survey Question H24 Responses (n=60)**

<b>How is your smart thermostat currently controlled?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
I rely on the programmed schedule of temperatures, but sometimes manually change the temperature	36	60.0%
I rely on the programmed schedule of temperatures, and never manually change the temperature	5	8.3%
I manually adjust the temperature using no regular schedule	10	16.7%
I manually adjust the temperature using a regular schedule by changing the temperature for different	4	6.7%
I keep it at a constant temperature throughout the season	4	6.7%
Some other way (please specify)	1	1.7%
Don't Know	0	

Smart Thermostat Free Ridership Questions

**Table 28. Survey Question H25 Responses (n=58)**

<b>Did you first find out about the Ameren Missouri rebate before or after you purchased your new thermostat?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Learned of rebate before purchase	48	82.8%
Learned of rebate after purchase	10	17.2%
Don't Know	2	

**Table 29. Survey Question H26 Responses (n=10)**

<b>Please confirm: You purchased your new thermostat and then found out it qualified for a rebate from Ameren Missouri afterwards, is that correct?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Yes, that is correct	10	100.0%
Don't Know	0	

**Table 30. Survey Question H27 Responses (n=45)**

<b>Before you knew about the rebate from Ameren Missouri, were you already planning to install a smart thermostat this year?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Yes	19	42.2%
No	26	57.8%
Don't Know	5	

**Table 31. Survey Question H28 Responses (n=30)**

<b>Without Ameren Missouri's rebate, would you have installed a smart thermostat...?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Around the same time	17	56.7%
Later in the same year	4	13.3%
In one or two years	9	30.0%
Don't Know	20	

**Table 32. Survey Question H29 Responses (n=25)**

<b>Would you have installed the same smart thermostat without the rebate from Ameren Missouri?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Yes	16	64.0%
No	9	36.0%
Don't Know	16	

**Table 33. Survey Question H30 Responses (n=11)**

<b>Would you have installed a different thermostat without the Ameren Missouri rebate or would you have decided to not purchase one at all?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
I would have installed a different thermostat	6	54.5%
I would have decided not to purchase one at all	5	45.5%
Don't Know	14	

**Table 34. Survey Question H31 Responses (n=6)**

<b>When you say you would have installed a thermostat without the rebate from Ameren Missouri, would you have installed...?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
A smart thermostat (also called a "learning" thermostat)	3	50.0%
A programmable thermostat (a thermostat that can be programmed, but is not "smart" or connected to communication devices)	2	33.3%
A manual thermostat	1	16.7%
Don't Know	0	

**Table 35. Survey Question H32 Responses (n=64)**

<b>How important was the Ameren Missouri rebate on your decision to purchase and install the smart thermostat?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Very important	20	31.3%
Somewhat important	30	46.9%
Not very important	10	15.6%
Not at all important	4	6.3%
Don't Know	2	

**Table 36. Survey Question H33 Responses (n=61)**

<b>How important was the advice from the contractor in your decision to purchase and install the smart thermostat? Would you say...?</b>		
<b>Response</b>	<b>Count of Response</b>	<b>Percent of Respondents</b>
Very important	32	52.5%
Somewhat important	16	26.2%
Not very important	9	14.8%
Not at all important	4	6.6%
Don't Know	5	



## Appendix I. General Population Survey

January 2018

### A. Introduction

[DISPLAY AMEREN MISSOURI STYLE]

Please enter the 5-digit code from the postcard invitation:

[IF CODE IS INVALID, DISPLAY THE FOLLOWING MESSAGE AND DISPLAY THE FIVE-DIGIT CODE BOX AGAIN; CLOSE SURVEY AFTER FIVE FAILED ATTEMPTS.]

Sorry, the code you have entered is invalid. Please try again or contact Joan Wang at [joan.wang@cadmusgroup.com](mailto:joan.wang@cadmusgroup.com) or (503) 467-7186.

[IF CODE IS VALID, DISPLAY THE FOLLOWING MESSAGE AND CONTINUE SURVEY]

Welcome! Ameren Missouri is conducting its annual study to learn more about how households throughout Missouri use energy. Your responses are very important to us and we will keep them confidential. Complete the survey by **February 1, 2018**, and we will enter you into a drawing for one of five **\$100 Visa gift cards**.

The survey will take you about 15 minutes, and is intended for the person primarily responsible for your household's energy-related decisions (i.e., the person who is responsible for paying the utility bills or selecting new lighting and appliances).

This survey saves your responses automatically and responses will be submitted when you complete the survey. You can stop and then return to the survey at any time by accessing the survey link provided to you on the postcard. Please access the survey from the same device.

### B. Energy Efficiency Attitudes and Barriers

B1. How much energy do you use in your home now compared to five years ago? Would you say...

1. More
2. About the same
3. Less
- 98. Don't know

B2. How important is energy efficiency in your daily activities and when making purchasing decisions?

Would you say...

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
- 98. DON'T KNOW

B3. Please rate your home's energy efficiency. Would you say it is...

1. Very efficient
2. Somewhat efficient
3. Not too efficient
4. Not at all efficient
- 98. DON'T KNOW

B4. Please rate whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements: **[RANDOMIZE ORDER] [DROP DOWN SELECTION MENU WITH RESPONSE CHOICES: 1= STRONGLY AGREE; 2=SOMEWHAT AGREE; 3=SOMEWHAT DISAGREE; 4=STRONGLY DISAGREE; -98= DON'T KNOW]**

- a) It is important to conserve energy as much as possible
- b) Using energy to keep the home comfortable is my top priority
- c) I would like to save more energy but do not know where to start
- d) I always shop for the lowest prices, even if it takes more time
- e) I have already done as much as possible to save energy in my home
- f) I have tried a few things to save energy, but have not seen any real savings on my utility bills

B5. What are the main reasons you might decide to conserve energy? Selection up to three options. **[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. Reduce energy costs
2. Increase home comfort
3. Protect the environment
4. Increase value of home
5. Other (please specify): \_\_\_\_\_
- 98. Don't know

B6. What are the main reasons you might decide NOT to conserve energy? Selection up to three options. **[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. Already saving as much as possible
2. No need to save on energy cost
3. Equipment is too expensive
4. Equipment is hard to find
5. Equipment doesn't work as well
6. Don't think about it much
7. Don't have time
8. Other family members don't turn off lights/equipment
9. Other (please specify): \_\_\_\_\_
- 98. Don't know

B7. What challenges, if any, do you face in saving energy in your home? Selection up to three options.

**[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. Can't afford it/too expensive
2. Too hard to install/implement
3. Inconvenient/don't have time/too busy
4. Not confident it will save energy/be worth it
5. Afraid it will make home uncomfortable
6. Disruption to home/mess involved with installing improvements
7. Challenges with contractors
8. Don't know where to start
9. No challenges/None
10. Challenges with home construction or age
11. Home is already pretty efficient
12. Other family members are not trying to conserve
13. Other **[SPECIFY: \_\_\_\_\_]**
- 98. DON'T KNOW

### ***C. Energy Efficiency and Program Awareness***

C1. If you wanted to know more about energy saving opportunities, where would you look for information? Selection up to three options. **[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. TV or radio programs or ads
2. Online articles or ads



3. Print articles or ads (e.g., newspapers or magazines)
4. At a retail location
5. Utility bill or other utility direct mail
6. Email from the utility
7. Discussion with a contractor
8. Word of mouth (family, friends, colleagues)
9. Social media
10. Internet searches by you
11. Utility website
12. Other (please specify): \_\_\_\_\_
13. I don't want information about ways to save energy
- 98. Don't know

C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs? **[RESPONSE REQUIRED]**

1. Yes
2. No
- 98. DON'T KNOW

C3. **[IF C2 = 1]** How familiar are you with the Ameren Missouri's energy efficiency programs?

1. Very familiar
2. Somewhat familiar
3. Not too familiar
4. Not at all familiar
- 98. DON'T KNOW

C4. **[IF C3 = 1, 2, or 3]** Where do you recall having seen or heard about the Ameren Missouri energy efficiency programs? Select up to three options. **[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. TV or radio programs or ads
2. Online articles or ads
3. Print articles or ads (e.g., newspapers or magazines)
4. At a retail location
5. Utility bill or other utility direct mail
6. Email from the utility
7. Discussion with a contractor
8. Word of mouth (family, friends, colleagues)
9. Social media
10. Internet searches by you
11. Utility website
12. Other (please specify): \_\_\_\_\_

-98. Don't know

C5. **[IF C2 = 1]** Are you familiar with the following programs? **[RANDOMIZE ORDER] [DROP DOWN SELECTION MENU WITH RESPONSE CHOICES: 1= YES; 2=NO; -98= DON'T KNOW]**

1. CommunitySavers Program
2. Efficient Products Program
3. Multifamily Efficient Kits Program
4. School Kits Program
5. Heating and Cooling Program
6. Home Energy Report Program
7. Lighting Program

C6. **[IF YES TO ANY OF C5]** Did you participate in any of these programs in the past year? **[RESPONSE REQUIRED]**

1. Yes
  2. No
- 98. Don't know

C7. Have you visited any of the Ameren Missouri energy efficiency program websites within the past year, such as the Efficient Products or Heating and Cooling websites?

1. Yes
  2. No
- 98. Don't know

C8. **[IF C7 = 1]** What information were you looking for on the website? Selection up to three options. **[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. Energy saving tips
  2. Rebates or incentives
  3. Participating contractor or builder
  4. Participating retailers
  5. Where to recycle my CFLs or non-working LEDs
  6. Other (please specify): \_\_\_\_\_
- 98. Don't know

C9. **[IF C7 = 1]** Was the information on the website useful to you?

1. Yes
  2. No (please elaborate why): \_\_\_\_\_
- 98. DON'T KNOW

C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home? **[RESPONSE REQUIRED]**

1. Yes
2. No **[SKIP TO D1]**
- 98. Don't know **[SKIP TO D1]**

C11. From what sources did you hear or read about the Ameren Missouri energy-efficiency rebate opportunities? Selection up to three options. **[RANDOMIZE ORDER; ACCEPT UP TO THREE RESPONSES]**

1. TV or radio programs or ads
2. Online articles or ads
3. Print articles or ads (e.g., newspapers or magazines)
4. At a retail location
5. Utility bill or other utility direct mail
6. Email from the utility
7. Discussion with a contractor
8. Word of mouth (family, friends, colleagues)
9. Social media
10. Internet searches by you
11. Utility website
12. Other (please specify): \_\_\_\_\_
- 98. Don't know

### ***D. Lighting***

D1. Have you purchased any CFLs in the last year?

1. Yes
2. No
- 98. Don't know

D2. **[ASK IF D1 = 1]** How many CFLs did you purchase?

D3. **[ASK IF D1 = 1]** What store or stores did you make your purchase from?

D4. Have you purchased any LEDs in the last year? The kind of LED that can replace a traditional screw-in bulb, not LED nightlights, holiday lights, or flashlights.

1. Yes
2. No
- 98. Don't know

D5. **[ASK IF D4 = 1]** How many LEDs did you purchase?

D6. **[ASK IF D4 = 1]** What store or stores did you make your purchase from?

### **E. Cooling**

E1. What type of cooling equipment do you have in your home? **[ACCEPT MULTIPLE RESPONSES; RESPONSE REQUIRED]**

1. Central air conditioner
2. Ductless or mini-split heat pump
3. Air-source heat pump
4. Ground-source or geothermal heat pump
5. Portable air conditioner
6. Window or wall air conditioner
7. Evaporative (swamp) cooler
8. Other (please specify): \_\_\_\_\_
9. None **[SKIP TO SECTION F]**
- 98. DON'T KNOW **[SKIP TO SECTION F]**

E2. **[IF E1 ≠ 9 or -98]** How old is the cooling equipment you previously selected? Please indicate the number of years.

**[Carry forward selected choices]**

Years

## F. Heating

F1. What type of heating equipment do you have in your home? **[ACCEPT MULTIPLE RESPONSES; RESPONSE REQUIRED]**

1. Ductless or mini-split heat pump
2. Air-source heat pump
3. Ground-source or geothermal heat pump
4. Gas furnace/boiler
5. Electric baseboard heating system
6. Electric furnace
7. Other (please specify): \_\_\_\_\_
8. None **[SKIP TO SECTION G]**
- 98. Don't know **[SKIP TO F3]**

F2. How old is the heating equipment you previously selected? Please indicate in number of years.

**[Carry forward selected choices]**

Years

F3. **[If F1 = 7 OR -98]** Is your home heating electric or gas? **[RESPONSE REQUIRED]**

1. Electric
2. Gas
- 98. DON'T KNOW

## G. Potential Spillover

**[IF C6 = 1, SKIP TO SECTION H]**

G1. Is your hot water heater electric or gas? **[RESPONSE REQUIRED]**

1. Electric
2. Gas
- 98. Don't know

G2. Have you or anyone in your household purchased and installed any energy efficient equipment **in the past year?**

1. Yes
2. No **[SKIP TO G15]**
- 98. Don't know

G3. Have you or anyone in your household purchased and installed **energy efficient** versions of the following equipment **in the past year?** **[RANDOMIZE ORDER; ACCEPT MULTIPLE RESPONSES; RESPONSE REQUIRED]**

1. Room air conditioner
2. Room air purifier
3. Pool pump

4. **[IF G1 = 1]** Showerhead
5. **[IF G1 = 1]** Kitchen faucet aerator
6. **[IF G1 = 1]** Bathroom faucet aerator
7. **[IF G1 = 1]** Hot water pipe insulation for your hot water heater
8. Furnace fan with ECM (Electronically Commutated Motor)
9. Filter whistle
10. Heat pump water heater
11. Learning or "smart" thermostat
12. None
- 98. Don't know

G4. How many pieces of each equipment did you install? If you selected *hot water pipe insulation*, please indicate the square footage. **[RESPONSE REQUIRED]**

**[Carry down selected responses]**

Amount

G5. Have you or anyone in your household purchased and installed any other energy efficient equipment **in the past year?**

1. Yes (please specify): \_\_\_\_\_
2. No
- 98. Don't know

G6. **[If G5=1]** How many pieces of **[carry down]** did you install?

**[Text entry]**

**[IF G3 = 12 OR -98 SKIP TO G15]**

**[RESPONSES TO G3 COMBINED MAKE UP THE 'CONSIDERATION SET' FOR THE "SPILLOVER QUESTIONS" (G7-G14). IF RESPONSES ARE MORE THAN THREE, THEN THE CONSIDERATION SET BECOMES A SET OF THREE RANDOMLY SELECTED RESPONSES]**

G7. **[FOR EACH PRODUCT IN "CONSIDERATION SET"]** How do you know the **[INSERT PRODUCT FROM 'CONSIDERATION SET']** is energy efficient? **[RANDOMIZE ORDER; CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]**

1. It's ENERGY STAR-certified
2. The retailer/dealer/contractor told me it was
3. Other (please specify): \_\_\_\_\_
- 98. Don't know **[NOTE: FAIL]**

- G8. **[FOR EACH PRODUCT IN "CONSIDERATION SET"]** Which of the following reasons best describe why you decided to install a **[INSERT PRODUCT FROM 'CONSIDERATION SET']**? **[RANDOMIZE ORDER; CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]**
1. To save energy **[NOTE: PASS] [SKIP TO G10]**
  2. To save money **[NOTE: PASS] [SKIP TO G10]**
  3. To replace failing equipment
  4. Needed to replace anyway
  5. Liked the style
  6. Was ready to update
  7. To improve comfort
  8. Other (please specify): \_\_\_\_\_
- 98. Don't know
- G9. **[If G8 ≠ 1 OR 2]** Which of the following reasons best describe why you chose an energy efficient version of a **[INSERT PRODUCT FROM 'CONSIDERATION SET']** **[RANDOMIZE ORDER; CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]**
1. To save energy **[NOTE: PASS]**
  2. To save money **[NOTE: PASS]**
  3. Liked the style **[NOTE: FAIL]**
  4. It had other features that I liked **[NOTE: FAIL]**
  5. It was the cheapest product available **[NOTE: FAIL]**
  6. It was the only option available **[NOTE: FAIL]**
  7. Other (please specify): \_\_\_\_\_
- 98. Don't know **[NOTE: FAIL]**
- G10. **[FOR EACH PRODUCT IN THE "CONSIDERATION SET"]** Did you receive a rebate, discount, or tax credit for installing the **[INSERT PRODUCT IN "CONSIDERATION SET"]**? **[RESPONSE REQUIRED]**
1. Yes
  2. No **[NOTE: PASS] [SKIP TO G12]**
- 98. Don't know **[NOTE: FAIL] [SKIP TO G14]**
- G11. **[ASK FOR EACH PRODUCT IN "CONSIDERATION SET" IF G10 = 1]** Did you get a rebate from Ameren Missouri? **[RESPONSE REQUIRED]**
1. Yes **[NOTE: FAIL] [SKIP TO G14]**
  2. No **[NOTE: PASS]**
- 98. Don't know **[NOTE: FAIL] [SKIP TO G14]**

G12. **[ASK FOR EACH PRODUCT IN "CONSIDERATION SET" IF C2 = 1 OR C10 = 1]** Why didn't you or your contractor apply for a rebate through Ameren Missouri for the **[INSERT PRODUCT IN "CONSIDERATION SET"]**? **[RANDOMIZE ORDER; CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]**

1. I am still planning to apply **[NOTE: FAIL]**
2. It was confusing **[NOTE: PASS]**
3. Just forgot about it **[NOTE: PASS]**
4. I wasn't sure my equipment qualified **[NOTE: PASS]**
5. I wanted a different model that did not qualify **[NOTE: FAIL]**
6. I applied, but I did not receive a rebate **[NOTE: FAIL]**
7. Other (please specify): \_\_\_\_\_
- 98. Don't know **[NOTE: FAIL]**

G13. **[ASK FOR EACH PRODUCT IN "CONSIDERATION SET" IF G10 = 1 AND G11 = 2]** Which organization did you get a rebate, discount or tax credit from?

