DEMAND-SIDE MANAGEMENT MARKET POTENTIAL STUDY

Volume 2: Market Research

Final Report

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INTRODUCTION

Ameren Missouri commissioned this Demand Side Management (DSM) Market Potential Study to assess the various categories of electrical energy efficiency (EE), demand response (DR), and distributed generation/combined heat and power (DG-CHP) potentials in the residential, commercial, and industrial sectors for the Ameren Missouri service area from 2016 to 2033. This study uses updated baseline estimates based on the latest information pertaining to federal, state, and local codes and standards for improving energy efficiency. It also quantifies and includes estimates of naturally occurring energy efficiency in the baseline projection.

Ameren Missouri will use the results of this study in its integrated resource planning process to analyze various levels of energy efficiency related savings and peak demand reductions attributable to both EE and DR initiatives at various levels of cost. This study also provides estimated levels of combined heat and power (CHP) and distributed generation (DG) installations over the specified time horizon. Furthermore, Ameren Missouri has adhered to both the Missouri Public Service Commission ("Commission") rules, 4 CSR 240-3.164 regarding potential study requirements for purposes of complying with the Missouri Energy Efficiency Investment Act (MEEIA) and 4 CSR 240-22 regarding potential study requirements for Ameren Missouri's next Integrated Resource Plan (IRP) to be filed in April 2014. Both rules contain new provisions that were not part of Ameren Missouri's previous DSM Potential Study published in 2010.

Ameren contracted with EnerNOC Utility Solutions Consulting (EnerNOC) to conduct this study and EnerNOC along with You Gov Definitive Insights (YGDI), EnerNOC's subcontractor for the market research work, has performed the following tasks to meet Ameren's key objectives:

- Conducted primary market research to collect data for the Ameren Missouri service territory, including: electric end-use data, saturation data, and customer demographics and psychographics.
- Characterized how customers in the Ameren Missouri service territory make decisions related to their electric use and energy efficiency investment decisions. Translated that understanding in a clear and transparent manner to establish annual market acceptance rates for EE measures.
- Employed updated baselines that reflect both current and anticipated federal, state, and local energy efficiency legislation. Identify all known pending legislation that may also impact DSM potential.
- Developed Ameren Missouri-specific market acceptance rates for EE for the planning cycle of 2016 through 2034 that, when applied to economic potential, will yield estimates of maximum achievable and realistic achievable potential.
- Analyzed the potential for energy efficiency, demand response, and customer distributed generation/combined heat and power application over the 2016-2033 planning horizon[1].
- Worked with Ameren Missouri to develop sensitivity analyses for assessing uncertainty around DSM potential.
- Analyzed the impact of demand-side rates on DSM potential.
- Provided a series of webinars for Missouri stakeholders to review study assumptions and provide comments for consideration.

[1] Although estimates were developed through 2034, we show results for 2033, which is 20 years out from the start of the forecast in 2014.

- Clearly communicated the DSM potential and uncertainty in an objective way that is useful for the Commission, Ameren senior management, Missouri stakeholders, Ameren DSM staff, Ameren EE Implementation team, and Ameren IRP staff – both operational and planning. This includes the following:
  - Documented compliance with IRP/MEEIA rule references, including specific references to rule requirements.
  - Provided measure-level information, in a way that is readily compatible with Ameren Missouri's modeling methodology in DSMore.
  - Generated energy efficiency potential supply curves, which clearly show the incremental cost (in dollars per kWh) of increasing DSM energy efficiency efforts (in kWh) over the 2016-2033 planning horizon.
  - Generated demand response potential supply curves, which clearly show the incremental cost (in dollars per kW) of increasing DSM demand response efforts (in kW) over the 2016-2033 planning horizon.
  - Generated distributed generation/combined heat and power potential supply curves, which clearly show the incremental cost (in dollars per kW) of increasing DG/CHP efforts (in kW) over the 2016-2033 planning horizon.

Report Organization

This report is presented in six volumes as outlined below. This document is **Volume 2: Market Research**.

- Volume 1, Executive Summary
- Volume 2, Market Research
- Volume 3, Energy Efficiency Analysis
- Volume 4, Demand Response Analysis
- Volume 5, Distributed Generation Analysis
- Volume 6, Demand-side Rates Analysis

Abbreviations and Acronyms

Throughout the report we use several abbreviations and acronyms. Table 1-1 shows the abbreviation or acronym, along with an explanation.

Table 1-1 Explanation of Abbreviations and Acronyms

Acronym	Explanation
CFL	Compact fluorescent lamp
CPP	Critical peak pricing
DSM	Demand side management
DR	Demand response
DG-CHP	Distributed generation/combined heat and power
EE	Energy efficiency
IRP	Integrated Resource Plan
LED	Light emitting diode lamp
MEEIA	Missouri Energy Efficiency Investment Act
PTR	Peak time rebate
RTP	Real-time pricing
TOU	Time of use
YGDI	You Gov Definitive Insights

BACKGROUND AND OBJECTIVES

Ameren Missouri is investigating the market potential for a wide variety of Demand Side Management (DSM) options by completing a comprehensive DSM Study that consists of three primary components: market research, a full DSM potential analysis, and analysis of distributed generation potential. The market research component has collected electricity end-use data, end-use saturation data, and customer demographic and psychographic information, all of which will provide insight on how Ameren Missouri customers make decisions related to electricity usage and energy efficiency investment decisions. This report describes the findings of that market research effort.

A particular objective of the market research described in this report is to support the estimation of Realistic Achievable Potential, defined below, which is an integral part of understanding overall market potential.

> **Realistic Achievable Potential** is a representation of likely customer response to specific measures that could be implemented under realistic program design conditions

Broad questions embedded in this phase of this research that will help Ameren Missouri better understand Realistic Achievable Potential include:

1. How likely are customers to participate in various electric-related energy efficiency programs Ameren Missouri is considering offering?
2. Which of these energy efficiency measures offer the highest likely participation rates?
3. How does likelihood to participate differ by payback period for customers?
4. What overall demographic/firmographic and psychographic characteristics correspond to a higher likelihood to participate in energy efficiency programs?
5. What segments can be derived within the residential and business sectors, and how do these segments differ in terms of their likelihood to participate, as well as customer demographic/firmographic and psychographic characteristics?
6. Which of these segments represent the best opportunities on which Ameren Missouri can focus its marketing efforts?
7. What messaging strategies would likely be useful to help foster participation among these high opportunity segments?

This report reviews the approach and results for the residential sector, followed by the business sector.

RESIDENTIAL METHODOLOGY

This section covers residential sample design, questionnaire development, and data analysis.

