

## Lighting Impact and Process Evaluation

**PROGRAM YEAR 2017**

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## Executive Summary

Ameren Missouri engaged Cadmus to perform annual process and impact evaluations of the Lighting 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—the second year of the three-year program cycle.

### Program Description

The Lighting program increased sales of energy-efficient lighting products by offering point-of-sale (POS) discounts on ENERGY STAR-certified LEDs through a variety of retail channels. ICF is the program implementer, for the second consecutive year. In addition to reducing prices, ICF worked with participating retailers to place discounted lighting in prominent locations within stores and to locate Ameren Missouri signage and marketing materials nearby. The Lighting program operates through a POS markdown system at major chain retailers and through an online website.

### Key Impact Evaluation Findings

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

#### Program Data Adjustments

Cadmus identified tracking errors for about 7% of program bulbs reported. Errors primarily consisted of incorrect lumens or wattage. Cadmus used corrected information based on the Energy STAR Qualified Product List and manufacturer’s published values.

#### Gross Impacts

Table 1 summarizes PY17 participation, ex post gross per-unit savings, realization and installation rates, and ex post total gross savings. All realization rates were below 90%, primarily due to the decrease in residential Hours of Use (HOU) determined through the PY17 evaluation.

**Table 1. PY17 Gross Impact Results Summary**

Measure	PY17 Total Participation	Per-Unit Ex Post Savings (kWh/yr)	Realization Rate <sup>1</sup>	Total Ex Post Gross Savings (MWh/yr)	Total Ex Post Gross Demand Reduction (kW/yr)
<b>General Purpose</b>					
10W General Purpose	368,960	29.7	87%	10,950	1,648
15W General Purpose	9,575	38.3	86%	366	55
20W General Purpose	43,938	52.5	87%	2,307	347
<b>Decorative</b>					
4W Candelabra	65,008	33.7	89%	2,188	329
8W Globe	33,237	32.2	84%	1,069	161
<b>Special Function (EISA Exempt)</b>					
12W Special Function	2,984	47.3	67%	141	21
<b>Reflector</b>					
10.5W Downlight	8,537	25.6	67%	219	33

15W Flood (PAR 30)	118,105	46.5	86%	5,492	826
<b>Total <sup>2</sup></b>	<b>650,344</b>			<b>22,733</b>	<b>3,421</b>

1 Realization rates compare evaluated per-unit gross savings to the estimated gross savings in the 2017 TRM.

2 Gross savings may not sum to total due to rounding.

## Net Savings

As shown in Table 2, the Lighting program achieved net savings of 22,256 MWh in PY17, including nonparticipant spillover (NPSO). The program savings-weighted net-to-gross (NTG) ratio was 96.0%, excluding NPSO savings. The NTG ratio does not include NPSO because NPSO is added separately to account for its different load profile. 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.

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

Measure Group	Ex Post Gross Savings (MWh/yr)	Free Ridership	Like Spillover	NTG	Net Savings (MWh/yr)	Net Savings – First Year (kW/yr)	Net Savings – Year 2023 (kW/yr)
10W General Purpose	10,950	37%	45%	108%	11,841	1,782	1,782
15W General Purpose	366	37%	45%	108%	396	60	60
20W General Purpose	2,307	37%	45%	108%	2,495	375	375
4W Candelabra	2,188	66%	45%	79%	1,731	261	261
8W Globe	1,069	66%	45%	79%	846	127	127
12W Special Function	141	66%	45%	79%	112	17	17
10.5W Downlight	219	68%	45%	77%	169	25	25
15W Flood (PAR 30)	5,492	68%	45%	77%	4,237	638	638
<b>NPSO</b>					<b>428</b>	<b>334</b>	<b>24</b>
<b>Total<sup>1</sup></b>	<b>22,733</b>	<b>46%</b>	<b>45%</b>	<b>96%</b>	<b>22,256</b>	<b>3,618</b>	<b>3,309</b>

<sup>1</sup> Totals may not sum to total due to rounding.

## Progress toward Goals

As shown in Table 3, the PY17 program achieved 217% of its 10,266 MWh net energy savings target, specified in the Ameren Missouri’s residential tariff, and 216% of its net demand savings target of 1,533 kW.<sup>1</sup> Appendix B presents the coincidence factors used to calculate the program’s demand savings.

<sup>1</sup> Union Electric Company. Electric service applying to residential energy efficiency in Missouri service area. Effective March 1, 2016. Available at: <https://q9u5x5a2.ssl.hwcdn.net/-/Media/Missouri-Site/Files/rates/UECSheet211EEResResidentialEE.pdf?la=en>

**Table 3. PY17 Lighting Savings Comparisons**

Metric	MPSC-Approved Target	Ex Ante Net Savings Reported	Ex Post Gross Savings Determined by EM&V <sup>1</sup>	Ex Post Net Savings Determined by EM&V <sup>2</sup>	Percent of Goal Achieved <sup>3</sup>
Energy (MWh)	10,266	21,806	22,733	22,256	217%
Demand - First Year (kW)	1,533	3,255	3,421	3,618	236%
Demand - Year 2023 (kW)	1,533	3,255	3,421	3,309	216%

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

<sup>2</sup> Calculated by multiplying the team’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 that operate 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 data that Cadmus used to satisfy these impact CSR evaluation requirements for the Lighting program. (Table 5 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	x	The program compares the pre-adoption load based on assumed baseline technology with the post-adoption load based on program technology, and estimates hours of use (based on metered data adjusted for time of year) and waste-heat impact (based on equipment simulation).
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	x	Cadmus used results from on-site metering to estimate the residential hours of use per bulb per day.
Building and equipment simulation models	x	The program uses industry-standard algorithms to conduct an engineering analysis of impacts by measure category.
Survey responses	x	Surveyed retailer partners to assess program influence (2017); surveyed residential customers on purchasing practices and date of purchase of efficient technology to determine leakage and residential use rates (2016); surveyed households to determine saturation of LEDs and installation rates (2017).
<b>Audit and survey data on:</b>		
Equipment type/size efficiency	x	Evaluation team conducted an audit of all lighting in sample of homes in program area (2017).
Household or business characteristics	x	Evaluation team collected household characteristics from homes participating in lighting audit (2017)
Energy-related building characteristics		

<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>

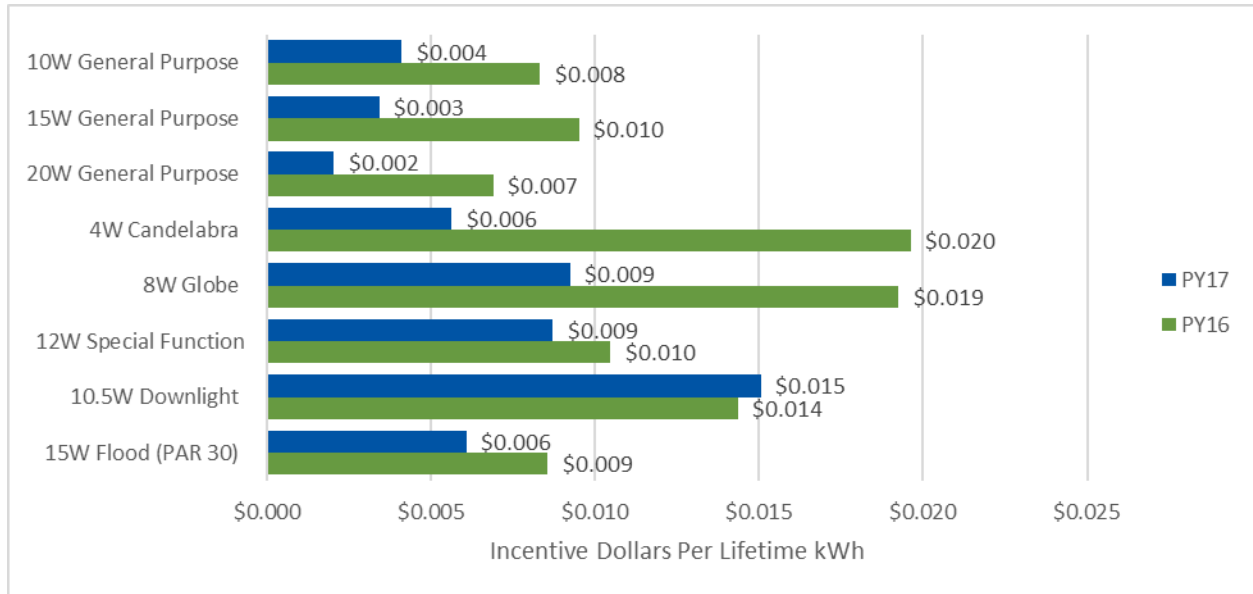
## Key Process Evaluation Findings

Cadmus conducted interviews with program stakeholders, reviewed program marketing materials, and surveyed customers and program partners to inform the PY17 process evaluation. Key findings from this research follow.

There were no major changes to the program design in PY17. The program offered the same measure categories, and though total participation in PY17 was lower than the previous year, the proportion of participation by measure category was largely the same. Nearly all retail partners from PY16 continued in PY17, and ICF did not recruit new partners.

The total incentive budget was lower in PY17, as was the average incentive per bulb. ICF staff noted this was largely the result of a continued drop in retail prices, although the decrease was less pronounced than in previous years. Cadmus found that the reduced spending, combined with an increase in the NTG ratio, resulted in a significant decrease in the dollars per unit of savings, shown in Figure 1.

**Figure 1. Incentive Dollars Per Unit Energy Saved (\$/Lifetime Net kWh)<sup>1</sup>**



<sup>1</sup>This figure uses the present value of net kWh savings, not including NPSO, over the measure’s EUL. Each measure’s EUL is derived from the average of residential and nonresidential EUL values in the Ameren Missouri TRM, weighted by the percent of bulbs in residential applications, as determined in the PY17 evaluation.

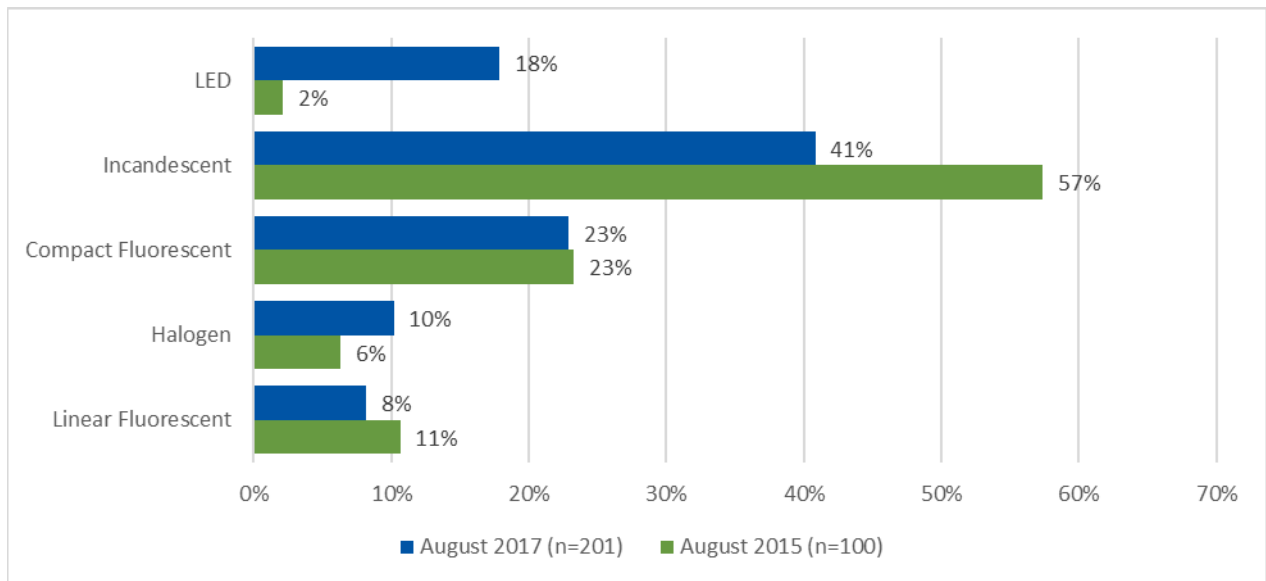
Both Ameren Missouri and ICF reported that they anticipated few challenges in the coming year. Ameren Missouri reported that they expected to reduce the per-unit price floor for discount retailers, in order to target the program to harder-to-reach markets.

## Market Research Findings

Through an expanded home inventory study of 200 Ameren Missouri residential customers, Cadmus collected data to update inputs to the gross and net savings analysis, including the saturation of LED lighting.

The home inventory study found a substantial increase in LED saturation, rising from 2% in August 2015 to 18% in August of 2017, across all common residential sockets (Figure 2). The study also showed the installation rate had increased to 84% in 2017, from 79% in 2015.

**Figure 2. Saturation – All Sockets<sup>1</sup> (Weighted)**



<sup>1</sup>All sockets includes GU sockets, pin-based sockets, and small and medium screw-base sockets.

The resident survey, conducted in tandem with the lighting inventory, found that as saturation of LEDs increases, so does customer familiarity with LEDs. A majority of respondents, 63%, indicated they were somewhat or very familiar with LEDs – almost equal to the percentage of respondents somewhat or very familiar with halogens (66%). In addition, nearly three-fourths (74%) of respondents had used an LED at some point in their home, and 71% said were also satisfied with the LEDs performance. Respondents were less familiar with the ENERGY STAR certification of LEDs. Only 37% of those that had used an LED reported they were both familiar with the ENERGY STAR brand and knew that not all LEDs are ENERGY STAR-certified.

The resident survey found striking evidence of market segmentation in LED uptake, with renters (Figure 3) and those with lower incomes (Figure 4) significantly less likely to have used an LED in their home. These results imply that price is still the primary obstacle in LED uptake.

Figure 3. Homeownership, by Experience with LEDs

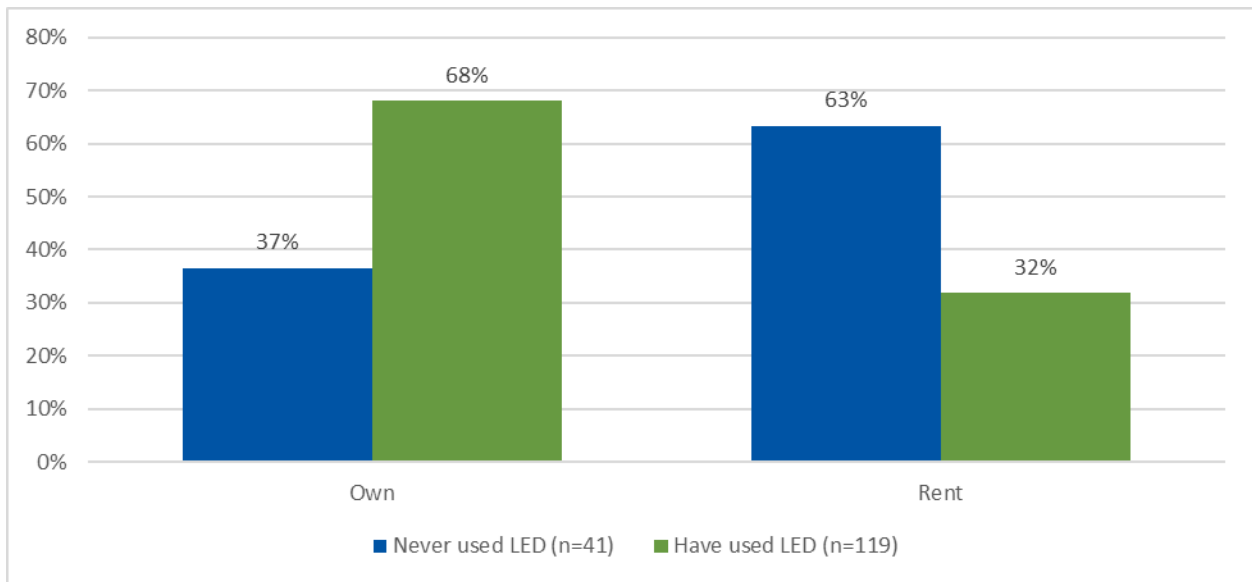
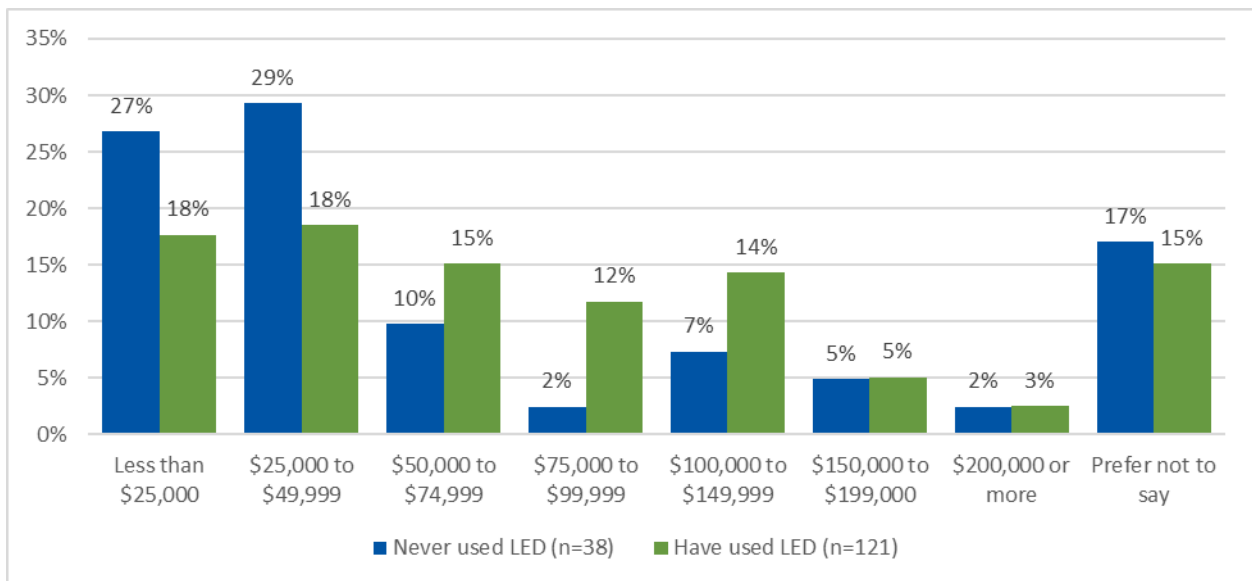


Figure 4. Income Group, by Experience with LEDs



### CSR Process Evaluation Requirements

As previously discussed, 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. Table 5 lists the process evaluation criteria (key questions), and the evaluation findings for each.

**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?	LEDs are gaining market share rapidly, and survey results indicate customers are becoming more familiar with the technology. However, LEDs continue to represent a minority of bulbs sold, and a minority of bulbs installed. Despite a steadily decreasing price per unit, most LEDs remain more expensive than other, less-efficient bulb types. This is especially true for specialty bulb types.
2	Is the target market segment appropriately defined, or should it be further subdivided or merged with other market segments?	The program targets the entire residential lighting market. This continues to be appropriate while the saturation remains low overall. However, renters, who may not expect to remain in their home long enough to experience the benefits, and low income residents, who may be more sensitive to price, have especially low penetration of LEDs.
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. The program continues to offer a diverse array of bulb models that meet most household lighting needs. To ensure optimal savings going forward, Cadmus recommends to program shift the majority of sales of general purpose bulbs from general market channels to discount channels.
4	Are the communication channels and delivery mechanisms appropriate for the target market segment?	The program operates in several large national retail chains that serve differing, broad, cross-sections of the population. However, the program could better serve particularly underserved markets, such as low-income customers, by adding additional discount retailer partners, and allocating a greater share of the budget to those retailers. (In PY2018, staff expect the program to continue to work with current discount partners, and to add additional discount chains in order to reach lower income customers.)
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?	Customer acceptance, based on the residential survey results, appears high. In addition, education and age do not appear to be strong predictors of whether a customer has used an LED, while income, homeownership status and housing type do. These factors strongly point to price continuing to be the primary and perhaps only barrier to LED uptake. Reducing the price barrier for the lowest income populations could drive greater penetration.

<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

Overall, the Lighting program performed well in PY17 and far exceeded its savings and demand targets. Cadmus offers the following conclusions and recommendations for the final year of the program cycle, and the following cycle.



**Conclusion 1. While the LED market is maturing rapidly, there are still opportunities for savings, especially among lower-income customers and renters.**

There is ample evidence that the LED market is maturing. The program implementer continues to report steady declines in retail prices, and saturation of LEDs jumped from 2% to 18% in just two years. Other jurisdictions' estimates of LED saturation in 2017 were similar to Ameren Missouri's territory. At the same time, incandescent bulbs remain the most common installed technology (with 41% saturation) and LED saturation in New York, a state without a lighting incentives program, were only at 10% in 2017. The program implementer, ICF, reported that LEDs constituted just 25% of all bulb sales in 2017, nationwide.

As long as customers continue to prefer a least cost-technology that is significantly less efficient, there are opportunities for the Lighting program to achieve incremental savings. The resident survey results indicate that the best opportunity for savings, where LEDs have had the least penetration, is among renter and low-income customers. Sixty-three percent of renters have never used an LED, compared to 37% of homeowners. Fifty-six percent of those who have never used an LED make below \$50,000, compared to 36% of those who have used an LED. Renters may be concerned that they will not recoup sufficient benefit from the LED to warrant the higher price, or may simply be less interested in investing in their living space. Those with lower incomes are more likely to be more price sensitive than those with higher incomes.

**Recommendation 1.** Cadmus supports the program manager's intention to consider lowering the price floor to allow the program to operate in more discount stores and better serve low-income residents. In addition, the Ameren Missouri may want to revisit the social marketing distribution strategy historically used to promote CFLs in lower-income markets, for LEDs. Ameren Missouri should also consider delivery and marketing and outreach strategies that would more specifically target renters, especially in multifamily homes. For example, Ameren Missouri should consider expanding the kits program by partnering with a gas utility, or developing LED-only kits, in order to deliver LEDs directly to multifamily homes or through a multifamily direct installation program.

**Conclusion 2. Despite higher free ridership, specialty bulbs are likely the best opportunity to achieve savings in the general market, while general purpose bulbs are likely well-suited for small chain stores.**

Although the program made only minor changes to the distribution of sales across measure categories, these changes, combined with shifts across retailer channels, resulted in a substantial increase in free ridership to reflector bulbs. The percentage of 10W General Purpose bulbs and 15W Floods through DIY and Club channels decreased slightly in PY17. The sales decreases were offset somewhat by increases of each of these bulbs in mass market stores, but also by increases to globes and 20W General Purpose bulbs. The effect of this shift was more notable for reflectors, which were generally very price-elastic compared to 10W General Purpose bulbs.

The program implementer reported retail prices are falling faster for standard bulbs, and that manufacturers are increasingly offering standard LEDs in large pack sizes, many of which ICF excluded from the program because the price per bulb would have fallen below the price floor.

**Recommendation 2.** Going forward, the program implementer should reduce free ridership of reflectors by maintaining a high markdown (above 50%) and concentrating sales through high elasticity channels such as mass market and DIY. The implementer should consider specific bulbs, attributes, and competitive options in the specialty market when deciding whether to incentivize a product and to what extent. As noted in a recent report from the American Council for an Energy Efficient Economy<sup>2</sup>, “Even in states where LED market share is already high (greater than 40%), continued investment in residential lighting programs is critical. Early evidence from New York and Massachusetts suggests that LED adoption slows when program activity is scaled back, arguing for continued promotion rather than premature retreat. Targeted programs that address specialty products may be a good fit for these states.”

Given the lower penetration of LEDs in the low-income and renter markets, general purpose bulbs are appropriate for discount stores. Ameren Missouri should reduce the bulb price floor specifically for channels expected to target hard-to-reach markets.