**[Text response]**

G14. **[ASK FOR EACH PRODUCT AND ACTION IN "CONSIDERATION SET"]** On a 1 to 4 scale, with 1 meaning "very important", and 4 meaning "not at all important", how important was each of the following elements in your decision to purchase and install a **[INSERT PRODUCT IN "CONSIDERATION SET"]**? **[ADD "Don't know" AND "Not applicable" AS RESPONSE OPTIONS; RANDOMIZE ORDER; RESPONSE REQUIRED]**

- a) Information about energy savings from Ameren Missouri's marking or bill insert
- b) Ameren Missouri's marketing information from a contractor or retailer
- c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri
- d) Past participation in an Ameren Missouri energy efficiency program
- e) Information from the energy assessment conducted at your home through Ameren Missouri



G15. Have you or anyone in your household had a tune-up of your heating or cooling equipment **in the past year?** [RESPONSE REQUIRED]

1. Yes
  2. No [SKIP TO H1]
- 98. DON'T KNOW [SKIP TO H1]

G16. What equipment was tuned up? [CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]

1. Heat pump
  2. Air conditioner
  3. Other (please specify): \_\_\_\_\_
- 98. Don't know [SKIP TO H1]

G17. Which of the following reasons best describe why you decided to have the tune-up? [CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]

1. To save energy [NOTE: PASS]
  2. To save money [NOTE: PASS]
  3. To improve home comfort [NOTE: FAIL]
  4. Other (please specify): \_\_\_\_\_
- 98. DON'T KNOW [NOTE: FAIL]

G18. Did you receive a rebate, discount, or tax credit for the tune-up? [RESPONSE REQUIRED]

1. Yes
  2. No [NOTE: PASS] [SKIP TO G20]
- 98. DON'T KNOW [NOTE: FAIL] [SKIP TO G21]

G19. [IF G18=1] Did you get a rebate from Ameren Missouri? [RESPONSE REQUIRED]

1. Yes [NOTE: FAIL] [SKIP TO G21]
  2. No [NOTE: PASS]
- 98. Don't know [NOTE: FAIL] [SKIP TO G21]

G20. [ASK IF C2 = 1 OR C10 = 1] Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up? [RANDOMIZE ORDER; CHOOSE ONLY ONE RESPONSE; RESPONSE REQUIRED]

1. I am still planning to apply [NOTE: FAIL]
  2. It was confusing [NOTE: PASS]
  3. Just forgot about it [NOTE: PASS]
  4. I wasn't sure the tune-up qualified [NOTE: PASS]
  5. I applied, but I did not receive a rebate [NOTE: FAIL]
  6. Other (please specify): \_\_\_\_\_
- 98. Don't know [NOTE: FAIL]

G21. On a 1 to 4 scale, with 1 meaning “very important”, and 4, meaning “not at all important”, how important was each of the following elements in your decision to get a tune-up? **[ADD “Don’t know” and “Not applicable” AS RESPONSE OPTIONS; RANDOMIZE ORDER; RESPONSE REQUIRED]**

- a) Information about energy savings from Ameren Missouri’s marking or bill insert
- b) Ameren Missouri’s marketing information from a contractor or retailer
- c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri
- d) Past participation in an Ameren Missouri energy efficiency program
- e) Information from the energy assessment conducted at your home through Ameren Missouri

### ***H. Customer Demographics***

H1. Thinking about your overall experiences with Ameren Missouri as your utility, how satisfied would you say you are with Ameren Missouri?

- 1. Very satisfied
- 2. Somewhat satisfied
- 3. Not too satisfied
- 4. Not at all satisfied
- 98. Don’t know

H2. How satisfied are you with the energy efficiency information and the rebates available to you by Ameren Missouri?

1. Very satisfied
2. Somewhat satisfied
3. Not too satisfied
4. Not at all satisfied
- 98. Don't know

H3. What type of home do you live in?

1. Single-family home
2. Manufactured or modular
3. Mobile home
4. Row house/townhome
5. Two or three family attached residence
6. Apartment with 4 units or greater
7. Condominium
8. Other (please specify): \_\_\_\_\_
- 98. Don't know

H4. Approximately how many square feet of living space does your home have? Don't include the basement unless it is a space that you consider lived in.

1. Less than 1,000 square feet
2. 1,000 to less than 1,500 square feet
3. 1,500 to less than 2,000 square feet
4. 2,000 to less than 2,500 square feet
5. 2,500 to less than 3,000 square feet
6. 3,000 or more square feet
- 98. Don't know

H5. What year was your home built?

1. After 2012
2. 2009-2012
3. 2005-2008
4. 2001-2004
5. 1980-2000
6. Before 1980
- 98. Don't know

H6. Do you own or rent this residence?

1. Own
2. Rent

-98. Don't know

H7. Is your home occupied...

1. Year round
2. On a seasonal basis/vacation home
- 98. Don't know

H8. What is the highest level of education that you have completed?

1. Less than a high school degree
2. High school degree
3. Technical/trade school program
4. Associates degree or some college
5. Bachelor's degree
6. Graduate/ professional degree, e.g. J.D., MBA, MD, etc.
7. Professional certification, e.g. CPA, CNP, etc.
- 98. Don't know

H9. Which of the following categories includes your household's total annual income before taxes?

1. Less than \$10,000
2. \$10,000 – \$14,999
3. \$15,000 – \$19,999
4. \$20,000 – \$29,999
5. \$30,000 – \$39,999
6. \$40,000 – \$49,999
7. \$50,000 – \$59,999
8. \$60,000 – \$74,999
9. \$75,000 – \$99,999
10. \$100,000 – \$124,999
11. \$125,000 – \$149,999
12. \$150,000 or more
13. Prefer not to say

Thank you for taking the survey. Your response has been recorded and we have entered you into the drawing for one of five \$100 gift cards.

If you are selected to receive one of the five gift cards in the drawing, the gift card will be mailed to you at the same address written on the postcard you received, by February 28th, 2018.

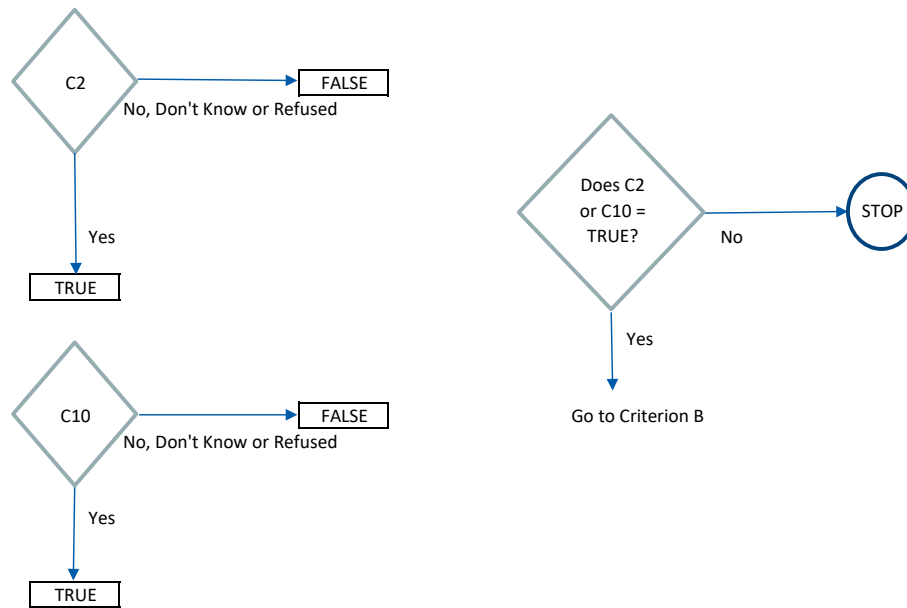
# Appendix J

## FLOWCHARTS FOR DETERMINING LIKE SPILLOVER

### Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount

C2. Have you ever seen or heard of the Ameren Missouri's energy efficiency programs?

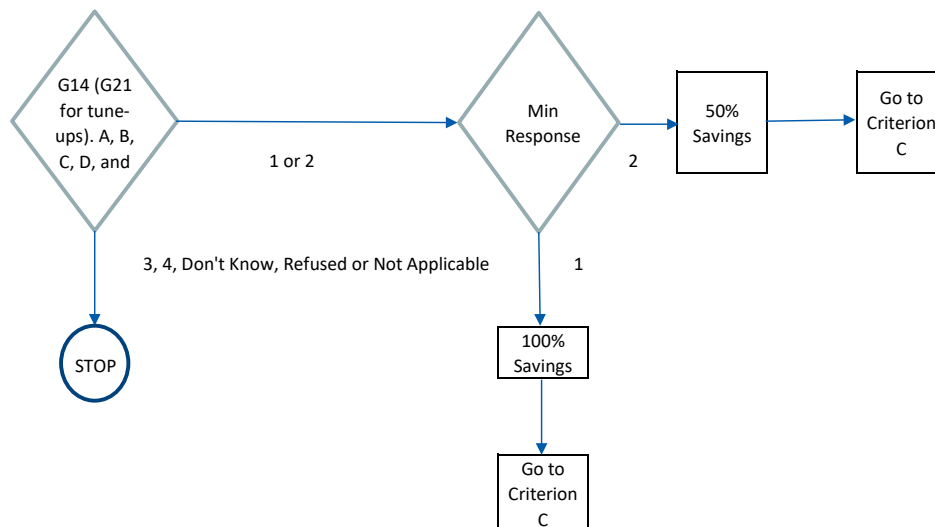
C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?



### Criterion B: At least one element of Ameren Missouri's program marketing and outreach motivated them to adopt the measure

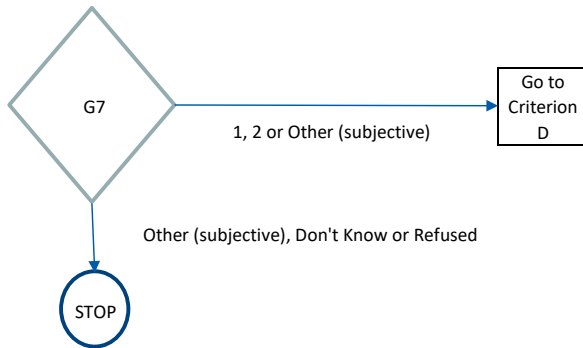
G14 (G21 for tune-ups). On a 1 to 4 scale, with 1 meaning "very important", and 4 meaning "not at all important", how important was each of the following elements in your decision to purchase and install the measure?

- A. Information about energy savings from Ameren Missouri's marketing or bill insert
- B. Ameren Missouri's marketing information from a contractor or retailer
- C. Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri
- D. Past participation in an Ameren Missouri energy efficiency program
- E. Information from the energy assessment conducted at your home through Ameren Missouri



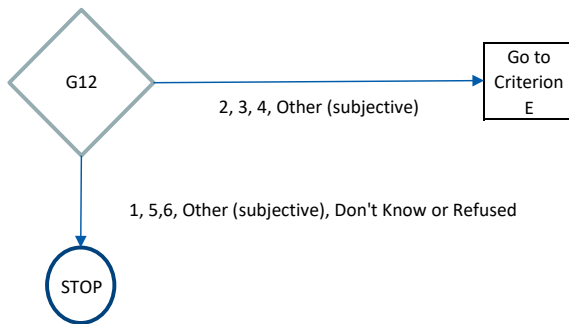
**Criterion C: They had a valid reason for considering the adopted measure energy efficient**

G7. How do you know the measure is energy efficient?  
 1 = It's ENERGY STAR-certified, 2 = The retailer/dealer/contractor told me it was, 4 = Other (please specify)



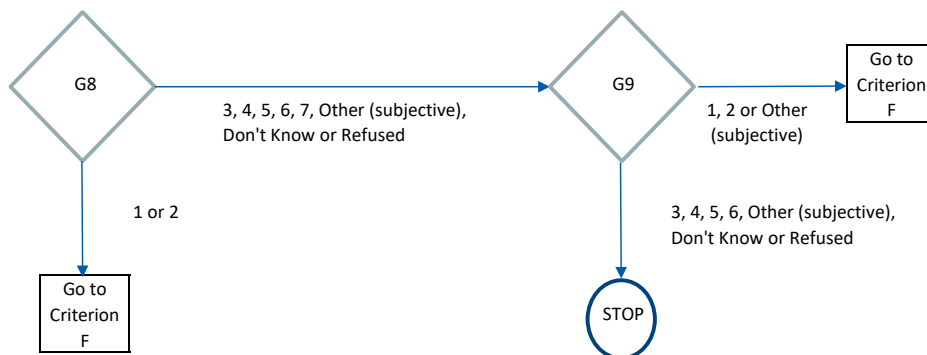
**Criterion D: They had not received a rebate from Ameren Missouri, had not tried to receive a rebate from Ameren Missouri, and stated a valid reason for not applying for an Ameren Missouri measure rebate.**

G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the measure?  
 1 = I am still planning to apply, 2 = It was confusing, 3 = Just forgot about it, 4 = I wasn't sure my equipment qualified, 5 = I wanted a different model that did not qualify, 6 = I applied but I did not receive a rebate, 7 = Other (please specify)



**Criterion E: They had a valid reason for deciding to install the measure**

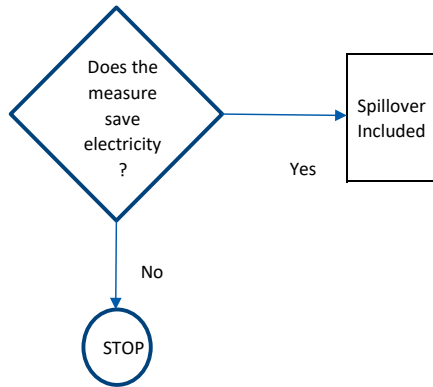
G8. Which of the following reasons best describe why you decided to install the measure?  
 1 = To save energy, 2 = To save money, 3 = To replace failing equipment, 4 = Needed to replace anyway, 5 = Liked the style, 6 = Was ready to update,  
 G9. Which of the following reasons best describe why you chose an energy efficient version of the measure?  
 1 = To save energy, 2 = To save money, 3 = Liked the style, 4 = It had other features that I liked, 5 = It was the cheapest product available,  
 6 = It was the only option available, 7 = Other (please specify)



**Criterion F: The adopted measure generated electric savings, not gas savings**

F1. What type of heating equipment do you have in your home?

G1. Is your hot water heater electric or gas?



# Appendix K

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient			Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria				
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002583162	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003598071	Room air conditioner	1	Yes	Yes	TRUE	2	1	1	99	2	FALSE	TRUE	Look at specs on unit	TRUE	No	0	I am still planning to apply	FALSE	New sun porch added on	To save energy	TRUE	Central air conditioner	Other (please specify): High Eff gas furnace. 1 week ago	Gas	TRUE	FALSE	FALSE	
CAD003598071	Furnace fan with ECM (Electronically Commutated Motor)	9	Yes	Yes	TRUE	2	2	2	1	2	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Waiting on new heat pump to be installed	FALSE	To save energy	0	TRUE	Central air conditioner	Other (please specify): High Eff gas furnace. 1 week ago	Gas	FALSE	FALSE	FALSE	
CAD002802503	Showerhead	4	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000263192	Heat pump water heater	11	No	Don't know	FALSE	1	1	2	1	1	FALSE	TRUE	Don't know	FALSE	Don't know	0	0	FALSE	Don't know	Don't know	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002554092	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	2	3	2	99	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	Yes	Yes	0	FALSE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD000365594	Learning or "smart" thermostat	12	Yes	Yes	TRUE	99	98	3	4	4	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002669597	Learning or "smart" thermostat	12	No	No	FALSE	98	98	1	98	98	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD000468433	Pool pump	3	Yes	Yes	TRUE	2	1	1	1	99	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD000457561	Room air purifier	2	Yes	Yes	TRUE	99	99	99	1	99	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	too small to qualify	FALSE	control allergies	To save energy	TRUE	Air-source heat pump	Air-source heat pump	Electric	TRUE	FALSE	FALSE	
CAD002287899	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	1	3	99	99	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	cool gadget	cool gadget	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003602684	Room air conditioner	1	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Ductless or mini-split heat pump	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD003602684	Learning or "smart" thermostat	12	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Ductless or mini-split heat pump	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE



Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient			Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria	
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002764034	Hot water pipe insulation for your hot water heater		Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	dont have	FALSE	No	0	dont have	FALSE	dont have	dont have	FALSE	Central air conditioner	Air-source heat pump	Electric	TRUE	FALSE	FALSE	
CAD002764034	Learning or "smart" thermostat		Don't know	Yes	TRUE	2	2		2	2	TRUE	FALSE	It's ENERGY STAR-	TRUE	Don't know	0	0	FALSE	To save energy	0	TRUE	Central air conditioner	Air-source heat pump	Electric	TRUE	FALSE	FALSE	
CAD002217834	Learning or "smart" thermostat		Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002727475	Room air purifier		Yes	Yes	TRUE	2	2	4	99	2	TRUE	FALSE	stated on website	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To improve comfort	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002727475	Showerhead		Yes	Yes	TRUE	2	2	98	3	98	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Needed to replace anyway	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD003637700	Showerhead		Yes	Yes	TRUE	3	3	2	2	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	Liked the style	To save energy	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE	
CAD003637700	Kitchen faucet aerator		Yes	Yes	TRUE	1	3	2	2	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE	
CAD000266147	Learning or "smart" thermostat		No	No	FALSE	2	4	2	98	4	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003767678	Showerhead		Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD003767678	Bathroom faucet aerator		Yes	Yes	TRUE	4	4	1	4	99	FALSE	TRUE	From person who installed the faucet	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD003767678	Learning or "smart" thermostat		Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	my son	FALSE	No	0	Got my Nest in 2015, no rebate was offered then	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002226824	Room air purifier		Yes	No	TRUE	98	98	98	98	98	FALSE	FALSE	Don't know	FALSE	No	0	Don't know	FALSE	To improve comfort	It was the cheapest product available	FALSE	Central air conditioner	Other (please specify):CentralGas	Don't know	TRUE	FALSE	FALSE	