Sample Design

The EnerNOC team provided Ameren Missouri with instructions for selecting multiple iterations of independent random samples from within the total Ameren Missouri residential customer database. This customer list provided included a variety of information for each customer, including name, address, annual kWh usage, annual therm usage, division, account number, etc. The EnerNOC team created a sample design with five separate sample cells based on electric usage, against which survey responses were targeted and monitored. The sample design was implemented separately and independently for two surveys, a Program Interest survey and a Saturation survey.

Ameren Missouri generated a total of approximately 870,075 randomly selected households distributed across six separate and independent sample tranches (three per survey). In total, postcard invitations were mailed to the households in all three sample tranches for both the Program Interest and Saturation surveys, with approximately 5,800 postcards mailed for each of the two surveys. Postcards invited respondents to go online and complete the survey. Customers were offered a $10 check or Amazon gift certificate for completing the survey. Approximately 2,600 reminder post cards were sent for each survey in order to give each customer an opportunity to respond.

To qualify to complete the survey, respondents had to meet the following criteria:

- Must have primary or shared responsibility for making energy-related decisions
- Must be at least 18 years old
- Must not work for a gas or electric utility company and must not have a household member that works for a gas or electric utility company
- Must be billed for electricity directly by Ameren Missouri

A total of 761 Ameren Missouri Residential customers completed the Program Interest survey, while 743 completed the Saturation survey. Approximately 92% of those who attempted to complete the survey qualified based on the criteria above. The overall net response rate was approximately 16%. Approximately 15% of those who started the surveys abandoned them before completion. Average online survey length was about 29–31 minutes.

Questionnaires

The **Program Interest** questionnaire was designed to cover multiple content areas, including:

1. Screening questions
2. Description of major end uses in the household
3. Attitudes toward Ameren Missouri
4. Attitudes toward using energy
5. Energy efficiency measures implemented to-date (with a focus on lighting)
6. Attitudes toward appliance purchasing
7. Interest in potential EE programs that could be offered by Ameren Missouri

8. Attitudes toward shopping
9. Demographics

The **Saturation** questionnaire was designed to cover multiple content areas, including:

1. Screening questions
2. Description of household structure (including windows)
3. Description of heating and cooling equipment
4. Description of lighting (bulbs and fixtures / interior and exterior)
5. Description of major appliances
6. Description of energy related actions
7. Awareness of EE-related energy programs
8. Demographics

Information on the programs and measures tested, as well as the sample design appears in Appendix A. The residential Program Interest questionnaires appear in Appendices B and C respectively.

Data Analysis

Estimating Take Rates

Market researchers have long recognized that customers tend to over-estimate their likelihood to participate in new programs and services within the context of a market research study. This means that some customers who say in a survey that they would be **certain** to participate in a given program, in reality, do not participate. This is often referred to as the "say-do" problem; the problem that the percentage of survey respondents saying that they are likely to take an action is higher than the percentage who actually end up doing it.

The analytic challenge, as a result, is to appropriately adjust stated likelihood-to-participate ratings into more realistic estimates of likely customer response. Different options are available for making these adjustments, and the best option depends in part on the nature of the product, service, or program being evaluated. For example, reactions to socially desirable (including "green") options need to be adjusted down more aggressively, while those for certain new technologies need to be adjusted less.

The method used by the YGDI / EnerNOC team is based on proprietary research conducted by YGDI during 2010. This research captured stated likelihood to adopt or purchase a variety of new products and services, at one point in time, and then tracked actual adoption or purchase over 6–12 months. As we expected, people were less likely to actually purchase products or services than they estimated they would be at an earlier point in time.

The primary adjustment factors observed in that research were used here to translate stated intent to realistic estimates of likely behavior, and they are outlined in Table 3-1. The adjustment factors depend on how the respondent answered each of the "likelihood to acquire" questions, and on their level of information about, and familiarity with EE issues. Note that these primary adjustment factors are intended to apply to relatively infrequent purchases (no more often than once a year or so). For more regular purchases—those that occur several times a year, YGDI uses a somewhat different formula, as discussed later in this section.

Essentially, the primary adjustment for irregular purchases says that among those respondents who rate a given program as a "10" ("extremely likely to participate") and who also are rated as "high" on EE information / familiarity, then realistically, about 56% of those people will ultimately sign up for the program. At the other end of the scale, among the respondents who rate their likelihood to participate as a "1" on the scale ("extremely unlikely to participate"), only 5% of those households will ultimately sign up for the program. For purposes of this analysis, the team

assumed that Ameren Missouri could potentially achieve "high" information levels for all customers, and so used those adjustment rates for all respondents.

Table 3-1 Translating Stated Intent into Take Rates for Irregular Purchases, Residential Customers with High Information Levels

Scale Rating	Adjustment Value for Irregular Purchases
1	5%
2	5%
3	6%
4	6%
5	18%
6	20%
7	31%
8	38%
9	44%
10	56%

As noted above, YGDI uses a different adjustment for products purchased more frequently, because customers are more familiar with their choices and have established typical purchases that they tend to make in a given category. Lighting is the only measure tested in this survey that falls into this regular purchase category, and the adjustment values outlined in Table 3-2 were used for this option. Note that Information level is not used as a differentiator in adjustments for this category because by definition all buyers are more familiar with regular purchases.

Table 3-2 Translating Stated Intent into Take Rates for Regular Purchases, Residential

Scale Rating	Adjustment Value for Regular Purchases
1	3%
2	3%
3	3%
4	8%
5	15%
6	22%
7	35%
8	40%
9	44%
10	62%

Testing Programs at Different Payback Levels

To provide insight into the impact that varying payback periods might have on customer response to the programs tested, the survey explored response to each program for which payback period was relevant, at 1-, 3-, and 5-year payback levels. The survey used a method developed by the economist von Westendorp to capture this information. This technique begins by asking respondents to assess their likelihood to adopt a program at a 3-year payback, and then (a) if they respond positively to this option, asks them to respond to a 5-year payback, or (b) if they respond negatively to this option, asks them to respond to a 1-year payback period.

To control survey length, the tested program measures were sorted into categories that were similar in terms of measure type and investment level. The full 1-, 3-, and 5-year payback assessment was then conducted for a single program within each category. The remaining programs within each category were evaluated at the 3-year payback level only. Regression analysis was used to develop the 1- and 5-year payback values for each measure, using the slopes observed for the example program in each category.

Weighting

To better mirror the Residential market in Ameren Missouri's service territory, data were weighted on the basis of the 5 sample cells, to ensure that the weighted sample mapped back to the underlying population on electric usage.