**Conclusion 3. Although near-term opportunity remains, the next program cycle is likely to witness several changes to the lighting market that limit the opportunity for savings.**

The U. S. DOE is actively reviewing new regulations, expected to go into effect in 2020 or 2021, that may make CFLs and LEDs the only viable technologies for general service lighting. Even if those regulatory changes do not occur, the market for LEDs is transforming rapidly in ways that may make the program obsolete. Prices for LEDs continue to fall, and are expected to continue to fall in 2018. Price elasticities tend to decrease over time as markets mature and competing options are limited. This may result in higher free ridership. Sustained high sales of longer-lived CFLs and LEDs over the past seven years have pushed efficient bulbs into 41% of residential sockets. These bulbs are likely installed in the majority of the highest use sockets, and so the HOU per bulb may continue to decrease. In addition, demand for lighting products overall may start to decline as customers transition most of their working high-wattage bulbs to LEDs, and experience fewer bulb outages. For similar reasons, customer may continue to purchase low-cost LEDs, but more of those bulbs will sit in storage, depressing the installation rate.

**Recommendation 3.** Planning for the next program cycle should anticipate that savings from lighting will decline rapidly up to 2021, due to falling prices, reduced elasticity, reduced demand for lighting, and falling HOU. If the U. S. DOE implements a new definition for general service lamps that includes specialty bulbs, and the backstop provision of 45 lumens per watt goes into effect in 2020, then savings from LEDs will likely disappear entirely in 2021 (allowing for some sell-through of older stock.) The program should adopt a highly segmented approach, targeting those segments – renters and low-income customers – that have the most market opportunity as well as individual bulb types.

**Conclusion 4. Ameren Missouri’s influence in the lighting market helped create a rapid rise in LED saturation.** This is evidenced both by retailer attribution of program influence on nonprogram bulb sales, and a comparison of Ameren Missouri service territory to New York State – where lighting

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<sup>2</sup> <http://aceee.org/blog/2018/04/lights-out-residential-lighting>

incentives are not offered, although energy efficiency education has been provided by NYSERDA for many years. While spillover from the program is very high, this level of spillover may not continue indefinitely as the market matures and the rate of saturation increase slows down.

## PY16 Recommendation Tracking

Cadmus requested Ameren Missouri’s response to the PY16 evaluation’s recommendations to track what has and has not been implemented. Table 6 presents the PY16 recommendations, and action taken by Ameren Missouri in response, as reported by Ameren Missouri.

**Table 6. PY16 Evaluation Recommendation Tracking**

PY16 Recommendation	Status	Ameren Missouri Response
Cadmus supports the program manager’s intention to prioritize faster invoicing in the coming year and notes that the implementer has planned system improvement to streamline invoicing.	Completed	The program included language in the Memorandum of Understandings that states that "Manufacturer must submit invoices, at a minimum, monthly during the Promotion Period, and payment is due from Sponsor to Manufacturer net thirty (30) days from the date of Manufacturer’s invoice."
We appreciate the need to adopt a more cost-conscious approach than in previous years, as the potential for savings from lighting diminishes. We suggest an emphasis on targeted engagement with retailers to prioritize the aspects of in-store marketing and placement that can have the most impact. The most important in-store marketing elements are most likely the shelf signage that calls attention to the discounted price and the promotional events that appear to have significant impact on consumer behavior.	Completed	Ameren Missouri Program Manager met with CrossMark field representatives to emphasize the importance of building relationships with the store lighting managers to aid in getting preferential placement of incentivized LEDs. Ameren Missouri also shared past best practices and examples of creative POP marketing material.
Ameren Missouri should explore conducting a randomized control trial of select promotional activities, in order to determine the level of impact from these activities. A randomized control trial requires that certain participating locations do not engage in the target activity, so that sales can be compared across test and control stores. For some aspects of the program, such as available models and discount levels, it is difficult to construct the control due to retailers preference to keep stores consistent. However, for promotional activities such as in-store events and product placement, there is the possibility to structure participation to allow for more rigorous analysis of overall impact.	Not completed	The PY17 program had a reduced budget relative to prior years, and this activity was not considered a priority. Based on the information in the evaluation that the in-store events were effective, the program continued to offer them in PY17.
Make the minor adjustments to savings forecasts needed to account for continued near-zero participation from nonresidential purchasers.	On Going	Ameren Missouri savings projections do not anticipate nonresidential savings beyond what is included in the evaluated per-unit savings. In addition, Ameren Missouri continued to educate store managers and sales clerks to the 12 bulb limit

PY16 Recommendation	Status	Ameren Missouri Response
		on LED purchases to restrict non-residential bulk purchases.
Focusing on retail channels and bulbs that face less direct competition from non-ENERGY STAR LEDs may help reduce free ridership.	On-going	Ameren Missouri focused more on specialty LEDs in PY17, in addition to continuing to offer LEDs in non traditional stores (Goodwill, Habitat, St. Vincent Depaul, etc.) that would not sell LEDs absent the program. These retailers target customers that might be less likely to purchase LEDs. In addition, selling through retailers that do not offer other lighting products reduces free ridership by eliminating direct competition from ineligible LED products.

## Introduction

Ameren Missouri engaged Cadmus to perform annual process and impact evaluations of the Lighting 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 (i.e., the second year of the three-year program cycle).

### *Program Description*

Ameren Missouri has offered point-of-sale (POS) discounts on residential lighting since 2009, though the program design details have evolved over the years. As in PY16, the PY17 Lighting program's design seeks to increase sales of highly efficient LEDs through mainstream retail channels across Ameren Missouri's territory.

Since 2015, Ameren Missouri has contracted with ICF International (ICF) to implement the lighting program. ICF recruits retailers and lighting manufacturers to provide per-unit discounts for eligible LEDs sold through participating stores. In PY17, ICF recruited major national retailers as well as smaller discount retailers and local franchise retailers, the majority of which participated in previous years. In addition to providing the retail discount, ICF worked with participating retailers to place discounted lighting in prominent locations within stores and to locate Ameren Missouri signage and marketing materials nearby. ICF also offered discounted bulbs through an online store.

### *Program Activity*

In PY17, the Lighting program delivered a total of 650,344 products to Ameren Missouri participants, as shown in Table 7. As in PY16, general purpose bulbs made up about 65% of participation. The percentage of decorative bulb sales increased from 10% to 15% in PY17, and the share of reflector bulb sales fell from 24% to 19%.

**Table 7. PY17 Lighting Program Activity**

Measure <sup>1</sup>	PY17 Sales	PY17 Percent	PY16 Percent
<b>General Purpose</b>			
10W General Purpose	368,960	57%	59%
15W General Purpose	9,575	1%	1%
20W General Purpose	43,938	7%	5%
<b>Decorative</b>			
4W Candelabra	65,008	10%	9%
8W Globe	33,237	5%	1%
<b>Special Function (EISA<sup>2</sup> Exempt)</b>			
12W Special Function	2,984	0%	1%
<b>Reflector</b>			
10.5W Downlight	8,537	1%	1%
15W Flood (PAR 30)	118,105	18%	23%
<b>Total</b>	<b>650,344</b>	<b>100%</b>	<b>100%</b>

<sup>1</sup>Although the measure categories include specific wattages in the category name, wattage did not serve as a key criterion in each category's definition. For more detailed discussions and definitions of each measure category, see the PY16 Lighting Program Evaluation.

<sup>2</sup>Energy Independence and Security Act

## Evaluation Methodology

Cadmus identified the following impact and process evaluation objectives for the PY17 Lighting program.

### Impact Evaluation Priorities

- Determining the appropriate baseline wattage for the bulbs’ first years and lifetimes
- Determining Ameren Missouri-specific LED hours of use (HOU) for average households
- Estimating the program’s NTG ratio, including free ridership and spillover
- Estimating gross and net energy savings
- Assessing coincident peak net demand savings using predefined load shapes and estimation methods

### Process Evaluation Priorities

Because this program’s delivery has not changed significantly, we did not report detailed process evaluation results for PY17. We present general findings, and changes from the previous year. We also included an expanded market research section, that includes highlights from the home inventory study and the resident survey.

- Measuring partners’ satisfaction with the program
- Assessing the program design and implementation along with opportunities for improvements
- Ensuring the evaluation meets requirements set by the state of Missouri<sup>3</sup>

Table 8 lists PY17 evaluation activities conducted to achieve these objectives, followed by brief summaries of each activity.

**Table 8. PY17 Process and Impact Evaluation Activities and Rationale**

Activity	Process	Impact	Rationale
Data Tracking Review	✓	✓	Ensure information was collected to inform the impact analysis. Provide ongoing support to ensure all necessary program data are tracked accurately; identify gaps for EM&V purposes.
Stakeholder Interviews	✓		Interview utility staff and implementer staff to provide insights into program design, delivery, satisfaction, free ridership, and spillover on marketing’s effectiveness.
Home Lighting Inventories	✓	✓	Conduct lighting inventories to assess LED saturation, penetration, and installation rates as well as customer attitudes toward and awareness of LEDs. Track the presence of CFLs and other technologies. Assess customer purchasing and lighting usage habits and preferences.

<sup>3</sup> Missouri State code of Regulations, 4 CSR 240-22.070(8)  
<http://s1.sos.mo.gov/cmsimages/adrules/csr/current/4csr/4c240-22.pdf>

Activity	Process	Impact	Rationale
Retailer/Manufacturer Interviews		✓	Collect information on the program’s influence on nonprogram LED sales to calculate PY17 spillover.
Engineering Analysis		✓	Determine the PY17 gross savings.
Demand Elasticity Modeling		✓	Assess impacts of price changes, marketing, and product placement on PY17 sales to estimate free ridership.
Benchmarking	✓		Compare program metrics to similar programs to identify potential for program improvements.
Track Key Progress Indicators	✓	✓	Update on key progress indicators developed in PY16 to track progress in subsequent program years.
Cost-Effectiveness Review		✓	Determine the Lighting program’s cost-effectiveness (Ameren Missouri).

## Data Tracking Review

On a quarterly basis, Cadmus reviewed the Lighting tracking database for completeness and accuracy by spot checking records from each bulb type and retailer. Cadmus performed a complete review of year-end data against the ENERGY STAR qualified product list and manufacturers’ published specifications.

## Stakeholder Interviews

In January and February 2018, Cadmus interviewed key Lighting program stakeholders, seeking to capture information on the following subjects:

- Utility and implementer roles, and changes in assigned staff or staff roles
- Updates to the program’s marketing and education strategy, and their outcomes
- Implementation obstacles and solutions over the year
- Intent and outcome of any mid-year implementation changes
- Program strengths and weaknesses over the year

As shown in Table 9, the team spoke with the Ameren Missouri Program Manager and a representative from ICF. Appendix E provides the stakeholder interview guide.

**Table 9. 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.



## Home Lighting Inventory and Resident Survey

Cadmus, with its partner Nexant, completed 200 in-home lighting inventory site visits in PY17. During each visit, technicians used a standardized data collection tool to record information on the number, location, and type of bulbs installed in all sockets within each home. Technicians also recorded the number of bulbs in storage, and surveyed the residents to determine the number of efficient bulbs purchased during the year that they discarded or gave away. In addition, technicians collected information on whether installed LEDs replaced other efficient lighting. Using data from the inventory, Cadmus calculated saturations by bulb types, LED distributions by room types, an initial installation rate, and other key market characteristics and impact evaluation inputs.

Technicians also conducted brief surveys with each resident to capture information on program awareness and typical lighting purchasing behaviors.

### Sampling

Cadmus identified participants through a mixed-mode outreach (beginning with email and supplementing with phone outreach) to a random sample of 10,000 Ameren Missouri residential customers that had not previously participated in evaluation research. Participants received a \$50 honorarium for participating in the study.

Cadmus weighted the inventory results to represent the general population based on the proportion of homeowners and renters and using the proportion of homeowners and renters from the Cadmus 2016 nonparticipant survey for the population.<sup>4</sup> For the purposes of comparison across years, Cadmus also updated the PY15 home inventory study results using the same weights. Table 10 shows population and sample proportions.

**Table 10. Proportions Used for Weighting for Home Inventory Study**

Ownership Type	Cadmus Nonparticipant Survey, 2016 (n=191)	2017 Home Inventory Sample (n=196)	2015 Home Inventory Sample (n=99)
Own	67%	61%	73%
Rent	33%	39%	27%

## Retailer-Manufacturer Interviews

Cadmus interviewed corporate representatives from participating national retailers and manufacturers to determine the degree of influence that the program had on non-program sales (to evaluate program spillover for PY17). To avoid survey fatigue, the interview guide was streamlined from the PY16 version

<sup>4</sup> The 2017 general population survey found that 68% of customers were homeowners and 32% were renters (n=2,410).

to focus exclusively on retailers’ and manufacturers’ estimates of program influence. Cadmus used the interview results to inform the analysis of like spillover in PY17.

The team interviewed nine representatives of retailer-manufacturer partnerships participating in the PY17 program. Together, these retailer-manufacturer partnerships accounted for 56% of PY17 sales. Table 11 shows the distribution of interviewees by retail channel.

**Table 11. Retailer-Manufacturer Interviewees by Retail Channel**

Channel	Number of Interviews	Program Sales through Channel
Large DIY	4	33%
Large Mass Merchandise	3	27%
Large Club	0	21%
Small Chain	2	19%
Online	0	1%
<b>Total</b>	<b>9</b>	<b>100%</b>

Appendix E provides the survey instrument.

## Engineering Analysis

To calculate program LED lighting savings, Cadmus used the algorithms that follow.

$$\Delta kWh_{RES} = \frac{[(Watt_{Base} - Watt_{EE}) * Hours_{RES} * WHF_{RES}] * \%RES * ISR * (1 - LKG)}{1,000}$$

$$\Delta kWh_{NRES} = \frac{[(Watt_{Base} - Watt_{EE}) * Hours_{NRES} * WHF_{NRES}] * (1 - \%RES) * ISR * (1 - LKG)}{1,000}$$

Where:

- Watt<sub>SE</sub> = The average program bulb wattage
- Watt<sub>Base</sub> = The lumen-equivalent wattage of replaced bulbs
- Hours<sub>RES/NRES</sub> = Average daily HOU for residential or nonresidential applications
- %Res = The percentage of program bulbs installed in residential applications
- ISR = The installation rate (with NRES assumed to be the same as RES)
- LKG = The leakage rate (bulbs sold to customers outside of Ameren Missouri’s service area)
- WHF<sub>RES/NRES</sub> = HVAC interaction factors (adjustments for HVAC interactive effects)

For PY17, Cadmus updated all inputs with primary data collected through this evaluation or by weighting the previous year’s input assumptions with PY17 program sales, excepting WHF. The Market Outlook Section presents the results and further explains the methodology used.

## *Key Progress Indicators*

Cadmus continued to track the following key progress indicators for the Lighting program:

- Program-year electric savings
- Number of program bulbs sold
- Free ridership
- Net kWh savings per bulb

## *Cost-Effectiveness Analysis*

Using final PY17 Lighting 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). 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

From PY16 to PY17, the Lighting program's design experienced only minor changes, with program partners largely the same and marketing activities consistent with PY16. Given the program's mature design, Cadmus conducted a limited process evaluation of the Lighting program in PY17. This section presents Cadmus' findings on the program's design and operations in PY17 as well as results from the resident survey.

The Lighting program's design sought to achieve energy savings by increasing use of high-efficiency LED light bulbs over lower-efficiency baseline options. In doing so, the program provided POS discounts through major retail chains for high-efficiency ENERGY STAR certified LED light bulbs; the program also provided promotional events and literature that educated customers about different lighting technologies. PY17 was the second year that ICF has implemented the program.

Ameren Missouri's program manager reported ICF's performance was satisfactory overall, and that ICF had met their key performance indicators (KPIs). ICF did not anticipate any major changes to the program design or retailer partners, and expected the program participation to be roughly equivalent in PY18.

### Partners

In PY17, ICF recruited 14 retail chains and franchise retailers, and 15 manufacturers. Retailers offered program discounts through 198 storefront locations, and through the Ameren Missouri online store (operated by AMCG). Retailers, all of which also participated in PY16, fell into roughly five sales channels:

- Large DIY
- Large mass-merchandise
- Large club (membership) stores
- Small chain (including specialty electronics, small DIY, and discount stores)
- Online

Sales by channel shifted in PY17 relative to the previous year. The most notable shift was an increase of sales through small chain retailers in PY17. Ameren Missouri staff indicated they expect to continue this shift in PY18. Table 12 compares sales by delivery channel in PY17 with PY16.

**Table 12. Program Sales by Channel<sup>1</sup>**

Retail Channel	PY17 Sales	PY16 Sales
Large DIY	33%	48%
Large Mass Merchandise	27%	22%
Large Club	21%	20%
Small Chain	19%	7%
Online <sup>2</sup>	1%	0%

<sup>1</sup>Percentages may not sum to 100% due to rounding.

<sup>2</sup>The program offered the online sales channel in PY16, but due to delays in invoicing, online sales were not reported until PY17.

## Measures

In PY17, Ameren Missouri offered discounts on eight LED bulb measure categories, listed in Table 13. As in previous years, program bulbs ranged across wattage options in four usage categories: general purpose, special-function bulbs (such as three-way bulbs), decorative bulbs, and reflectors. The table shows measure category names partially based on legacy and includes other similar bulbs with slightly different wattages. The measure categories and descriptions remained unchanged from PY16.

**Table 13. Lighting Program PY17 Eligible Measure Categories**

Measure Category	Bulb Type	Category Specification
10W General Purpose	General Purpose	60-watt equivalent or less, determined by lumen output
15W General Purpose	General Purpose	75-watt equivalent, determined by lumen output
20W General Purpose	General Purpose	100-watt equivalent, determined by lumen output
4W Candelabra	Decorative	Small- and medium-base candle-shaped bulbs, all wattages
8W Globe	Decorative	Small- and medium-base globe-shaped bulbs, all wattages
12W Special Function	EISA Exempt	Bulbs otherwise subject to EISA as general purpose bulbs, but exempt due to special features (e.g., three-way)
10.5W Downlight	Reflector	Bulb diameters of 20 eighths of an inch or less (2.5 inches or less)
15W Flood (PAR 30)	Reflector	Bulb diameters more than 20 eighths of an inch, at 1,789 lumens or below
18W Flood (PAR 38)	Reflector	Bulb diameters more than 20 eighths of an inch, above 1,789 lumens

## Incentives

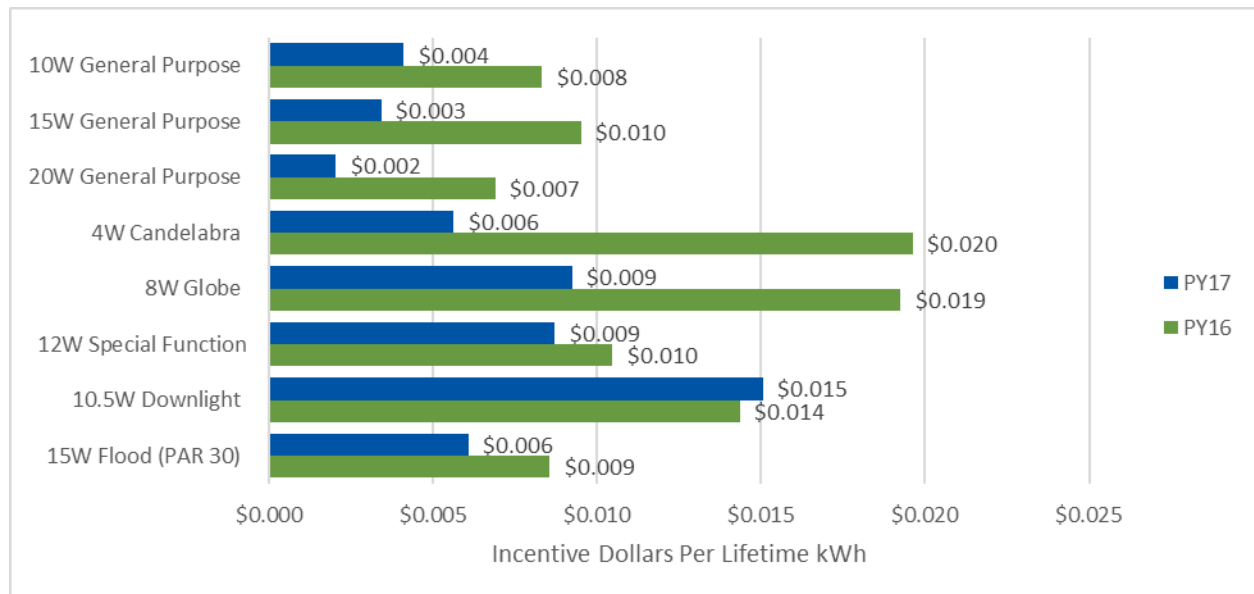
Table 14 shows average per-bulb rebates for each measure in 2017 (by quarter). The program implementer reported that retail prices continued to decline in 2017, but at a slower rate compared to previous years. Average incentives per bulb varied throughout the year for all measures, with incentives increasing for some measures while falling for other measures. This is typical for the program. As promotions in different retail chains become active at different times, the implementer adjusts each retailer-manufacturer MOU’s product mix in order to manage towards that MOU’s funding allocation.

Table 14. PY17 Lighting Program Incentives by Product and Quarter

Bulb Type	Measure	Average Per-Unit Incentive				
		Q1	Q2	Q3	Q4	Year
General Purpose	10W General Purpose	\$1.41	\$1.66	\$2.07	\$2.09	\$1.69
	15W General Purpose	N/A	\$1.57	\$1.81	\$1.85	\$1.82
	20W General Purpose	\$1.65	\$1.42	\$1.37	\$2.13	\$1.49
Decorative	4W Candelabra	\$2.75	\$1.83	\$1.62	\$1.43	\$1.93
	8W Globe	\$3.36	\$3.37	\$2.47	\$2.27	\$3.03
Special Function (EISA Exempt)	12W Special Function	\$4.20	\$4.20	\$4.29	\$4.00	\$4.19
Reflector	10.5W Downlight	\$4.38	\$4.65	\$3.00	\$3.00	\$3.82
	15W Flood (PAR 30)	\$2.93	\$2.28	\$3.11	\$2.63	\$2.80

Although incentives varied over the year and across measures, the average incentive dollar spent per net kWh was much lower in PY17 than in PY16, due to lower average incentive per unit and a higher NTG ratio (see Net Impact Evaluation Results). As in PY16, general purpose bulbs had the lowest incentive cost per kWh. Costs per kWh for decorative bulbs (candles and globes) dropped significantly from \$0.020 and \$0.019 per net kWh, respectively, to \$0.006 and \$0.009. 10.5W Downlight is the only measure category that experienced an increase in cost per net kWh.

Figure 5. Incentive Dollars Per Unit Energy Saved (\$/Lifetime Net kWh/Unit)\*



\*This figure uses the present value of net kWh savings, not including NPSO, over the measure’s estimated useful life (EUL). Each measure’s EUL is derived from the average of residential and nonresidential EUL values in the Ameren Missouri TRM, weighted by the percent of bulbs in residential applications, as determined in the PY17 evaluation.

ICF reported that adjusting the measure mix and incentives per unit to avoid going below the price floor was a minor implementation challenge in PY17. During the PY16 program year, Ameren Missouri chose to limit incentives to keep consumer prices above \$2.00 per bulb. Ameren Missouri continued this policy

through PY17 to limit program costs and to allow the program budget to last through the end of the year. The PY17 price floor required ICF to eliminate or reject an increasing number of large multi-packs of standard A-line bulbs that offered a very low price per unit. In addition to a price point too close to the price floor, ICF considered these packs to be a low-benefit measure with a high potential for free ridership. ICF noted that due to the more rapid price decline in standard bulbs, they were likely to recommend the program focus on specialty bulbs going forward.