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria		
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002559524	Room air purifier	2	Don't know	Yes	TRUE	2	98	2	99	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	Yes	Don't know	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002559524	Bathroom faucet aerator	6	Don't know	Yes	TRUE	1	99	2	2	99	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002559524	Learning or "smart" thermostat	12	Don't know	Yes	TRUE	2	98	2	98	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I am still planning to apply	FALSE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD002682870	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	99	99	99	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002357416	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	4	2	98	99	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wanted a different model that did	FALSE	Was ready to update	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002636733	Kitchen faucet aerator	5	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Other (please specify):Central heat, gasGas	Electric	TRUE	FALSE	FALSE
CAD002636733	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	1	98	98	1	98	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Other (please specify):Central heat, gasGas	Electric	TRUE	FALSE	FALSE
CAD002636733	Furnace fan with ECM (Electronically Commutated Motor)	9	Yes	Yes	TRUE	1	98	1	1	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Other (please specify):Central heat, gasGas	Electric	FALSE	FALSE	FALSE
CAD003391862	Showerhead	4	Yes	Yes	TRUE	4	4	4	4	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wanted a different model that did	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD003391862	Kitchen faucet aerator	5	Yes	Yes	TRUE	4	4	4	4	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wanted a different model that did	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD003391862	Bathroom faucet aerator	6	Yes	Yes	TRUE	4	2	4	3	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	I wanted a different model that did	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount				Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient			Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure				Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria	
Cadmus Account Key	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002630183	Heat pump water heater Learning or "smart" thermostat	11	Yes	No	TRUE	1	2	2	2	1	FALSE	TRUE	IT's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003472765	Learning or "smart" thermostat	12	No	Yes	TRUE	99	2	4	2	99	TRUE	FALSE	IT's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002582220	Room air purifier Learning or "smart" thermostat	2	No	No	FALSE	1	1	1	99	1	FALSE	TRUE	IT's ENERGY STAR-	TRUE	No	0	0	TRUE	Needed to replace anyway	To save money	TRUE	Central air conditioner	Air-source heat pump	Gas	TRUE	FALSE	FALSE	
CAD002582220	Learning or "smart" thermostat	12	No	No	FALSE	2	3	1	2	1	FALSE	TRUE	IT's ENERGY STAR-	TRUE	No	0	0	TRUE	To save energy	0	TRUE	Central air conditioner	Air-source heat pump	Gas	TRUE	FALSE	FALSE	
CAD003644107	Learning or "smart" thermostat	12	Don't know	Yes	TRUE	4	4	3	99	99	FALSE	FALSE	IT's ENERGY STAR-	TRUE	No	0	Lost purchase receipt	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000126018	Kitchen faucet aerator	5	Don't know	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	IT's ENERGY STAR-certified	TRUE	No	0	Don't know	FALSE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Air-source heat pump Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000126018	Bathroom faucet aerator	6	Don't know	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	IT's ENERGY STAR-certified	TRUE	No	0	Don't know	FALSE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Air-source heat pump Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000049729	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	99	1	99	99	FALSE	TRUE	IT's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002695246	Showerhead	4	No	No	FALSE	1	2	2	2	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To improve comfort	Liked the style	FALSE	Central air conditioner	Don't know Electric	Electric	TRUE	FALSE	FALSE	
CAD002188669	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	3	4	4	99	FALSE	FALSE	IT's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To replace failing equipment	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002275123	Learning or "smart" thermostat	12	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	Yes	Don't know	0	FALSE	Convenience	Gifted to me	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002405365	Showerhead	4	Yes	Yes	TRUE	2	99	2	99	2	TRUE	FALSE	IT's ENERGY STAR-certified	TRUE	No	0	I wanted a different model that did	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD003513543	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	3	2	99	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Included with the home security system	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002654763	Room air purifier	2	Yes	Yes	TRUE	1	3	2	2	1	FALSE	TRUE	IT's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To improve comfort	To save energy	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE	

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount				Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient			Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria	
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002654763	Showerhead	4	Yes	Yes	TRUE	1	2	1	1	2	FALSE	TRUE	The retailer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To replace failing equipment	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002654763	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	1	2	2	3	2	FALSE	TRUE	The retailer/contractor told me it was	TRUE	No	0	Just forgot about it	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE	
CAD000136744	Room air purifier	2	Don't know	Yes	TRUE	1	1	98	1	2	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To improve comfort	Don't know	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD002276984	Showerhead	4	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Don't know	FALSE	No	0	I wasn't sure my equipment qualified	TRUE	Liked the style	Liked the style	FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	Electric	TRUE	FALSE	FALSE	
CAD002276984	Kitchen faucet aerator	5	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Don't know	FALSE	No	0	I wasn't sure my equipment qualified	TRUE	Don't know	It had other features that I liked	FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	Electric	TRUE	FALSE	FALSE	
CAD002276984	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	The retailer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	Electric	TRUE	FALSE	FALSE	
CAD002749119	Room air purifier	2	Yes	Yes	TRUE	2	1	2	2	3	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Don't know	0	FALSE	To improve comfort	To save money	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002749119	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	2	3	2	1	3	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE	
CAD003665641	Learning or "smart" thermostat	12	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002816937	Learning or "smart" thermostat	12	No	No	FALSE	2	2	1	2	2	FALSE	TRUE	The retailer/contractor told me it was	TRUE	Don't know	0	0	FALSE	To save money	0	TRUE	Don't know	Don't know	Don't know	TRUE	FALSE	FALSE	
CAD002666443	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	4	1	2	98	FALSE	TRUE	Don't know	FALSE	No	0	I wanted a different model that did not qualify	FALSE	Convenience of being able to control with my phone and program a schedule for each day	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002299382	Room air conditioner	1	Yes	Yes	TRUE	3	3	3	4	3	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save money	0	TRUE	Window or wall air conditioner	Other (please specify):Space heaters electric	Electric	TRUE	FALSE	FALSE	

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount				Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure		Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria			
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002641014	Heat pump water heater	11	Yes	Yes	TRUE	2	3	99	99	99	TRUE	FALSE	The retailer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Electric furnace	Gas	FALSE	FALSE	FALSE
CAD003792114	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	4	99	99	2	TRUE	FALSE	its on the rebate list	TRUE	Don't know	0	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002643507	Kitchen faucet aerator	5	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	Needed to replace anyway	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002643507	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	2	98	99	2	2	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	Just forgot about it	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	TRUE	FALSE
CAD003362428	Learning or "smart" thermostat	12	No	No	FALSE	1	2	1	1	1	FALSE	TRUE	The retailer/contractor told me it was	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000411372	Showerhead	4	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	Needed to replace anyway	To save money	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD003406377	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	2	1	98	98	98	FALSE	TRUE	The retailer/contractor told me it was	TRUE	Don't know	0	0	FALSE	Was ready to update	contractor installed	FALSE	Central air conditioner Air-source heat pump	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD003406377	Learning or "smart" thermostat	12	Yes	Yes	TRUE	1	1	98	98	98	FALSE	TRUE	The retailer/contractor told me it was	TRUE	Don't know	0	0	FALSE	To save energy	0	TRUE	Central air conditioner Air-source heat pump	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD003621765	Learning or "smart" thermostat	12	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	My heat is turned off when I'm gone more than	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000470011	Room air purifier	2	Yes	No	TRUE	2	98	2	2	2	TRUE	FALSE	It's ENERGY STAR-	TRUE	Don't know	0	0	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002746360	Heat pump water heater	11	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	Just forgot about it	TRUE	added nathroom needed to upgrade size	To save money	TRUE	Other (please specify): tankless water	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002406125	Learning or "smart" thermostat	12	No	Yes	TRUE	98	4	4	98	98	FALSE	FALSE	Don't know	FALSE	No	0	Don't know	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD002716064	Bathroom faucet aerator	6	Yes	Yes	TRUE	98	99	98	99	98	FALSE	FALSE	The retailer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria				
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD000218066	Heat pump water heater	11	Yes	Yes	TRUE	1	3	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No		I am still planning to apply	FALSE	To replace failing equipment	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003662961	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002697161	Pool pump	3	Yes	Yes	TRUE	1	2	98	2	98	FALSE	TRUE	It's ENERGY STAR-	TRUE	No		Just forgot about it	TRUE	Don't know	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD003654940	Learning or "smart" thermostat	12	No	Yes	TRUE	2	3	2	1	4	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No		I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD000418661	Kitchen faucet aerator	5	Yes	No	TRUE	2	4	2	2	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No		I wasn't sure my equipment qualified	TRUE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE	
CAD002712011	Room air purifier	2	Yes	Yes	TRUE	4	4	4	98	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	Don't know		0	FALSE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Electric baseboard heating	Gas	TRUE	FALSE	FALSE
CAD002451805	Pool pump	3	Yes	Yes	TRUE	4	4	98	99	4	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	To replace failing equipment	Don't know	FALSE	Central air conditioner	Electric furnace	Don't know	TRUE	FALSE	FALSE	
CAD002451805	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	99	98	4	98	FALSE	FALSE	It's ENERGY STAR-	TRUE	Yes	Don't know	0	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace	Don't know	TRUE	FALSE	FALSE	
CAD003700034	Learning or "smart" thermostat	12	No	Yes	TRUE	2	98	2	1	98	FALSE	TRUE	Don't know	FALSE	No		Just forgot about it	TRUE	To save money	0	TRUE	Central air conditioner	Ductless or mini-split heat pump	Gas	TRUE	FALSE	FALSE	
CAD002594683	Room air conditioner	1	Yes	Yes	TRUE	98	98	98	2	98	TRUE	FALSE	Don't know	FALSE	No		I applied, but I did not receive a rebate	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD000064799	Heat pump water heater	11	No	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		I wasn't sure my equipment qualified	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Other (please specify):wood stoveGas	Gas	FALSE	FALSE	FALSE
CAD000049052	Room air conditioner	1	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		I wasn't sure my equipment qualified	TRUE	To improve comfort	It was the cheapest product available	FALSE	Central air conditioner	Window or wall air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002363402	Room air purifier	2	No	No	FALSE	99	4	2	4	4	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		0	0	TRUE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria	
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002363402	Learning or "smart" thermostat	12	No	No	FALSE	4	4	1	4	99	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002384242	Furnace fan with ECM (Electronically Commutated Motor)	9	Yes	Yes	TRUE	1	99	2	99	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't own property	FALSE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000372655	Learning or "smart" thermostat	12	Yes	Yes	TRUE	1	99	1	1	1	FALSE	TRUE	Don't know	FALSE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002199101	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	4	2	3	3	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Don't know	FALSE	FALSE	FALSE
CAD000104833	Learning or "smart" thermostat	12	No	Yes	TRUE	2	4	4	4	4	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	Yes	Yes	0	FALSE	Liked the style	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Gas	TRUE	FALSE	FALSE
CAD002616954	Showerhead	4	No	No	FALSE	2	2	3	3	2	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To replace failing equipment	To save money	TRUE	Window or wall air conditioner	Electric baseboard heating system	Electric	TRUE	FALSE	FALSE
CAD002616954	Kitchen faucet aerator	5	No	No	FALSE	2	1	99	4	3	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Window or wall air conditioner	Electric baseboard heating system	Electric	TRUE	FALSE	FALSE
CAD003720290	Heat pump water heater	11	Yes	Yes	TRUE	1	3	1	2	2	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Yes	Don't know	0	FALSE	To save energy	0	TRUE	Central air conditioner Portable air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000205380	Showerhead	4	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	common sense	FALSE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD000205380	Kitchen faucet aerator	5	Yes	Yes	TRUE	1	1	1	2	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	TRUE
CAD000205380	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	common sense	FALSE	No	0	I wasn't sure my equipment qualified	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002603785	Learning or "smart" thermostat	12	Don't know	Yes	TRUE	2	98	1	99	99	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria		
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002608437	Learning or "smart" thermostat	12	Don't know	Don't know	FALSE	4	4	3	4	4	FALSE	FALSE	research	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003417488	Room air conditioner	1	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	IT's ENERGY STAR-certified	TRUE	Yes	No	Just forgot about it	TRUE	Was ready to update	Liked the style	FALSE	Ground-source heat pump	Ground-source or geothermal heat pump	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD003417488	Room air purifier	2	Yes	Yes	TRUE	3	2	4	98	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Just forgot about it	TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Air-source heat pump	Ground-source or geothermal heat pump	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD002551851	Room air purifier	2	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No	0	0	TRUE	To improve comfort	Don't know	FALSE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD000237084	Furnace fan with ECM (Electronically Commutated Motor)	9	No	Yes	TRUE	4	2	2	99	1	FALSE	TRUE	IT's ENERGY STAR-certified	TRUE	Yes	Yes	0	FALSE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003644290	Showerhead	4	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	IT's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Needed to replace anyway	To save energy	TRUE	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD002283814	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	4	2	4	4	TRUE	FALSE	IT's ENERGY STAR-	TRUE	No	0	Gifted without a receipt	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002376884	Showerhead	4	No	Don't know	FALSE	1	1	2	98	1	FALSE	TRUE	Don't know	FALSE	Don't know	0	0	FALSE	The management of society changed it	To save energy	FALSE	Central air conditioner	Don't know	Electric	Electric	TRUE	FALSE	FALSE
CAD002376884	Kitchen faucet aerator	5	No	Don't know	FALSE	1	1	2	1	1	FALSE	TRUE	Don't know	FALSE	Don't know	0	0	FALSE	The management of society changed it	To save energy	FALSE	Central air conditioner	Don't know	Electric	Electric	TRUE	FALSE	FALSE
CAD002376884	Bathroom faucet aerator	6	No	Don't know	FALSE	2	1	1	1	1	FALSE	TRUE	Don't know	FALSE	Don't know	0	0	FALSE	The management of society changed for society	To save energy	FALSE	Central air conditioner	Don't know	Electric	Electric	TRUE	FALSE	FALSE
CAD000043596	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	4	99	99	99	FALSE	FALSE	IT's ENERGY STAR-	TRUE	Yes	Don't know	0	FALSE	Was ready to update	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003738060	Room air conditioner	1	Yes	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To improve comfort	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD003738060	Room air purifier	2	Yes	Yes	TRUE	2	3	4	4	3	TRUE	FALSE	IT's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	



Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria		
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003738060	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	3	3	3	3	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD000278462	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	3	4	3	4	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002356832	Furnace fan with ECM (Electronically Commutated Motor)	9	Yes	No	TRUE	3	2	2	2	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	Just forgot about it	TRUE	Needed to replace anyway	Liked the style	FALSE	Ductless or mini-split heat pump Air-source heat pump Wind or wall air conditioner	Gas furnace/boiler Electric baseboard heating	Gas	FALSE	FALSE	FALSE
CAD002356832	Filter whistle	10	Yes	No	TRUE	1	1	1	2	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	I am still planning to apply	FALSE	To save energy	0	TRUE	Ductless or mini-split heat pump Air-source heat pump Wind or wall air conditioner	Gas furnace/boiler Electric baseboard heating	Gas	FALSE	FALSE	FALSE
CAD002356832	Heat pump water heater	11	Yes	No	TRUE	2	2	1	2	2	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	Just forgot about it	TRUE	To save money	0	TRUE	Ductless or mini-split heat pump Air-source heat pump Wind or wall air conditioner	Gas furnace/boiler Electric baseboard heating	Gas	FALSE	FALSE	FALSE
CAD002272041	Showerhead	4	No	No	FALSE	2	98	2	99	98	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	Needed to replace anyway	To save money	TRUE	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002649948	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	2	4	2	3	4	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I applied, but I did not receive a rebate	FALSE	To replace failing equipment	It had other features that I liked	FALSE	Central air conditioner Air-source heat pump	Air-source heat pump Electric furnace	Electric	TRUE	FALSE	FALSE
CAD003515316	Room air purifier	2	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount		Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria			
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000094846	Showerhead		4 Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		Came from Ameren.	FALSE	To replace failing equipment	Came from Ameren.	FALSE	Air-source heat pump/Portable air conditioner	Air-source heat pump Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000094846	Kitchen faucet aerator		5 Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		Just forgot about it	TRUE	To replace failing equipment	It had other features that I liked	FALSE	Air-source heat pump/Portable air conditioner	Air-source heat pump Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000094846	Bathroom faucet aerator		6 Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		Just forgot about it	TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Air-source heat pump/Portable air conditioner	Air-source heat pump Electric furnace	Electric	TRUE	FALSE	FALSE
CAD003597429	Showerhead		4 Yes	Yes	TRUE	2	2	98	99	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	No		Just forgot about it	TRUE	To replace failing equipment	It had other features that I liked	FALSE	Central air conditioner	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD002747574	Showerhead		4 Don't know	No	FALSE	1	3	2	3	3	FALSE	TRUE	a water saver head	TRUE	No			TRUE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002594245	Learning or "smart" thermostat		12 Yes	Yes	TRUE	1	3	2	1	1	FALSE	TRUE	your website	TRUE	Yes	Yes		FALSE	Was ready to update	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002422048	Learning or "smart" thermostat		12 No	Yes	TRUE	1	2	1	2	2	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	Don't know			FALSE	Was ready to update	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002650984	Learning or "smart" thermostat		12 Yes	Yes	TRUE	2	2	98	98	2	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		I wasn't sure my equipment qualified	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002211003	Heat pump water heater		11 Yes	Don't know	TRUE	3	3	3	3	3	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		Don't know	FALSE	Needed to replace anyway	It was the only option available	FALSE	Air-source heat pump/Ground-source or geothermal heat pump	Air-source heat pump Ground-source or geothermal	Gas	FALSE	FALSE	FALSE
CAD002211003	Learning or "smart" thermostat		12 Yes	Don't know	TRUE	3	3	3	3	3	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		Don't know	FALSE	Needed to replace anyway	It was the only option available	FALSE	Air-source heat pump/Ground-source or geothermal heat pump	Air-source heat pump Ground-source or geothermal	Gas	TRUE	FALSE	FALSE
CAD002510961	Showerhead		4 No	No	FALSE	2	3	2	99	2	TRUE	FALSE	web	TRUE	No			TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient			Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria			
Cadmus Account Key	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)		
CAD003761896	Room air purifier		2 No	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No		installed in furnace	FALSE	whole house	clean air	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE		
CAD003761896	Furnace fan with ECM (Electronically Commutated Motor)		9 No	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Yes	Yes		FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE		
CAD000291019	Room air conditioner		1 Don't know	No	FALSE	4	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No		0	0	TRUE	To improve comfort	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD000408637	Learning or "smart" thermostat		12 Yes	Yes	TRUE	4	2	4	3	4	TRUE	FALSE	It's ENERGY STAR-	TRUE	No		Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE		
CAD002662787	Learning or "smart" thermostat		12 Yes	Yes	TRUE	2	98	98	98	98	TRUE	FALSE	It's ENERGY STAR-	TRUE	Don't know		0	0	FALSE	Was ready to update	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002685856	Room air conditioner		1 No	No	FALSE	1	99	2	98	2	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No		0	0	TRUE	To improve comfort	It was the only option available	FALSE	Window or wall air conditioner	Electric heaterGas	Gas	TRUE	FALSE	FALSE	
CAD002582547	Room air conditioner		1 No	Don't know	FALSE	98	98	98	98	98	FALSE	FALSE	Don't know	FALSE	No		0	0	TRUE	To save energy		TRUE	Central air conditioner	Window or wall air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002515565	Furnace fan with ECM (Electronically Commutated Motor)		9 Yes	Yes	TRUE	3	2	99	99	99	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No		I am still planning to apply	FALSE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE		
CAD000458533	Learning or "smart" thermostat		12 Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No		Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Other (please specify): propaneGas	Electric	FALSE	FALSE	FALSE		
CAD003513673	Room air purifier		2 Yes	Yes	TRUE	1	2	2	2	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Don't know		0	FALSE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD003674356	Learning or "smart" thermostat		12 Don't know	Yes	TRUE	1	1	1	2	2	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	Yes	Yes		0	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE	
CAD002414770	Room air purifier		2 No	No	FALSE	98	98	98	99	98	FALSE	FALSE	It's ENERGY STAR-	TRUE	No		0	0	TRUE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD003617699	Showerhead		4 Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	Don't know	FALSE	No		0	0	FALSE	Don't know	Don't know	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD003617699	Bathroom faucet aerator		6 Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Don't know	FALSE	No		0	0	TRUE	To replace failing equipment	Don't know	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria		
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003617699	Furnace fan with ECM (Electronically Commutated Motor)		9 Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	222	FALSE	No	0	contractor not "certified" by ameren. He said it's too expensive to be certified and purchase their specific equipment	FALSE	Don't know	222	FALSE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD003382984	Learning or "smart" thermostat		12 Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	Didn't know about the rebate.	TRUE	New install by contractor	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002640016	Furnace fan with ECM (Electronically Commutated Motor)		9 Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	Needed to replace anyway	FALSE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE	
CAD002592153	Learning or "smart" thermostat		12 Yes	Yes	TRUE	98	2	1	98	98	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	Just forgot about it	TRUE	To improve comfort	FALSE	Central air conditioner	Electric baseboard heating system	Electric	TRUE	FALSE	FALSE	
CAD002320314	Showerhead		4 Yes	Yes	TRUE	4	98	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To improve comfort	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002320314	Hot water pipe insulation for your hot water heater		7 Yes	Yes	TRUE	99	4	99	99	99	FALSE	FALSE	Don't know	FALSE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002320314	Learning or "smart" thermostat		12 Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	already installed	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD003638263	Learning or "smart" thermostat		12 Yes	Yes	TRUE	4	1	1	1	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	Yes	Yes	0	FALSE	Was ready to update	Liked the style	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002679912	Showerhead		4 Don't know	No	FALSE	3	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	To replace failing equipment	TRUE	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000274567	Room air conditioner		1 No	No	FALSE	2	2	1	3	2	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To improve comfort	TRUE	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria		
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002414106	Learning or "smart" thermostat	12	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002418923	Room air purifier	2	No	No	FALSE	1	1	1	2	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To improve comfort	Health	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002418923	Learning or "smart" thermostat	12	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD003729887	Room air purifier	2	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Don't know	TRUE	FALSE	FALSE
CAD002357394	Bathroom faucet aerator	6	No	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To replace failing equipment	To save money	TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump Other (please specify):WOOD	Electric	TRUE	FALSE	FALSE
CAD002357394	Hot water pipe insulation for your hot water heater	7	No	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	Don't know	FALSE	No	0	0	TRUE	To save energy	0	TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump Other (please specify):WOOD	Electric	TRUE	FALSE	FALSE
CAD002438577	Showerhead	4	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	Needed to replace anyway	Don't know	FALSE	Air-source heat pump	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD002438577	Kitchen faucet aerator	5	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	Needed to replace anyway	needed to replace	FALSE	Air-source heat pump	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD002438577	Bathroom faucet aerator	6	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To replace failing equipment	needed to replace them	FALSE	Air-source heat pump	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD003621601	Learning or "smart" thermostat	12	No	Yes	TRUE	1	2	1	4	4	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000277230	Pool pump	3	No	Yes	TRUE	2	2	1	2	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	Needed to replace anyway	To save energy	TRUE	Window or wall air conditioner	Other (please specify):Electric boilerElectric	Electric	TRUE	FALSE	TRUE
CAD000277230	Bathroom faucet aerator	6	No	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To improve comfort	Liked the style	FALSE	Window or wall air conditioner	Other (please specify):Electric boilerElectric	Electric	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount				Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria	
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002552140	Learning or "smart" thermostat	12	No	No	FALSE	99	99	98	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	Needed to replace anyway	Liked the style	FALSE	Don't know	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD003464403	Heat pump water heater	11	Yes	Yes	TRUE	2	2	1	3	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	building new house	To save money	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD003600337	Showerhead	4	Yes	Yes	TRUE	4	4	4	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD003600337	Bathroom faucet aerator	6	Yes	Yes	TRUE	4	99	4	4	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	Was ready to update	Liked the style	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002818110	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	2	1	2	2	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD000223555	Furnace fan with ECM (Electronically Commutated Motor)	9	No	No	FALSE	1	4	4	4	4	FALSE	TRUE	Don't know	FALSE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002733200	Room air purifier	2	Yes	Yes	TRUE	1	1	99	98	99	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	0	FALSE	I just applies a few days ago. waiting to receive checks	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Gas	TRUE	FALSE	FALSE
CAD002229910	Learning or "smart" thermostat	12	Yes	No	TRUE	98	98	98	99	2	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Don't know	FALSE	FALSE	FALSE
CAD000309256	Learning or "smart" thermostat	12	No	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	Don't know	0	FALSE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Don't knowGas	Gas	FALSE	FALSE	FALSE
CAD000199191	Furnace fan with ECM (Electronically Commutated Motor)	9	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	Don't know	0	0	FALSE	the old one went out	Landlord did	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000199191	Heat pump water heater	11	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	landlord did it	FALSE	Don't know	0	0	FALSE	old one went out	landlord	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000199191	Learning or "smart" thermostat	12	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	landlord did it	FALSE	Don't know	0	0	FALSE	To replace failing equipment	landlord did it	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002193654	Room air conditioner	1	No	Yes	TRUE	98	3	98	2	2	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To replace failing equipment	It was the cheapest product available	FALSE	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount				Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria	
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003652205	Hot water pipe insulation for your hot water heater		7 No	Yes	TRUE	1	4	99	99	99	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	It was confusing	TRUE	Energy conservation & so pipes don't freeze	To save energy	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	TRUE
CAD000099117	Showerhead		4 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000099117	Bathroom faucet aerator		6 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000099117	Hot water pipe insulation for your hot water heater		7 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002747558	Learning or "smart" thermostat		12 Yes	No	TRUE	2	2	4	3	3	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I am still planning to apply	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD002791536	Learning or "smart" thermostat		12 Don't know	Yes	TRUE	2	3	2	3	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Other (please specify): Central unit Gas	Gas	FALSE	FALSE	FALSE
CAD000458378	Showerhead		4 No	No	FALSE	98	98	98	98	98	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To replace failing equipment	redone bathroom	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002804424	Showerhead		4 Yes	Yes	TRUE	1	2	2	1	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	was not aware of rebate	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	TRUE
CAD002804424	Kitchen faucet aerator		5 Yes	Yes	TRUE	1	2	2	98	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	was not aware of rebate	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	TRUE
CAD002804424	Learning or "smart" thermostat		12 Yes	Yes	TRUE	1	1	2	1	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	I have applied waiting for rebate	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD002688404	Showerhead		4 Yes	Don't know	TRUE	2	3	3	2	2	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	Needed to replace anyway	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria		
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002497304	Showerhead		4 Yes	No	TRUE	2	2	2	1	2	FALSE	TRUE	Don't know	FALSE	No		Don't know	FALSE	Was ready to update	Liked the style	FALSE	Central air conditioner	Electric furnace Other (please specify):Fuel oil	Electric	TRUE	FALSE	FALSE	
CAD002497304	Bathroom faucet aerator		6 Yes	No	TRUE	1	3	1	2	2	FALSE	TRUE	Don't know	FALSE	No		Don't know	FALSE	Don't know	Don't know	FALSE	Central air conditioner	Electric furnace Other (please specify):Fuel oil	Electric	TRUE	FALSE	FALSE	
CAD002196388	Room air conditioner		1 Yes	Yes	TRUE	2	1	2	2	99	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No		I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	TRUE	
CAD002196388	Kitchen faucet aerator		5 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Packaging Package information	TRUE	No		Don't know	FALSE	To save money	0	TRUE	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD002196388	Bathroom faucet aerator		6 Yes	Yes	TRUE	1	99	2	2	99	FALSE	TRUE		TRUE	No		Don't know	FALSE	Needed to replace anyway	To save money	TRUE	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD002274178	Room air purifier		2 No	No	FALSE	98	1	99	98	98	FALSE	TRUE	It's ENERGY STAR-	TRUE	No		0	TRUE	To improve comfort	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE	
CAD002429895	Heat pump water heater		11 No	No	FALSE	3	3	3	3	3	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	Don't know		0	FALSE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002429895	Learning or "smart" thermostat		12 No	No	FALSE	3	3	3	3	3	FALSE	FALSE	It's ENERGY STAR-	TRUE	Don't know		0	FALSE	To replace failing equipment	To save money	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000346401	Room air conditioner		1 No	No	FALSE	3	99	99	99	3	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		0	TRUE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD000346401	Learning or "smart" thermostat		12 No	No	FALSE	3	99	99	99	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		0	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000056767	Learning or "smart" thermostat		12 Yes	Yes	TRUE	1	2	1	99	99	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No		0	TRUE	I wasn't sure my equipment qualified	Needed to replace anyway	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	



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CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000048425	Room air conditioner		1 Yes	No	TRUE	1	3	99	99	98	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No		Don't know	FALSE	No duct work for central air	To save energy	TRUE	Window or wall air conditioner	Electric baseboard heating system Other (please specify): Window energy efficient air/heat unit Electric	Electric	TRUE	FALSE	FALSE
CAD000048425	Heat pump water heater		11 Yes	No	TRUE	2	2	99	2	99	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	Installed ourselves	TRUE	To replace failing equipment	To save money	TRUE	Window or wall air conditioner	Electric baseboard heating system Other (please specify): Window energy efficient air/heat unit Electric	Electric	TRUE	TRUE	FALSE	
CAD002317968	Learning or "smart" thermostat		12 Yes	Yes	TRUE	98	1	1	98	99	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Yes	Yes	0	FALSE	To save energy	0	TRUE	Central air conditioner	Electric baseboard heating	Electric	TRUE	FALSE	FALSE
CAD002536264	Learning or "smart" thermostat		12 Yes	Yes	TRUE	2	3	2	4	99	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	Yes	Yes	0	FALSE	To save energy	0	TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	Gas	TRUE	FALSE	FALSE
CAD002720136	Room air purifier		2 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	Allergies	Allergies	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002720136	Learning or "smart" thermostat		12 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	To replace failing equipment	Don't know	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002617249	Pool pump		3 No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	To replace failing equipment	Don't know	FALSE	Central air conditioner	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD002617249	Learning or "smart" thermostat		12 No	Yes	TRUE	99	99	99	2	99	TRUE	FALSE	Don't know	FALSE	No		you did not list my model	FALSE	To improve comfort	included in home upgrade	FALSE	Central air conditioner	Air-source heat pump	Electric	TRUE	FALSE	FALSE
CAD000207903	Learning or "smart" thermostat		12 No	Yes	TRUE	4	4	4	2	4	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	Yes	Yes	0	FALSE	To replace failing equipment	Liked the style	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD000086425	Pool pump		3 No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	To replace failing equipment	It was the only option available	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000086425	Bathroom faucet aerator		6 No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		Don't know	FALSE	Needed to replace anyway	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000086425	Learning or "smart" thermostat		12 No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		I wasn't sure my equipment qualified	TRUE	To improve comfort	To save money	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE

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CAD002538212	Showerhead		4	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-	TRUE	No		Installed myself	TRUE	Needed to replace anyway	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000261904	Learning or "smart" thermostat		12	No	Yes	3	3		2	3	2	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	I wasn't sure my equipment qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002388519	Room air purifier		2	Yes	Yes	99	99	99	1	99	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Yes		FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002620392	Learning or "smart" thermostat		12	Yes	Yes	2	4	3	3	4	TRUE	FALSE	It's ENERGY STAR-	TRUE	No		Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002183369	Pool pump		3	Yes	Yes	4	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		I wasn't sure my equipment qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002337775	Learning or "smart" thermostat		12	Yes	Yes	98	98	4	98	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		I wasn't sure my equipment qualified	TRUE	To replace failing equipment	Don't know	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002486299	Learning or "smart" thermostat		12	Don't know	No	2	99	3	99	2	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No			FALSE	To replace failing equipment	To save energy	TRUE	Window or wall air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002511825	Showerhead		4	Yes	Yes	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		I wasn't sure my equipment qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002511825	Learning or "smart" thermostat		12	Yes	Yes	99	99	99	99	99	FALSE	FALSE	Ameren web site	TRUE	Don't know			FALSE	Ameren Rebate	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD003845419	Room air conditioner		1	Yes	Yes	2	2	2	99	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	Yes		FALSE	To save energy		TRUE	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002253667	Showerhead		4	Don't know	No	3	3	3	3	3	FALSE	FALSE	It's ENERGY STAR-	TRUE	No			TRUE	Was ready to update	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000240072	Furnace fan with ECM (Electronically Commutated Motor)		9	Yes	Yes	4	4	4	4	4	FALSE	FALSE	published reports	TRUE	Don't know			FALSE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002758337	Showerhead		4	No	No	4	4	4	99	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No			TRUE	Needed to replace anyway	It was the only option available	FALSE	Central air conditioner	Electric furnace Other (please specify):electric portable heater	Electric	TRUE	FALSE	FALSE

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CAD000313390	Learning or "smart" thermostat	12	Yes	No	TRUE	1	99	99	99	99	FALSE	TRUE	Don't know	FALSE	No	0	Did not know	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002500788	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	3	3	3	2	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	Don't know	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD003780581	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	1	99	99	99	99	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To replace failing equipment	To save energy	TRUE	Window or wall air conditioner Other (please specify)-baseboard hardwire heaters	Electric baseboard heating system	Electric	TRUE	FALSE	TRUE
CAD003729140	Room air conditioner	1	Yes	Yes	TRUE	2	3	3	2	2	TRUE	FALSE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To replace failing equipment	To save money	TRUE	Window or wall air conditioner	Electric baseboard heating	Electric	TRUE	TRUE	FALSE
CAD003785592	Room air purifier	2	Yes	Yes	TRUE	1	3	2	2	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	Don't know	0	0	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD000167699	Room air conditioner	1	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000167699	Showerhead	4	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000167699	Learning or "smart" thermostat	12	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD000325799	Room air purifier	2	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Yes	No	I wasn't sure my equipment qualified	TRUE	Was ready to update	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	TRUE
CAD000325799	Pool pump	3	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	I am still planning to apply	FALSE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD000146043	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	2	99	3	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I applied, but I did not receive a rebate	FALSE	Was a gift for Skelator. He likes electronics.	Liked the style	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002594802	Learning or "smart" thermostat	12	Yes	Yes	TRUE	99	99	4	99	99	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	Just forgot about it	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002526163	Room air purifier	2	Yes	Yes	TRUE	2	2	2	2	1	FALSE	TRUE	Don't know	FALSE	No	0	I wasn't sure my equipment qualified	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002526163	Filter whistle	10	Yes	Yes	TRUE	2	3	2	2	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	Yes	No	Just forgot about it	TRUE	Needed to replace anyway	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE

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CAD002608906	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	It was confusing	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002719020	Room air purifier	2	No	No	FALSE	2	2	2	99	2	TRUE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler Electric baseboard heating	Gas	TRUE	FALSE	FALSE
CAD002191038	Learning or "smart" thermostat	12	Yes	Yes	TRUE	1	3	1	1	3	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Yes	Yes	0	FALSE	To save money	0	TRUE	Don't know	Don't knowElectric furnace	Don't know	TRUE	FALSE	FALSE
CAD000394675	Showerhead	4	Yes	Yes	TRUE	1	2	2	98	2	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace Other (please specify):wood	Electric	TRUE	FALSE	FALSE
CAD000394675	Kitchen faucet aerator	5	Yes	Yes	TRUE	1	3	2	2	3	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	Don't know	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace Other (please specify):wood	Electric	TRUE	FALSE	FALSE
CAD000394675	Bathroom faucet aerator	6	Yes	Yes	TRUE	2	1	2	98	2	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	Don't know	FALSE	To save money	0	TRUE	Central air conditioner	Electric furnace Other (please specify):wood	Electric	TRUE	FALSE	FALSE
CAD002437806	Pool pump	3	Yes	Yes	TRUE	2	1	2	2	99	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	Yes	Yes	0	FALSE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD000483274	Showerhead	4	Don't know	Yes	TRUE	2	3	3	99	3	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	Just forgot about it	TRUE	Was ready to update	To save money	TRUE	Air-source heat pump	Air-source heat pump	Electric	TRUE	TRUE	FALSE
CAD000483274	Kitchen faucet aerator	5	Don't know	Yes	TRUE	2	4	2	4	3	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Air-source heat pump	Air-source heat pump	Electric	TRUE	TRUE	FALSE
CAD000483274	Hot water pipe insulation for your hot water heater	7	Don't know	Yes	TRUE	2	4	4	4	98	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	To save energy	0	TRUE	Air-source heat pump	Air-source heat pump	Electric	TRUE	TRUE	FALSE
CAD003826739	Heat pump water heater	11	Yes	Yes	TRUE	2	3	2	4	3	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	No	Just forgot about it	TRUE	Was ready to update	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD003393970	Showerhead	4	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	Liked the style	Liked the style	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria					
Cadmus Account Key	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)		
CAD003393970	Learning or "smart" thermostat	12	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	Landlord installed	FALSE	Don't know	0	0	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE		
CAD000204371	Learning or "smart" thermostat	12	Don't know	Yes	TRUE	3	2	2	99	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	I am still planning to apply	FALSE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE		
CAD003751160	Furnace fan with ECM (Electronically Commutated Motor)	9	Don't know	Yes	TRUE	1	2	2	1	1	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Don't know	0	0	FALSE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Gas	TRUE	FALSE	FALSE		
CAD000029908	Learning or "smart" thermostat	12	Yes	Yes	TRUE	1	99	99	99	99	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	I wasn't sure my equipment qualified	TRUE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE		
CAD002504438	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	4	2	2	99	TRUE	FALSE	Features and watching my bill afterwards	TRUE	Yes	Yes	0	FALSE	To replace failing equipment	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE		
CAD000180851	Hot water pipe insulation for your hot water heater	7	No	No	FALSE	2	99	1	99	99	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE		
CAD000180851	Learning or "smart" thermostat	12	No	No	FALSE	3	99	1	2	99	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE		
CAD000408343	Learning or "smart" thermostat	12	Yes	Yes	TRUE	98	98	4	98	98	FALSE	FALSE	Don't know	FALSE	Don't know	0	0	FALSE	Needed to replace anyway	It was the only option available	FALSE	Central air conditioner	Portable air conditioner	Window or wall air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002507006	Showerhead	4	Yes	Yes	TRUE	2	2	4	2	98	TRUE	FALSE	sent by mail	FALSE	Don't know	0	0	FALSE	Needed to replace anyway	sent by mail	FALSE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE		
CAD002507006	Furnace fan with ECM (Electronically Commutated Motor)	9	Yes	Yes	TRUE	1	99	2	2	98	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	No	0	Don't know	FALSE	Don't know	Don't know	FALSE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE		
CAD002507006	Learning or "smart" thermostat	12	Yes	Yes	TRUE	2	3	98	3	98	TRUE	FALSE	It's ENERGY STAR-	TRUE	Don't know	0	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE		