Psychographic Segmentation Analysis

One of the goals of the analysis was to explore whether or not there were psychographic customer segments that could be helpful in providing an understanding of why customers responded as they did to the programs tested, and to support initial thinking about how to prioritize marketing efforts and marketing communications. Several steps were involved in developing this psychographic segmentation:

- The team analyzed the groups of items included in the questionnaire that were designed to generate psychographic insights. These included Q1-5, addressing opinions toward Ameren Missouri; Q6, exploring how customers think about using energy in their home; Q22-Q24 about appliance purchasing attitudes, and Q41, regarding how people shop for appliances.
- The team conducted analyses intended to identify groups of items that respondents tended to evaluate similarly. This process, called "factor analysis," refers to the process of finding and interpreting these groups of items that people think of as similar. The results of the factor analyses are described in Chapter 3, section 2: Understanding Customer Perspectives on Energy Issues, in which we outline the six separate attitude bundles that best describe the way that residential customers think about energy issues.
- The team considered all of the attitudinal factors that were identified in the factor analysis, along with a variety of other variables to find the ones that generated the most useful segmentation model. This was partly a trial and error process, but ultimately, the variables selected to be included in the segmentation model included:
    - Annual kWh
    - Overall satisfaction with Ameren Missouri (Q3)
    - Agreement / disagreement with the item "Comfort is very important to your household—even if it means spending more each month for energy" (Q6-1)
    - Agreement / disagreement with the item "The threat from global warming is real, and significant" (Q6-8)
    - Agreement / disagreement with the item "It's worth spending more money to get the highest quality product available" (Q24-6)
    - Agreement / disagreement with the item "You usually take the time to shop and explore all of your options before you make a final purchase decisions" (Q41_4)
    - A calculated variable, "EE Informed Level," based on indicators of experience with / awareness of EE end use options to-date, and awareness and use of existing Ameren EE programs
    - A calculated variable, "Likely Taker Level," based on a count of the frequency that a given respondent rated themselves as "8" or higher on the "1" to "10" likelihood to participate scale for each of the 35 EE programs tested

Once these inputs were identified, the team tested a wide variety of segmentation solutions, ultimately selecting a solution that optimized relative segment size, absolute segment sample size, and overall meaningfulness of segment profiles. The solution selected as most appropriate was a solution containing six segments with different response patterns to the final set of selected segmentation inputs.

DESCRIBING THE RESIDENTIAL CUSTOMER MARKET

Within this section, we summarize results of the residential Saturation Survey.

Overall Housing Characteristics

As shown in Figure 4-1, the vast majority of homes (85%) in the Ameren Missouri service territory are single-family detached, with another 3% single-family attached structures, and only 7% multi-family units (more than two units). Homes tend average less than 40 years in age, with 33% built since 1990, as illustrated in Figure 4-2.

Figure 4-1 Ameren Missouri Residential Customer Homes By Type

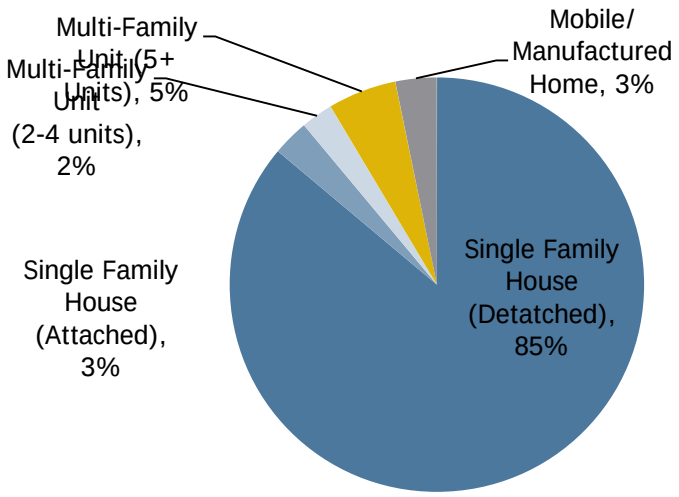


Figure 4-2 Ameren Missouri Residential Customer Homes By Date of Construction

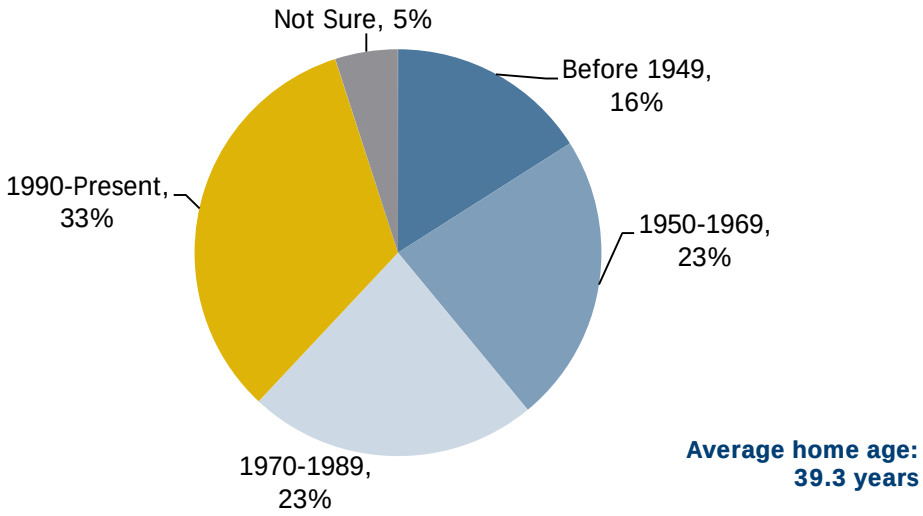


Table 4-1 indicates that 35% of homes have less than 1,500 square feet. The mean square footage for the population of homes overall is 2,005 square feet.

Table 4-1 Ameren Missouri Residential Customer Homes by Size

Square Footage	Residential Total
Less than 1,500 sq. ft.	35%
1,500-1999 sq. ft.	25%
2,000-2,499 sq. ft.	17%
2500+ sq. ft.	23%

Major End Uses

Refrigerators (97%) and stovetops (97%) are, of course, pervasive within the service territory, while washers (96%) and dryers (95%) are also extremely common (see Figure 4-3).