The Ameren Missouri program manager reported that the per-unit price floor was limiting program entry into more discount stores, particularly dollar stores, and that Ameren Missouri intended to reduce the price floor for that market segment in the coming year.

## Marketing

The Lighting program marketing budget overall was smaller in PY17 than in PY16, and the marketing spend per-bulb decreased. Table 15 shows PY16 and PY17 marketing budget and marketing spend per bulb.

**Table 15. Marketing Spend per Bulb Sold**

Program Year	Marketing Budget	Bulbs Sold	Marketing Spend/Bulb Sold
PY16	\$45,000	917,013	\$0.05
PY17	\$17,129	650,344	\$0.03

ICF worked collaboratively with Ameren Missouri’s corporate communications department to develop and implement marketing campaigns to support the Lighting program. Table 16 summarizes PY17 marketing activities for the Lighting program.

**Table 16. Summary of PY2017 Marketing Activity**

Marketing Activity	Lighting
Collateral	✓
Digital display	✓
Digital search	✓
Direct mail	✓
Email blasts	✓
Freestanding inserts	✓
Geofencing	✓
In-store events	✓
In-store product placement	✓
Point-of-Purchase materials	✓
Social media	✓
Statement messaging	✓
TV spots	✓

ICF also leveraged its nation-wide presence, and nation-wide relationship with retailers and manufacturers to arrange special product placements in-store, such as pallet displays. By conducting these special-placement events across programs, retailers and manufacturers reduce costs, and the program achieves more preferred placement opportunities that drive sales. ICF noted that for Ameren Missouri, it did not opt in to all placement opportunities, because many were coordinated with manufacturer rebates that would have reduced the unit price below the minimum floor of \$2.00 per bulb. Additionally, these off-shelf promotions typically drive volume that would have accelerated MOU spending above levels required to keep promotions active throughout the program year without exceeding allocations. Ameren Missouri staff reported that, given limited remaining incentive funds, they expected ICF to be highly selective in participating in special promotions in PY18.



## Market Research Findings

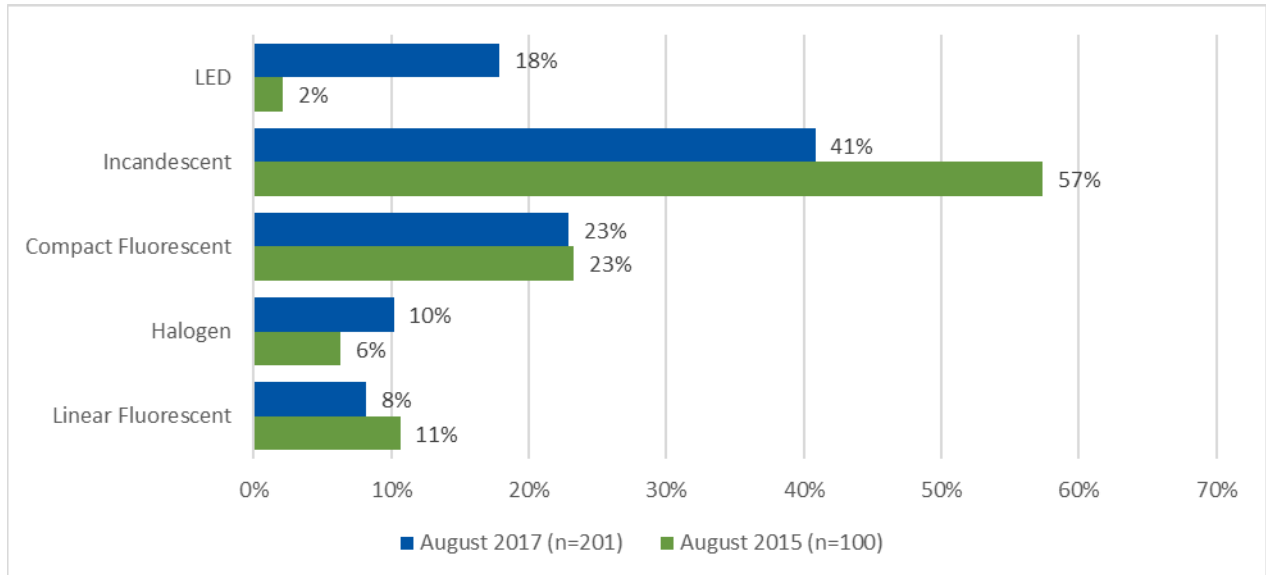
Cadmus conducted several activities to gain insight on recent changes to the lighting market, including interviews with program stakeholders, the home inventory study, and a resident survey conducted during the on-site inventories. This section presents the findings related to recent changes and expected future changes to the broader market for LED lighting, and how these changes may impact the program.

### Home Inventory Study

The home lighting inventory study collected detailed information on lighting usage in Ameren Missouri residential customer homes. Cadmus weighted the inventory results by the rate of population homeownership (as measured from the PY16 general population survey) in order to align study results with the population.

The lighting inventory found that LED bulb saturation across common residential socket types increased substantially from 2% in August of 2015 to 18% in August of 2017 (Figure 6). The increase in saturation of LEDs was almost entirely offset by the decrease in saturation of incandescent bulbs. CFL saturation remained stable at 23%, while halogen saturation increased from 6% to 10%, and linear fluorescent bulbs decreased slightly from 11% to 8%. Incandescent bulbs remain the most common bulb technology, despite the decrease in saturation. Together, longer-lived CFLs and LEDs occupy 41% of all sockets.

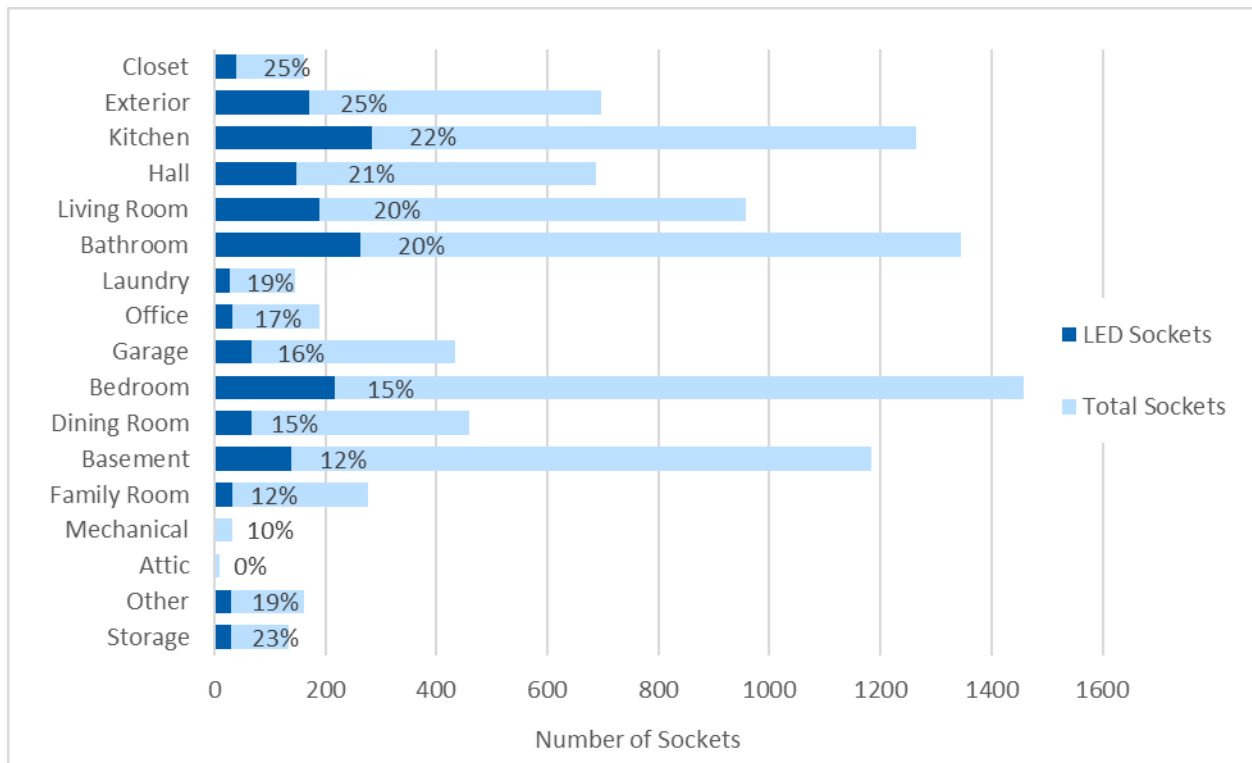
Figure 6. Saturation – All Sockets<sup>1</sup> (Weighted)



<sup>1</sup>All sockets includes GU sockets, pin-based sockets, and small and medium screw-base sockets.

As shown in Figure 7, LED saturation by room was varied, and ranged from 0% in attics to 25% in closets and exterior sockets. LED saturation was also high among bulbs in storage, representing 23% of stored bulbs. LEDs are rapidly increasing in the room with the highest HOU, the kitchen. But LED saturation is lagging in other high use rooms, including dining rooms and family rooms. (For HOU by room type, see Table 20.)

Figure 7. LED Saturation by Room – All Sockets<sup>1</sup> (Weighted)



<sup>1</sup>All sockets includes GU sockets, pin-based sockets, and small and medium screw-base sockets.

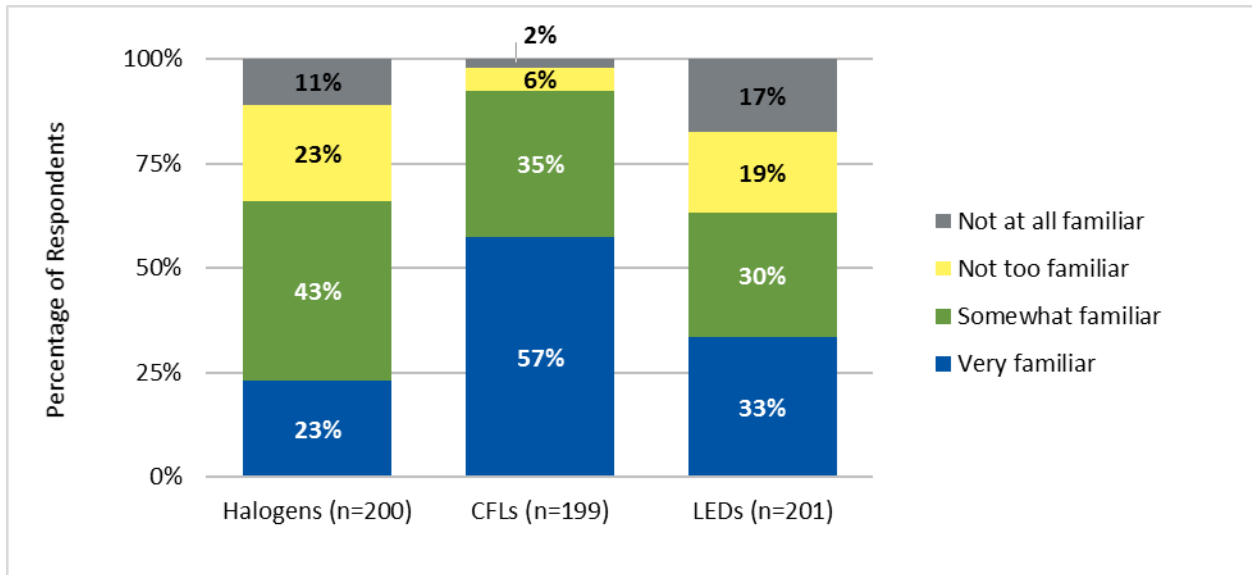
The study also showed the installation rate had increased to 84% in 2017, from 79% in 2015. Related to the increased installation rate, the number of efficient bulbs (LEDs and CFLs) in storage decreased from 4.7 per home in 2015 to 3.7 bulbs per home in 2017. However, the type of bulbs in storage shifted, so that the number of LEDs in storage increased, from 0.3 bulbs in 2015, to 1.7 bulbs in 2017.

## Residential Survey

As part of the home inventory study, the Cadmus Team conducted surveys with residents. The resident survey sought to capture information about Ameren Missouri residential customers’ knowledge about the lighting market, how familiar they were with Ameren Missouri’s Lighting program, their preferences and behaviors regarding lighting product purchases, and demographic information about the sample.

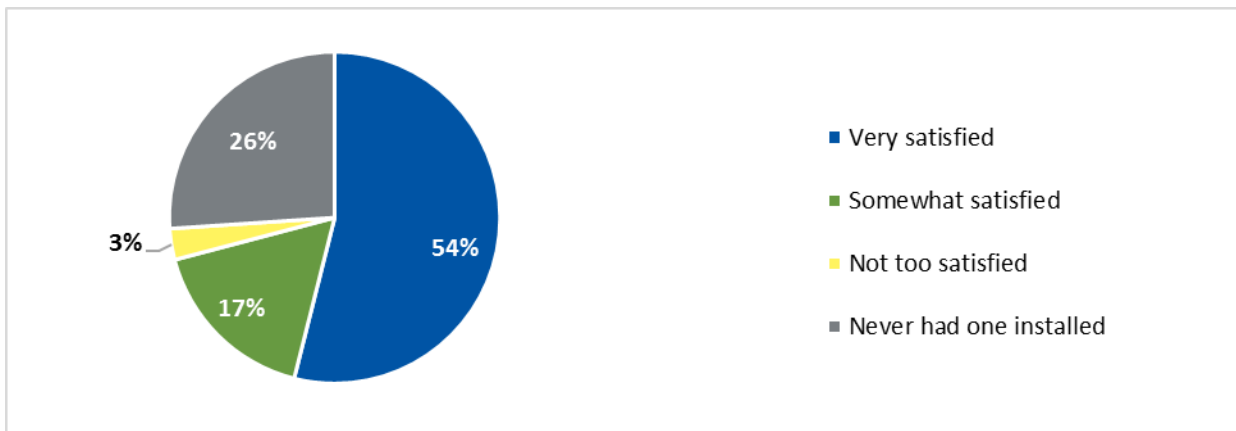
As shown in Figure 8, customer familiarity with LEDs was approaching that of CFLs in PY17. Customers were most familiar with CFLs, with 92% either somewhat or very familiar with the bulbs. LEDs and halogens were about equally well-known, with 66% of customers very or somewhat familiar with halogens, and 63% very or somewhat familiar with LEDs.

Figure 8. Familiarity with Halogens, CFLs and LEDs



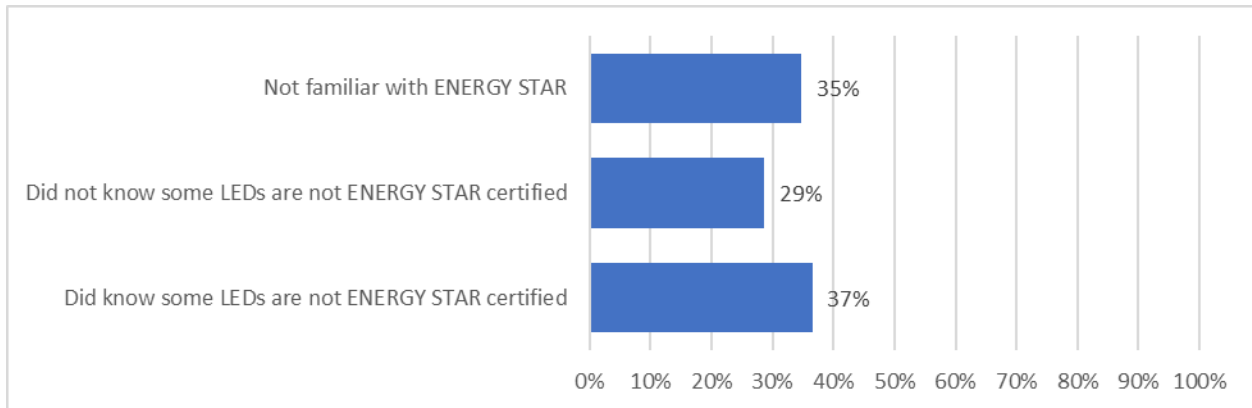
As of August 2017, just over a quarter of respondents had never had an LED installed in their home. Another 3% had used an LED, but were not too satisfied with it. The great majority of respondents (71%) had used LEDs, and were either somewhat or very satisfied with them (Figure 9).

Figure 9. Experience and Satisfaction with LEDs (n=165)



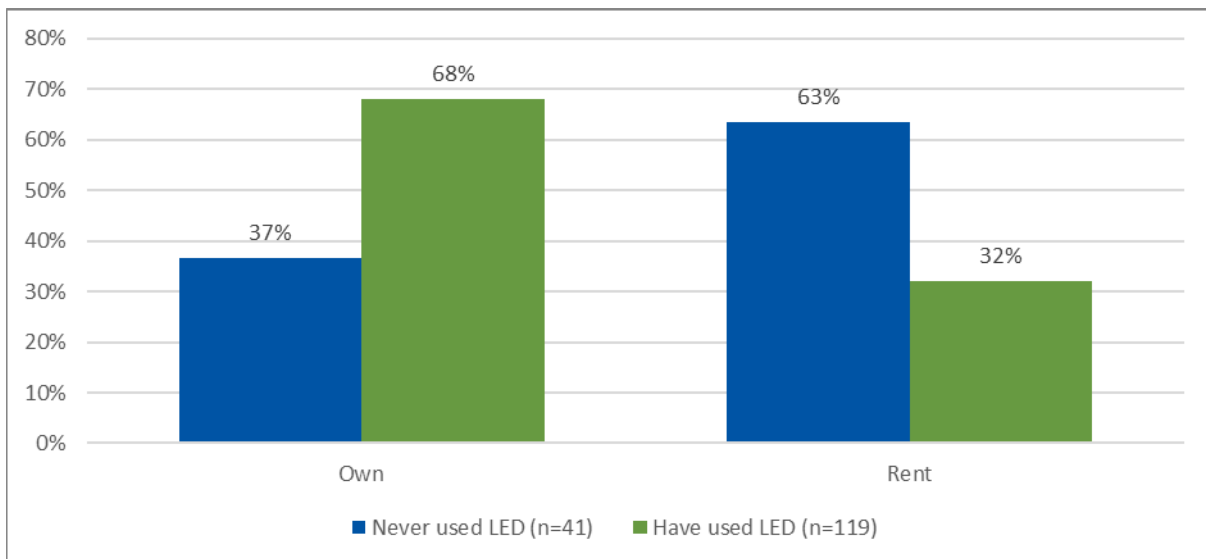
Of those respondents that had used an LED, just over a third of respondents were not familiar with the ENERGY STAR label. Another 29% were familiar with ENERGY STAR, but were unaware that not all LEDs are ENERGY STAR certified. Thirty-seven percent of respondents that had used an LED were familiar with ENERGY STAR and also aware not all LEDs were ENERGY STAR certified (Figure 10). The survey also asked whether respondents had purchased non-ENERGY STAR LEDs. Of 42 respondents aware of non-ENERGY STAR-certified LEDs, 64% said they had purchased only ENERGY STAR-certified LEDs, and 26% were not sure.

**Figure 10. Understanding and Awareness of ENERGY STAR (n=115)**



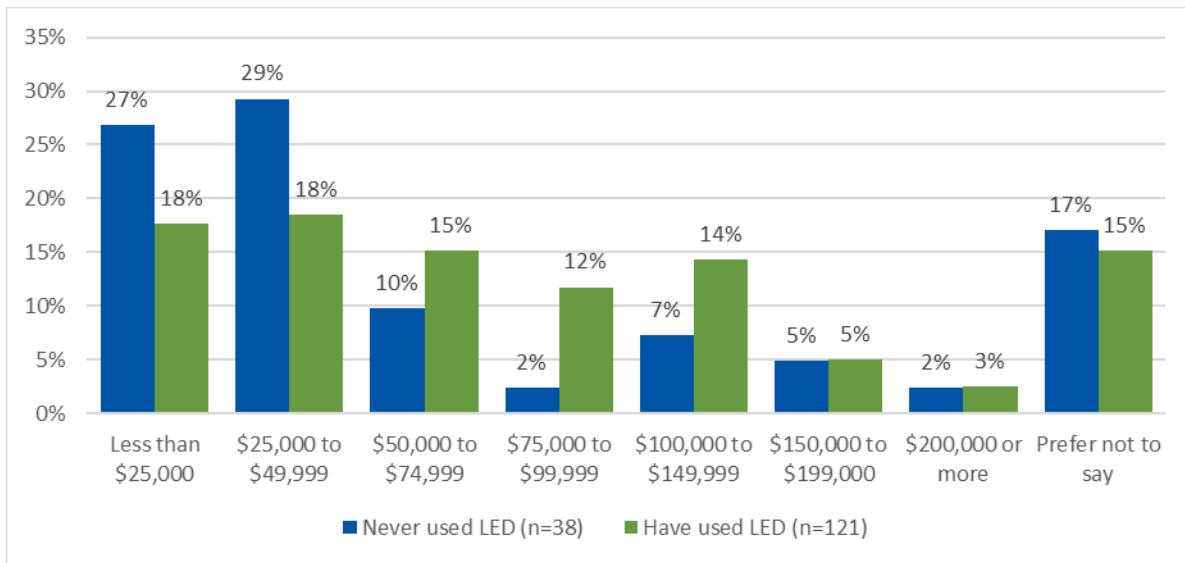
Cadmus found some evidence of market segmentation in LED uptake, most strikingly between homeowners and renters. As shown in Figure 11, respondents that rent their home were significantly less likely to have used an LED than respondents that own their home. This may be related to the higher price of LEDs. While that price can be recouped over the measure lifetime, renters may be less likely to expect to remain in the home long enough to make up for the extra upfront cost.

**Figure 11. Homeownership, by Experience with LEDs**



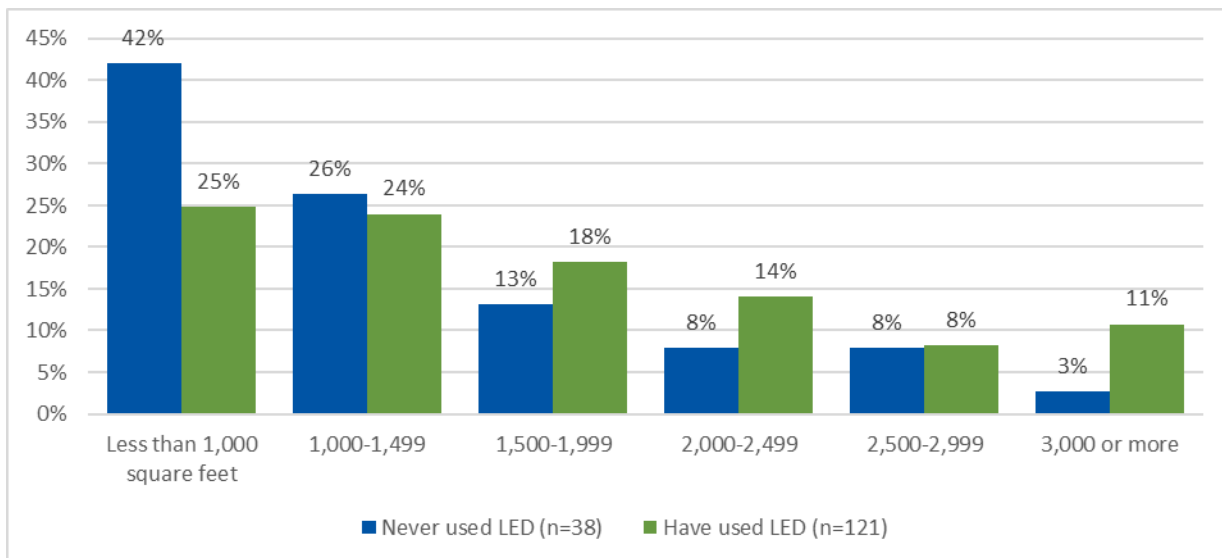
Income was also closely correlated with use of LEDs. As shown in Figure 12, respondents that have not used an LED were significantly more likely to make less than \$50,000 per year than those that have used an LED (56% compared to 36%). At the same time, 41% of respondents that have used an LED had a mid-range income (between \$50,000 and \$150,000), compared to 20% of those that have not used an LED. Above \$150,000 per year, there was no difference in LED experience.