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings				Meeting all criteria			
CadmusAccountKey	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002754219	Learning or "smart" thermostat	12	Yes	Yes	TRUE	3	99	2	99	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	Don't know	0	0	FALSE	Was ready to update	It had other features that I liked	FALSE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002573726	Room air conditioner	1	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002239058	Room air purifier	2	Don't know	No	FALSE	2	2	2	99	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	Don't know	0	0	FALSE	To improve comfort	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD002239058	Showerhead	4	Don't know	No	FALSE	2	2	2	99	99	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	Needed to replace anyway	It had other features that I liked	FALSE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE	
CAD000112760	Learning or "smart" thermostat	12	No	Don't know	FALSE	4	1	2	3	4	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Don't knowGas	Gas	FALSE	FALSE	FALSE	
CAD003542392	Showerhead	4	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To improve comfort	To save money	TRUE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD003542392	Bathroom faucet aerator	6	No	No	FALSE	3	3	99	99	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To replace failing equipment	To save money	TRUE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002261164	Learning or "smart" thermostat	12	Yes	Yes	TRUE	1	2	3	4	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	FALSE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD003789553	Learning or "smart" thermostat	12	Yes	Yes	TRUE	4	2	4	4	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	works with Alexa and cell phone	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD000433897	Showerhead	4	Yes	Yes	TRUE	4	4	3	4	3	FALSE	FALSE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	Needed to replace anyway	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD000433897	Hot water pipe insulation for your hot water heater	7	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No	0	0	TRUE	To save money	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE	
CAD002587132	Filter whistle	10	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save energy	0	TRUE	Central air conditioner	Electric furnace	Gas	TRUE	FALSE	FALSE	
CAD002544037	Room air conditioner	1	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No	0	0	FALSE	To save money	0	TRUE	Central air conditioner	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE

Measure Information			Criterion A: Familiarity with at least one Ameren Missouri program, rebate, or discount			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure						Criterion C: They had a valid reason for considering the adopted measure energy efficient		Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a rebate from Ameren, and they stated a valid reason for not applying for an Ameren rebate				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas savings			Meeting all criteria			
Cadmus Account Key	Measure	Measure Subfix	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	C7. How do you know the [measure] is energy efficient?	Criterion C met? (qualitative assessment)	G10. Did you receive a rebate, discount, or tax credit for installing the [measure]?	G11. Did you get a rebate from Ameren Missouri?	G12. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the [measure]?	Criterion D met? (qualitative assessment)	G8. Which of the following reasons best describe why you decided to install a [measure]?	Which of the following reasons best describe why you chose an energy efficient version of a [measure]?	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Water Heating Fuel	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002544037	Room air purifier		2 Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		Just forgot about it	TRUE	health	It had other features that I liked	FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002544037	Learning or "smart" thermostat		12 Yes	No	TRUE	98	98	98	98	98	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	Don't know			FALSE	To save money		TRUE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002546182	Showerhead		4 Yes	No	TRUE	1	1	1	1	1	FALSE	TRUE	1 was sent by Ameren 5 yes ago	FALSE	No		I wasn't sure my equipment qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002440601	Furnace fan with ECM (Electronically Commutated Motor)		9 No	No	FALSE	2	2	1	1	1	FALSE	TRUE	The retailer/dealer/contractor told me it was	TRUE	Yes	No		TRUE	To replace failing equipment	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002198657	Kitchen faucet aerator		5 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	Don't know	Don't know	FALSE	Central air conditioner	Electric furnace Other (please specify):wood stoveElectric	Electric	TRUE	FALSE	FALSE
CAD002198657	Bathroom faucet aerator		6 Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	FALSE	No		Don't know	FALSE	Don't know	Don't know	FALSE	Central air conditioner	Electric furnace Other (please specify):wood stoveElectric	Electric	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002554092	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	2	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler Electric baseboard heating system	TRUE	TRUE	FALSE
CAD000457561	Heat pump Tune-up	Yes	Yes	TRUE	98	1	99	1	1	FALSE	TRUE	No	0	too small to qualify	FALSE	To save energy		TRUE	Air-source heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD002598294	Air conditioner Tune-up	No	No	FALSE	2	2	2	2	2	TRUE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000158178	Air conditioner Tune-up	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler Electric furnace	TRUE	FALSE	FALSE
CAD000030326	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	99	4	4	FALSE	FALSE	No	0	Don't know	FALSE	safety & all of the above	All of the above	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003394323	Air conditioner Tune-up	Yes	Yes	TRUE	99	4	4	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002751793	Air conditioner Tune-up	Yes	Yes	TRUE	3	1	2	1	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD000266297	Air conditioner Tune-up	No	No	FALSE	3	4	98	98	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002522586	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	99	2	99	TRUE	FALSE	Don't know	0	0	FALSE	routine maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002528534	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Semi annual check up	TRUE	Routine maintenance	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD003390794	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002768417	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	No	0	Did not know a tune up qualified	TRUE	Standard service check	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002181135	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	Yes	Yes	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000326112	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	1	4	99	FALSE	TRUE	No	0	Just forgot about it	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002555793	Air conditioner Tune-up	No	Don't know	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	Maintain equipment	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000277573	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	No need. Program not worth the time	TRUE	Performance	General maintenance	FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	TRUE	FALSE	FALSE
CAD002217834	Heat pump Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000070306	Heat pump Tune-up	Yes	Yes	TRUE	4	4	99	3	99	FALSE	FALSE	No	0	Don't know	FALSE	to run properly	General maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002644496	Air conditioner Tune-up	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003808682	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	Annual Policy	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000382090	Air conditioner Tune-up	No	No	FALSE	2	3	2	99	3	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002215623	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Yes	No	Did not know a tuneup qualified for a rebate	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002602553	Air conditioner Tune-up	Yes	Yes	TRUE	2	98	99	98	98	TRUE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000032528	Air conditioner Tune-up	No	Yes	TRUE	2	2	3	1	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002419007	Air conditioner Tune-up	Don't know	Don't know	FALSE	2	3	2	2	2	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Other (please specify):CentralDon't know	TRUE	FALSE	FALSE
CAD000188830	Heat pump Tune-up	Yes	No	TRUE	1	98	98	1	98	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric baseboard heating system	FALSE	FALSE	FALSE
CAD000034090	Air conditioner Tune-up	Don't know	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	Don't know	0	0	FALSE	Replacement. Item stolen.	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002439775	Air conditioner Tune-up	No	Yes	TRUE	3	3	99	3	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003617258	Heat pump Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Don't know	0	0	FALSE	To save energy		TRUE	Don't know	Don't knowGas	FALSE	FALSE	FALSE
CAD003507695	Air conditioner Tune-up	No	No	FALSE	4	4	1	1	1	FALSE	TRUE	No	0	0	TRUE	To save money		TRUE	Window or wall air conditioner	Other (please specify):Window unitElectric	FALSE	FALSE	FALSE
CAD002631573	Air conditioner Tune-up	Yes	No	TRUE	1	2	1	2	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002615921	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002559524	Air conditioner Tune-up	Don't know	Yes	TRUE	1	99	2	99	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003769191	Heat pump Tune-up	Yes	Yes	TRUE	2	2	2	2	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditionerPortable air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000420746	Air conditioner Tune-up	No	Yes	TRUE	2	3	3	3	3	TRUE	FALSE	Yes	No	Turn up at no cost	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD000072128	Heat pump Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Don't know	FALSE	Having problems	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002350896	Air conditioner Tune-up	Yes	Yes	TRUE	2	1	2	99	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002496225	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002588293	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002490752	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000194142	Air conditioner Tune-up	Yes	Yes	TRUE	1	4	3	2	3	FALSE	TRUE	Don't know	0	0	FALSE	Issue	Repairs	FALSE	Central air conditioner/Air-source heat pump	Gas furnace/boiler Electric furnace	TRUE	FALSE	FALSE
CAD000355006	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002379148	Air conditioner Tune-up	No	Yes	TRUE	1	2	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002556255	Air conditioner Tune-up	Yes	Yes	TRUE	99	2	99	2	4	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002444013	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD003714734	Air conditioner Tune-up	No	No	FALSE	98	2	98	98	98	TRUE	FALSE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000353882	Air conditioner Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	Needed Freon	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002498237	Air conditioner Tune-up	No	No	FALSE	4	4	4	99	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002505012	Air conditioner Tune-up	Yes	Yes	TRUE	1	98	3	99	98	FALSE	TRUE	Don't know	0	0	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