Figure 4-3 Ameren Missouri Residential Customer Appliance Saturation

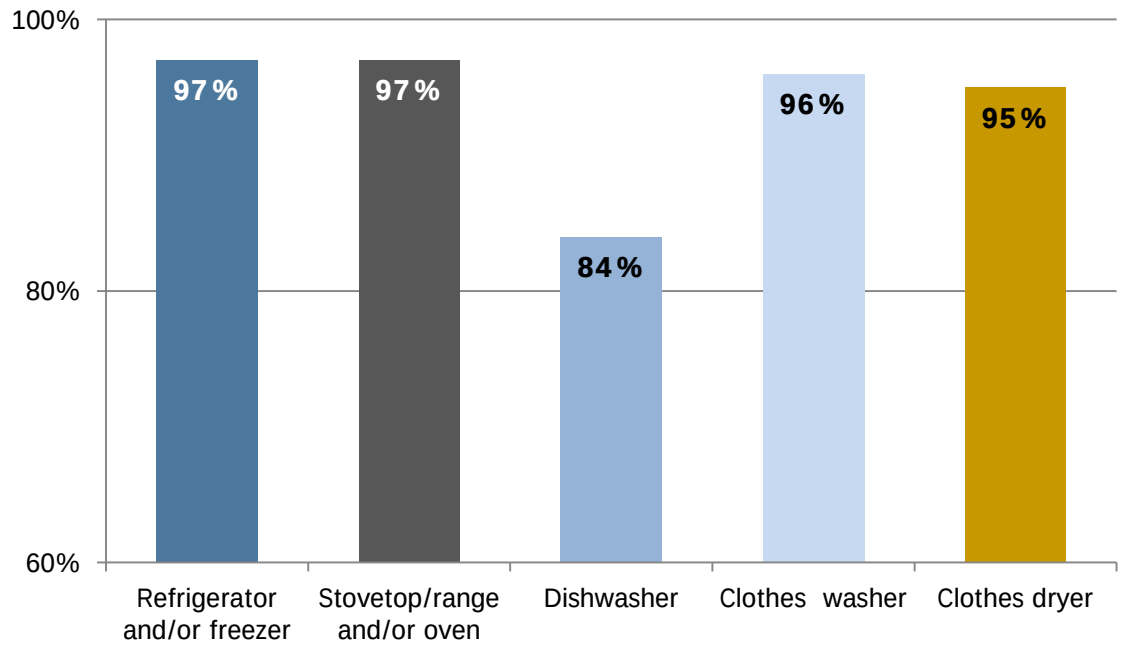


Table 4-2 shows the distribution of space conditioning equipment. Natural gas furnaces (58% in total) are the most common form of space heating, while central air conditioners (90% in total) are the most common form of space cooling used in the service territory.

Table 4-2 Ameren Missouri Residential Customer Use of Heating and Cooling Technology

Heating Equipment	Don't have / Never use	Less than 50% of winter days	More than 50% of winter days
Electric central warm air furnace with ducts/vents to individual rooms	62%	3%	35%
Natural gas central warm air furnace with ducts/vents to individual rooms	42%	0%	58%
Natural gas central boiler with hot water/steam radiators or baseboards in individual rooms	94%	1%	5%
Electric baseboard or electric coils radiant heating	93%	4%	3%
Air-source heat pump	94%	1%	5%
Geothermal heat pump	99%	0%	1%
Wall furnace(s)	98%	1%	1%
Fireplace(s) – wood burning	80%	18%	2%
Fireplace(s) – natural gas burning	83%	14%	3%
Wood burning stove(s)	96%	3%	1%
Wall-mounted space heater(s)	98%	1%	0%
Portable space heater(s)	71%	27%	2%
Other	0%	1%	1%
Cooling Equipment	**Don't have / Never use**	**Less than 50% of summer days**	**More than 50% of summer days**
Central air conditioner	9%	1%	90%
One or more room air conditioners mounted in or near a window or on a wall	91%	6%	3%
Air-source heat pump	95%	1%	4%
Geothermal heat pump	99%	0%	1%
One or more portable room air conditioners	97%	2%	1%
One or more portable dehumidifiers	92%	8%	0%
One or more ceiling, window, or room fans	50%	50%	1%
Whole-house fan	96%	4%	0%
Attic fan	84%	16%	0%
Other	0%	1%	0%

Table 4-3 provides water heating findings. The typical water heater in the service territory is a conventional tank under 55 gallons in size. Electricity is reported as the fuel for nearly half of the water heating units.

Table 4-3 Ameren Missouri Residential Customer Use of Water Heater Technology

Water Heater Type	Residential Total
Conventional water heater with storage tank	95%
Tankless water heater	1%
Heat pump water heater	1%
Not sure	3%

Fuel Type	Residential Total
Natural gas	45%
Electricity	48%
Propane	1%
Not sure	5%

Tank Size *(of conventional water heaters)*	Residential Total
Under 55 gallons	59%
55 gallons or more	24%
Not sure	18%

For lighting, as shown in Table 4-4, these homes report having an average of 45.4 lamps of one variety or another, mostly composed of traditional incandescent light bulbs (23.5 per home) or compact fluorescent lamps (CFLs) (11.7 per home). Consistent with expectations, the number of lamps per home goes up with household size, with 27 on average in homes with 1,500 or fewer square feet in space, and 72.6 in homes with 2,500 or more square feet.

Table 4-4 Ameren Missouri Residential Customer Use of Indoor Lighting Technology by Bulb Type and House Size

House Square Footage	Conventional light bulbs /Incandescent lamps (mean)	Compact fluorescent lamps (CFLs) (mean)	Tubular fluorescent lamps (mean)	Halogen light bulbs (mean)	LED light bulbs (mean)	Low voltage lamps (mean)	Other types of lighting (mean)	Total (mean)
Less than 1,500 sq. ft.	12.9	8.6	2.6	1.2	0.4	0.8	0.5	27.0
1,500-1,999 sq. ft.	19.0	10.8	3.7	1.4	0.8	1.9	0.4	38.1
2,000-2,499 sq. ft.	22.2	13.1	3.8	1.6	0.4	2.3	0.9	44.1
2,500+ sq. ft.	40.0	14.5	6.7	3.7	1.5	4.9	1.3	72.6
Total	**23.5**	**11.7**	**4.2**	**2.0**	**0.8**	**2.5**	**0.8**	**45.4**

Results regarding electronic equipment appear in Table 4-5. The number of televisions per home still slightly outnumbers computers. The mean total number of televisions per household in the service territory is 3.1, while the number of desktop, laptop, and tablet computers totals 2.5 per household.