**Figure 12. Income Group, by Experience with LEDs**



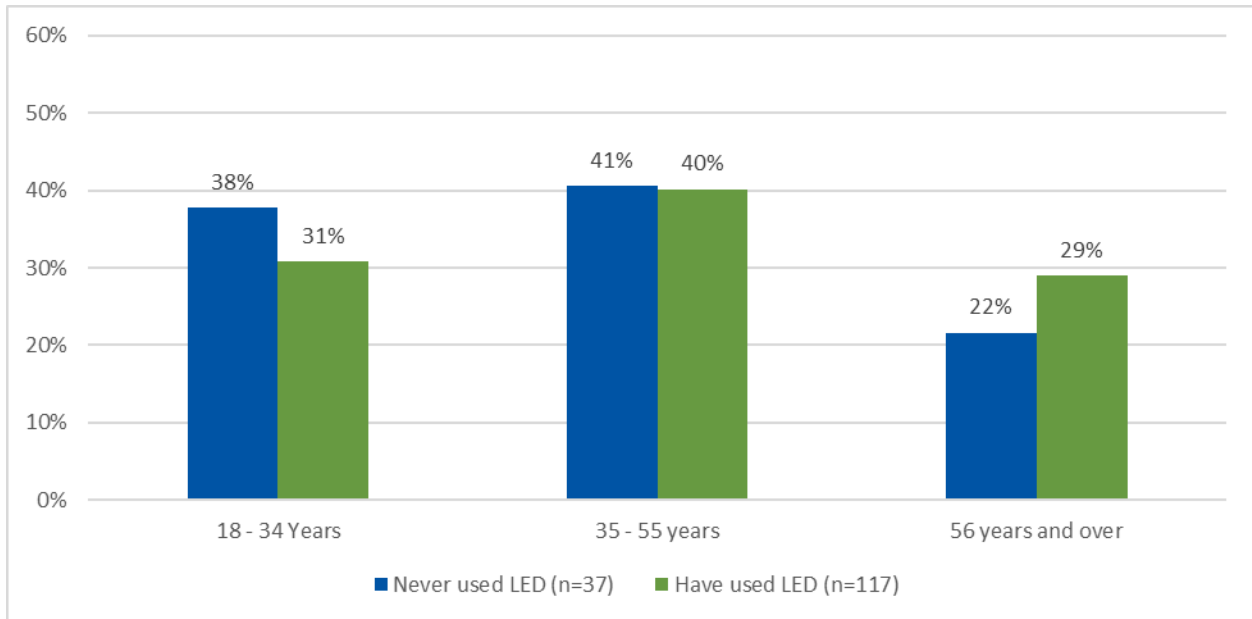
Similarly, respondents who had never used an LED were significantly more likely to live in a home smaller than 1,000 square feet than those who have used an LED. However, the gap is not as large as that between homeowners and renters. Considering those in mid-size homes are more likely to have used an LED, these results may be driven by a correlation with income.

**Figure 13. Size of Home, by Experience with LEDs**



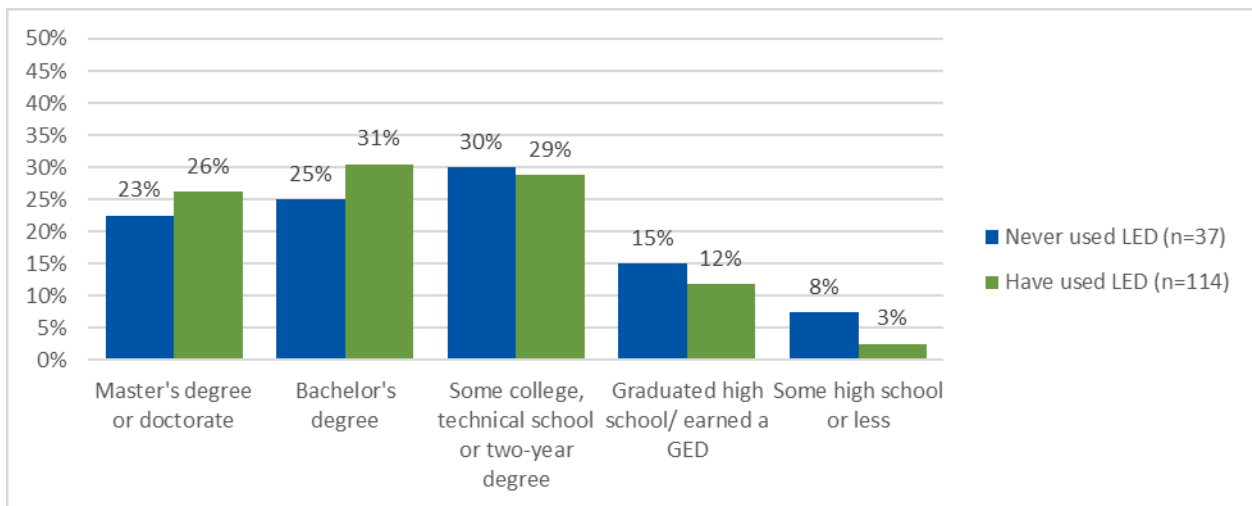
Age and education were not good predictors of whether a respondent had used an LED, which implies that lack of understanding, or unwillingness to try a new product, are not primary barriers to LED uptake. The average age of adults in homes that have used an LED was 46 (n=122), compared to 42 among homes that have not used an LED (n=43). Figure 14 shows the distribution of the average age of adults in the home. While respondents that have never used an LED trended younger than other respondents, the difference was not statistically significant.

Figure 14. Distribution of Average Age of Adults in the Home



About 61% of homes that have used an LED have 2 or fewer occupants, compared to 57% of homes that have not used an LED. Respondents that have never used an LED were somewhat less likely to have received a higher degree, but the difference was not statistically significant.

Figure 15. Maximum Level of Education, by Experience with LEDs



Appendix F provides the survey instrument. Appendix E provides more details findings from the survey.

## Market Outlook

In 2017, a series of rulemaking and regulatory legal decisions impacted the near-term outlook for the LED market. The U.S. DOE allowed a deadline for issuing a updated minimum standards for general service lamps, set by EISA, to expire. This triggered a backstop provision in EISA that the minimum standards will become 45 lumens per watt by 2020, which would limit general service lamps almost exclusively to solid-state lighting technology. At same time, U. S. DOE issued a rulemaking on the definition of general service lamps, broadening the definition to include reflector and decorative categories that were previously exempt. In an interview, ICF reported that the U.S. DOE settled a lawsuit brought by the National Electrical Manufacturers Association (NEMA), agreeing to review standards for special-function incandescent bulbs currently exempt from EISA, including vibration and rough service bulbs. In addition, because reflectors and certain decorative bulbs did not meet the sales thresholds originally set by EISA to exclude those categories from exemption, ICF believes the U.S. DOE may revise the new definition of general service bulbs to once again exclude these categories. Regardless of the outcome of pending rulemaking and legal challenges, changes to lighting specifications will not go into effect less than three years after they are announced, per EISA.

ICF reported that LEDs continue to represent only 25% of all lighting shipped, and that the majority of these are traditional A-line bulbs. For this reason, ICF recommended the program shift incentives to reflector and decorative bulbs at least through 2020.

## Gross Impact Evaluation Results

Cadmus used engineering analysis to calculate gross savings per unit for each measure and total gross savings for the Lighting program.

### Tracking Data Review

Quarterly, Cadmus conducted a limited review of tracking data to assess completeness and accuracy. Specifically, the team verified that measure details—including measure descriptions, reported lumens, and reported wattages—remained consistent with the measure category,<sup>5</sup> and matched information on manufacturers’ or retailers’ websites for the same models or SKU numbers. Cadmus identified a small number of errors (affecting fewer than 15,000 bulbs) in the first two quarters. ICF corrected these errors and worked with manufacturers to emphasize the need for clean reporting.

At year-end, Cadmus performed a comprehensive review of each reported transaction, confirming the measure details matched those reported in the ENERGY STAR qualified product list or on the manufacturers website. Through this review, Cadmus identified errors in reported wattage or lumens for approximately 7% of reported bulbs. Cadmus corrected the wattage and lumens in the tracking data used for the program evaluation.

### Measure-Specific Gross Savings

Cadmus estimated gross per-unit savings using the industry standard algorithm, along with inputs derived through protocols recommended in the Uniform Methods Project (UMP).<sup>6</sup> The team calculated the savings value for each measure category as the sum of the following two equations:

$$\Delta kWh_{RES} = \frac{(Watt_{Base} - Watt_{EE}) * \%RES * ISR * (1 - LKG) * (Hours_{RES} * Days * WHF_{RES})}{1,000}$$

$$= \frac{\Delta kWh_{NRES}}{(Watt_{Base} - Watt_{EE}) * (1 - \%RES) * ISR * (1 - LKG) * (Hours_{NRES} * Days * WHF_{NRES})} * 1,000$$

Where:

- Watt<sub>Base</sub> = Wattage of the baseline alternative bulb displaced by program bulb
- Watt<sub>EE</sub> = Wattage of program bulb

<sup>5</sup> The program used the same measure categories and category definitions established in PY16. Appendix C provides the measure category specifications, which assign bulbs to categories based on function, size, wattage and lumens.

<sup>6</sup> Dimetrosky, S., K. Parkinson, N. Lieb. *Uniform Methods Project, Chapter 21: Residential Lighting Evaluation Protocol*. National Renewable Energy Laboratory. October 2017. Available online: <https://www.nrel.gov/docs/fy17osti/68562.pdf>



%Res	= Percentage of program bulbs installed in residential applications as opposed to nonresidential applications
ISR	= In-service rate
LKG	= Leakage rate (program bulbs installed outside Ameren Missouri’s service area)
Hours <sub>RES</sub>	= Average HOU per day for bulbs installed in residential applications
Hours <sub>NRES</sub>	= Average HOU per day for bulbs installed in nonresidential applications
Days	= Days used per year
WHF <sub>RES</sub>	= HVAC interaction factors (adjustments for HVAC interactive effects) for bulbs installed in residential applications
WHF <sub>NRES</sub>	= HVAC interaction factors (adjustments for HVAC interactive effects) for bulbs installed in nonresidential applications
1,000	= Conversion factor from Wh to kWh

Table 17 shows the source for each input value required in the PY17 evaluation.

**Table 17. Source for PY17 Lighting Energy Savings Input Values**

Data Required	Data Source for PY17 Evaluation
Watts <sub>Base</sub>	Sales-weighted average of baselines for each model in the measure category, using complete PY17 sales data. The baseline wattage was determined by lumen-per-watt output using the ENERGY STAR reference database or, if the bulb was not included in the ENERGY STAR database, the manufacturer’s stated equivalent baseline.
Watts <sub>EE</sub>	Sales-weighted average of program bulb wattages in each measure category, using complete PY17 sales data.
%RES	PY16 store intercept study: survey of 458 shoppers in 29 participating retailer locations.
ISR	PY17 home inventory study from a sample of 200 homes, comparing stored bulbs to installed bulbs. Installation projected over four years, as recommended by the UMP.
LKG	PY16 store intercept study: survey of 458 shoppers in 29 participating retailer locations.
Hours <sub>RES</sub>	HOU estimates by room from the <i>Illinois Statewide Residential LED Hours of Use Study Results (2017)</i> , <sup>2</sup> adjusted based on the distribution of LEDs by room type from the Cadmus PY17 home inventory study for Ameren Missouri.
Hours <sub>NRES</sub>	Illinois TRM v6.0, Lighting Reference Tables (Sec. 4.5), "Unknown" building type. <sup>1</sup>
WHF <sub>RES</sub>	Cadmus PY13 modeling analysis updated to reflect demographics and program-specific saturations of heating systems, cooling systems, and fuels used, as determined from Heating and Cooling participant surveys conducted in 2016–2017.
WHF <sub>NRES</sub>	California Database for Energy Efficiency Resources, 2008: average HOU for screw-based bulbs, using nonresidential miscellaneous interior space values. <sup>3</sup>

<sup>1</sup>Illinois Statewide Technical Reference Manual, Version 6.0, Vol. 2 Commercial and Industrial Measures. Available online: [http://www.ilsag.info/il\\_trm\\_version\\_6.html](http://www.ilsag.info/il_trm_version_6.html)

<sup>2</sup>Opinion Dynamics, Illinois Statewide Residential LED Hours of Use Study Results (2017), on behalf of Commonwealth Edison and Ameren Illinois Company.

<sup>3</sup>Summit Blue Consulting. California Database for Energy Efficient Resources. 2008. Available online: <http://www.deeresources.com/index.php/23-deer-versions>

## Watts<sub>EE</sub> and Watts<sub>Base</sub>

Cadmus determined the efficient wattage (Watts<sub>EE</sub>) for each measure category by averaging the wattage of all bulbs sold in that measure category. For example, bulbs sold in the 15W Flood (PAR30) measure category in PY17 ranged from 7W to 17W. Table 18 shows Watts<sub>EE</sub> for each measure category in PY17 and the PY16 value. Efficient watts values changed very little from PY16 to PY17.

**Table 18. PY17 Evaluated Efficient Wattages by Measure Category**

Measure Category	PY17 Value	PY16 Value
10W General Purpose	9.0	9.2
15W General Purpose	11.6	10.8
20W General Purpose	14.9	15.0
4W Candelabra	4.6	4.5
8W Globe	5.8	5.9
12W Special Function	8.8	9.5
10.5W Downlight	6.5	7.0
15W Flood PAR 30	10.6	11.2

Cadmus determined the baseline wattage (Watts<sub>Base</sub>) for all reflectors and specialty bulbs using the baseline wattage for each program bulb defined in the ENERGY STAR Qualified Product List or using the manufacturer’s stated equivalent wattage. Baseline values for standard bulb measure categories (10W, 15W, and 20W General Purpose) conformed to the EISA regulations.

Table 19 shows the baseline wattage values for PY17 and corresponding values for PY16. In most categories, PY17 values were similar to PY16 values. The PY17 baseline wattages for the 12W Special Function category and the 10.5W Downlight categories were substantially lower than the PY16 value. However, these measure categories combined accounted for only 1.8 % of program sales, and therefore had little impact on program savings.

**Table 19. PY17 Evaluated Baseline Wattages by Measure Category**

Baseline Category	PY17 Value	PY16 Value
10W General Purpose	41.1	41.3
15W General Purpose	53.0	53.0
20W General Purpose	71.7	72.0
4W Candelabra	41.0	40.4
8W Globe	40.6	42.0
12W Special Function	60.0	76.3
10.5W Downlight	34.2	43.1
15W Flood PAR 30	60.9	62.1

## HOU (Hours<sub>Res</sub> and Hours<sub>Nres</sub>)

To reflect dramatic market shifts in LED and CFL sales, Cadmus updated the residential HOU (Hours<sub>Res</sub>) for PY17. The PY17 home inventory study found LED saturations increased from 2% in mid-2015 to

17.9% in mid-2017. Over the same period, CFL saturations decreased only slightly, from 23% to 22% of all general screw-based and pin-based sockets, implying LEDs were installed in different sockets than those occupied by CFLs. As a result, the room-based HOU developed for CFLs in PY10 did not apply to program LEDs. To adjust the PY17 HOU, Cadmus relied on LED-specific, room-level HOU estimates from the *Illinois Statewide Residential LED Hours of Use Study*,<sup>7</sup> weighted with the distribution of LEDs by room type from the PY17 home inventory study. Table 20 shows HOU and distribution of LEDs by room from the Illinois Statewide study and the PY17 home inventory study, respectively.

In addition, the table shows room-level HOU from 2010, with weighting based on the 2015 inventory, which Cadmus used for the PY16 evaluation.

**Table 20. HOU and LED Distribution (Weight) by Room**

Room	PY17 Weight	PY17 HOU	PY15 Weight	PY10 HOU
Kitchen	16.5%	4.24	20.0%	4.32
Living Room/ Family Room	12.8%	3.93	12.2%	4.37
Dining Room	3.9%	3.06	8.9%	1.21
Other Rooms	30.2%	2.66	15.6%	2.14
Bedroom	12.1%	2.37	8.9%	1.32
Basement	7.8%	1.66	13.3%	5.76
Bathroom	16.7%	1.10	21.1%	1.68
<b>Weighted Average</b>	<b>PY17</b>	<b>2.73</b>	<b>PY16</b>	<b>3.15</b>

In PY17, the distribution of LEDs substantially differed from the distribution of efficient bulbs (which consisted mostly of CFLs) in PY15 for most rooms. In particular, the PY17 distribution of LEDs in Other Rooms almost doubled the proportion of efficient bulbs in Other Rooms during PY15. HOU levels by room across years exhibited more similarity than bulb distributions. However, there was a substantial change in HOU for Basements, which decreased from 5.76 hours in the PY10 metering analysis to 1.66 hours in PY17. For nonresidential HOU, Cadmus used the Illinois Technical Resource Manual (TRM) estimates for HOU for screw-based bulbs in nonresidential spaces.<sup>8</sup>

Table 21 shows HOU values used in the PY17 savings algorithms for residential and nonresidential savings.

<sup>7</sup> Opinion Dynamics, Illinois Statewide Residential LED Hours of Use Study Results (2017), on behalf of Commonwealth Edison and Ameren Illinois Company.

<sup>8</sup> Illinois Statewide Technical Reference Manual, Version 6.0, Vol. 2. Commercial and Industrial Measures. Available online: [http://www.ilsag.info/il\\_trm\\_version\\_6.html](http://www.ilsag.info/il_trm_version_6.html)

**Table 21. PY17 HOU Values**

Variable	2015
HOURes	2.73
HOUNRes	9.90

## In-Service Rate

To determine the in-service rate (ISR), Cadmus used the protocol recommended in the Residential Lighting chapter of the UMP, updated in October 2017.<sup>9</sup> This method calculates the overall ISR as the present value of savings from PY17 program bulbs, installed over a four-year period and based on a first-year installed rate. The first-year installed rate equaled the percentage of LED bulbs counted in the inventory and installed in a socket at the time of the visit (versus those stored, disposed of, or given away). The PY17 inventory analysis estimated this rate at 84%.

The UMP formula assumed cumulative installation increased by 24% of the remaining uninstalled bulbs each year. Given total program sales of 650,344 in PY17, this approach indicated 545,681 bulbs were installed in Year 1 (PY17). In Year 2, the cumulative ISR would increase to 87.8%, and an additional 25,119 of the bulbs purchased in PY17 would be installed. In Year 3, 19,090 bulbs would be installed, and, finally in Year 4, 14,509 bulbs would be installed; so a cumulative 92.9% (604,400 bulbs) of PY17 program bulbs would be installed over four years.

**Table 22. Rate of Future Installation of PY17 Bulbs**

Installation Rate			Total Bulbs	
<b>Total Bulbs Sold</b>			<b>650,344</b>	
PY17 Installation Rate (YR1)			83.9%	
PY17 Installed			545,681	
Year Projected	UMP Cumulative Installed Percentage	Cumulative Install Rate	Cumulative Bulbs Installed	Installed in Year
2018 (YR2)	$ISR_{YR1} + (1 - ISR_{YR1}) * (.24)$	87.8%	570,800	25,119
2019 (YR3)	$ISR_{YR2} + (1 - ISR_{YR2}) * (.24)$	90.7%	589,891	19,090
2020 (YR4)	$ISR_{YR3} + (1 - ISR_{YR3}) * (.24)$	<b>92.9%</b>	604,400	14,509

To account for the time delay incorporated in this approach, the team determined the net present value (NPV) of savings over the four-year installation period from PY17, discounted back to Year 1 at 6.95% (the utility discount rate).

As shown in Table 23, although 92.9% of bulbs were predicted to be installed over time, the NPV of the expected savings from those bulbs was 91.9%. This value fell from a 95.1% ISR in PY16.

<sup>9</sup> Dimetrosky, S., K. Parkinson, N. Lieb. *Uniform Methods Project, Chapter 21: Residential Lighting Evaluation Protocol*. National Renewable Energy Laboratory. October 2017. Available online: <https://www.nrel.gov/docs/fy17osti/68562.pdf>

**Table 23. Comparison of Actual Installation Impacts to Assumed First-Year Installation**

Scenario 1, Installation Over Four Years					Total	Scenario 2, Installation	Installation
Year 1	Year 2	Year 3	Year 4	Assumed in Year One		Rate	
NPV				558,876	608,082	91.91%	
1	545,681			545,681	650,344		
2		25,119		25,119			
3			19,090	19,090			
4				14,509	14,509		

## WHFRes and WHFNRes

Cadmus used the waste heat factors (WHF) for residential (WHF<sub>Res</sub>) and nonresidential applications (WHF<sub>NRes</sub>) applied in the PY16 evaluation. To estimate the WHF<sub>Res</sub>, Cadmus used a simulation model populated with a customer’s typical home characteristics (identified from Ameren Missouri’s 2012 potential study) to estimate how heating and cooling needs changed when converting incandescent lights to efficient LEDs. Specifically, the team used BEopt™ Version 2.0 to model energy simulations needed for estimating WHF<sub>e</sub> (energy) in residential homes. The PY13 Lighting program evaluation presents details on the original WHF<sub>Res</sub> analysis.<sup>10</sup>

The team used the WHF<sub>NRes</sub> developed in collaboration with Ameren Missouri’s nonresidential evaluation contractor in PY15.

Table 24 shows PY17 values for WHF<sub>Res</sub> and WHF<sub>NRes</sub>.

**Table 24. WHF by Sector**

Sector	WHF
Residential	0.99
Nonresidential	1.10

## Leakage

In 2016, Cadmus conducted an in-store customer survey (known as an intercept survey) to determine the percentage of bulbs purchased through the Lighting program in large national brand retail stores and installed outside of Ameren Missouri’s territory (i.e., leakage).<sup>11</sup> Cadmus counted the number of program-discounted bulbs purchased by other utility customers or those intended for nonresidential locations outside of Ameren Missouri’s territory, as a percentage of program bulbs purchased in that store.

<sup>10</sup> Cadmus and Nexant. *Ameren Missouri LightSavers Process and Impact Evaluation: Program Year 2013*. Presented to Ameren Corporation. June 2014.

<sup>11</sup> Cadmus and Nexant. *Ameren Missouri PY16 Lighting Evaluation*. Presented to Ameren Corporation. July 2017.

To update results for PY17, Cadmus weighted results according to each store’s contribution to total PY17 sales from stores in the sample, and then weighted results back to the total population by adjusting for each retail channel’s total contribution to PY17 sales from large national brand stores.

Finally, Cadmus calculated the sales-weighted average of the leakage percentage in large national brand stores. The leakage percentage from small local and franchise stores in the program is assumed to be 0%, because these stores are less likely to draw customers from long distances that might reach outside the territory and past evaluations measuring in smaller stores found zero leakage. As shown in Table 25, the sales-weighted average program leakage was 0.22% in PY17. The PY17 value was lower than the PY16 value due to reduced leakage in large national retailer chains, and to large national retailer chains accounting for a smaller percentage of total sales.