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CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003643855	Air conditioner Tune-up	Yes	No	TRUE	2	2	1	2	2	FALSE	TRUE	No	0	Just forgot about it	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002469260	Air conditioner Tune-up	No	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002636733	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Other (please specify):Central heat, gasGas	TRUE	FALSE	FALSE
CAD003503012	Air conditioner Tune-up	No	No	FALSE	1	98	98	98	98	FALSE	TRUE	No	0	0	TRUE	routine service	Routine maintenance	FALSE	Central air conditioner	Other (please specify):wood stoveElectric	TRUE	FALSE	FALSE
CAD002261419	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	4	3	3	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Other (please specify):Gas Force airGas	TRUE	FALSE	FALSE
CAD002455713	Air conditioner Tune-up	Yes	Yes	TRUE	3	99	4	4	99	FALSE	FALSE	Yes	No	Don't know	FALSE	standard maintenance	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000168511	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	2	FALSE	TRUE	No	0	didn't know about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002769816	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002222845	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	98	2	TRUE	FALSE	No	0	Not aware of it.	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002380847	Air conditioner Tune-up	No	Yes	TRUE	2	1	1	99	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditionerDuctless or mini-split heat pump	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002248093	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	3	3	TRUE	FALSE	No	0	Did not know	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002597413	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	2	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002576377	Heat pump Tune-up	No	Don't know	FALSE	1	2	2	3	2	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002356171	Air conditioner Tune-up	Yes	Yes	TRUE	98	1	2	1	99	FALSE	TRUE	Yes	Don't know	0	FALSE	All the above and annual maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000199609	Air conditioner Tune-up	Yes	Yes	TRUE	2	98	3	98	3	TRUE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler Electric furnace	TRUE	FALSE	FALSE
CAD002571125	Air conditioner Tune-up	No	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I am still planning to apply	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002333131	Heat pump Tune-up	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Was making a noise	Repairs	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD000266623	Air conditioner Tune-up	No	Yes	TRUE	2	4	2	2	4	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000275880	Air conditioner Tune-up	No	No	FALSE	1	98	1	98	98	FALSE	TRUE	Yes	No	Don't know	FALSE	check every 6 months	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000047620	Air conditioner Tune-up	No	Yes	TRUE	2	3	3	98	98	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002415372	Heat pump Tune-up	Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Had no idea that this was even possible	TRUE	Routine maintenance	Routine maintenance	FALSE	Central air conditioner Ductless or mini-split heat pump	Ductless or mini-split heat pump Air-source heat pump	TRUE	FALSE	FALSE
CAD002523848	Heat pump Tune-up	Yes	Yes	TRUE	2	2	1	1	98	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	proper operation	General maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002313525	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002558071	Air conditioner Tune-up	No	No	FALSE	3	3	2	3	2	TRUE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000128422	Air conditioner Tune-up	Don't know	Don't know	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Maintenance	General maintenance	FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler Other (please specify):Wall unitGas	TRUE	FALSE	FALSE
CAD002328751	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	1	2	1	FALSE	TRUE	No	0	did not know i could	TRUE	To improve home comfort		FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	FALSE	FALSE	FALSE
CAD000126018	Air conditioner Tune-up	Don't know	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	Don't know	0	0	FALSE	Scheduled	General maintenance	FALSE	Central air conditionerAir-source heat pump Electric furnace	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD002339280	Air conditioner Tune-up	Yes	Yes	TRUE	1	98	98	98	98	FALSE	TRUE	Yes	No	Just forgot about it	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002481240	Heat pump Tune-up	Yes	No	TRUE	2	3	1	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Portable air conditioner Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000215602	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I didn't know that it qualified	TRUE	maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002342641	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Routine annual contract	TRUE	Routine annual	Routine maintenance	FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	FALSE	FALSE	FALSE
CAD002420707	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Air-source heat pump	FALSE	FALSE	FALSE
CAD003524609	Air conditioner Tune-up	Yes	No	TRUE	1	1	1	1	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000357643	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	98	4	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	save on repairs	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002587103	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	2	1	99	FALSE	TRUE	Yes	Yes	0	FALSE	maintain systems	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002549797	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	3	2	TRUE	FALSE	Yes	Yes	0	FALSE	warranty item	Part of other contracts or warranties	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002230173	Air conditioner Tune-up	No	No	FALSE	4	4	1	98	3	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002679628	Air conditioner Tune-up	No	No	FALSE	2	2	2	2	2	TRUE	FALSE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002636379	Air conditioner Tune-up	Don't know	Don't know	FALSE	98	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002506641	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	3	99	FALSE	FALSE	Yes	No	Don't know	FALSE	To save energy		TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	TRUE	FALSE	FALSE
CAD002292085	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	correct a problem	Repairs	FALSE	Air-source heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD002473934	Air conditioner Tune-up	Yes	Yes	TRUE	3	2	3	3	3	TRUE	FALSE	No	0	Just forgot about it	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD000136688	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000077308	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	Yes	No	didn't know Ameren offered a rebate	TRUE	extend life of equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000476495	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	Yes	Don't know	0	FALSE	Part of contract for new item	Part of other contracts or warranties	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002211960	Air conditioner Tune-up	No	No	FALSE	1	3	3	99	98	FALSE	TRUE	No	0	0	TRUE	Clean up dust	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000033814	Air conditioner Tune-up	No	Yes	TRUE	3	4	99	4	3	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	preventive maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000419733	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD000265200	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	3	3	TRUE	FALSE	No	0	Don't know	FALSE	Annual Service	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000361906	Air conditioner Tune-up	No	Yes	TRUE	2	3	4	3	3	TRUE	FALSE	Yes	Yes	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003510019	Air conditioner Tune-up	No	No	FALSE	1	98	98	99	2	FALSE	TRUE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler Electric baseboard heating systemElectric furnace	TRUE	FALSE	FALSE
CAD000115006	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	99	4	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000086295	Heat pump Tune-up	Yes	Don't know	TRUE	1	99	1	1	99	FALSE	TRUE	No	0	Landlord	FALSE	To improve home comfort		FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000361102	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	not applicable	FALSE	maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000123471	Air conditioner Tune-up	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	Done yearly	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002462231	Air conditioner Tune-up	Yes	Yes	TRUE	4	99	4	3	99	FALSE	FALSE	No	0	Didn't know about it	TRUE	To maintain equipment	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003574894	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	4	1	4	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Window or wall air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD000147551	Air conditioner Tune-up	Yes	No	TRUE	98	4	4	4	4	FALSE	FALSE	No	0	not aware of it	TRUE	safety	Safety	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002365441	Air conditioner Tune-up	No	No	FALSE	3	3	98	99	1	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000363839	Air conditioner Tune-up	No	No	FALSE	3	99	98	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000370030	Air conditioner Tune-up	Don't know	Yes	TRUE	99	99	99	1	99	FALSE	TRUE	No	0	Didn't know it was available	TRUE	keep it working in good order.	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002243068	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	2	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002317306	Air conditioner Tune-up	Don't know	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	had to be replaced	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000416421	Air conditioner Tune-up	Yes	Yes	TRUE	3	4	98	3	98	FALSE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002761518	Air conditioner Tune-up	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	Yes	No	I didn't know about it	TRUE	have a contract with scott lee	Part of other contracts or warranties	FALSE	Central air conditioner	Don't knowGas	TRUE	FALSE	FALSE
CAD000289409	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Not offered	TRUE	Keep equipment running effectively	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000144310	Air conditioner Tune-up	No	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000150210	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	Don't know	FALSE	to continue warranty	Part of other contracts or warranties	FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002372778	Air conditioner Tune-up	No	Yes	TRUE	99	99	2	99	99	TRUE	FALSE	No	0	Did the tune up myself	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002240050	Air conditioner Tune-up	Yes	Yes	TRUE	1	99	99	1	99	FALSE	TRUE	No	0	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE
CAD002654763	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	1	2	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE
CAD000422492	Heat pump Tune-up	Don't know	Yes	TRUE	3	3	4	3	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD002706616	Air conditioner Tune-up	Yes	Don't know	TRUE	2	98	2	3	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002573928	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	apartment staff does it	Part of other contracts or warranties	FALSE	Central air conditioner	Other (please specify):apb uilt in 1963artment building Electric	TRUE	FALSE	FALSE
CAD000136744	Air conditioner Tune-up	Don't know	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD003551000	Air conditioner Tune-up	Yes	No	TRUE	3	99	99	99	99	FALSE	FALSE	No	0	I live at an apartment complex and they decided how to handle the	FALSE	It wasn't working properly	Repairs	FALSE	Don't know	Don't knowGas	FALSE	FALSE	FALSE
CAD002753819	Air conditioner Tune-up	No	No	FALSE	1	1	1	99	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Don't knowGas	TRUE	FALSE	FALSE
CAD003626520	Air conditioner Tune-up	No	No	FALSE	2	4	1	99	2	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000252745	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	99	99	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Long life of appliance	To save money	TRUE	Central air conditioner	Gas furnace/boiler Other (please specify):Radiators - contained water systemGas	TRUE	FALSE	FALSE
CAD002260568	Air conditioner Tune-up	No	No	FALSE	2	2	2	2	2	TRUE	FALSE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Other (please specify):Centralized Cooling/heating systemElectric	TRUE	FALSE	FALSE
CAD002227938	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002749119	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002303970	Air conditioner Tune-up	Yes	No	TRUE	2	2	1	98	98	FALSE	TRUE	No	0	Just renting	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002792077	Air conditioner Tune-up	Don't know	No	FALSE	1	1	1	1	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000113591	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	wasn't aware that it was available	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000054814	Air conditioner Tune-up	No	Don't know	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner Portable air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003610943	Heat pump Tune-up	Yes	Yes	TRUE	2	2	2	98	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD003614516	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	98	3	3	FALSE	FALSE	No	0	Just forgot about it	TRUE	Don't know		FALSE	Central air conditioner	Don't know Electric	TRUE	FALSE	FALSE
CAD002791787	Air conditioner Tune-up	No	Yes	TRUE	98	4	98	3	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Twice a year service	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002699701	Air conditioner Tune-up	No	No	FALSE	3	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	HOME WARRANTY EXPIRING	Part of other contracts or warranties	FALSE	Central air conditioner	Electric furnace Other (please specify): 2' room heater Electric	TRUE	FALSE	FALSE
CAD000492069	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner Air-source heat pump	Gas furnace/boiler Electric baseboard heating system	TRUE	FALSE	FALSE
CAD002549563	Air conditioner Tune-up	Yes	Don't know	TRUE	1	4	4	98	4	FALSE	TRUE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002643507	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000422866	Air conditioner Tune-up	No	No	FALSE	4	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Annual maintenance prevents problems.	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003362428	Air conditioner Tune-up	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002295492	Air conditioner Tune-up	No	No	FALSE	99	4	99	4	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000343834	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	98	2	TRUE	FALSE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002533823	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002734156	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	4	2	2	TRUE	FALSE	No	0	Just forgot about it	TRUE	Preventative maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002434769	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Landlord paid for the tune up	FALSE	clean the unit	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002573695	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002750422	Air conditioner Tune-up	No	No	FALSE	1	99	4	99	99	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002216357	Air conditioner Tune-up	Yes	Yes	TRUE	4	99	99	4	99	FALSE	FALSE	Yes	No	Received rebate from sheet metal union; wasn't aware of Ameren rebate	TRUE	Reg. maint. to avoid breakdowns	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002678733	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	2	2	1	FALSE	TRUE	No	0	Didn't know about the rebate	TRUE	To maintain the equipment life	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002541475	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	safety/preventive maintenance	Safety	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002343241	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	3	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002813599	Air conditioner Tune-up	Don't know	Don't know	FALSE	4	4	4	3	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002295122	Heat pump Tune-up	Yes	Yes	TRUE	3	4	99	99	3	FALSE	FALSE	No	0	Didn't know about it	TRUE	scheduled maintenance	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002747121	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	1	99	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditionerDuctless or mini-split heat pump	Ductless or mini-split heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000435328	Air conditioner Tune-up	No	Yes	TRUE	98	98	2	98	98	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditionerPortable air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000174725	Air conditioner Tune-up	No	No	FALSE	98	3	98	99	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002313628	Air conditioner Tune-up	No	No	FALSE	1	2	4	2	2	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditionerDuctless or mini-split heat pump	Ductless or mini-split heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000395599	Air conditioner Tune-up	No	No	FALSE	2	3	98	3	2	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002504058	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	98	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000217412	Air conditioner Tune-up	Yes	No	TRUE	2	3	4	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000187060	Air conditioner Tune-up	Yes	Yes	TRUE	2	98	98	98	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	was/n work right	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003794855	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	2	2	2	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000195455	Air conditioner Tune-up	Don't know	No	FALSE	2	2	2	2	2	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003783590	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Just forgot about it	TRUE	Make sure its in working order	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002667575	Air conditioner Tune-up	No	No	FALSE	1	3	2	99	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002665701	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003542327	Heat pump Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Don't knowGas	FALSE	FALSE	FALSE
CAD002207091	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	2	99	99	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003565369	Air conditioner Tune-up	Yes	Yes	TRUE	1	99	99	99	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner Portable air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002544965	Heat pump Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Ensure operating efficiency	To save energy	TRUE	Central air conditioner Air-source heat pump Gas furnace/boiler Air-source heat pump	Air-source heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002565967	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	99	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003360984	Air conditioner Tune-up	Yes	Don't know	TRUE	3	2	2	2	3	TRUE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002555908	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	99	99	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002326046	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	99	2	TRUE	FALSE	No	0	Don't know	FALSE	Routine check up	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002360439	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Didn't know about	TRUE	Repair	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002759062	Air conditioner Tune-up	No	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	wasn't aware of	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002809585	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	98	FALSE	FALSE	No	0	Didn't know such a thing	TRUE	Maintenance	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000304538	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002406125	Air conditioner Tune-up	No	Yes	TRUE	2	4	2	98	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002400575	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000419731	Air conditioner Tune-up	No	Yes	TRUE	98	2	2	2	98	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002368182	Air conditioner Tune-up	Yes	No	TRUE	1	99	99	1	1	FALSE	TRUE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner/Portable air conditioner	Gas furnace/boiler/ Electric baseboard heating system	TRUE	FALSE	FALSE
CAD003475103	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000033439	Air conditioner Tune-up	Don't know	No	FALSE	1	2	1	1	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002598410	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002697161	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002338562	Heat pump Tune-up	Yes	Yes	TRUE	3	99	3	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD000112591	Air conditioner Tune-up	Yes	Yes	TRUE	1	4	4	1	3	FALSE	TRUE	No	0	I am still planning to apply	FALSE	Make sure there are no problems	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003608885	Air conditioner Tune-up	No	No	FALSE	2	2	2	99	1	FALSE	TRUE	No	0	0	TRUE	Ensure longevity	To save money	TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002679725	Heat pump Tune-up	Don't know	Yes	TRUE	99	99	4	98	99	FALSE	FALSE	Yes	No	Don't know	FALSE	To save money		TRUE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD000362770	Air conditioner Tune-up	Don't know	Yes	TRUE	2	3	2	2	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002658426	Air conditioner Tune-up	No	No	FALSE	98	98	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002543997	Air conditioner Tune-up	Yes	No	TRUE	2	98	98	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002451805	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	Don't know	FALSE	repair	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003700034	Air conditioner Tune-up	No	Yes	TRUE	4	1	98	2	3	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditionerDuctless or mini-split heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002207358	Air conditioner Tune-up	Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000245212	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002321046	Air conditioner Tune-up	Yes	No	TRUE	98	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000414894	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	didn't even think of it	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000467019	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000049052	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner Window or wall air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002363402	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	annual tune up to improve quality of product/ind life	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002384242	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	1	1	1	FALSE	TRUE	No	0	Don't own property	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002287001	Air conditioner Tune-up	Yes	Yes	TRUE	4	99	99	4	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002762757	Air conditioner Tune-up	Yes	Yes	TRUE	98	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler Electric baseboard heating system	TRUE	FALSE	FALSE
CAD002209716	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To avoid equipment failures	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003860888	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I didn't know I could apply	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002325613	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner portable air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002178812	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002475366	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	1	FALSE	TRUE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Other (please specify):RADIATORSDon't know	TRUE	FALSE	FALSE
CAD002215970	Air conditioner Tune-up	Yes	Yes	TRUE	4	2	98	3	3	TRUE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000237665	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002402877	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000175035	Air conditioner Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Not aware	TRUE	Annual Maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003865659	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Maintenance done by owner	FALSE	Required	Part of other contracts or warranties	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003720290	Heat pump Tune-up	Yes	Yes	TRUE	1	2	1	2	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner/Portable air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002330507	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	1	99	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002181439	Heat pump Tune-up	Yes	Yes	TRUE	2	2	1	2	2	FALSE	TRUE	No	0	did not qualify, had it done previous year	FALSE	To save energy		TRUE	Ductless or mini-split heat pump Air-source heat pump Gas furnace/boiler	Ductless or mini-split heat pump Air-source heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002489436	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	1	3	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000367804	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	working properly	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002248392	Air conditioner Tune-up	No	No	FALSE	99	2	98	99	98	TRUE	FALSE	No	0	0	TRUE	malfunction	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002266784	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	3	2	98	TRUE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002290317	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	Yes	Don't know	0	FALSE	Preventive Maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002299024	Air conditioner Tune-up	No	No	FALSE	99	3	1	99	99	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002506497	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002567438	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	99	1	FALSE	TRUE	No	0	Didn't know I could.	TRUE	Suspected issue	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002520393	Heat pump Tune-up	Yes	Don't know	TRUE	2	2	98	99	1	FALSE	TRUE	Don't know	0	0	FALSE	clean filter	General maintenance	FALSE	Air-source heat pumpOther (please specify): window unit	Air-source heat pump	TRUE	FALSE	FALSE
CAD002446354	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I rent	FALSE	annual check	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003560208	Heat pump Tune-up	Yes	Yes	TRUE	3	4	3	3	3	FALSE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditionerAir-source heat pump	Air-source heat pump Electric baseboard heating system Electric furnace	TRUE	FALSE	FALSE
CAD000081419	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	99	1	98	FALSE	TRUE	No	0	contractor did not qualify	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002574340	Air conditioner Tune-up	No	No	FALSE	4	3	2	3	4	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Window or wall air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD000237711	Air conditioner Tune-up	No	Yes	TRUE	1	98	3	3	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD000456248	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Needed fixing	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002534503	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000466195	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002790081	Air conditioner Tune-up	Don't know	Yes	TRUE	3	4	99	98	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003501894	Air conditioner Tune-up	Yes	No	TRUE	2	3	1	98	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	it was suggested by vendor	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000237084	Air conditioner Tune-up	No	Yes	TRUE	3	1	3	99	3	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003527865	Air conditioner Tune-up	Yes	No	TRUE	2	2	2	2	2	TRUE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Don't knowElectric	TRUE	FALSE	FALSE
CAD000333971	Air conditioner Tune-up	Yes	No	TRUE	99	1	1	1	1	FALSE	TRUE	No	0	we did not know about this	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002546361	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	98	2	TRUE	FALSE	No	0	It was confusing	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD000378385	Air conditioner Tune-up	Yes	Yes	TRUE	1	99	4	99	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE
CAD002635175	Heat pump Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Electric baseboard heating system	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003667874	Air conditioner Tune-up	Yes	No	TRUE	3	3	3	3	3	FALSE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000391152	Air conditioner Tune-up	Don't know	No	FALSE	3	3	98	1	98	FALSE	TRUE	No	0	0	TRUE	yearly maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002341247	Air conditioner Tune-up	No	Yes	TRUE	2	2	3	2	3	TRUE	FALSE	No	0	Don't know	FALSE	ac stopped working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000483092	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner Other (please specify):Attic fan	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003681190	Air conditioner Tune-up	Don't know	Don't know	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	needed repair	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002742667	Air conditioner Tune-up	Don't know	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002569850	Air conditioner Tune-up	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	No	0	0	TRUE	Quality check	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000441771	Air conditioner Tune-up	No	Yes	TRUE	4	4	4	99	4	FALSE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002807348	Air conditioner Tune-up	Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	General maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003706593	Air conditioner Tune-up	Yes	No	TRUE	4	4	99	99	99	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002352707	Heat pump Tune-up	Yes	Don't know	TRUE	98	4	4	98	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Air-source heat pump	Air-source heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000462079	Air conditioner Tune-up	Don't know	Yes	TRUE	1	2	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002500429	Air conditioner Tune-up	Yes	Yes	TRUE	3	98	2	99	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	longevity of equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002316671	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Elim emerg svc calls	General maintenance	FALSE	Central air conditioner	Other (please specify):Gas furnace - forced airGas	TRUE	FALSE	FALSE
CAD000202433	Air conditioner Tune-up	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000302233	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002393113	Heat pump Tune-up	Yes	Yes	TRUE	3	3	2	3	3	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD003866941	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	99	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	so it runs okay	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002231592	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002691639	Air conditioner Tune-up	No	Don't know	FALSE	3	3	2	3	3	TRUE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002310030	Air conditioner Tune-up	No	No	FALSE	99	99	99	4	99	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Don't know	Don't knowElectric	FALSE	FALSE	FALSE
CAD002508130	Air conditioner Tune-up	Don't know	Yes	TRUE	2	2	99	99	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000134747	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	2	2	99	FALSE	TRUE	Yes	Yes	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000315241	Air conditioner Tune-up	Don't know	Yes	TRUE	2	3	2	2	2	TRUE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002481798	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Don't knowElectric	TRUE	FALSE	FALSE
CAD002390596	Air conditioner Tune-up	No	Yes	TRUE	99	4	4	99	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner Window or wall air conditioner	Don't knowGas	TRUE	FALSE	FALSE
CAD002575036	Air conditioner Tune-up	Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	avoid break-down	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003822782	Air conditioner Tune-up	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	wasn't aware you could	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000298899	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Yes	No	Wasn't aware of its availability.	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000287443	Air conditioner Tune-up	No	Don't know	FALSE	4	4	4	4	3	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002649948	Heat pump Tune-up	Yes	Yes	TRUE	2	98	3	2	3	TRUE	FALSE	No	0	contractor doesn't have your equipment	FALSE	repair	Repairs	FALSE	Central air conditionerAir-source heat pump	Electric furnace	TRUE	FALSE	FALSE
CAD000046477	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	WHAT IS CONSIDERED A TUNE UP TO AMEREN	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002464108	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	98	98	98	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002697240	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000367615	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	General maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002680037	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Didn't know about the program	TRUE	safety reasons	Safety	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002199039	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	My husband is HVAC Certified and did it himself	FALSE	Preventative Maintenance	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002747574	Air conditioner Tune-up	Don't know	No	FALSE	2	3	3	3	3	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000476087	Air conditioner Tune-up	Yes	Don't know	TRUE	2	99	99	99	2	TRUE	FALSE	Yes	No	Wasn't aware of this option	TRUE	Check up	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002601343	Air conditioner Tune-up	Yes	Yes	TRUE	99	3	1	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000257574	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	2	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Check before summer	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002312693	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	DIDN'T KNOW ABOUT IT	TRUE	MAKE SURE EQUIPMENT WAS IN GOOD WORKING ORDER	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002422048	Air conditioner Tune-up	No	Yes	TRUE	2	2	1	2	2	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003526997	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	99	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	NO COOL AIR	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002745960	Air conditioner Tune-up	Yes	No	TRUE	1	2	98	99	2	FALSE	TRUE	No	0	didn't know I could	TRUE	To save money		TRUE	Air-source heat pump	Air-source heat pump Electric furnace	FALSE	FALSE	FALSE
CAD002585689	Air conditioner Tune-up	Yes	No	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002211003	Heat pump Tune-up	Yes	Don't know	TRUE	3	3	3	3	3	FALSE	FALSE	No	0	Don't know	FALSE	Keep it working efficiently	To save energy	TRUE	Air-source heat pump Ground-source or geothermal heat pump	Ductless or mini-split heat pump Air-source heat pump Ground-source or geothermal heat pump	TRUE	FALSE	FALSE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002344557	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	2	1	1	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Air-source heat pump	TRUE	FALSE	TRUE
CAD003387771	Air conditioner Tune-up	No	No	FALSE	1	1	1	2	1	FALSE	TRUE	No	0	0	TRUE	Stop Working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003761896	Air conditioner Tune-up	No	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002517915	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	we just do it every 6 mos	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000487298	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002797064	Air conditioner Tune-up	No	No	FALSE	2	98	1	99	99	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002517543	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	99	99	99	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002558609	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	Yes	No	0	TRUE	Preventive maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003800020	Air conditioner Tune-up	Yes	Yes	TRUE	98	4	99	99	4	FALSE	FALSE	No	0	0	FALSE	To save money		TRUE	Central air conditioner	Other (please specify): ceiling cable electric	TRUE	FALSE	FALSE
CAD003390149	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	0	FALSE	Wasn't running properly	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000408637	Air conditioner Tune-up	Yes	Yes	TRUE	3	4	1	1	2	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003845013	Heat pump Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	Don't know	0	0	FALSE	Bought house that was a fixer upper	Repairs	FALSE	Central air conditioner	Electric furnace	FALSE	FALSE	FALSE