Table 4-5 Ameren Missouri Residential Customer Television and Computer Usage

TV Set Type	Number of sets (mean):
Standard Tube TVs	1.0
LCD TVs	1.1
LED TVs	0.6
Plasma TVs	0.3
Rear projection TVs	0.1
Total # of TV sets (mean):	**3.1**

Computer Type	Number of Computers (mean):
Desktops	0.8
Laptops	1.2
Tablets	0.5
Total # of computers (mean):	**2.5**

Population Demographics

Turning to the question of the attributes of the people who live in the surveyed homes, Table 4-6 summarizes findings, including the following:

- The majority tend to live in suburban areas (62%)
- A plurality (29%) have some college education, while equal proportions (25%) have either a Bachelor's degree or Graduate degree
- Only 56% are employed full time, while 22% are retired, and 12% are not currently employed
- Nearly half (43%) have household income of less than $75,000 per year
- Most are white (87%)

Table 4-6 Ameren Missouri Residential Customer Additional Demographics

Type of Community (Q63)	
Urban	14%
Suburban	62%
Rural	25%
Gender (Q64)	
Male	49%
Female	51%
Education (Q65)	
High school or less	20%
Associates, trade school, or some college	29%
Bachelors Degree	25%
Graduate Degree (or professional certification)	25%

Employment Status (Q66)	
Employed full-time	56%
Employed part-time	10%
Retired	22%
Not currently employed/other	12%
Household Income (Q67)	
Less than $30,000	12%
$30,000-$49,999	15%
$50,000-$74,999	16%
$75,999-$99,999	12%
$100,000 or more	22%
Prefer not to say	24%

Ethnicity (Q72)	
White, Caucasian	87%
Black, African American, Caribbean American	4%
Asian	1%
Hispanic, Latino	1%
Other	1%
Prefer not to say	6%

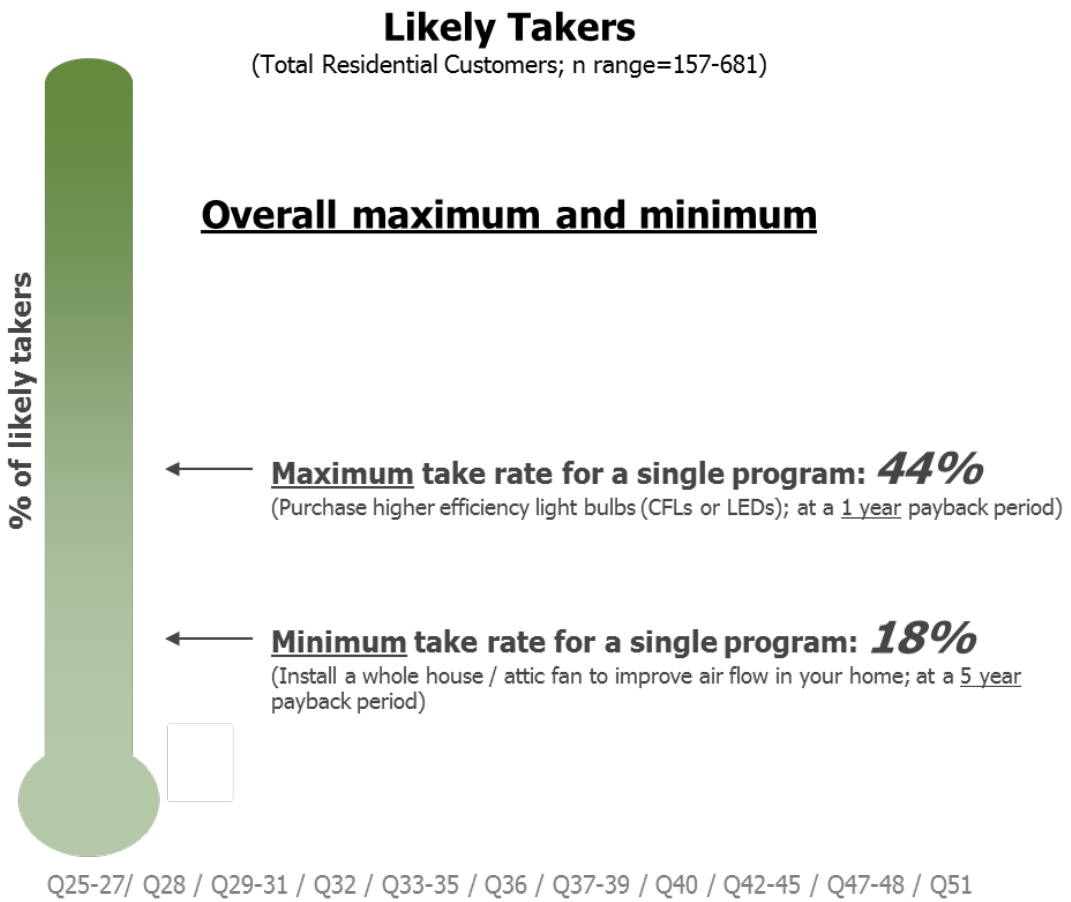
RESIDENTIAL TAKE RATES

This chapter presents the project team's best estimate of the most likely proportion of residential customers who would actively sign up for each program, given that they were eligible to do so, and were fully aware of the program and its potential benefits for them. These values, referred to as take rates, have been adjusted using the say / do adjustment model described in Chapter 3.

A total of 28 different DSM measures were tested in the survey, 22 of which involved actions that had some cost associated with them. Three other options had no cost attached (e.g., reducing hot water temperature) and the remaining three options explored likelihood to purchase an energy efficient model over a standard efficiency model if provided an incentive by Ameren Missouri that would completely eliminate the price difference between the two models.

The range of take rates across the full range of programs and measures tested spans from a low of around one-fifth of all eligible customers to a high of 44% of all eligible customers, as illustrated in Figure 5-1.