**Table 25. PY17 Program-Level Leakage**

Store Type	% PY17 Sales	Leakage %	% PY16 Sales	Leakage %
Large Retailers	84%	1.37%	94%	1.76%
Small Retailers	16%	0.00%	6%	0.00%
<b>Lighting Program</b>		<b>0.22%</b>		<b>1.65%</b>

## Residential Percentage

In PY16, Cadmus used the intercept survey to estimate the percentage of Lighting program bulbs installed in residential applications (%Res) versus those installed in nonresidential applications. Cadmus calculated the %Res as the number of program bulbs purchased and intended for use in a residential area in Ameren Missouri territory divided by the total number of program bulbs purchased and intended for use in Ameren Missouri territory.

To update this estimate for PY17, Cadmus weighted the intercept results by the percentage of PY17 sales contributed by the sample store, relative to sales from all sample stores, and by retail channel. The results were virtually unchanged: in PY17, 99.24% of program bulbs were installed in residential applications, compared to 99.15% in PY16.

## Demand Savings

The Cadmus team determined the gross demand savings from the program by applying the following algorithm:

$$kW = (\Delta kWh_{Res} * CPDF_{Res} * \%Res) + (\Delta kWh_{NRES} * CPDF_{NRES} * (1 - \%Res))$$

Where:

kWhRes = the evaluated gross energy savings for program measures installed in a residential setting

CPDFRes = Coincident Peak Demand Factor for residential lighting

kWhNres = the evaluated gross energy savings for program measures installed in a nonresidential setting

CPDFNres = Coincident Peak Demand Factor for nonresidential lighting

## Gross Savings Summary

Table 26 lists *ex ante* and *ex post*, gross, per-unit energy savings and realization rates by measure for PY17. Differences between the Ameren Missouri TRM and the evaluated values primarily resulted from updated HOU and ISR values for PY17.

**Table 26. PY17 Gross Per Unit Energy Savings**

Bulb Type and Wattage	<i>Ex Ante</i> Savings/ Unit (kWh)*	<i>Ex Post</i> Savings/ Unit (kWh)	Realization Rate
10W General Purpose	34.0	29.7	87.3%
15W General Purpose	44.6	38.3	85.8%
20W General Purpose	60.3	52.5	87.1%
4W Candelabra	38.0	33.6	88.5%
8W Globe	38.1	32.2	84.4%
12W Special Function	70.5	47.3	67.1%
10.5W Downlight	38.1	25.6	67.2%
15W Flood (PAR 30)	53.8	46.5	86.4%

\*Source: Ameren Missouri 2017 TRM.

Table 27 presents gross, per-unit demand savings for PY17. *Ex ante* savings values were sourced from the Ameren Missouri TRM.

**Table 27. PY17 Gross Per Unit Demand Savings**

Bulb Type and Wattage	<i>Ex Ante</i> Savings/Unit (kW)*	<i>Ex Post</i> Savings/Unit (kW)	Realization Rate
10W General Purpose	0.005	0.004	84.2%
15W General Purpose	0.007	0.006	98.9%
20W General Purpose	0.009	0.008	74.0%
4W Candelabra	0.006	0.005	97.9%
8W Globe	0.006	0.005	98.4%
12W Special Function	0.011	0.007	91.0%
10.5W Downlight	0.006	0.004	98.2%
15W Flood (PAR 30)	0.008	0.007	92.5%

\*Source: Ameren Missouri 2017 TRM

## Net Impact Evaluation Results

The Cadmus team determined Lighting program direct net impacts by calculating direct program net savings, and then allocated a portion of the portfolio nonparticipant spillover (NPSO) to determine total Lighting program net impact.

Cadmus used the following formula for calculating the program NTG ratio:

$$NTG (\%) = 1 - \text{Freeridership} + \text{LikeSpillover}$$

Applying the resulting NTG ratio to *ex post* gross savings produced net savings for program measures.

The free ridership rate estimates the percentage of program participation that would have occurred without the program intervention. “Like spillover” is the rate at which the program generated nonprogram LED sales that would NOT have occurred with out the program intervention, and which did not receive an incentive.

NPSO is also an estimate of spillover, calculated at the portfolio level. NPSO measures the savings from efficient items purchased without a program incentive, but which would not have purchased without the portfolio activity. Because “Like spillover” includes all spillover from lighting products, the NPSO estimate does not include lighting products to avoid double counting.

Cadmus added the NPSO savings attributable to the Lighting program as a lump sum, rather than calculated based on a given amount per unit. The team did not incorporate NPSO savings into the program NTG ratio because the NPSO savings have a different load shape and cost-effectiveness needs to be assessed separately.

### Free Ridership Results

To estimate free ridership in PY17, the team applied the demand elasticities we derived for the PY16 analysis to the program incentive and sales data from the PY17 tracking database. The retailer mix and product mix was largely the same between PY16 and PY17. Additionally, for the PY16 analysis, Cadmus estimated different price elasticities for each of four retail channels (small chain, club stores, do-it-yourself home improvement stores, and mass-market retailers), as well as different elasticities for reflector bulbs and 60 watt-equivalent A-line bulbs. This allowed Cadmus to apply the PY16 elasticity estimates by bulb type and retail channel, to be more representative of PY17 program sales. The model developed in PY16 is described in Appendix C: Elasticity Model Outputs.

The free ridership estimates, however, are not determined solely by the price elasticities but also by the markdown levels – the degree to which program incentives reduce prices relative to the original price. The program tracking data included both the price program bulbs would sell for absent program incentives as well as the final sale price. This enabled Cadmus to incorporate markdown levels specific to PY17 in the PY17 free ridership estimate.



## Elasticities

Price elasticity of demand measures the percentage change in the quantity demanded given a percentage change in price. In previous, similar, analyses, the Cadmus team has seen elasticities range from -1 to -3, meaning a 10% drop in price leads to a 10% to 30% increase in the quantity sold.

As planned in the 2016-2018, evaluation plans, Cadmus did not develop new models for PY17 but applied the elasticities from PY16. This was planned because the program did not change significantly in one year. Table 28 shows the elasticity estimates from PY16 that were applied to the PY17 sales. The retail channel elasticities are applied to sales for all bulbs within those channels. The incremental slopes are added to the retail channel elasticities for specific bulb types within those channels. For example, 50 watt replacement reflector bulbs at club stores would have an overall elasticity of  $(0.05 - 1.74 - 0.81 = -2.51)$ . This means a 1% decrease in price would lead to an increase in sales of 2.51% for those bulbs within club stores.

**Table 28. Price Elasticity Estimates by Retail Channel and Bulb Type**

Retail Channel	Elasticity
Small Chain	0.28
Club	-0.81
DIY	-1.03
Mass Market	-1.43
Incremental Slope Adjustments	
Reflector	0.05
Globe	0.52
A-line 43 watt	-0.80
Reflector 50 watt	-1.74

The estimate for the elasticity of sales through the small chain stores is less robust than the other channels due to fewer observed price changes in PY16. Because that channel only accounted for 6% of sales in PY16, the elasticity had a minimal effect on the NTG estimation. In PY17, that channel was 16% of sales. Cadmus controlled for small chain elasticity in the PY17 model so that it did not impact the other retail channels, in order to make this year's estimate as accurate as possible. However, the elasticity for small chain retailers should not be used to project future free ridership through that chain.

Free ridership varies by bulb type, based on the estimated price elasticity and the average discount by bulb type. Table 29 provides PY17 free ridership estimates by bulb type.

**Table 29. Lighting Free Ridership Results**

Program Measure	Total Weighted Free Ridership Estimate
A-Lamp	37%
Reflector/Flood	68%
Specialty	66%

## Program Price Impacts

Table 30 shows sales-weighted, average sale prices, original prices, and markdowns within the program, broken out by retail channels and bulb types. The table also shows markdowns as a share of original prices, which ranged from 31% to 66%.

**Table 30. Mean Prices and Markdown by Retail Channel and Bulb Type**

Store Type	Bulb Type	Mean Regular Price/Bulb	Mean Final Price/ Bulb	% Markdown
Small Chain	A-Lamp	\$5.55	\$3.05	45%
Small Chain	Flood	\$7.80	\$2.81	64%
Small Chain	Specialty	\$7.32	\$2.50	66%
Club	A-Lamp	\$3.87	\$2.47	36%
Club	Flood	\$3.25	\$2.25	31%
Club	Specialty	\$4.20	\$2.53	40%
DIY	A-Lamp	\$4.78	\$2.66	44%
DIY	Flood	\$6.58	\$3.25	51%
DIY	Specialty	\$5.24	\$2.97	43%
Mass Market	A-Lamp	\$3.75	\$2.32	38%
Mass Market	Flood	\$9.82	\$4.82	51%
Mass Market	Specialty	\$7.32	\$2.95	60%

Markdown levels for LEDs remained relatively stable between PY16 and PY17, ranging from 43% to 58% in PY16.

Overall, free ridership was higher in PY17 at 49% compared to 40% in PY16. Free ridership likely increased for two reasons:

1. Discount levels decreased for A-line bulbs in club stores and mass-market stores, which account for a large share of program sales. Since Cadmus did not develop an elasticity model with 2017 data, the elasticity estimates did not change from PY16. Therefore, changes in discount levels directly translate to changes in free ridership.
2. In PY16, observed elasticities were lower in smaller chain stores than big-box DIY, club, or mass market retailers. In PY17, small retailers accounted for 16% of program sales compared to 6% in PY16. Increasing sales through channels with lower observed elasticities leads to an increase in free ridership.

## Precision

Because there was no primary analysis for PY17, the elasticities are treated as fixed. Therefore, there is no precision around the estimates for PY17.

## Like Spillover Results

“Like” spillover measures the savings that occur when Ameren Missouri customers purchased and installed high-efficiency bulbs due to the program’s influence, but without receiving a program discount. The program could directly influence such sales through promotional and educational activities. The

program also indirectly influenced manufacturer and retailer stocking and pricing practices, so that consumers had a greater variety of high-efficiency models to choose from as well as continued downward pressures on prices for all high-efficiency bulbs. Unlike free ridership, spillover results in additional savings with no associated corresponding program costs, and therefore increases net savings. To estimate like spillover, the team relied on:

- the home inventory study to quantify nonprogram sales
- retailer-manufacturer interviews to attribute the appropriate portion of nonprogram sales to program market transformation activities

Like spillover sales are a subset of non-program sales. To quantify total non-program sales, Cadmus used information from the PY17 Home Inventory Study. To determine what proportion of sales was attributable to program activity, Cadmus used information from the PY17 retailer interviews.

We also compared the results to a separate analysis using a comparison area approach to assess reasonableness of our final estimate.

## Determining Non-Program LED Sales in Participating Retailers

Using the home inventory results, Cadmus determined the increase in LED usage (installed and stored LEDs) among Ameren Missouri residential customers since the previous home inventory study in PY15. In PY15, the home inventory determined approximately 1.3 million LEDs were in use, including installed and stored LEDs. The PY17 inventory identified approximately 10.5 million in use, indicating an increase of 9.1 million. After subtracting program sales during the interval between inventory studies, Cadmus determined nonprogram sales totaled approximately 8 million LEDs.

Although the program could also influence LED sales in nonparticipating stores, to be conservative, Cadmus used results from the residential survey to isolate the percentage of LED sales that likely occurred at participating retailers. The residential survey asked respondents where they made their last light bulb purchase (of any type). Filtering for respondents that had previously purchased at least one LED, Cadmus found that 84% (n=187) had made their last lightbulb purchase at a participating retailer. Applying 84% to total non-program LED sales, Cadmus determined that about 6.3 million non-program LEDs were sold through participating retailers.

*Cadmus' used conservative assumptions in analysis where possible:*

- *LED saturation (used the low end of the confidence interval);*
- *Retailer attribution (used the low end of the confidence interval);*
- *Participating retailers (only considered sales from participating retailers)*

Table 31 shows inputs, corresponding data sources, and calculation results.

**Table 31. Calculation of Increase in Usage of LEDs, PY15 to PY17**

Row	Description	Value	Data Source
A	Sockets Per Household <sup>a</sup>	49	PY17 home inventory, weighted
<b>Baseline Saturation</b>			
B	Households (PY15)	1,043,603	Ameren Missouri: average meters billed in PY15
C	Baseline LED Saturation	2%	PY15 home inventory, weighted
D	Storage LEDs per Household	0.3	PY15 home inventory, weighted
E	Baseline LEDs in Use	1,359,600	Calculated: (A×B×C) + (A×D)
<b>Current Saturation</b>			
F	No. of Households	1,053,593	Ameren Missouri: average meters billed in PY17
G	Post Saturation LEDs	17%	PY17 home inventory, weighted (low end of confidence interval)
H	Storage LEDs	1.7	PY17 home inventory, weighted
I	Current LEDs in Use	10,470,824	Calculated: (A×F×G) + (A×H)
<b>Non-program Sales in Participating Stores</b>			
J	Increase in LEDs	9,119,224	Calculated: I-E
K	Total Program LEDs <sup>a</sup>	1,618,623	Program sales from August 2015 through Sept. 2017, excluding leakage and non-residential bulbs
L	Total Non-program LEDs	7,500,602	Calculated: J-K
M	Percent of LED Sales in Participating Stores	84%	PY17 resident survey
N	<b>Non Program LEDs in Participating Stores</b>	<b>6,300,505</b>	<b>Calculated: L×M</b>

<sup>a</sup> Includes pin, GU, medium screw base and small base sockets.

## Assessing Program Influence

Cadmus used an approach to estimate spillover that relies on trade ally interviews (which is recommended in the UMP for market transformation programs).<sup>12</sup> The UMP doesn't prescribe the survey questions or analysis approach for measuring spillover, however precedence exists for using an attribution approach similar to this one for other market transformation programs.<sup>13</sup> Retailers are reticent to provide any quantitative data about nonprogram sales. As such the method relies on asking about factors and influence instead of asking directly for retailers to quantify nonprogram sales due to the program. Then we quantified total nonprogram sales using results from the home inventory analysis. This method is similar to what has been used to assess Heating and Cooling program "like" spillover in 2016 as well as the lighting program. A difference this year, to ensure accuracy, was to ask retailers specifically about program influence on non-program sales, rather than total sales as in the past.

*The UMP recommends trade ally interviews for estimating spillover. The UMP doesn't prescribe survey questions or methods, however precedence exists from other market transformation studies using a similar approach.*

In March 2018, Cadmus conducted interviews with corporate representatives from retailers and manufacturers partnering with the program. The interviews used a structured set of questions to determine each respondents' estimate of the program's influence on their organizations' nonprogram LED sales over the PY17 period.

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<sup>12</sup> Chapter 21: Estimating Net Savings – Common Practices. <https://www.nrel.gov/docs/fy17osti/68578.pdf>. Page 30 states "In upstream and midstream programs, consumers may not be aware of program influences on sales, stocking practices, or prices (discussed in the Appendix). Thus, using only participant self-reports when estimating net savings is inappropriate. In these cases, evaluators use market actor self-report surveys to examine the effects of these upstream influences."

<sup>13</sup> See the following report examples:

- NMR Group, Inc. Rhode Island Code Compliance Enhancement Initiative Savings and Attribution Logic Evaluation, on behalf of Narragansett Electric and Gas Company (National Grid) 2013. Available online: [http://www.nmrgroupinc.com/wp-content/uploads/2016/11/RI-CCEI-Savings-and-Attribution-Logic-Evaluation-12-11-2013\\_Final\\_Clean....pdf](http://www.nmrgroupinc.com/wp-content/uploads/2016/11/RI-CCEI-Savings-and-Attribution-Logic-Evaluation-12-11-2013_Final_Clean....pdf)
- TRC Energy Services. NEEA CRE Standard Evaluation: Final Report, on behalf of Northwest Energy Efficiency Alliance (NEEA). February, 2018. Available online: <https://neea.org/img/uploads/comm-refrig-equip-std-eval.pdf>
- Cadmus. Electric Motors Standard Evaluation, on behalf of NEEA. March 2017. Available online: <https://neea.org/img/uploads/electric-motors-standard-evaluation.pdf>

The interview guide used a two-step process to encourage each respondent to estimate program influence in a similar and comprehensive way<sup>14</sup>:

1. The interviewer reviewed a list of five key factors that influence annual sales of efficient products, and asked respondents to review and add to the list as needed. The five key factors were pricing, product stocking, product placement and in-store marketing, customer education, and retailer education. The respondent was asked to name any additional factors that may also contribute to sales.
2. The respondent assessed the relative influence of each of the key factors on nonprogram lighting sales, including any factors the respondent identified; so the total influence across all key factors was 100%.

The respondent indicated (as a percentage) their perceptions of program activity’s influence level on each key factor influencing nonprogram sales. The interview is conducted via telephone so that respondents may ask questions or indicate if they believe the influence is negative.

Table 32 shows the five factors and Cadmus’ definition for how to consider Ameren Missouri’s influence on that factor, as presented to the respondents. None of the respondents suggested any additional factors or reported any program activity as negatively affecting nonprogram sales.

**Table 32. Factors Affecting Annual Sales**

<b>Pricing</b>	<i>First, consider pricing. Ameren Missouri's lighting program offers incentives on select high-efficiency bulbs. Incentives vary by model, but we show the average incentive for LEDs for each year of program activity. Consider how Ameren Missouri LED discounts influenced pricing of nonprogram LEDs.</i>
<b>Product Stocking</b>	<i>In an effort to influence product stocking, the program negotiates a memorandum of understanding with your company, in which Ameren agrees to offer incentives and you agree to stock a certain number of eligible models. Throughout the year, the program field representatives work with the manufacturer to ensure those models are stocked on the shelves. The table shows the number of program LED models that your company stocked each year. Consider how stocking of program bulbs affects the stocking of nonprogram LEDs.</i>
<b>Product Placement and In-store Marketing</b>	<i>The program attempts to optimize placement of incentivized bulbs within each store. Ameren's programs encourage special displays - such as an endcap display, pallet display, wingstack or other non-standard display in [RETAILER] stores. Consider how the displays of program incented LEDs affects the displays of nonprogram LEDs.</i>
<b>Customer Education</b>	<i>The program seeks to provide educational outreach for customers. Program representatives host in-store promotional events, during which the representative demonstrates different lighting products, distributes informational literature, and</i>

<sup>14</sup> Past attempts to ask retailers to directly estimate the programs impacts on sales were unsuccessful because retailers refuse to provide any direct quantitative data about sales for proprietary reasons. This approach has been developed and used elsewhere for attribution analysis.

	<i>talks to customers about energy efficient lighting. Consider how the educational displays influenced customer's knowledge about nonprogram LEDs.</i>
<b>Retailer Education</b>	<i>Finally, in addition to the promotional events, the program seeks to provide training to store employees on the products available through the program. Consider how the training of store employees influenced employees' knowledge about nonprogram LEDs.</i>

After establishing the list, Cadmus asked respondents to estimate the percentage influence of each identified factor on lighting sales, so, that the influence summed to 100%. Table 33 shows the results of retailer perception of influence. On average, retailers viewed pricing as the most important factor, followed by in-store placement, then product stocking, customer education, and finally retailer education.

**Table 33. Respondent Estimates of Factor Influence for Annual Sales of Nonprogram Bulbs**

Respondent	Pricing	Product Stocking	Placement/ In-store Marketing	Customer Education	Retailer Education	Total
Interview 1	40%	35%	20%	4%	1%	100%
Interview 2	50%	10%	25%	10%	5%	100%
Interview 3	70%	5%	20%	5%	5%	100%
Interview 4	20%	25%	30%	10%	10%	100%
Interview 5	40%	30%	15%	5%	10%	100%
Interview 6	60%	5%	5%	20%	10%	100%
Interview 7	24%	5%	24%	24%	24%	100%
Interview 8	50%	10%	10%	10%	20%	100%
Interview 9	65%	10%	10%	10%	5%	100%
<b>Average</b>	<b>46%</b>	<b>19%</b>	<b>21%</b>	<b>8%</b>	<b>6%</b>	

After the respondents quantified each factor's general influence on sales, Cadmus asked the respondents to estimate the program's influence on each factor (Table 34).

**Table 34. Respondent Estimates of Ameren Missouri Influence on Factor in Annual Sales of Nonprogram Bulbs**

Respondent	Pricing	Product Stocking	Placement/ In-store Marketing	Customer Education	Retailer Education	Total
Interview 1	0%	70%	20%	0%	1%	100%
Interview 2	0%	20%	38%	25%	38%	100%
Interview 3	0%	0%	0%	0%	0%	100%
Interview 4	0%	8%	0%	0%	0%	100%
Interview 5	0%	75%	0%	50%	75%	100%

Interview 6	70%	5%	5%	10%	10%	100%
Interview 7	0%	0%	0%	0%	0%	100%
Interview 8	0%	0%	15%	25%	25%	100%
Interview 9	0%	5%	10%	0%	0%	100%
<b>Average</b>	<b>5%</b>	<b>32%</b>	<b>15%</b>	<b>13%</b>	<b>19%</b>	

On average, retailers rated Ameren Missouri’s influence on nonprogram bulb sales the highest for product stocking, followed by retailer education, then customer education, then product placement, with pricing last. These responses were consistent with the program’s market transformation goals that increase availability of products and educating retailers and the public about the benefits of efficient lighting. Since Ameren Missouri doesn’t directly impact nonprogram bulb pricing (unless a store discounts other bulbs to be competitive), it is logical that this category was viewed as least important.

Respondents provided varying estimates of program influence. Variation is expected due to differences across respondents in terms of product lines, total market share, and target market segment. Although some respondents represented the same retail brand, no two respondents represented the same combination of retailer and manufacturer, and no two respondents represented the same combination of retail brand, market segment, product types, and market share.

Table 35 shows the overall influence results by interview respondent, along with each respondent’s sales weight. Each sales weight was calculated as sales for each respondent’s retailer-manufacturer team in PY17, divided by the sum of all respondents’ PY17 sales. The weighted-average estimate of program influence on non-program sales was 18%, with a precision of 6.5%.

**Table 35. Estimate of Program Influence on Non-Program LED Sales**

Respondent	Respondent Estimates of Program Influence	PY17 Sales Weight
Interview 1	29%	26%
Interview 2	16%	25%
Interview 3	0%	15%
Interview 4	0%	11%
Interview 5	33%	11%
Interview 6	46%	7%
Interview 7	0%	4%
Interview 8	9%	1%
Interview 9	2%	0%
<b>Sales-Weighted Average</b>	<b>18.1% (±6.5% Precision)</b>	<b>100%</b>

## Calculating the Spillover Rate

To estimate spillover as conservatively as possible, Cadmus applied the low end of the confidence interval for the retailers’ estimate of program influence to the non-program LED sales in participating stores to determine the number of spillover bulbs. Using this value and the rate of free ridership (see the Free Ridership Results section), Cadmus calculated the total NTG ratio for the program, and then



isolated the percentage of spillover. Spillover equals the NTG ratio of 96% minus 1 (representing 100% of program sales), plus the 49% free ridership. Table 36 shows the details of the calculations.

**Table 36. Like Spillover Calculations**

Row	Description	Value	Data Source
P	Non-program sales attributable to the program	11.6%	PY17 retailer interviews (low end of confidence interval)
Q	Spillover LEDs	730,720	Calculated: $P \times N$
R	% FR	49%	PY17 FR analysis
S	FR Bulbs	794,744	Calculated: $R \times K$
T	NTG ratio	96%	Calculated: $(K-S+Q)/K$
U	% SO	45%	Calculated: $T-1+R$

<sup>a</sup>Net of leakage and nonresidential bulbs.