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CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000420099	Air conditioner Tune-up	Yes	Yes	TRUE	99	4	99	4	99	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002662787	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000130306	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	3	3	3	TRUE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002454622	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002286741	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002515565	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002647146	Air conditioner Tune-up	No	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	Yes	Yes	0	FALSE	Comes with the warranty	Part of other contracts or warranties	FALSE	Central air conditioner/Air-source heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD000291265	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000163999	Heat pump Tune-up	Yes	Yes	TRUE	1	98	2	98	98	FALSE	TRUE	No	0	Don't know	FALSE	maintenance	General maintenance	FALSE	Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002786857	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	0	0	FALSE	routine maintenance for optimum performance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002538092	Heat pump Tune-up	No	No	FALSE	1	4	3	98	1	FALSE	TRUE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000175588	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002331012	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	contractor isn't an ameren designated	FALSE	preventive maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002631324	Air conditioner Tune-up	Yes	No	TRUE	1	2	2	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD003674356	Air conditioner Tune-up	Don't know	Yes	TRUE	2	1	1	2	2	FALSE	TRUE	Yes	Yes	0	FALSE	Unit not functioning properly	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003613624	Heat pump Tune-up	Yes	No	TRUE	2	98	2	99	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002637761	Air conditioner Tune-up	No	No	FALSE	2	3	1	1	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000218671	Air conditioner Tune-up	No	Yes	TRUE	3	2	2	3	2	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002399131	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Didn't realize there was a rebate	TRUE	To keep equipment running efficiently	To save energy	TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	TRUE	FALSE	FALSE
CAD000450498	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Didn't know a tune up qualifies	TRUE	To improve home comfort		FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000287579	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	2	FALSE	TRUE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000223618	Air conditioner Tune-up	Don't know	Don't know	FALSE	4	4	4	4	4	FALSE	FALSE	Yes	Don't know	0	FALSE	to keep equipment working well	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002682004	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	2	2	1	FALSE	TRUE	Yes	Don't know	0	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003403257	Heat pump Tune-up	No	No	FALSE	2	1	1	99	99	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Other (please specify): Thermostat controls both heat and cool	Don't knowElectric	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002592153	Air conditioner Tune-up	Yes	Yes	TRUE	4	2	4	4	4	TRUE	FALSE	No	0	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Electric baseboard heating system Electric furnace	TRUE	TRUE	FALSE
CAD000041202	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD000257236	Air conditioner Tune-up	Yes	No	TRUE	98	4	4	98	4	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002786723	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002235273	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	99	99	TRUE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD000287984	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	99	98	TRUE	FALSE	No	0	My son does it at no charge so I don't get a rebate	FALSE	my son does it annually	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002452776	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	3	2	2	FALSE	TRUE	No	0	Not my home rental	FALSE	To save money		TRUE	Other (please specify): Not my house	Don't know Electric	FALSE	FALSE	FALSE
CAD002408402	Air conditioner Tune-up	No	No	FALSE	2	2	2	99	1	FALSE	TRUE	Yes	No	Don't know	FALSE	To save money		TRUE	Central air conditioner	Other (please specify): Three gas furnaces	TRUE	FALSE	FALSE
CAD000178595	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	didn't know I could	TRUE	done annually	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003466429	Air conditioner Tune-up	Yes	Yes	TRUE	98	99	98	98	98	FALSE	FALSE	No	0	Did not realize I could	TRUE	To improve home comfort		FALSE	Central air conditioner Air-source heat pump Electric heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD002731748	Air conditioner Tune-up	Yes	Yes	TRUE	1	98	98	98	98	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002559318	Air conditioner Tune-up	No	No	FALSE	2	1	2	2	2	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002566395	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	Yes	No	Didn't no about it	TRUE	Gets checked twice a year	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002763723	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002414106	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000359294	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Don't know		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002418923	Air conditioner Tune-up	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000430881	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Tore up.	Repairs	FALSE	Central air conditioner	Other (please specify):Central gas heatGas	TRUE	FALSE	FALSE
CAD003729887	Heat pump Tune-up	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002357394	Air conditioner Tune-up	No	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	FALSE	FALSE	FALSE
CAD002490152	Air conditioner Tune-up	Yes	No	TRUE	4	99	98	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Window or wall air conditioner	Gas furnace/boiler Electric baseboard heating system	FALSE	FALSE	FALSE
CAD002193047	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Just forgot about it	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	TRUE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003575795	Air conditioner Tune-up	No	No	FALSE	98	98	99	98	98	FALSE	FALSE	No	0	0	TRUE	Needed replacing	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003678628	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	4	1	2	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Window or wall air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD002490565	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	2	FALSE	TRUE	No	0	I didn't know of the rebate	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE
CAD002287806	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	3	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002578014	Heat pump Tune-up	No	Yes	TRUE	99	4	99	99	98	FALSE	FALSE	Yes	No	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000454608	Air conditioner Tune-up	Yes	No	TRUE	1	99	99	99	99	FALSE	TRUE	No	0	Because my husband is a heating and cooling contractor and he completed the tune-up himself.	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003621601	Air conditioner Tune-up	No	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002685007	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	3	98	98	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002552140	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Don't know	Electric furnace	FALSE	FALSE	FALSE
CAD002794077	Air conditioner Tune-up	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler Other (please specify):wood furnaceGas	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000237266	Heat pump Tune-up	Yes	Yes	TRUE	99	98	99	98	99	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	regular schedule	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump Other (please specify): wood burning stoveElectric	TRUE	FALSE	FALSE
CAD000064911	Air conditioner Tune-up	Don't know	Yes	TRUE	2	2	2	3	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002209335	Air conditioner Tune-up	No	No	FALSE	1	2	2	2	2	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002426821	Heat pump Tune-up	Yes	Yes	TRUE	2	3	1	1	2	FALSE	TRUE	No	0	I am still planning to apply	FALSE	To save energy		TRUE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD003632523	Air conditioner Tune-up	Yes	No	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002622250	Air conditioner Tune-up	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002276722	Heat pump Tune-up	No	No	FALSE	2	2	2	2	1	FALSE	TRUE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000095396	Heat pump Tune-up	Yes	Yes	TRUE	98	4	3	99	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	TRUE	FALSE	FALSE
CAD002564806	Air conditioner Tune-up	Don't know	No	FALSE	2	98	98	2	98	TRUE	FALSE	Yes	No	Don't know	FALSE	Don't know		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002229910	Air conditioner Tune-up	Yes	No	TRUE	98	98	99	99	98	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	replaced air conditioner as not working	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002660743	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	3	99	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD003699994	Air conditioner Tune-up	No	Yes	TRUE	2	3	2	99	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002455705	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	1	1	99	FALSE	TRUE	No	0	Don't know	FALSE	Maintenance agreement	Part of other contracts or warranties	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002743572	Air conditioner Tune-up	No	No	FALSE	98	4	98	99	99	FALSE	FALSE	No	0	0	TRUE	Age of unit	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000033220	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	1	2	3	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	Normal Maintenance Cycle	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003791151	Air conditioner Tune-up	No	No	FALSE	1	2	3	99	4	FALSE	TRUE	No	0	0	TRUE	It stopped cooling	Repairs	FALSE	Central air conditioner	Don't knowGas	TRUE	FALSE	FALSE
CAD002387608	Air conditioner Tune-up	Don't know	No	FALSE	4	4	99	4	4	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Window or wall air conditioner	Other (please specify):window unitsElectric	FALSE	FALSE	FALSE
CAD002279029	Air conditioner Tune-up	Yes	Yes	TRUE	1	98	2	2	98	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003652205	Air conditioner Tune-up	No	Yes	TRUE	99	4	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Necessary	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000107573	Air conditioner Tune-up	Yes	Yes	TRUE	1	98	99	1	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD003553667	Heat pump Tune-up	Don't know	Yes	TRUE	98	99	98	98	98	FALSE	FALSE	Don't know	0	0	FALSE	Don't know		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000038724	Air conditioner Tune-up	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	it was part of home repair insurance	FALSE	as part of a repair	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000392544	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000263446	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	99	99	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	TRUE	FALSE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002799030	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	4	2	99	TRUE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003730321	Air conditioner Tune-up	No	Yes	TRUE	1	99	99	99	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	Air condition not cooling	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003537230	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I don't know if he did or not. I know I did not pay him anything since it was included in my purchase price.	FALSE	Included with purchase price	Part of other contracts or warranties	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002747558	Air conditioner Tune-up	Yes	No	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	I am still planning to apply	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000324845	Heat pump Tune-up	Yes	No	TRUE	4	99	98	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner Air-source heat pump Window or wall air conditioner	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD002709983	Air conditioner Tune-up	No	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000090734	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	3	FALSE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000229215	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Did own work	FALSE	To save energy		TRUE	Central air conditioner	Other (please specify): Oil Furnace Don't know	TRUE	FALSE	FALSE
CAD002764322	Heat pump Tune-up	No	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Air-source heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD002497437	Air conditioner Tune-up	Yes	Yes	TRUE	99	98	98	98	99	FALSE	FALSE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Don't know Electric	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002251305	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	2	99	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002246874	Air conditioner Tune-up	Don't know	No	FALSE	3	3	98	98	3	FALSE	FALSE	No	0	0	TRUE	Checkup	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002191362	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	2	1	1	FALSE	TRUE	No	0	Under contract with the mobile home park	FALSE	Stopped working in the summer	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003519104	Air conditioner Tune-up	Yes	No	TRUE	98	99	98	99	98	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000473113	Air conditioner Tune-up	Yes	No	TRUE	2	2	2	2	1	FALSE	TRUE	No	0	It was confusing	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002459793	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	2	99	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002497304	Air conditioner Tune-up	Yes	No	TRUE	2	2	1	2	2	FALSE	TRUE	No	0	Don't know	FALSE	Had to be replaced	Replacement	FALSE	Central air conditioner	Electric furnace Other (please specify):Fuel oil furnaceElectric	TRUE	FALSE	FALSE
CAD000071868	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	1	2	2	FALSE	TRUE	Yes	No	I wasn't sure the tune-up qualified	TRUE	Maintain proper operation and service	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002230325	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Other (please specify):gas furnaceGas	TRUE	FALSE	FALSE
CAD002383456	Air conditioner Tune-up	Don't know	No	FALSE	3	3	3	99	3	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003871052	Air conditioner Tune-up	No	No	FALSE	98	4	98	99	99	FALSE	FALSE	No	0	0	TRUE	My central air conditioner unit outside broke & I replaced it and new furnace they were	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002341434	Air conditioner Tune-up	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	Don't know	0	0	FALSE	Old	General maintenance	FALSE	Other (please specify): Apt House (probably central air)	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000208965	Air conditioner Tune-up	Yes	No	TRUE	1	1	1	2	1	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002193467	Air conditioner Tune-up	Don't know	Yes	TRUE	1	3	1	1	98	FALSE	TRUE	No	0	company failed to do it	FALSE	To save energy		TRUE	Central air conditioner	Air-source heat pump	TRUE	FALSE	FALSE
CAD002584243	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	99	99	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002810278	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	It stopped working so I decided to have it tuned up while it was repaired	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002274178	Air conditioner Tune-up	No	No	FALSE	98	98	99	98	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002713058	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	98	98	TRUE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002793916	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	4	4	3	TRUE	FALSE	Don't know	0	0	FALSE	Protect equipment	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000037786	Heat pump Tune-up	Yes	Yes	TRUE	1	3	1	2	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner/Air-source heat pump	Air-source heat pump	TRUE	FALSE	TRUE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000081940	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002429895	Air conditioner Tune-up	No	No	FALSE	3	3	3	3	3	FALSE	FALSE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002529631	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	2	3	2	FALSE	TRUE	No	0	I am still planning to apply	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002798531	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	99	4	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Maintenance	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002723093	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000346401	Air conditioner Tune-up	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002250194	Air conditioner Tune-up	Yes	No	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002493723	Air conditioner Tune-up	Don't know	No	FALSE	98	98	2	98	98	TRUE	FALSE	No	0	0	TRUE	needed it	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002397597	Air conditioner Tune-up	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Was not aware	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002406637	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003750928	Air conditioner Tune-up	Yes	Yes	TRUE	1	98	2	1	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	cleaning	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000048425	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	2	1	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Window or wall air conditioner	Electric baseboard heating systemOther (please specify):Window energy efficient air/heat unitElectric	FALSE	FALSE	FALSE
CAD002627227	Air conditioner Tune-up	Yes	Yes	TRUE	3	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	regular maintenance	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002533225	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002799431	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	2	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD000162214	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	4	4	2	TRUE	FALSE	No	0	was told it didnt qualify	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002602465	Heat pump Tune-up	Yes	Yes	TRUE	3	99	99	2	99	TRUE	FALSE	Yes	No	Don't know	FALSE	SEMI ANNUAL CHECK	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD000102403	Air conditioner Tune-up	Yes	Yes	TRUE	4	2	3	3	99	TRUE	FALSE	No	0	Not aware of rebates on seasonal tune-ups.	TRUE	Extend life of equipment.	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002607575	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Didn't know about it.	TRUE	regular maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler Electric furnace	TRUE	FALSE	FALSE
CAD000079094	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	99	99	98	FALSE	FALSE	Yes	No	air comnditioning company gave me credit	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002536264	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	TRUE	FALSE	FALSE
CAD000229136	Air conditioner Tune-up	Don't know	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Don't knowGas	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003709793	Air conditioner Tune-up	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	Routine maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002215554	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	Periodically schedule	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler Electric furnace	TRUE	FALSE	FALSE
CAD002720136	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000092700	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	2	2	98	TRUE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003810194	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	4	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002543128	Air conditioner Tune-up	No	No	FALSE	3	99	3	2	99	TRUE	FALSE	No	0	0	TRUE	regular maintenance	Routine maintenance	FALSE	Central air conditioner Other (please specify): ceiling fans	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000469834	Air conditioner Tune-up	Yes	Don't know	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000109182	Heat pump Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To save energy		TRUE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002617249	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	contract	Part of other contracts or warranties	FALSE	Central air conditioner	Air-source heat pump	TRUE	FALSE	FALSE
CAD003771953	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	98	99	FALSE	FALSE	Yes	No	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000364578	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000378906	Air conditioner Tune-up	Yes	Yes	TRUE	98	4	4	99	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002521071	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	1	99	1	FALSE	TRUE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002206861	Air conditioner Tune-up	No	No	FALSE	4	4	98	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Air-source heat pump	Air-source heat pump	FALSE	FALSE	FALSE
CAD000312804	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	2	4	4	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002688030	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	2	1	FALSE	TRUE	No	0	unaware of rebate for tuneup	TRUE	for regular maint	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003627636	Air conditioner Tune-up	No	Yes	TRUE	2	4	2	99	3	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002353792	Air conditioner Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	did not qualify as was too small	FALSE	Needed new A/C	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000207903	Air conditioner Tune-up	No	Yes	TRUE	4	99	98	99	99	FALSE	FALSE	No	0	did not know about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002538212	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Son in law HVAC guy	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003757150	Air conditioner Tune-up	No	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002304230	Heat pump Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Didn't know	TRUE	Wasn't functioning	Repairs	FALSE	Central air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD002416545	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000230805	Air conditioner Tune-up	No	Yes	TRUE	3	2	2	2	2	TRUE	FALSE	Don't know	0	0	FALSE	Make sure everything was running properly	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002752649	Heat pump Tune-up	Yes	No	TRUE	1	98	99	2	2	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE

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CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marking or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000051483	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002383585	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner Ductless or mini-split heat pump Gas furnace/boiler	Ductless or mini-split heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003838352	Air conditioner Tune-up	Don't know	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002252708	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000263323	Air conditioner Tune-up	Don't know	No	FALSE	3	4	2	99	3	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003713251	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002814788	Air conditioner Tune-up	No	Yes	TRUE	1	4	2	98	98	FALSE	TRUE	No	0	landlord	FALSE	rent-maintenance	Part of other contracts or warranties	FALSE	Don't know	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002623729	Air conditioner Tune-up	No	Don't know	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000157619	Air conditioner Tune-up	No	No	FALSE	1	98	2	98	1	FALSE	TRUE	Yes	No	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002271522	Air conditioner Tune-up	Yes	No	TRUE	1	4	1	1	3	FALSE	TRUE	Don't know	0	0	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002613923	Heat pump Tune-up	Yes	Yes	TRUE	3	2	99	1	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	maintainance	General maintenanc	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD000398887	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	99	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	make sure it was working properly	General maintenanc	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002747457	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	It didn't look like it qualified according to the website	FALSE	Had new system installed	Replacement	FALSE	Central air conditioner	Other (please specify): Hot Water Baseboard HeatGas	TRUE	FALSE	FALSE
CAD000344983	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner/Air-source heat pump	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002620392	Air conditioner Tune-up	Yes	Yes	TRUE	3	4	3	3	4	FALSE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000211273	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	1	2	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002203660	Heat pump Tune-up	Yes	Yes	TRUE	1	3	4	3	99	FALSE	TRUE	Yes	No	Don't know	FALSE	maintain high efficiency	To save energy	TRUE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD003752115	Heat pump Tune-up	Yes	Yes	TRUE	4	4	4	4	99	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	extend life of equipment	To save money	TRUE	Air-source heat pump	Air-source heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002658274	Air conditioner Tune-up	Yes	Yes	TRUE	1	4	2	99	1	FALSE	TRUE	No	0	didn't know I could	TRUE	to maintain them	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002772736	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	99	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002511825	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000038267	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	3	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000148285	Air conditioner Tune-up	No	No	FALSE	1	4	2	2	1	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000109260	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	Maintain equipment	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000058722	Air conditioner Tune-up	Yes	No	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Dont know about	TRUE	Yearly service	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002253667	Air conditioner Tune-up	Don't know	No	FALSE	2	4	4	4	4	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000311666	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	99	99	FALSE	TRUE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002512915	Air conditioner Tune-up	No	Yes	TRUE	2	1	3	2	1	FALSE	TRUE	Yes	No	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000440273	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	3	3	TRUE	FALSE	No	0	Don't know	FALSE	regular maintenance	Routine maintenance	FALSE	Central air conditioner	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD00264039	Air conditioner Tune-up	No	Don't know	FALSE	2	2	2	2	3	TRUE	FALSE	No	0	0	TRUE	Just had it serviced	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002380572	Air conditioner Tune-up	Yes	Yes	TRUE	99	1	1	99	99	FALSE	TRUE	No	0	Don't know	FALSE	Product Care	General maintenance	FALSE	Central air conditioner	Don't know/Don't know	TRUE	FALSE	FALSE
CAD002619977	Air conditioner Tune-up	No	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002403661	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	2	2	TRUE	FALSE	No	0	I applied, but I did not receive a rebate	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002780033	Air conditioner Tune-up	Yes	Yes	TRUE	3	2	2	3	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Repairs	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002754686	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002500192	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	quit working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002482671	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	98	98	99	TRUE	FALSE	No	0	wasn't aware	TRUE	preventive maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000442275	Air conditioner Tune-up	Yes	No	TRUE	4	4	2	2	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Air-source heat pump	Electric furnace	FALSE	FALSE	FALSE
CAD000088959	Air conditioner Tune-up	Yes	Yes	TRUE	2	98	3	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000313390	Air conditioner Tune-up	Yes	No	TRUE	1	99	99	99	99	FALSE	TRUE	No	0	Don't know	FALSE	Yearly Maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002500788	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	3	2	2	TRUE	FALSE	Don't know	0	0	FALSE	I quit working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002365577	Air conditioner Tune-up	No	No	FALSE	3	4	3	4	3	FALSE	FALSE	No	0	0	TRUE	up keep	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000040471	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	2	1	FALSE	TRUE	Yes	No	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003832689	Heat pump Tune-up	No	No	FALSE	1	2	2	2	2	FALSE	TRUE	No	0	0	TRUE	Broken	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD003542712	Air conditioner Tune-up	Yes	Yes	TRUE	4	2	3	99	4	TRUE	FALSE	Yes	Yes	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002630227	Heat pump Tune-up	No	No	FALSE	3	4	4	98	3	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD003623201	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	Old unit was broken	Repairs	FALSE	Window or wall air conditioner	Other (please specify):RadiatorDon't know	FALSE	FALSE	FALSE
CAD000048235	Air conditioner Tune-up	Yes	No	TRUE	3	3	3	3	3	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Maintenance contract	Part of other contracts or warranties	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002722419	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE

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CAD00264212	Air conditioner Tune-up	Yes	Yes	TRUE	3	2	2	98	4	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Equipment failed	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002674232	Air conditioner Tune-up	Yes	Yes	TRUE	2	98	2	99	98	TRUE	FALSE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003832230	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003587211	Heat pump Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000157171	Air conditioner Tune-up	No	No	FALSE	1	3	1	98	2	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002777503	Air conditioner Tune-up	Don't know	No	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace Other (please specify);and infra red heatersGas	TRUE	FALSE	FALSE
CAD002524198	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003605882	Air conditioner Tune-up	Yes	Yes	TRUE	4	3	2	99	4	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	routine maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003862849	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	Yes	No	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000358123	Air conditioner Tune-up	Don't know	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner Other (please specify):PTA C	Gas furnace/boiler Other (please specify):PTA C Gas	TRUE	FALSE	FALSE
CAD002466600	Heat pump Tune-up	Yes	Yes	TRUE	99	2	99	99	99	TRUE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Air-source heat pump Gas furnace/boiler	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002502078	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002680098	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	4	2	4	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000325799	Heat pump Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002313651	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD003517470	Air conditioner Tune-up	Yes	No	TRUE	1	2	2	2	1	FALSE	TRUE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002489212	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I do my own work	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000270464	Heat pump Tune-up	Don't know	Yes	TRUE	99	99	2	98	98	TRUE	FALSE	No	0	contractor didn't turn in application in a timely manner	FALSE	newly installed	Replacement	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002491500	Air conditioner Tune-up	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	Repairs	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000317739	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	service contract on new equipment	Part of other contracts or warranties	FALSE	Central air conditioner	Other (please specify); propane gas furnaceGas	TRUE	FALSE	FALSE
CAD000471452	Air conditioner Tune-up	Yes	Yes	TRUE	3	2	3	2	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002203765	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	2	2	99	FALSE	TRUE	No	0	was not aware of it	TRUE	to keep in good repair	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002371481	Air conditioner Tune-up	Don't know	Yes	TRUE	3	3	1	2	2	FALSE	TRUE	Don't know	0	0	FALSE	Don't know		FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas		Meeting all criteria			
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000321480	Air conditioner Tune-up	Yes	No	TRUE	2	4	2	4	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Repair	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002283943	Heat pump Tune-up	Don't know	No	FALSE	2	1	1	2	1	FALSE	TRUE	No	0	0	TRUE	yearly check up	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD000165214	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	2	1	1	FALSE	TRUE	Yes	Yes	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000414402	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	4	3	3	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Ductless or mini-split heat pump Window or wall air conditioner	Ductless or mini-split heat pump Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002303042	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002410491	Heat pump Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Air-source heat pump	FALSE	FALSE	FALSE
CAD002365877	Air conditioner Tune-up	No	No	FALSE	98	98	98	98	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002643549	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	regular maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002312433	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	3	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002285314	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	4	3	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000101310	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003544473	Heat pump Tune-up	Yes	Yes	TRUE	2	99	99	99	99	TRUE	FALSE	Don't know	0	0	FALSE	Don't know		FALSE	Central air conditioner Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002180787	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	1	98	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	Maintain efficiency	To save energy	TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE
CAD000174437	Air conditioner Tune-up	Yes	Yes	TRUE	3	4	3	3	3	FALSE	FALSE	Don't know	0	0	FALSE	To save money		TRUE	Central air conditioner	Don't knowGas	TRUE	FALSE	FALSE
CAD002561045	Air conditioner Tune-up	Yes	Yes	TRUE	4	1	1	1	1	FALSE	TRUE	Yes	No	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD002345132	Heat pump Tune-up	Yes	Yes	TRUE	1	2	3	3	1	FALSE	TRUE	No	0	Don't know	FALSE	HAVE CONTRACT WITH CONTRACTOR	Part of other contracts or warranties	FALSE	Central air conditionerAir-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE
CAD002279877	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Rental	FALSE	Don't know		FALSE	Air-source heat pump	Air-source heat pump	FALSE	FALSE	FALSE
CAD002447613	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	It was confusing	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002719020	Air conditioner Tune-up	No	No	FALSE	3	2	3	99	3	TRUE	FALSE	No	0	0	TRUE	To protect equipment	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler Electric baseboard heating system	TRUE	FALSE	FALSE
CAD000146210	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Broke	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003754388	Air conditioner Tune-up	No	No	FALSE	1	4	98	2	2	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric baseboard heating system	TRUE	FALSE	FALSE
CAD002567529	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Yes	No	DID NOT KNOW ABOUT IT	TRUE	MAKE SURE IT IS OPERATING CORRECTLY	General maintenance	FALSE	Ground-source or geothermal heat pump	Ground-source or geothermal heat pump	TRUE	FALSE	FALSE
CAD000136504	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Did not know I had the opportunity	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003862879	Heat pump Tune-up	No	No	FALSE	1	1	2	2	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric baseboard heating system	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002340460	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Just forgot about it	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002686730	Air conditioner Tune-up	No	No	FALSE	2	3	2	99	99	TRUE	FALSE	Yes	No	Don't know	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002405435	Air conditioner Tune-up	Yes	No	TRUE	1	3	1	1	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler Electric baseboard heating system	TRUE	FALSE	FALSE
CAD002460252	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	1	1	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	TRUE
CAD002304389	Heat pump Tune-up	No	No	FALSE	1	2	3	3	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Don't knowElectric	FALSE	FALSE	FALSE
CAD000341598	Air conditioner Tune-up	No	Yes	TRUE	2	98	2	99	98	TRUE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002358813	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	3	99	4	FALSE	FALSE	No	0	old unit and just repaired	FALSE	did not work	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002786730	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	1	2	2	FALSE	TRUE	No	0	Don't know	FALSE	check for problems	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000471524	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	99	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002656317	Air conditioner Tune-up	Yes	No	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Don't knowElectric	TRUE	TRUE	FALSE
CAD002686030	Air conditioner Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	didn't pay renting	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002437806	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Did not know a rebate was available	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD000171359	Heat pump Tune-up	Don't know	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner/ portable air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD003875801	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	New built home	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002485426	Heat pump Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	Yes	No	no longer with Ameren	FALSE	replace old one/damaged	Replacement	FALSE	Central air conditioner/air-source heat pump	Other (please specify):infraredElectric	TRUE	FALSE	FALSE
CAD000357545	Air conditioner Tune-up	No	No	FALSE	98	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003872166	Air conditioner Tune-up	Don't know	Yes	TRUE	1	2	2	2	1	FALSE	TRUE	Yes	No	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002614331	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003826739	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	3	3	3	FALSE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002669830	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	1	FALSE	TRUE	No	0	Just forgot about it	TRUE	To improve home comfort		FALSE	Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002265871	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	General Practice	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000112786	Air conditioner Tune-up	Yes	Yes	TRUE	1	2	1	2	2	FALSE	TRUE	Yes	No	Did not know I could	TRUE	Preventive Maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000106806	Air conditioner Tune-up	No	Yes	TRUE	3	3	2	3	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002520048	Air conditioner Tune-up	No	No	FALSE	2	3	2	2	2	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000335788	Air conditioner Tune-up	Don't know	No	FALSE	2	98	99	99	98	TRUE	FALSE	Don't know	0	0	FALSE	stopped working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002362790	Air conditioner Tune-up	Don't know	Yes	TRUE	2	2	2	2	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Other (please specify):Outside wood furnaceElectric	TRUE	TRUE	FALSE
CAD002182871	Air conditioner Tune-up	Yes	No	TRUE	1	99	99	99	99	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	rotten and broken	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003651085	Air conditioner Tune-up	Yes	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Ductless or mini-split heat pump	TRUE	FALSE	FALSE
CAD002675784	Air conditioner Tune-up	Yes	Don't know	TRUE	2	99	99	99	99	TRUE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002731510	Air conditioner Tune-up	Don't know	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I was not informed of rebate opportunity	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002798368	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	didn't know about it	TRUE	extend life of unit	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000204371	Air conditioner Tune-up	Don't know	Yes	TRUE	2	98	2	99	99	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Improve system efficiency	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002342482	Air conditioner Tune-up	Yes	Yes	TRUE	3	4	4	99	2	TRUE	FALSE	No	0	Don't know	FALSE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000491458	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner/Air-source heat pump	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD003753576	Air conditioner Tune-up	Don't know	No	FALSE	2	99	99	99	99	TRUE	FALSE	No	0	0	TRUE	it wasn't cooling properly and needs to be replaced	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002770051	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	3	2	TRUE	FALSE	No	0	Just forgot about it	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	TRUE	FALSE
CAD002427941	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	3	3	3	TRUE	FALSE	Don't know	0	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria			
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	
CAD002698485	Air conditioner Tune-up	No	Yes	TRUE	4	2	2	4	4	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD002773808	Heat pump Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	It was just a service call	TRUE	To save money		TRUE	Central air conditioner	Don't know	Electric	FALSE	FALSE	FALSE
CAD002410089	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	3	4	99	FALSE	FALSE	Yes	Don't know	0	FALSE	Extend life of systems	To save money	TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE	
CAD002623081	Air conditioner Tune-up	Yes	Don't know	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD003497311	Air conditioner Tune-up	No	Yes	TRUE	2	2	2	3	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD002763970	Air conditioner Tune-up	Yes	Yes	TRUE	2	4	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Don't know		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE	
CAD000180851	Air conditioner Tune-up	No	No	FALSE	99	99	2	99	99	TRUE	FALSE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE	
CAD002807779	Air conditioner Tune-up	Yes	No	TRUE	1	1	1	1	2	FALSE	TRUE	No	0	Don't know	FALSE	Freeon was leaking	Repairs	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE	
CAD002381265	Heat pump Tune-up	Yes	Yes	TRUE	2	3	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE	
CAD002367862	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD002586036	Heat pump Tune-up	Yes	Don't know	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	maintenance	General maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE	
CAD000067306	Air conditioner Tune-up	No	Yes	TRUE	99	99	3	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE	
CAD002299258	Air conditioner Tune-up	No	No	FALSE	3	3	98	3	98	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE	

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002191318	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Breakdown. Maint.	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002238321	Air conditioner Tune-up	No	No	FALSE	1	99	99	99	99	FALSE	TRUE	No	0	0	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000272148	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner Portable air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003844085	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	As preventative maintenance to help ensure peak operating	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000374367	Heat pump Tune-up	Yes	Yes	TRUE	3	4	98	4	3	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	replaced air conditioner	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002799276	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To improve home comfort		FALSE	Central air conditioner Air-source heat pump	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003612620	Air conditioner Tune-up	Yes	Yes	TRUE	3	3	99	98	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002754219	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	regular maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000337268	Air conditioner Tune-up	Don't know	Yes	TRUE	1	1	2	2	2	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD003363508	Air conditioner Tune-up	Yes	No	TRUE	2	2	1	99	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	Life of equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE
CAD000141236	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Yes	No	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000470251	Air conditioner Tune-up	Yes	No	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002446831	Air conditioner Tune-up	Yes	Yes	TRUE	2	99	3	98	4	TRUE	FALSE	No	0	I'm sure my apartment complex did.	FALSE	To save energy		TRUE	Don't know	Electric furnace	FALSE	FALSE	FALSE
CAD002539792	Heat pump Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	maintenance contract	Part of other contracts or warranties	FALSE	Central air conditioner Air-source heat pump Gas furnace/boiler	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000370266	Heat pump Tune-up	No	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	Yes	No	Don't know	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000140042	Air conditioner Tune-up	No	No	FALSE	1	2	99	99	1	FALSE	TRUE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000342969	Air conditioner Tune-up	Don't know	Yes	TRUE	99	99	99	4	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Ductless or mini-split heat pump	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002660319	Air conditioner Tune-up	Yes	Don't know	TRUE	2	4	2	4	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Don't know		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000065270	Air conditioner Tune-up	Yes	No	TRUE	4	4	4	99	4	FALSE	FALSE	Yes	Don't know	0	FALSE	To improve home comfort		FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002537326	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I applied, but I did not receive a rebate	FALSE	broken	Repairs	FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003822296	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Don't know	0	0	FALSE	It wasn't working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002537375	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Air-source heat pump Electric furnace	TRUE	FALSE	FALSE
CAD000424887	Heat pump Tune-up	Yes	Yes	TRUE	2	3	2	2	2	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	to maintain	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002222023	Heat pump Tune-up	Don't know	Yes	TRUE	2	2	2	99	99	TRUE	FALSE	No	0	Don't know	FALSE	Routine check	Routine maintenance	FALSE	Air-source heat pump	Air-source heat pump	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002343373	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	3	3	3	TRUE	FALSE	No	0	It was confusing	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000492057	Air conditioner Tune-up	No	No	FALSE	99	99	99	99	99	FALSE	FALSE	No	0	0	TRUE	keep in good condition	General maintenance	FALSE	Central air conditioner/Air-source heat pump	Electric furnace	TRUE	FALSE	FALSE
CAD000248781	Air conditioner Tune-up	No	Yes	TRUE	1	98	98	1	2	FALSE	TRUE	No	0	Not sure about this	TRUE	to keep equip working	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002342089	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	to ensure continuing safe operation	Safety	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002252795	Air conditioner Tune-up	Yes	Yes	TRUE	1	99	99	99	99	FALSE	TRUE	No	0	Don't know	FALSE	Don't know		FALSE	Central air conditioner	Don't know/Don't know	TRUE	FALSE	FALSE
CAD003866141	Air conditioner Tune-up	Yes	Yes	TRUE	99	98	4	98	99	FALSE	FALSE	Don't know	0	0	FALSE	previous owner did it regularly	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002181470	Heat pump Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	broke	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002473802	Heat pump Tune-up	Yes	Yes	TRUE	98	98	98	98	98	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Air-source heat pump Gas furnace/boiler	Air-source heat pump Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002782834	Air conditioner Tune-up	Yes	No	TRUE	2	99	99	99	99	TRUE	FALSE	No	0	Don't know	FALSE	preventive maintenance	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD003619088	Heat pump Tune-up	Don't know	No	FALSE	4	4	4	4	98	FALSE	FALSE	No	0	0	TRUE	required by landlord	Part of other contracts or warranties	FALSE	Central air conditioner	Don't know/Electric	FALSE	FALSE	FALSE
CAD003398781	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	1	2	2	FALSE	TRUE	Don't know	0	0	FALSE	To save energy		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000434226	Heat pump Tune-up	No	Yes	TRUE	4	4	4	4	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	Sensor was dirty; temporarily stopped working	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002619607	Air conditioner Tune-up	Yes	No	TRUE	3	3	2	3	3	TRUE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save money		TRUE	Central air conditioner	Electric furnace	TRUE	TRUE	FALSE
CAD000043637	Air conditioner Tune-up	Yes	Yes	TRUE	1	3	4	1	2	FALSE	TRUE	No	0	Not Qualified	FALSE	Once A Year	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002260831	Air conditioner Tune-up	No	No	FALSE	2	4	4	99	3	TRUE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003872048	Air conditioner Tune-up	Yes	Yes	TRUE	2	3	4	3	1	FALSE	TRUE	No	0	I wasn't sure the tune-up qualified	TRUE	done annually	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003774275	Heat pump Tune-up	No	Yes	TRUE	1	1	1	1	1	FALSE	TRUE	No	0	Wasn't aware of the tax credit	TRUE	To improve home comfort		FALSE	Central air conditioner Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD002199810	Air conditioner Tune-up	No	No	FALSE	1	2	2	99	1	FALSE	TRUE	No	0	0	TRUE	Brother in heating and cooling	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000440388	Air conditioner Tune-up	Yes	Yes	TRUE	2	2	2	2	3	TRUE	FALSE	Yes	Yes	0	FALSE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000079856	Air conditioner Tune-up	Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	No problems	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000343301	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	to make sure it continued operating effectively	To save energy	TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002587132	Heat pump Tune-up	No	No	FALSE	1	1	1	1	1	FALSE	TRUE	Yes	Don't know	0	FALSE	To save energy		TRUE	Central air conditioner	Electric furnace	FALSE	FALSE	FALSE
CAD002615762	Air conditioner Tune-up	Yes	Yes	TRUE	4	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	Routine maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000140775	Air conditioner Tune-up	No	No	FALSE	3	2	2	3	3	TRUE	FALSE	No	0	0	TRUE	routine maintenance	Routine maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE

Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a				Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria	
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home ?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD002726025	Heat pump Tune-up	No	No	FALSE	1	2	1	1	1	FALSE	TRUE	No	0	0	TRUE	To save energy		TRUE	Window or wall air conditioner	Gas furnace/boiler	FALSE	FALSE	FALSE
CAD000467924	Air conditioner Tune-up	No	No	FALSE	2	2	2	2	2	TRUE	FALSE	No	0	0	TRUE	Maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002203621	Air conditioner Tune-up	No	No	FALSE	3	4	3	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000170509	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	99	98	FALSE	FALSE	Don't know	0	0	FALSE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000232135	Air conditioner Tune-up	No	No	FALSE	4	4	4	4	4	FALSE	FALSE	No	0	0	TRUE	To improve home comfort		FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD003535023	Air conditioner Tune-up	Yes	No	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	It was not working properly	Repairs	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000218047	Air conditioner Tune-up	Yes	Yes	TRUE	98	98	98	98	99	FALSE	FALSE	Don't know	0	0	FALSE	preventative maintenance	General maintenance	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD000475107	Air conditioner Tune-up	Don't know	Yes	TRUE	2	99	99	98	4	TRUE	FALSE	No	0	Didn't know about it	TRUE	Replaced part	Replacement	FALSE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002276489	Air conditioner Tune-up	Yes	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	Don't know	FALSE	Did as part of the maintenance of the building	Part of other contracts or warranties	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD000195965	Air conditioner Tune-up	No	Yes	TRUE	4	4	4	4	99	FALSE	FALSE	Yes	No	Didn't know about it	TRUE	It needed repairs new parts	Repairs	FALSE	Central air conditioner Other (please specify): Floor fan	Gas furnace/boiler	TRUE	FALSE	FALSE
CAD002716032	Air conditioner Tune-up	No	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	To make sure everything is okay	General maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002430611	Air conditioner Tune-up	No	Yes	TRUE	1	1	1	99	99	FALSE	TRUE	No	0	Didn't know	TRUE	To save money		TRUE	Central air conditioner	Gas furnace/boiler	TRUE	FALSE	TRUE



Measure Information		Criterion A: Familiarity with at least one Ameren Missouri program,			Criterion B: At least one element of Ameren's program marketing and outreach motivated them to adopt the measure							Criterion D: They had not received a rebate from Ameren, and had not already tried to receive a			Criterion E: They had a valid reason for deciding to install the measure			Criterion F: The adopted measure generated electric savings, not gas			Meeting all criteria		
CadmusAccountKey	Measure	C2. Have you ever seen or heard of Ameren Missouri's energy efficiency programs?	C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?	Criterion A met? (Yes to C2 or C10)	a) Information about energy savings from Ameren Missouri's marketing or bill insert	b) Ameren Missouri's marketing information from a contractor or retailer	c) Information from colleagues or friends who installed energy efficient equipment and received a rebate from Ameren Missouri	d) Past participation in an Ameren Missouri energy efficiency program	e) Information from the energy assessment conducted at your home through Ameren Missouri	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)	G18. Did you receive a rebate, discount, or tax credit for the tune-up?	G19. Did you get a rebate from Ameren Missouri?	G20. Why didn't you or your contractor apply for a rebate through Ameren Missouri for the tune-up?	Criterion D met? (qualitative assessment)	G17. Which of the following reasons best describe why you decided to install have the tune-up?	G17 Other Categories	Criterion E met? (qualitative assessment)	Cooling System	Heating System	Criterion F met? (depends on the measure)	Criterion B met for 50% savings? (Max rating was 3)	Criterion B met for 100% savings? (Max rating was 4)
CAD003404308	Air conditioner Tune-up	No	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	A/C has to have freon put in it every year, it's leaking	Routine maintenance	FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE
CAD002410712	Air conditioner Tune-up	Yes	Yes	TRUE	4	98	4	99	99	FALSE	FALSE	No	0	I wasn't sure the tune-up qualified	TRUE	To save energy		TRUE	Don't know	Don't know/Don't know	FALSE	FALSE	FALSE
CAD000155236	Air conditioner Tune-up	Yes	Yes	TRUE	4	4	4	4	4	FALSE	FALSE	No	0	Don't know	FALSE	To improve home comfort		FALSE	Central air conditioner	Electric furnace	TRUE	FALSE	FALSE