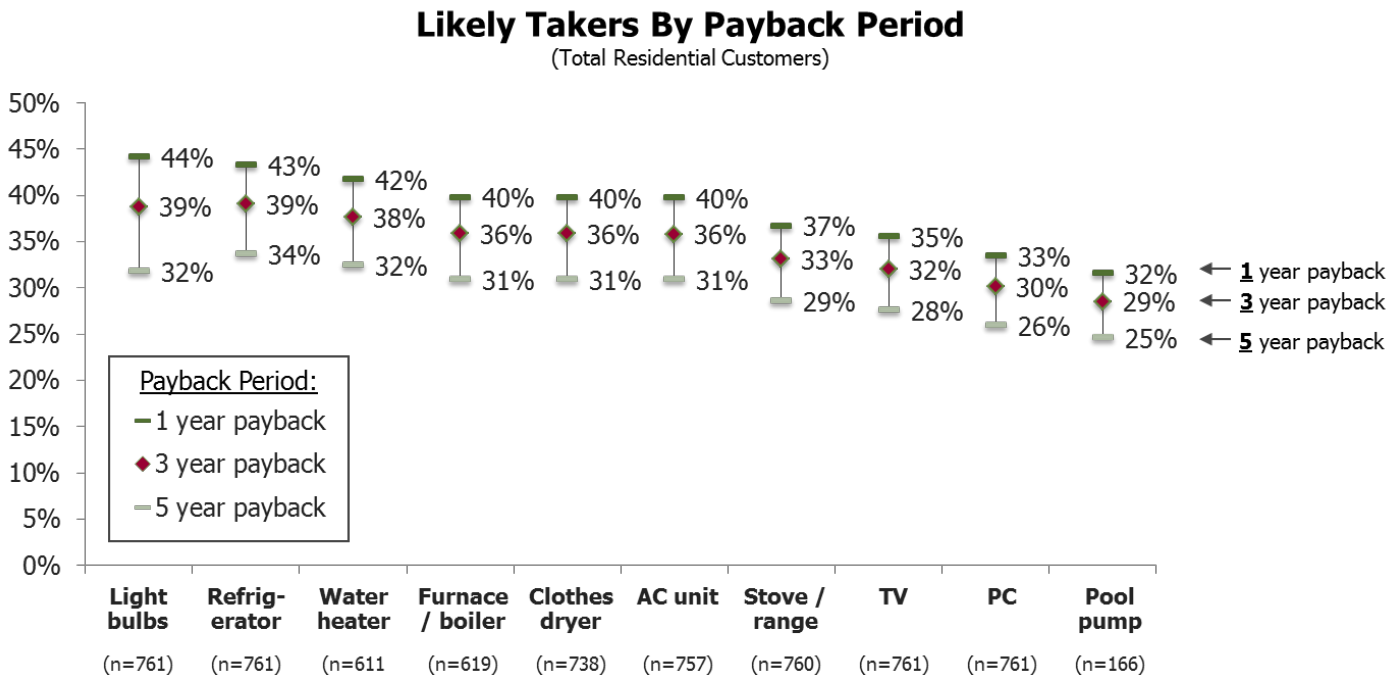
Figure 5-1 Maximum and Minimum Residential Take Rates



Energy Efficiency Take Rates

The first category of EE measures that were explored involves purchasing higher than standard efficiency appliances within the context of a normal replacement cycle. Figure 5-2 shows that within the ten appliances or end uses considered, light bulbs and refrigerators were the technologies that residential customers are most likely to upgrade to a higher-efficiency option at each payback period level. For light bulbs, this is largely due to the "regular purchase" adjustment for this product category. Across the other technologies, the take rates don't differ greatly, ranging from a high of 42% to a low of 32% at a one-year payback level. As expected, take rates are higher for lower payback periods.

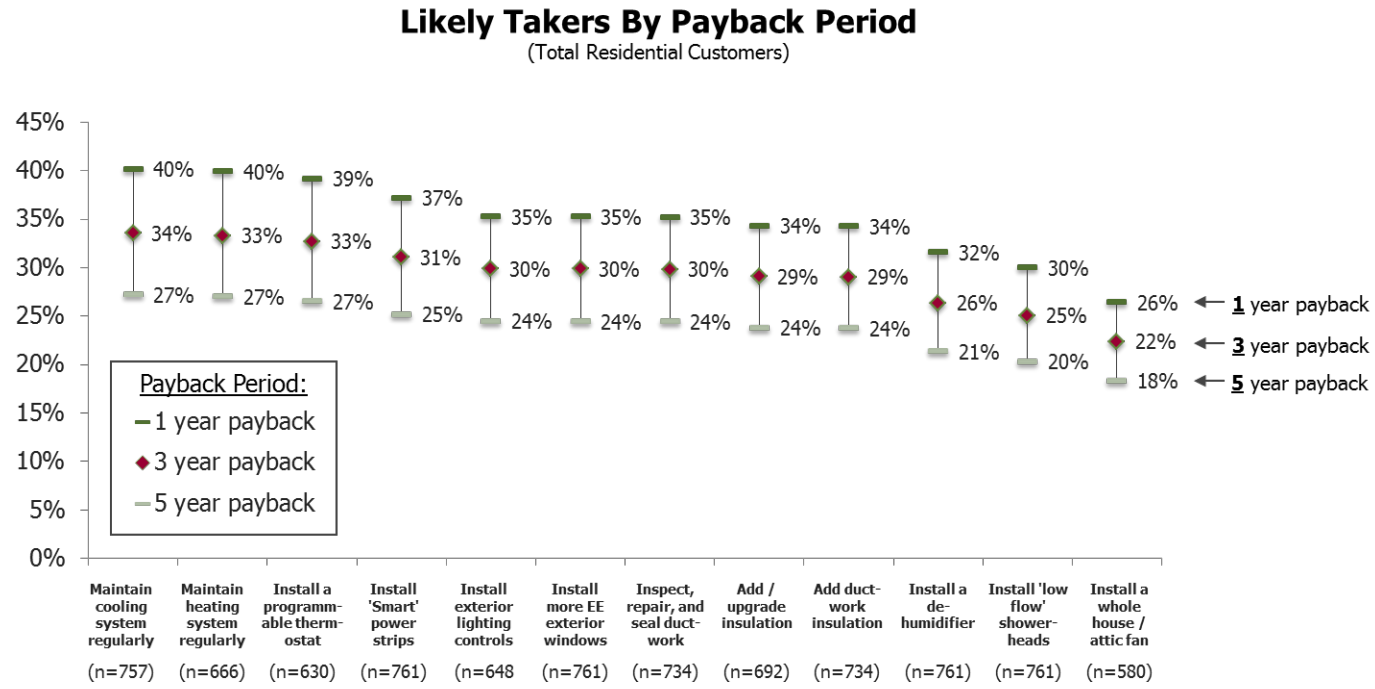
*Figure 5-2 Residential Measures for Purchasing / Installing Energy-Efficient Equipment**



Q25-27/Q28/Q33/-35/Q37-39
*Note: Assumes a normal replacement cycle

Among a dozen options having to do with envelope upgrades or improved maintenance, as indicated in Figure 5-3, residential customers indicate a slightly higher likelihood to maintain cooling or heating systems. Once again, the take rates only differ somewhat across these options, moving from a high of 40% for regularly maintaining the home's cooling system at a one-year payback to a low of 26% at the same payback level for installing a whole house fan.