As discussed above, Cadmus used conservative assumptions throughout this analysis and still identified a relatively high level of spillover. The rise in LED saturation relative to program bulbs sold is a key driver of this value. To assess whether this level of spillover is consistent, Cadmus analyzed potential spillover using a different method – a comparison of saturation levels in Ameren Missouri territory to an area without program activity. Table 37 compares Ameren Missouri’s LED saturation to other areas identified. In this table, New York is the only region studied that does not have an LED incentives program.

**Table 37. LED Saturation Comparison**

Program Administrator/ Territory	Year	LED Saturation
Ameren Missouri	2017	18%
Wisconsin Focus On Energy	2017	15%
Northwest Energy Efficiency Alliance	2017	16%
Massachusetts Energy Efficiency Advisory Council – Massachusetts	2017	18%
Massachusetts Energy Efficiency Advisory Council – New York	2017	10%

Table 38 illustrates this method repeated, except comparing the current market in Ameren Missouri territory with a counterfactual no-intervention scenario in which Ameren Missouri territory also has a 10% LED saturation. This model assumes the program influence accounts for the total difference in saturation between the no-intervention scenario and the current actual saturation. Again, the low end of the confidence interval for Ameren Missouri saturation was used, and two years of program sales were subtracted from the total bulbs to account for the dramatic rise in saturation over the past two years. Using this approach, program spillover is over 100%.

**Table 38. Spillover Using Comparison Method**

Row	Description	Value	Data Source
A	Sockets Per Household <sup>a</sup>	49	PY17 home inventory, weighted
<b>Baseline Saturation</b>			
B	No. of Households	1,053,593	Ameren Missouri: average meters billed in PY17
C	Baseline LED Saturation	10%	PY17 New York Saturation
E	Baseline LEDs in Use	5,129,397	Calculated: (A×B×C)
<b>Ameren Missouri Saturation</b>			
F	No. of Households	1,053,593	Ameren Missouri: average meters billed in PY17
G	Saturation LEDS	17%	PY17 home inventory, weighted (low end of confidence interval)
I	Current LEDs in Use	8,719,975	Calculated: (A×F×G)
<b>Non-program Sales in Participating Stores</b>			
J	Difference in LEDs	3,590,578	Calculated: I-E
K	Total Program LEDs	1,618,623	Program sales Aug 2015 - Sept 2017
L	Total Non-program LEDs	1,971,955	Calculated: J-K
M	SO Bulbs	1,656,442	L-K
N	Percent Spillover	102%	M/K

### 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>15</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. 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

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<sup>15</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.

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.

## 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>16</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>17</sup>

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<sup>16</sup> Cadmus removed invalid or duplicate phone numbers from the sample frame as well as Home Energy Report participants.

<sup>17</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.

## Like NPSO Measures<sup>18</sup>

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 39). 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).

**Table 39. 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>19</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 G 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.

<sup>18</sup> In this section, the “like” measures described are like the measures available in other portfolio programs. They do not include any lighting measures.

<sup>19</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.

- 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.

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 40) 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 40. 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 Table 41). 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 41 shows like measures and gross evaluated kWh savings attributed to Ameren, achieving average savings of 189 kWh per like measure (Variable A).

**Table 41. 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 42, the absolute precision—with 90% confidence—for each of nine qualified like measure types was within ±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 ±0.58% with 90% confidence.

**Table 42. 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 Missouri’s marketing in PY17, Cadmus extrapolated like NPSO savings per like measure (Table 41) to the entire PY17 residential nonparticipant population. Table 43 presents the like NPSO analysis, resulting in like NPSO total evaluated savings of 6,212 MWh portfolio level.

**Table 43. 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 Missouri’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 Missouri’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>20</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 44.

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<sup>20</sup> C5 “Are you familiar with the following programs?”



**Table 44. 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%
Efficient Products	4,732	5.8%	\$50,634	14.7%	0.8%	2.2%
Heating and Cooling	44,089	53.7%	\$225,424	65.4%	35.1%	89.3%
Smart Thermostats	5,224	6.4%	\$27,564	8.0%	0.5%	1.3%
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 Missouri’s residential programs. As shown in Table 45, 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. The Lighting program achieved 6.9% of the total NPSO, at 428 MWh.

**Table 45. 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
Efficient Products	4,732		2.2%	134
Heating and Cooling	44,089		89.3%	5,547
Smart Thermostats	5,224		1.3%	80
EE Kits	5,367		0.4%	22
<b>Total</b>	<b>82,144</b>		<b>100%</b>	<b>6,212</b>

## NTG Summary

Table 46 shows PY17 program net energy savings impacts.

**Table 46. PY17 Net Impact Results Summary**

Measure Category	Ex Post Gross Savings (kWh/yr)	Free Ridership	Like Spillover	NTG	Net Savings (MWh/yr)	Net Savings (kW/yr)
10W General Purpose	10,950	37%	45%	108%	11,841	1,782
15W General Purpose	366	37%	45%	108%	396	60
20W General Purpose	2,307	37%	45%	108%	2,495	375
4W Candelabra	2,188	66%	45%	79%	1,731	261
8W Globe	1,069	66%	45%	79%	846	127
12W Special Function	141	66%	45%	79%	112	17
10.5W Downlight	219	68%	45%	77%	169	25
15W Flood (PAR 30)	5,492	68%	45%	77%	4,237	638
<b>NPSO – First Year</b>					<b>428</b>	<b>334</b>
<b>NPSO – 2023</b>					<b>428</b>	<b>24</b>
<b>Total – First Year</b>	<b>22,733</b>	<b>49.%</b>	<b>45%</b>	<b>96%</b>	<b>22,256</b>	<b>3,618</b>
<b>Total – 2023</b>	<b>22,733</b>	<b>49.%</b>	<b>45%</b>	<b>96%</b>	<b>22,256</b>	<b>3,309</b>

## Benchmarking

In the PY16 Lighting Program Evaluation, Cadmus compared several key metrics against values measured in similar programs. These values included several metrics related to free ridership:

- Free ridership rate by bulb type
- Average incentive levels
- Incentives as a share of retail price

The team also benchmarked ISRs and bulb saturation. For PY17, Cadmus updated these comparison tables with Ameren Missouri PY17 values.

Table 47 compares free ridership estimates specific to LED sales for several programs in 2015 and 2016, and Ameren Missouri’s program in PY15, PY16 and PY17. Ameren Missouri’s LED free ridership rate in 2015 (28%) is the lowest rate across all studies, while the Ameren Missouri 2016 rate is very close to the two other 2016 evaluations, at 41%. As of PY17, Ameren Missouri’s free ridership rate had exceeded the rate for all of the 2015 and 2016 programs with the exception of Entergy Arkansas’ 2015 program, though it exceeded the Ameren Missouri PY16 free ridership rate by only a small margin.

**Table 47. Elasticity Model Free Ridership Estimates for LEDs**

Evaluation	Free Ridership
Ameren Missouri (PY17)	49%
Ameren Missouri (PY16)	41%
Ameren Missouri – LEDs only (2015)	28%
Focus on Energy Wisconsin (2015)	29%
Midwest Utility (2016)	38%
Northeast Utility (2016)	39%
PPL Electric (2015)	39%
Entergy Arkansas (2015)	52%

Table 48 shows the average incentive amount per LED, broken out by bulb type (where available) from several 2015 LED programs, as well as Ameren Missouri’s incentive per bulb for PY15, PY16, and PY17. In 2015, the average incentive per bulb ranged from \$2.31 per bulb for standard LEDs to as much as \$6.62 per bulb for reflectors. Ameren Missouri’s PY15 average incentive for each bulb type was on the higher end of the range relative to other 2015 programs. Ameren Missouri’s average incentives decreased substantially in PY16 and again in PY17, so that they are now below nearly all other programs PY15 values, which are also likely decreasing over time. The decrease in incentives corresponded to the decrease in LED retail prices.

**Table 48. Average Incentive Levels Per Bulb**

State or Utility	Retail Channel	Standard LEDs	Specialty LEDs	Reflector LEDs
Ameren Missouri (2017)	All	\$1.77	\$2.80	\$2.91
Ameren Missouri (2016)	All	\$2.26	\$4.13	\$3.86
Ameren Missouri (2015)	All	N/A	\$5.00	\$5.28
IPL (2015)	All	\$2.31	\$2.20	\$2.48
NIPSCO (2015)	All	\$3.59	\$3.83	\$3.83
SWEPCO (2015)	DIY	\$2.91	\$3.00	\$4.29
	Mass Market	\$2.92	\$3.00	\$3.00
Vectren Indiana (2015)	All	\$3.50	\$3.50	\$3.50
Entergy (2015)	DIY	\$3.62	\$3.16	\$5.33
	Discount	\$4.68	\$3.71	\$6.23
	Mass Market	\$3.84	\$3.46	\$4.98
PPL Electric (2015)	All	\$4.81	\$6.62	\$6.62
<b>Average</b>		<b>\$3.43</b>	<b>\$3.56</b>	<b>\$4.15</b>

As free ridership closely correlates to incentive percentages of retail prices, net of free ridership tends to increase as incentives increase as a percentage of retail price. Table 49 compares the incentives as a share of retail prices for different utilities, bulb types, and retail channels. Although the relationship is not perfectly linear, utilities with incentives that are a low percentage of the retail price tend to have lower net of free ridership rates. Ameren Missouri’s 2017 average incentive as a percentage of retail price and net-of-free ridership percentage were within range of most other programs.

**Table 49. Incentives as Share of Retail Price**

State or Utility	Bulb Type	Incentive as a Share of Retail Price (Avg)	Net of Free Ridership
Ameren Missouri 2017	LED	43%	51%
Ameren Missouri 2016	LED	41%	59%
SWEPCO 2015	LED	27%	27%
Entergy Arkansas 2015	LED	42%	52%
Entergy Arkansas 2015	Standard CFL	57%	80%
SWEPCO 2015	CFL	58%	55%
PPL 2015	LED	N/A	61%

Cadmus also benchmarked first-year ISRs for different utilities, as shown in Table 50. Ameren Missouri’s 2015 first-year ISR was the lowest of the programs included in the table. In PY17, the ISR increased, but remained the second-lowest value. The Ameren Missouri ISR was developed using the home inventory results and the UMP recommended approach for estimating installation over four years. Evaluation methods for other installation rates were not available.

Table 50. First-Year ISRs

Study ID	Year	Bulb Type	ISR
Ameren Missouri	2017	All	84%
Ameren Missouri	2015	All	79%
IPL	2015	LEDs (Standard and Specialty)	86%
IMP	2015	LEDs	100%
NIPSCO	2015	LEDs (Standard and Specialty)	86%
Focus on Energy	2015	LED	99%
PNM	2015	LEDs	100%
Vectren Indiana	2015	Standard LED	100%
		Specialty LED	100%

Table 51 shows saturation by bulb type in medium screw base sockets, across several lighting programs around the country. This table shows saturation in medium screw base sockets only, which was the only socket type targeted by most lighting programs, and by Ameren Missouri, until about 2016. This table shows that from 2013 to 2015, the Ameren Missouri program, which offered primarily CFLs, increased saturation of CFLs to be on par with other programs around the country. However, LED saturation lagged behind other areas. As of 2017, LED saturations in Ameren Missouri territory far exceeded the 2015 saturation of LEDs in any other area.

Table 51. Saturation by Bulb Type (Medium Screw Base)

Study ID	Year	CFL	LED	Halogen	Incandescent	Lin. Fluorescent
Ameren Missouri	2017	30%	21%	9%	40%	0%
Ameren Missouri	2015	29%	2%	5%	64%	0%
IPL	2015	34%	11%	11%	44%	N/A
NIPSCO	2015	33%	14%	9%	45%	N/A
Focus on Energy	2015	31%	5%	6%	46%	9%
Ameren Missouri	2013	22%	1%	10%	56%	N/A
Focus on Energy (single-family)	2013	31%	2%	0%	53%	N/A
Focus on Energy (multifamily)	2013	34%	1%	2%	50%	N/A

While the increase in LED saturation in Ameren Missouri territory is substantial, this trend is not unique to the Lighting program. LED sales have grown rapidly across the country, in regions with and without lighting programs. Table 52 shows results from several 2017 studies on LED saturation across all residential sockets, including the results from the Ameren Missouri PY17 home inventory study. Ameren Missouri’s LED saturation is slightly higher than some regions with similar LED programs, and significantly higher than the LED saturation in New York, which does not have a lighting incentives program.<sup>21</sup>

<sup>21</sup> NMR Group, Inc. RLPNC 16-7: 2016-17 Lighting Market Assessment Consumer Survey and On-site Saturation Study. Submitted to Electric and Gas Program administrators of Massachusetts. April 2017. Accessed online April 2018: <http://ma-eeac.org/wordpress/wp-content/uploads/Lighting-Market-Assessment-Consumer-Survey-and-On-Site-Saturation-Study.pdf>

Table 52. LED Saturation Post-2016

Program Administrator/ Territory	Year	LED Saturation
Ameren Missouri	2017	18%
Wisconsin Focus On Energy	2017	15%
Northeast Energy Efficiency Alliance	2017	16%
Massachusetts Energy Efficiency Advisory Council / Massachusetts	2017	18%
Massachusetts Energy Efficiency Advisory Council / New York	2017	10%

## Key Progress Indicators

Cadmus continued to track the following key progress indicators for the Lighting program:

- Program net electric savings (excluding NPSO)
- Number of program bulbs sold
- Free ridership by measure category
- Net electric savings (kWh) per bulb (not accounting for NPSO)

Table 53 shows the evaluated results for each program-level indicator in PY17. The table includes PY16 results for comparison.

**Table 53. Lighting Program-level Key Progress Indicators**

Key Progress Indicators	PY17	PY16
Program-year electric savings (net MWh)	22,256	25,562
Number of program bulbs sold	650,344	917,013
Free ridership	49%	41%

Table 54 shows the PY17 evaluated results for the measure-level net savings per unit, with PY16 values for comparison.

**Table 54. Net Electricity Savings by Measure Category**

Measure Category	Net Electricity Savings Per Unit (kWh)	
	PY17	PY16
10W General Purpose	33.3	22.2
15W General Purpose	43.0	29.2
20W General Purpose	58.9	39.3
4W Candelabra	27.6	18.1
8W Globe	26.4	18.2
12W Special Function	38.9	33.7
10.5W Downlight	20.5	27.2
15W Flood (PAR 30)	37.2	38.4

## Cost-Effectiveness Findings

Ameren Missouri assessed cost-effectiveness using the following five tests, as defined by the California Standard Practice Manual:<sup>22</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 Lighting 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% for residential customers and 4.84% for business customers
- 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 Lighting 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>22</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 55 summarizes cost-effectiveness findings by test. Any benefit-cost score above 1.0 passed the test as cost-effective. As shown, the Lighting program passed the UCT, TRC, Societal, and PART tests.

**Table 55. Cost-Effectiveness Results (PY17)**

Program	UCT	TRC	RIM	SCT	PART
Lighting	6.22	6.22	0.47	9.25	N/A

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# Appendix B. 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

## Appendix C. Elasticity Model Outputs

In PY 2016 Cadmus ran 356 model scenarios to identify the model with the best parsimony and explanatory power using the following criteria:

- Model coefficient p-values (keeping values less than <0.1)
- Explanatory variable cross-correlation (minimizing where possible)
- Model QIC (minimizing between models)
- Minimizing multicollinearity
  - Optimizing model fit

The following tables provide output statistics and information generated by the final model.

**Table 56. Model Information**

Model Information	
Data Set	WORK.FINALMODELDATA
Distribution	Negative Binomial
Link Function	Log
Dependent Variable	MonthlyPackSales
Number of Observations Read	17249
Number of Observations Used	15991
Number of Invalid Responses	99
Missing Values	1159

**Table 57. Model Classification Variable Levels**

Class Level Information		
Class	Levels	Values
id	1,108	Stores
Channel	3	CLUB DIY MASS
style	3	LED BULB SPEC BULB STAN BULB
CFL	2	0 1

**Table 58. Parameter Estimates with Empirical Standard Errors**

Parm	Level 1	Estimate	Stderr	LowerCL	UpperCL	Z	ProbZ
Intercept		0	0	0	0		
logPrice*Channel	Chain	0.282	0.218	-0.146	0.709	1.291	0.197
logPrice*Channel	Club	-0.814	0.258	-1.320	-0.308	-3.152	0.002
logPrice*Channel	DIY	-1.034	0.103	-1.236	-0.831	-9.988	0.000
logPrice*Channel	Mass	-1.429	0.177	-1.776	-1.081	-8.064	0.000
logPrice*Reflector		0.048	0.259	-0.460	0.556	0.185	0.853
logPrice*Globe		0.522	0.152	0.225	0.819	3.441	0.001
logPrice*ALine43		-0.799	0.155	-1.103	-0.495	-5.150	0.000
logPrice*Reflector50		-1.743	0.307	-2.346	-1.141	-5.670	0.000

**Table 59. QIC Fit Criteria**

Criterion	Value
QIC	-7294089
QICu	-7291890

## Appendix D. Measure Category Specifications

**Table 60. Standard—General Purpose, A-Line, Omni-Directional**

Bulb Type	Lumen Bin	Baseline	Ameren Missouri Measure Category
Standard	310-449	25	10W_LED
Standard	450-799	29	10W_LED
Standard	800-1,099	43	10W_LED
Standard	1,100-1,599	53	15W_LED
Standard	1,600-1,999	72	20W_LED
Standard	2,000-2,600	72	20W_LED

**Table 61. Specialty Lumens Bins**

Bulb Type	Lumen Bin	Baseline	Ameren Missouri Measure Category
<b>Globes</b>			
Globe	350-499	40	8W_LED_Globe_Light
Globe	500-574	43	8W_LED_Globe_Light*
Globe	575-649	53	8W_LED_Globe_Light
Globe	650-1,099	72	8W_LED_Globe_Light
<b>Decorative</b>			
Decorative	150-299	25	4W_LED_Candelabra
Decorative	300-499	40	4W_LED_Candelabra

**Table 62. EISA-Exempt Lumens Bins (i.e., three-way, post lamps)**

Bulb Type	Lumen bin	Baseline	Ameren Missouri Measure Category
EISA-Exempt	450-799	40	12W_LED_Dimmable
EISA-Exempt	800-1,099	60	12W_LED_Dimmable
EISA-Exempt	1,100-1,599	75	12W_LED_Dimmable

**Table 63. Reflectors with Diameter >2.5 inches (>20 eighths of an inch)**

Bulb Type	Bin	Baseline	Ameren Missouri Measure Category
D > 20	740-849	45	15W_LED_Flood_Light_PAR30
D > 20	850-1,179	50	15W_LED_Flood_Light_PAR30
D > 20	1,180-1,419	65	15W_LED_Flood_Light_PAR30
D > 20	1,420-1,789	75	15W_LED_Flood_Light_PAR30
D > 20	1,790-2,049	90	18W_LED_Flood_Light_PAR38
D > 20	2,050-2,579	100	18W_LED_Flood_Light_PAR38
<b>Exclusion 2: BR30, BR40, and ER40 Lamps</b>			
BR30, BR40, ER40	650-1,179	65	15W_LED_Flood_Light_PAR30
<b>Exclusion 3: ER30 Lamps</b>			
ER30	740-849	45	15W_LED_Flood_Light_PAR30
ER30	850-1,179	50	15W_LED_Flood_Light_PAR30

**Table 64. Reflectors with Diameter >2.25 and <= 2.5 inches (>18 eighths of an inch and <= 20 eighths of an inch)**

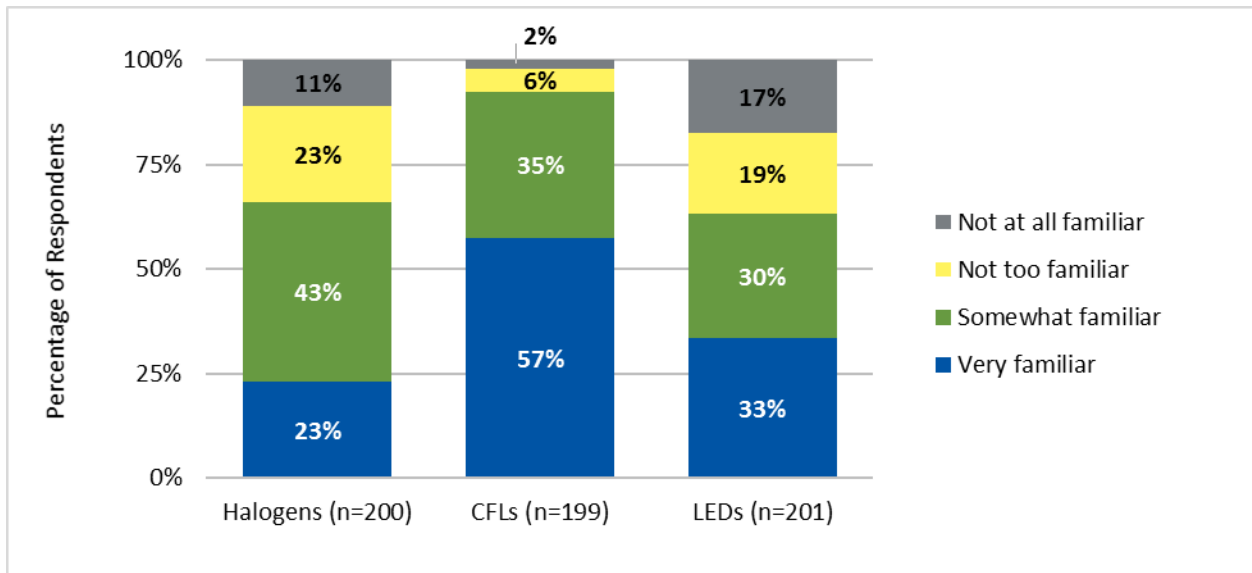
Bulb Type	Bin	Baseline	Ameren Missouri Measure Category
20 ≥ D > 18	300-539	30	10.5W_LED_Downlight
20 ≥ D > 18	540-629	40	10.5W_LED_Downlight
20 ≥ D > 18	630-719	45	10.5W_LED_Downlight
20 ≥ D > 18	720-999	50	10.5W_LED_Downlight
20 ≥ D > 18	1,000-1199	65	10.5W_LED_Downlight
<b>Exclusion 1: R20 Lamps</b>			
R20	450-719	45	10.5W_LED_Downlight
R20	720-999	50	10.5W_LED_Downlight
R20	1,000-1,199	65	10.5W_LED_Downlight

## Appendix E. Detailed Results from the Resident Survey

### Familiarity with the Market

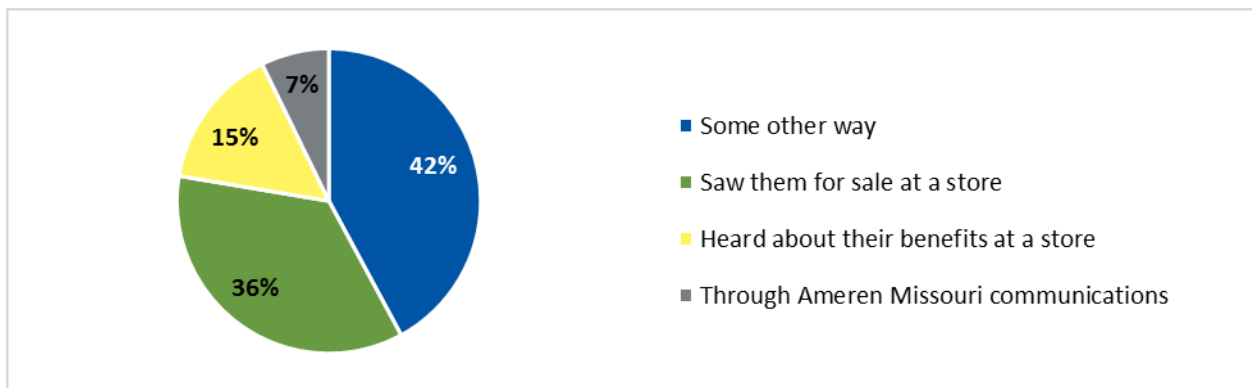
As shown in Figure 16, customer were most familiar with CFLs, with 92% either somewhat or very familiar with the bulbs. LEDs and halogens were about equally well-known.