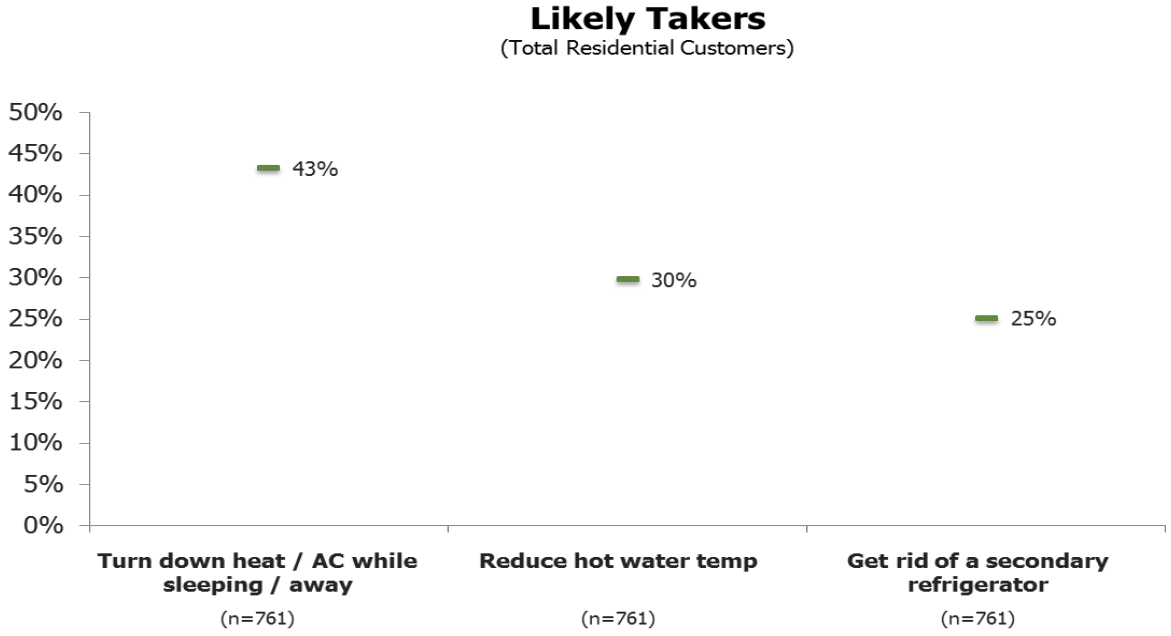
Figure 5-3 Residential Measures for Improving Energy Efficiency of Existing Systems



Q25-27/Q28/Q33/-35/Q37-39

Another group of measures tested includes energy conservation measures that do not require any up-front investment on the part of the customer. As such, these measures, shown in Figure 5-4, are not associated with different payback periods.

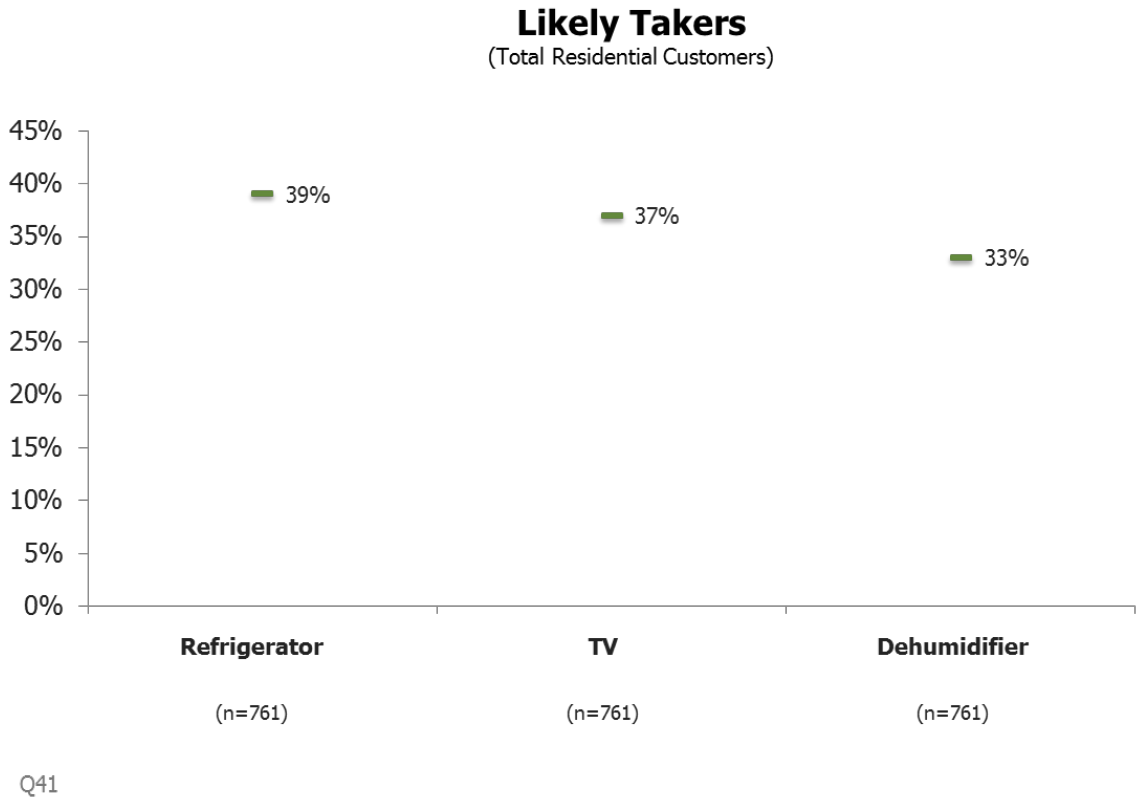
Figure 5-4 Residential Measures Not Requiring an Investment by the Customer (and Not Involving a Payback Period)



Q40

A new set of measures were tested to explore likelihood to upgrade to an energy efficient model over a standard efficiency model if provided an incentive by Ameren Missouri that would completely eliminate the price difference between the two models. Comparing the results in Figure 5-5 with those show previously in Figure 5-2, we see that respondents were equally likely to upgrade to an EE refrigerator if offered the cost difference incentive as they would be at a 3-year payback period. They were slightly more likely to purchase an EE TV or dehumidifier when offered the cost difference incentive compared to a 3-year payback period.