Figure 16. Familiarity with Halogens, CFLs and LEDs



A majority of respondents reported they learned about LEDs either through Ameren Missouri or at a store. However, as shown in Figure 17, 42% learned about LEDs through another channel.

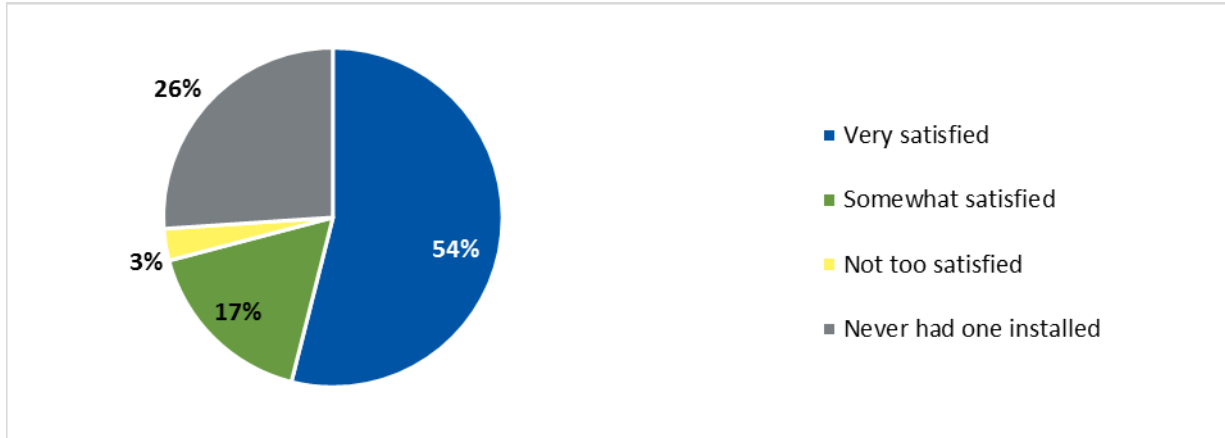
Figure 17. How did you learn about LEDs? (n=152)





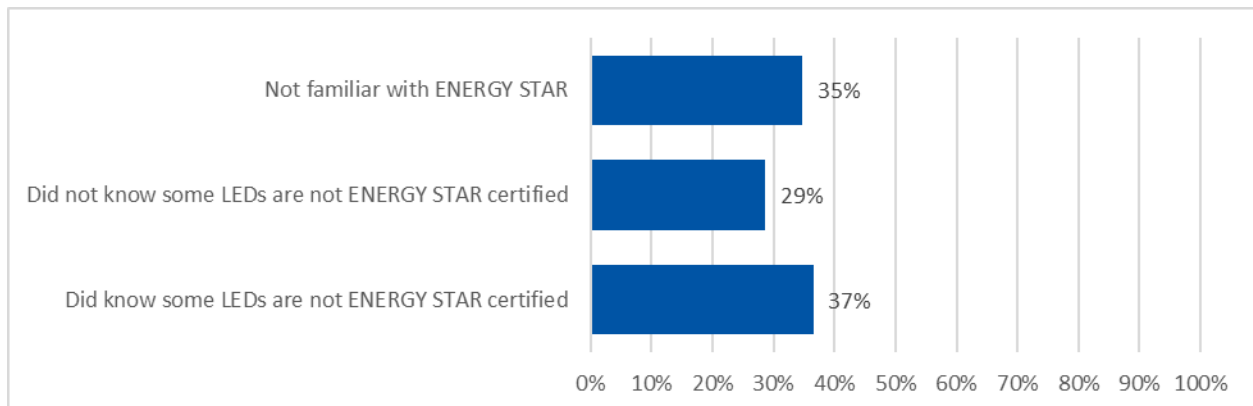
Just over a quarter of respondents have never had an LED installed in their home. Another 3% have used an LED, but were not too satisfied with it. The great majority of respondents (71%) have used LEDs, and were either somewhat or very satisfied with them (Figure 18).

**Figure 18. How satisfied are you with your LEDs? (n=165)**



Of those respondents that had used an LED, just over a third were not familiar with the ENERGY STAR label. Another 29% were familiar with ENERGY STAR, but were unaware that not all LEDs are ENERGY STAR certified. Thirty-seven percent of respondents that had used an LED were familiar with ENERGY STAR and also aware not all LEDs were ENERGY STAR certified (Figure 19). The survey also asked whether respondents had purchased non-ENERGY STAR LEDs. Of 42 respondents aware of non-ENERGY STAR-certified LEDs, 64% said they had purchased only ENERGY STAR-certified LEDs, and 26% were not sure.

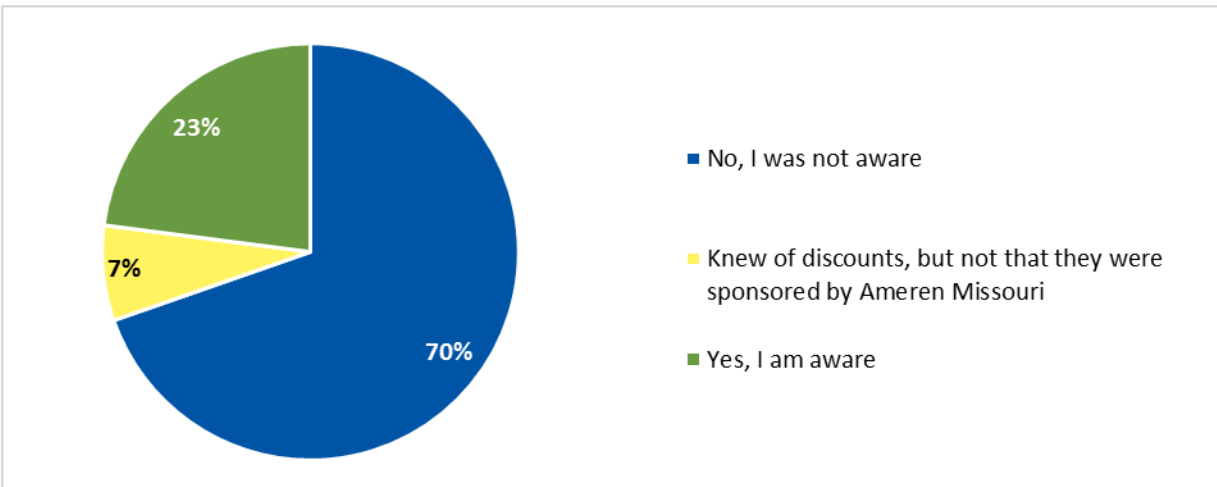
**Figure 19. Did you know not all LEDs are ENERGY STAR-certified? (n=115)**



## Familiarity with Program

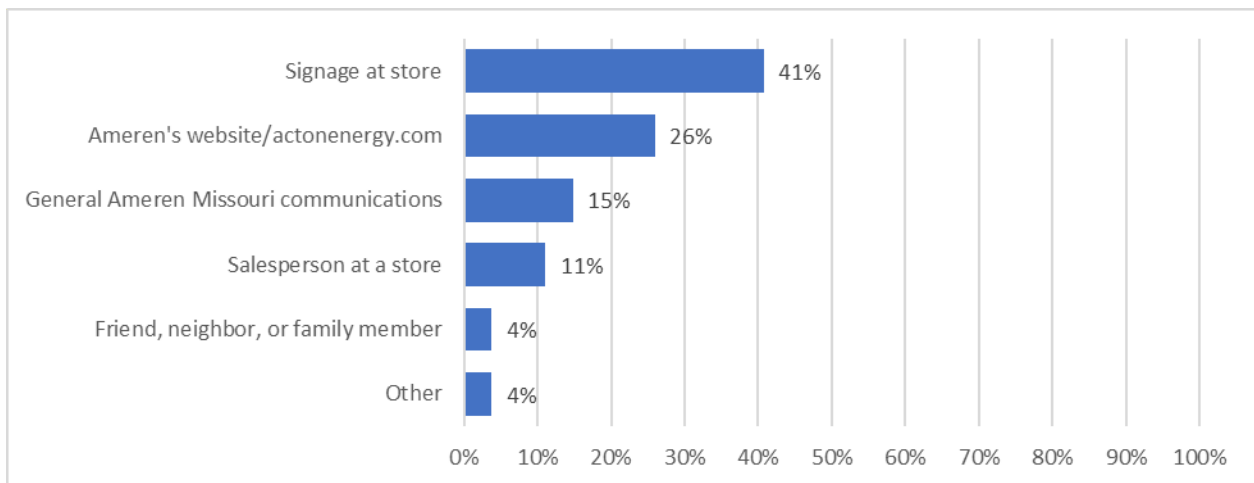
Not surprisingly, a great majority of customers were not consciously aware that Ameren Missouri offers discounts on LEDs (Figure 20).

Figure 20. Were you aware Ameren Missouri offers discounts on LEDs? (n=122)



Those respondents that were aware were most likely to have heard about the discounts from in-store signage (Figure 21). Of 28 respondents aware that Ameren Missouri provided discounts on LEDs, 14 reported that they had purchased a discounted LED, and all were either somewhat satisfied (n=4) or very satisfied (n=10) with the bulb price.

Figure 21. Where did you hear about the discounts? (n=27)



## Preferences and Behaviors

Customers are most likely to decide which lightbulb to purchase based on price. About 59% of respondents listed price as either a primary or secondary quality they consider when selecting a lightbulb (Figure 22.) Brightness or bulb color was also identified as a primary or secondary quality by 59% of respondents, though it was more likely than price to be a secondary factor. Total cost to purchase and operate, energy savings, and the bulb's appearance were other commonly mentioned qualities.

Figure 22. Primary and Secondary Qualities Sought by Customers (n=195)

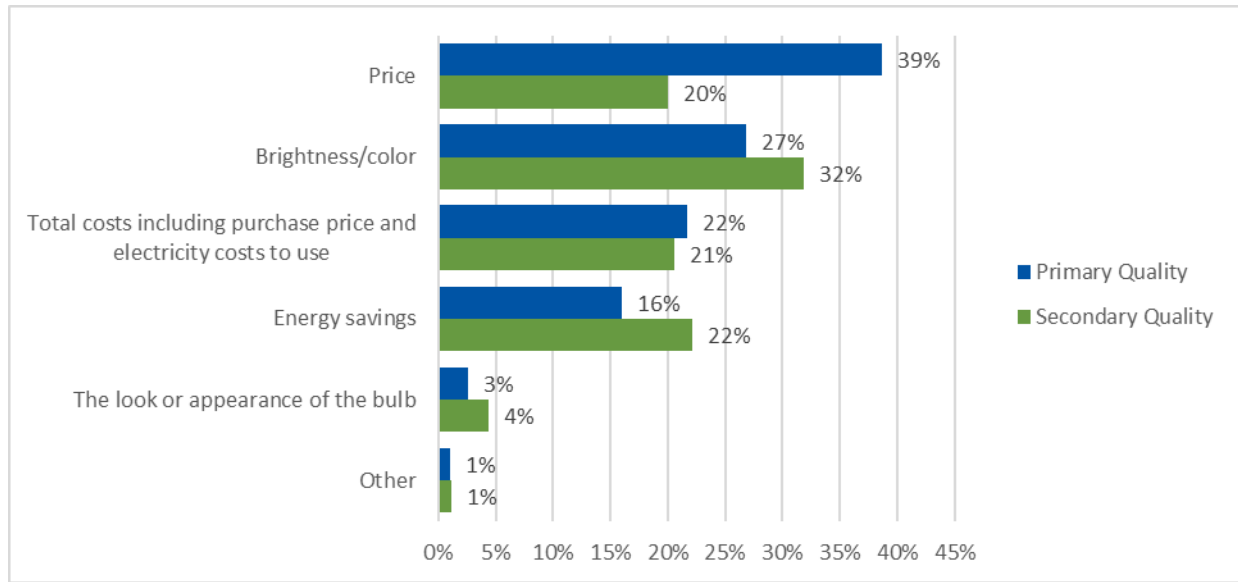


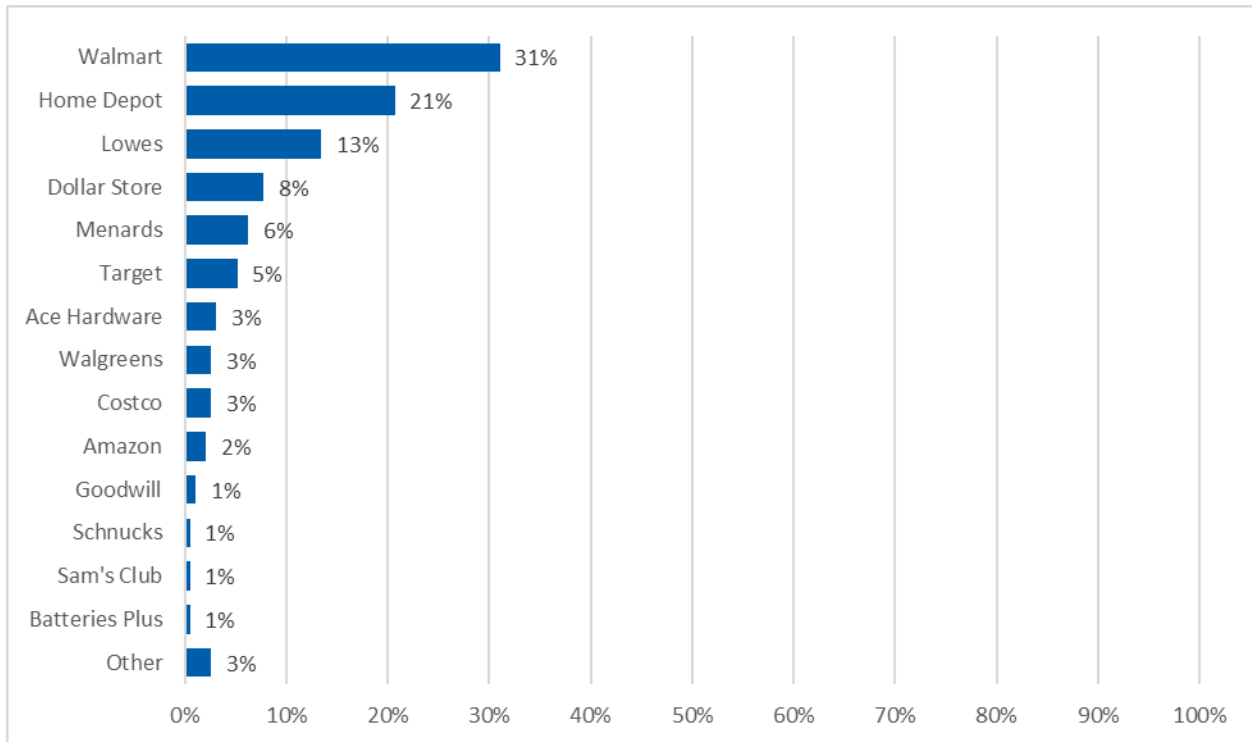
Table 65 shows the last bulb respondents installed and what type of bulb was replaced. LEDs were the most common type of new bulb, installed by 48% of respondents. LEDs most commonly replaced an incandescent, a transition reported by 26% of respondents.

Table 65. Most Recent Bulb Installed and Replaced (n=144)

Last Installed	Bulb Replaced (Percentage of Respondents)					
	LED	Incandescent	CFL	Halogen	Empty Socket	Total
LED	4%	26%	9%	7%	2%	48%
Incandescent	1%	22%	0%	0%	2%	25%
CFL	0%	12%	6%	0%	0%	17%
Halogen	0%	6%	1%	3%	0%	10%

The survey also asked where respondents had most recently purchased a lightbulb. As shown in Figure 23. Nearly a third of respondents had most recently purchased a light bulb at Walmart, followed by Home Depot (21%) and Lowes (13%). Nearly all the retailers mentioned have participated in the Lighting Program at some point in the past four years, with the exception of Amazon, which accounted for 2% of survey responses.

Figure 23. Location of Last Bulb Purchase (n=199)



## Demographics

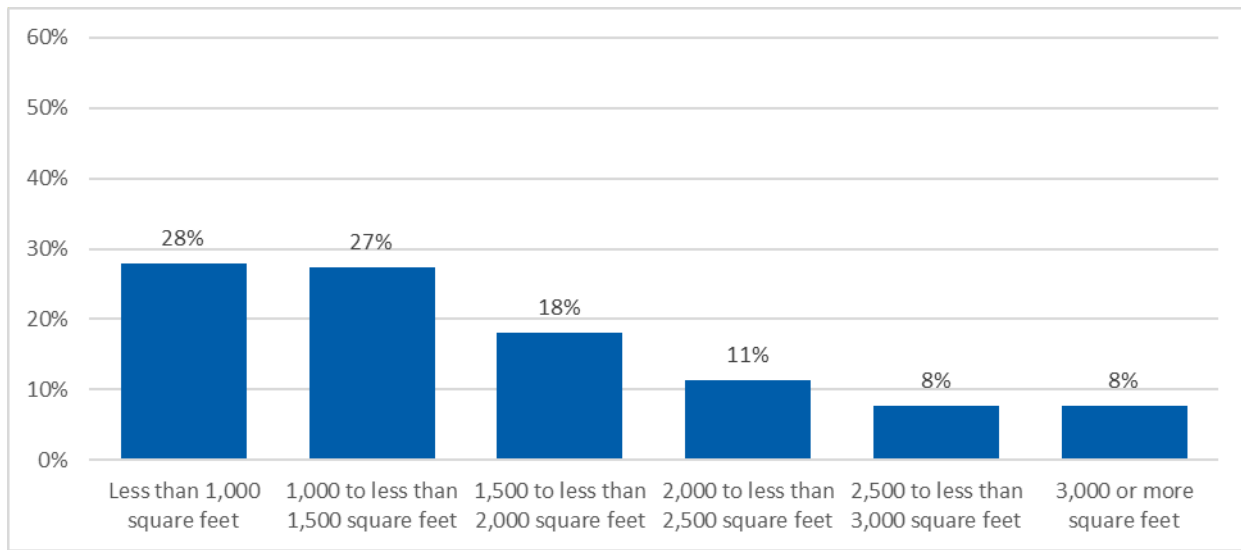
This section presents demographic statistics for the resident survey sample (which was the same sample used for the home lighting inventory). Table 66 shows that the majority of respondents (57%) lived in a household of one or two people.

Table 66. How many people live in your home? (n=194)

People in Home	Percent
1	26%
2	31%
3	15%
4	13%
5	6%
6	3%
7	2%

Figure 24 shows the distribution of home size. Over half (55%) of respondents lived in homes less than 1,500 sq ft.

Figure 24. How many square feet is your home? (n=194)



About 29% (n=197) of respondents said at least one person in the home regularly telecommuted. Of those with at least one telecommuter, the telecommuting range of days varied widely, from one to five weekdays on average.

Table 67. During the week, about how many days on average is someone home during the day? (n=174)

Days per Week	Percent
0 days	34%
1-2 days	7%
3-4 days	7%
5 days	52%

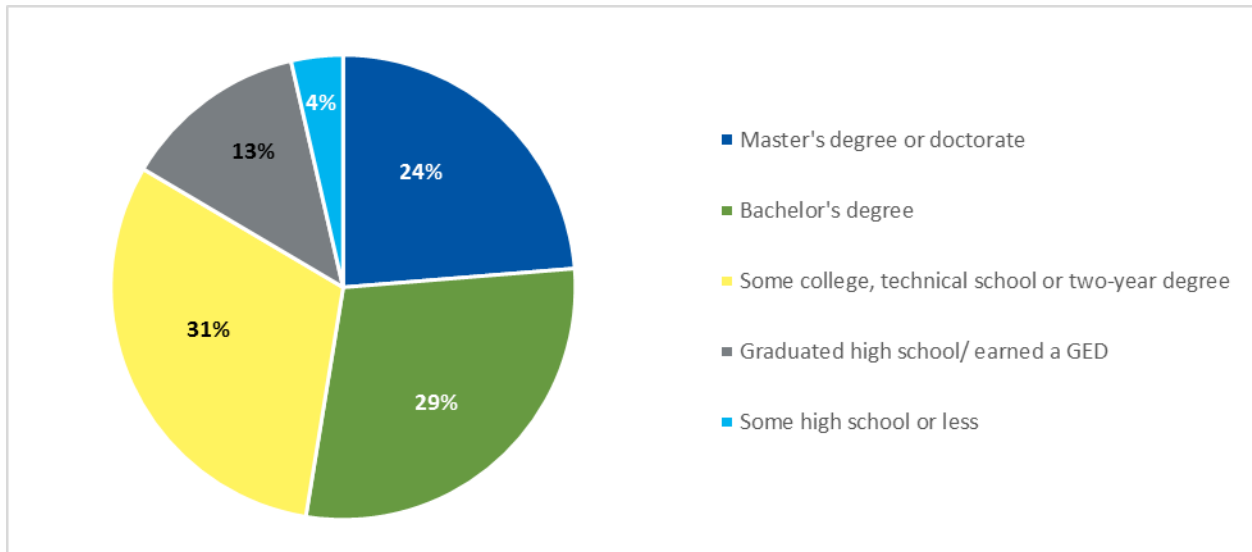
The study found that just under two-thirds of respondents (61%) owned their home, as shown in Table 68. All renters reported that they paid their electric bills directly.

Table 68. Do you rent or own your home? (n=195)

Ownership	Percent
Own	61%
Rent	39%

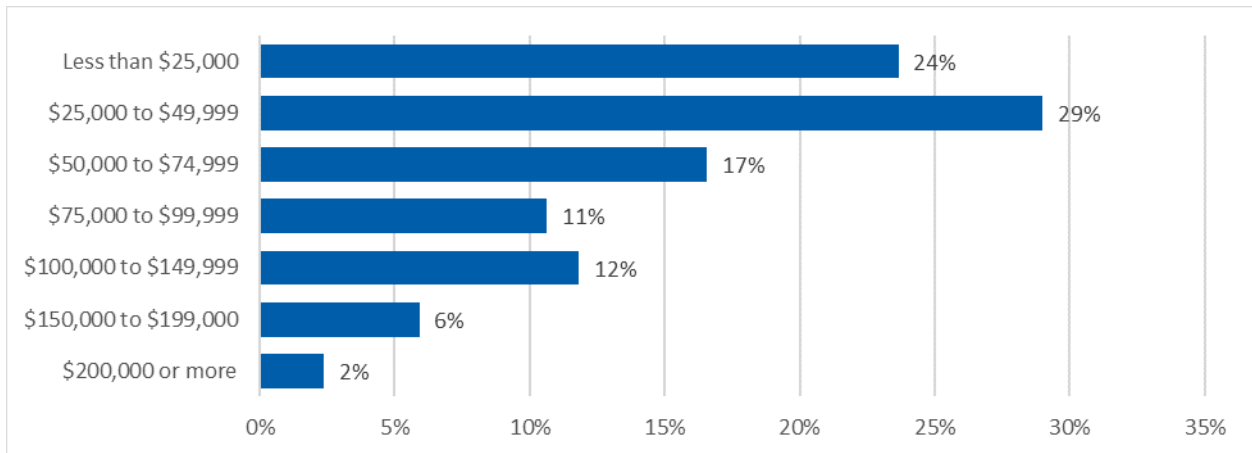
As shown in Figure 25, 96% of respondents had a high school diploma or higher level of education, and just over half of respondents had completed a bachelor’s degree.

Figure 25. How much education have you completed? (n=194)



Over half of respondents had an annual household income below \$50,000, as shown in Figure 26.

Figure 26. What is your annual income? (n=169)



## Appendix F. PY17 Data Collection Instruments

1. Stakeholder Interview Guide
2. Retailer-Manufacturer Interview Guide
3. Resident Survey
4. General Population Survey

## Appendix G. Nonparticipant Spillover Qualification

## Appendix H. Nonparticipant Spillover Data

## Appendix F1

### Ameren Missouri Lighting Program Stakeholder Interview Guide (PY17)

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

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

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

This interview is to assess how well the program processes and implementation are working to achieve the goals of the program, as well as to understand how the evaluation can help the program manager and implementers with planning an implementation.

#### A. Roles and Responsibilities

I will start with roles and responsibilities.

- 1) Have there been any changes to the Ameren Missouri/ICF staff dedicated to the Lighting Program this year? (Probe: Is ICF still working with CrossMark? Any change to the responsibilities between ICF and CrossMark?)
- 2) **[Both]** How has CrossMark performed this year? Have you, or would you, recommend any changes in how field operations are handled?
- 3) **[Ameren]** Do you feel that ICF has been able to build strong working relationships with the retailers and manufacturers? Do you see any room for improvement in terms of how ICF works with program partners?
- 4) **[Ameren]** Last year, we reported that ICF had a different management approach than CLEAResult, in that they relied more on minimizing cost than leveraging relationships to earn sales opportunities such as strong product placement. How would you characterize ICF's approach to implementation this year? Do you feel their approach is optimal for program cost-effectiveness? Why or why not?

#### B. Program Goals and Design

My next questions address the program goals and design.

**[For interviewer's reference:]**



	Participation		MWh		MW	
	PY16 (Actual)	PY17 (Target)	PY16 (Actual)	PY17 (Target)	PY16 (Actual)	PY17 (Target)
<b>Lighting Program</b>	917,013	440,198	25,562	10,266	4,115	1,533

- 1) Were there any significant changes in eligible measures since PY16?
- 2) Can you describe any significant changes to how the program operated over the year, relative to PY16?
- 3) This year's goals are significantly reduced from the previous year, even as the market share of LEDs, and the number of available LED models, is increasing. As of Q3, participation is already above the forecast level of participation for PY17 noted in the filed plan. How is the program managing this high level of participation?
- 4) **[If not addressed]** Do non-ENERGY STAR LEDs continue to be a strong presence in the market? Are they a concern? How does the program address competition from non-ENERGY STAR LEDs?
- 5) Were there any other market changes or significant external challenges for the program this year? (If yes, probe: Please describe them, and how the program has responded.)

### C. Retailers

Now I'd like to discuss your relationships with partner retailers.

- 1) Has there been any change in the retailer mix from PY16 for PY17? What led to the change?
- 2) Were there any changes to the RFP process or the MOUs in PY17 relative to PY16? For example, in terms of when the RFP was issued, or the length of time covered by the MOU?
- 3) What chains were expected to drive the most sales in 2016? How has each participating retailer or manufacturer performed, relative to expectations?
- 4) Target was a major new retailer to join the program last year. Have they participated as expected, in terms of sales and promotion? Any challenges in incorporating them into the program?
- 5) **[AMEREN ONLY]** Did you have any direct contact with participating retailers?
- 6) **[Both]** What feedback have you received from participating retailers this year?

### D. Marketing

Now let's discuss marketing for the program, both in-store and other channels.

- 1) Where there any changes to the marketing strategies the program used this year? (Probe: Did the reduced participation target reduce the marketing budget, and if so, was that reduction proportional? Did the program use in-store events? How many, and in what stores?)
- 2) What do you think have been the most influential program or market factors to attract program participation, both from retailers and from customers, this year? Is this different from the previous year?
- 3) In past years, product placement has been an important part of driving sales. As volume through the program has decreased, implementers have reported it is more difficult to obtain specialized placement in stores. Do you still consider this an important driver of participation?

#### **E. Data Tracking and Quality Control**

Thank you. My next subject is data tracking.

- 1) Were there any changes to data tracking or data storage in PY17? (If yes, probe: What drove the change? How are the updates performing?)
- 2) As of Q3 2017, no online sales have appeared in the program tracking data. Can you discuss the status of those sales, and why they are not appearing in the Vision system?
- 3) Were there any changes to quality control measures in PY17 relative to the previous year?
- 4) Did the quality control activities uncover any issues? How were these issues addressed?
- 5) Do you feel there was enough quality control?

#### **F. Evaluation**

- 1) Were there any surprises for you in the PY16 evaluation? What was different than you expected?
- 2) Was there any information you think was missing from the PY16 evaluation?
- 3) What are you most interested in seeing in the PY17 evaluation? Are there any implementation challenges you hope the evaluation can help you solve?

#### **G. Looking Forward**

- 1) Have any changes been planned for PY18, in terms of eligible measures, the retailer mix, or the approach to set incentive levels?
- 2) What do you anticipate will be the primary challenges for the lighting program in PY18? Do you have concerns for the program beyond 2018?

- 3) How will the fact that reflectors and decorative bulbs will no longer be exempt from EISA standards affect your program?
- 4) What are your plans for the lighting program as you near the 2020 backstop date?

#### **H. Summary**

Thank you. Now I have just a few general questions to wrap up.

- 1) What would you say is working particularly well so far in PY17? Why is that?
- 2) Conversely, what is not working as well as anticipated? Why is that?
- 3) Is there anything else you'd like us to know about your experience administrating or implementing the program so far this year?

Appendix F2

RETAILER Feedback Worksheet

Please complete all orange cells.

Market Factors	Task 1: Factor Influence on Annual Sales (%)	Task 2: Ameren Missouri Influence on Factor (%)
	<i>For each factor, complete the sentence: "[Factor] is about X% responsible for annual sales volume of nonprogram LEDs."</i>	<i>For each factor, complete the sentence: "The Ameren Missouri Program has a XX% influence on [FACTOR]"</i>
Pricing		
Product Stocking		
Product Placement and In-store Marketing		
Customer Education		
Retailer Education		
<i>Please note any other key factors affecting annual high-efficiency lighting sales in this cell</i>		
Unspecified		
<b>Total</b>		

Summary of Ameren Missouri Program Activity for RETAILER

Program Activity	Program Year					
	2012	2013	2014	2015	2016	2017
Pricing	n Sales and Average Incentive per bulb:					
	Standard LEDs					
	Specialty LEDs					
Product Stocking	Number of program-incented models					
Product Placement and In-store Marketing	Special displays for program bulbs					
Customer Education	In-store events					
Retailer Education	Active Locations					

n/a = precise number not available

## Appendix F3.

### Home Inventory Study Residential Survey

Thank you for helping us to improve our programs!

Thank you for taking the time to complete the following survey. Once completed, please return this form to the technician. This information will help us better understand how our customers use electricity, and ensure we design programs that fit your lifestyle. Filling out this form is **completely voluntary**, and will not affect your participation in the Home Inventory Study.

## Lighting

1. *Halogen bulbs look like traditional incandescent bulbs, and are commonly available anywhere lightbulbs are sold. A halogen bulb has a lower energy use than a traditional incandescent, but not as low as a CFL or LED.*

How familiar are you with efficient halogen bulbs  
(like the one pictured)?

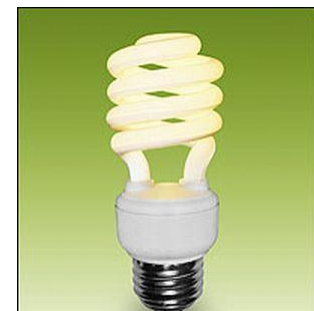
- Very familiar
- Somewhat familiar
- Not too familiar
- Not at all familiar

*Halogens use a  
tube rather than  
a filament*



***Halogen (left) and traditional  
incandescent (right)***

2. How familiar are you with compact fluorescent light bulbs (CFLs) (like the one pictured)?
  - Very familiar
  - Somewhat familiar
  - Not too familiar
  - Not at all familiar



***Typical CFL Bulb***

3. How familiar are you with LED light bulbs (like the ones pictured)?

- Very familiar
- Somewhat familiar
- Not too familiar
- Not at all familiar **[SKIP TO Question 17]**



**Typical LED Bulbs**

4. How did you first become aware of LEDs?

- Saw them for sale at a store
- Heard about their benefits at a store
- Through Ameren Missouri communications
- Some other way
- Don't know

5. How satisfied have you been with the LEDs you have installed in your home?

- Very satisfied
- Somewhat satisfied
- Not too satisfied
- Not at all satisfied
- Never had one installed in the house **[SKIP TO Question 17]**

6. Why do you say that?

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7. Are you familiar with the ENERGY-STAR label?

- Yes
- No **[SKIP TO Question 9]**

8. Think back to the last time you purchased any kind of light bulbs. Did you look for the ENERGY STAR label when deciding which product to purchase?

- Yes
- No

9. Have you ever purchased an LED bulb?
- Yes
  - No **[SKIP TO Question 12]**
  - Not sure **[SKIP TO Question 12]**
10. **[ASK IF QUESTION 7 = YES]** Were you aware that only some LEDs meet ENERGY STAR specifications, and are ENERGY STAR-certified, while others are not?
- Yes
  - No **[SKIP TO Question 12]**
11. Do you know if the LEDs you purchased were ENERGY-STAR certified?
- Yes
  - No
  - Not sure
12. Are you aware Ameren Missouri offers discounts on energy-saving LEDs sold at local stores?
- Yes, I am aware
  - I knew there were discounts, but I didn't know they were sponsored by Ameren Missouri **[SKIP TO Question 17]**
  - No, I was not aware **[SKIP TO Question 17]**
13. Where did you hear about the discounts?
- Ameren's Website/Actonenergy.com
  - Personal Energy Report
  - General Ameren Missouri communications
  - Signage at a store
  - Salesperson at a store
  - Friend, neighbor, or family member
  - Other (Where?) \_\_\_\_\_
  - Don't know
14. Have you purchased any **LED** bulbs discounted by Ameren Missouri?
- Yes
  - No **[SKIP TO Question 17]**
  - Not sure **[SKIP TO Question 17]**
15. If you have purchased Ameren Missouri discounted LED bulbs, how satisfied were you with the LED bulb **prices**?
- Very satisfied
  - Somewhat satisfied
  - Not too satisfied

- Not at all satisfied

16. Why do you say that?

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17. Please put a **1** next to the quality you consider most important when you buy a new light bulb, put a **2** next the quality you consider second most important when you buy a new light bulb. It may be challenging, but select only the two most important factors.

- \_\_\_\_\_ Price
- \_\_\_\_\_ Total costs including purchase price and electricity costs to use
- \_\_\_\_\_ Brightness/color
- \_\_\_\_\_ The look or appearance of the bulb
- \_\_\_\_\_ Energy savings
- \_\_\_\_\_ Other: \_\_\_\_\_

18. Have you heard about **Act On Energy**, a set of programs from Ameren Missouri to help customers save energy?

- Yes
- No
- Not sure

## Demographics

We ask the following questions to help us understand how energy use varies among groups of customers. **These questions are voluntary.** If you do not wish to answer any particular question, simply leave it blank.

19. **Including yourself**, how many individuals normally live in your home? (*Do not include anyone who is just visiting, those away in the military, or children who are away at college.*)

---



20. What is the approximate square footage of your home? **Please include only heated living space.**

- Less than 500 sq. ft.
- 500 – 999
- 1,000 – 1,499
- 1,500 – 1,999
- 2,000 – 2,499
- 2,500 – 2,999
- 3,000 – 3,499
- 3,500 – 3,999
- 4,000 sq. ft. or more

21. What are the ages of the people who live full-time in your home?

_____	_____	_____
_____	_____	_____
_____	_____	_____

22. Does anyone in your household regularly telecommute or work from home during the day on weekdays?

- Yes
- No [**SKIP TO Question 25**]

23. On average, how many **weekdays** does someone in your household work from home each week?

- 1 weekday
- 2 weekdays
- 3 weekdays
- 4 weekdays
- 5 weekdays

24. Other than those that work from home or telecommute, are there any individuals in your home that regularly stay at home all or most **weekdays**?

- Yes
- No

25. Do you own/rent your home?

- Own
- Rent

26. If you rent, do you pay the electric bill or does your landlord?

- I pay the electric bill
- My landlord pays the electric bill

27. What is the highest level of education that you have completed?

- Some high school or less
- Graduated high school/earned a GED
- Some college, technical school or two-year degree
- Bachelor's degree
- Master's degree or doctorate

28. What is your annual household income?

- Less than \$25,000
- \$25,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 – \$199,000
- \$200,000 or more
- Prefer not to say



## Appendix F4. 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.

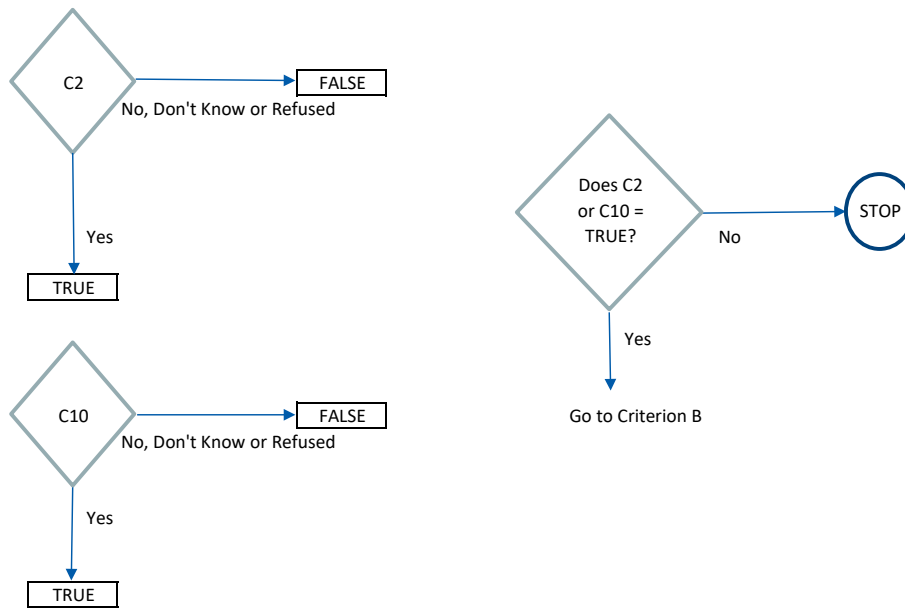
If you are selected to receive one of the five gift cards in the drawing, the gift card will be mailed to you at the same address written on the postcard you received, by February 28th, 2018.

**Appendix G: 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?

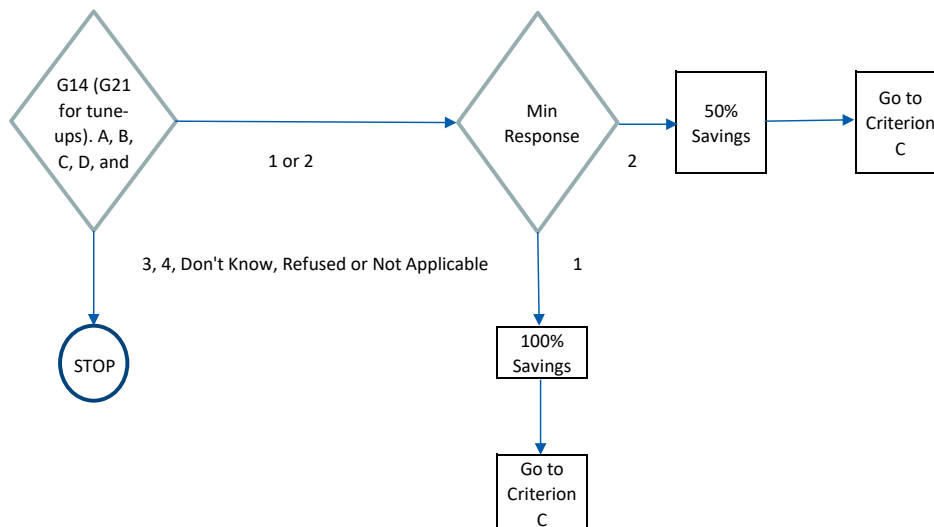
C10. Are you aware that Ameren Missouri offers rebates and discounts for energy-saving equipment in your home?



**Criterion B: At least one element of Ameren Missouri's program marketing and outreach motivated them to adopt the measure**

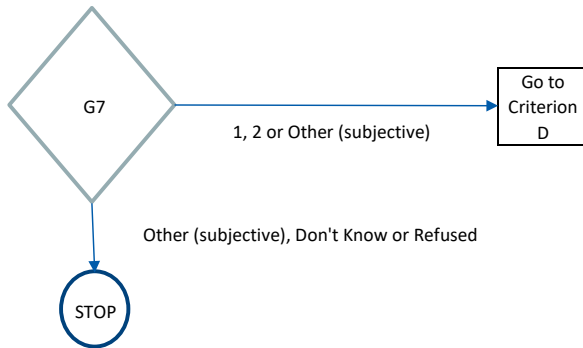
G14 (G21 for tune-ups). On a 1 to 4 scale, with 1 meaning "very important", and 4 meaning "not at all important", how important was each of the following elements in your decision to purchase and install the measure?

- 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



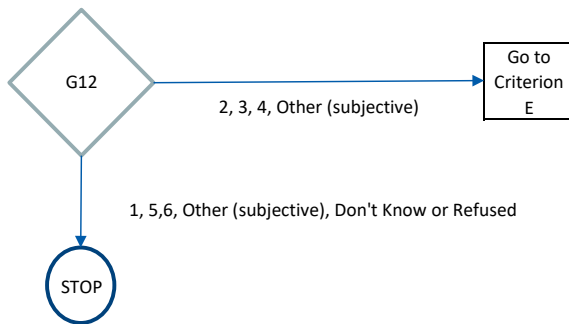
**Criterion C: They had a valid reason for considering the adopted measure energy efficient**

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)



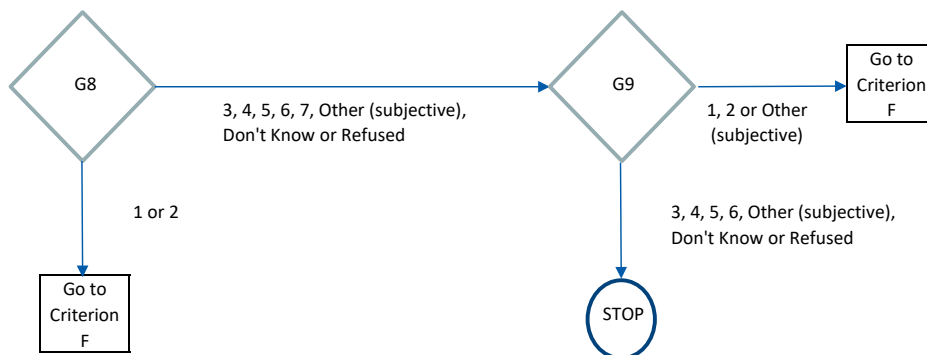
**Criterion D: They had not received a rebate from Ameren Missouri, had not tried to receive a rebate from Ameren Missouri, and stated a valid reason for not applying for an Ameren Missouri measure rebate.**

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**

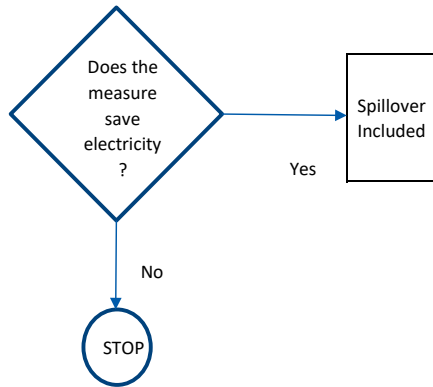
G8. Which of the following reasons best describe why you decided to install the measure?  
1 = To save energy, 2 = To save money, 3 = To replace failing equipment, 4 = Needed to replace anyway, 5 = Liked the style, 6 = Was ready to update,  
G9. Which of the following reasons best describe why you chose 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 H

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	Electric baseboard heating	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	don't have	FALSE	No	0	don't have	FALSE	don't have	don't 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):Central Gas	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 knowElectric	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 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)
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 Window 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 Window 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 Window 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 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)
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	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	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	FALSE	TRUE	It's ENERGY STAR-certified	TRUE	Yes	Yes	0	FALSE	To save money	0	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	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	0	Just forgot about it	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE	
CAD002662787	Learning or "smart" thermostat		12	Yes	Yes	TRUE	2	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
CAD0025872547	Room air conditioner		1	No	Don't know	FALSE	98	98	98	98	FALSE	FALSE	Don't know	FALSE	No	0	0	TRUE	To save energy	0	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	0	I am still planning to apply	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	FALSE	TRUE	It's ENERGY STAR-	TRUE	No	0	0	TRUE	To save energy	0	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	0	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	Don't know	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	It was confusing	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	It was the only option available	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	It had other features that I liked	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	To save energy	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	To save energy	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	0	TRUE	To replace failing equipment	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	To save money	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	Needed to replace anyway	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 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	0	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	0	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	0	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	0	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	0	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	0	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	0	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	0	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	0	I wasn't sure my equipment qualified	TRUE	To improve comfort	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)
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	TRUE	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	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002388519	Room air purifier		2	Yes	TRUE	99	99	99	1	99	FALSE	TRUE	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	TRUE	FALSE	FALSE
CAD002620392	Learning or "smart" thermostat		12	Yes	TRUE	2	4	3	3	4	TRUE	FALSE	It's ENERGY STAR-	TRUE	No		Just forgot about it	TRUE	To save energy	0	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002183369	Pool pump		3	Yes	TRUE	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	0	TRUE	Central air conditioner	Electric furnace	Electric	TRUE	FALSE	FALSE
CAD002337775	Learning or "smart" thermostat		12	Yes	TRUE	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	FALSE	2	99	3	99	2	TRUE	FALSE	The retailer/dealer/contractor told me it was	TRUE	No		0	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	TRUE	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	0	TRUE	Central air conditioner	Gas furnace/boiler	Electric	TRUE	FALSE	FALSE
CAD002511825	Learning or "smart" thermostat		12	Yes	TRUE	99	99	99	99	99	FALSE	FALSE	Ameren web site	TRUE	Don't know		0	FALSE	Ameren Rebate	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Electric	FALSE	FALSE	FALSE
CAD003845419	Room air conditioner		1	Yes	TRUE	2	2	2	99	99	TRUE	FALSE	It's ENERGY STAR-	TRUE	Yes	Yes	0	FALSE	To save energy	0	TRUE	Window or wall air conditioner	Gas furnace/boiler	Gas	TRUE	FALSE	FALSE
CAD002253667	Showerhead		4	Don't know	FALSE	3	3	3	3	3	FALSE	FALSE	It's ENERGY STAR-	TRUE	No		0	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	TRUE	4	4	4	4	4	FALSE	FALSE	published reports	TRUE	Don't know		0	FALSE	To replace failing equipment	To save money	TRUE	Central air conditioner	Gas furnace/boiler	Gas	FALSE	FALSE	FALSE
CAD002758337	Showerhead		4	No	FALSE	4	4	4	99	4	FALSE	FALSE	It's ENERGY STAR-certified	TRUE	No		0	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

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)	
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	



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)
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 know	Gas	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 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

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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 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	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	



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)
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 conditioner Air-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

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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)
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

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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)
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

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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

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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

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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 pumpElectric baseboard heating systemElectric 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 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)
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	Air-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

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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)
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

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)
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	Other (please specify):WOOD STOVEElectric	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 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)
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

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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)
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

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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)
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 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)
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

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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

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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



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)
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

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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)
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 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	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

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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)
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

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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)
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