Figure 5-5 Residential Measures for Which Incentive Would Completely Eliminate the Price Difference



Some subtle differences exist in the mean take rates among various demographic groups (Figure 5-6). Groups exhibiting the higher opportunity than their counterparts include:

- Individuals between ages 35 and 54
- Individuals living in urban areas
- Households with greater than $30,000 in annual income
- Individuals having gone to graduate/professional school
- Females

Figure 5-6 Likely Takers by Demographic Differences

Demand Response and Pricing Take Rates:

A set of demand response and rate design programs were also tested. Customers were asked to state their likelihood of participating in various types of rate options, including programs in which:

- Rates would vary by a few time periods every day (TOU)
- Rates would vary by hour every day (RTP)
- Rates would vary only on the hottest days of the summer (CPP)
- Customers would earn an incentive for reducing their usage on the hottest days of the summer (PTR)

These programs were also tested with bill protection options. While take rates don't differ greatly across the programs, going from a high of 33% to a low of 24%, respondents expressed the greatest interest in TOU with bill protection and PTR options.

Figure 5-7 Residential Potential Demand Response Programs and Rate Designs

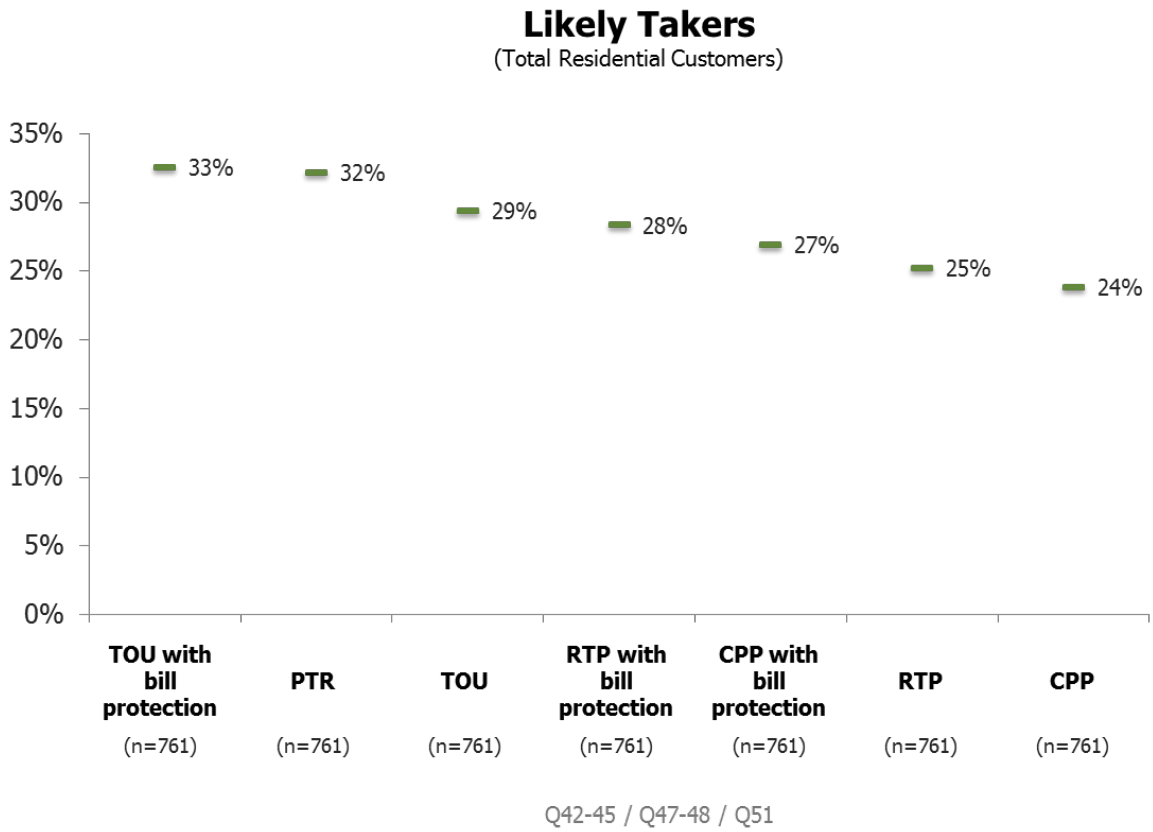


Figure 5-8 and Figure 5-9 show respondents' preferences among various rate options. When asked which whether they prefer, TOU or RTP, the majority prefer TOU, with somewhat less preferring both equally. Very few prefer RTP over TOU. Respondents were also asked to state their preference between TOU/RTP-type rate programs and a CPP-type program, and stated a preference for the former in which rates would vary by hour or time periods every day. However, nearly as many said that they prefer both types of rate programs equally.

Figure 5-8 Residential Preferred Type of Electricity Rate: TOU vs. RTP

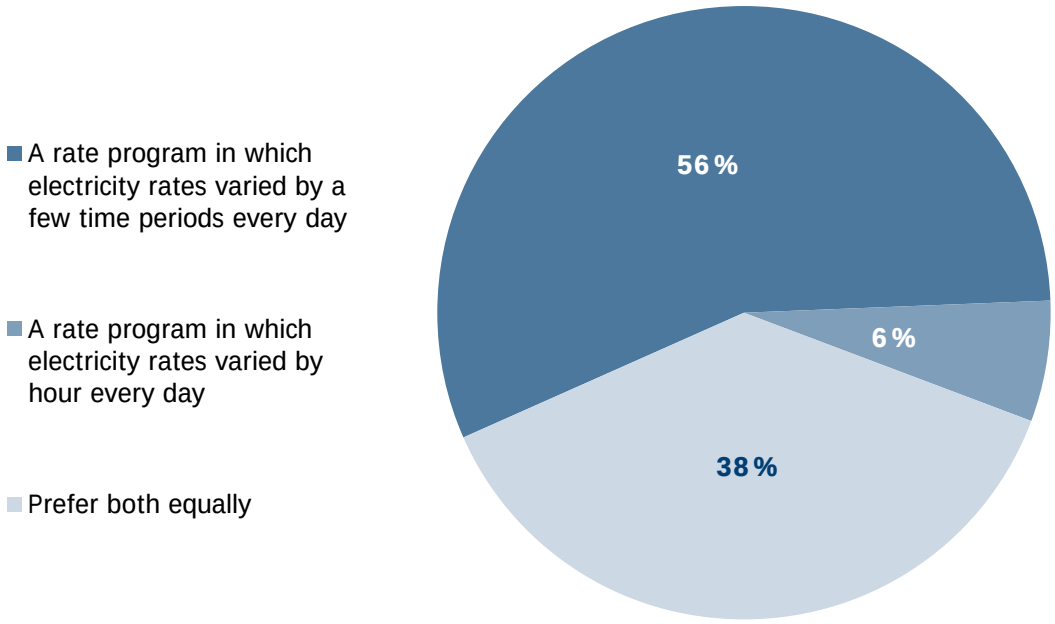


Figure 5-9 Residential Preferred Type of Electricity Rate: TOU/RTP vs. CPP

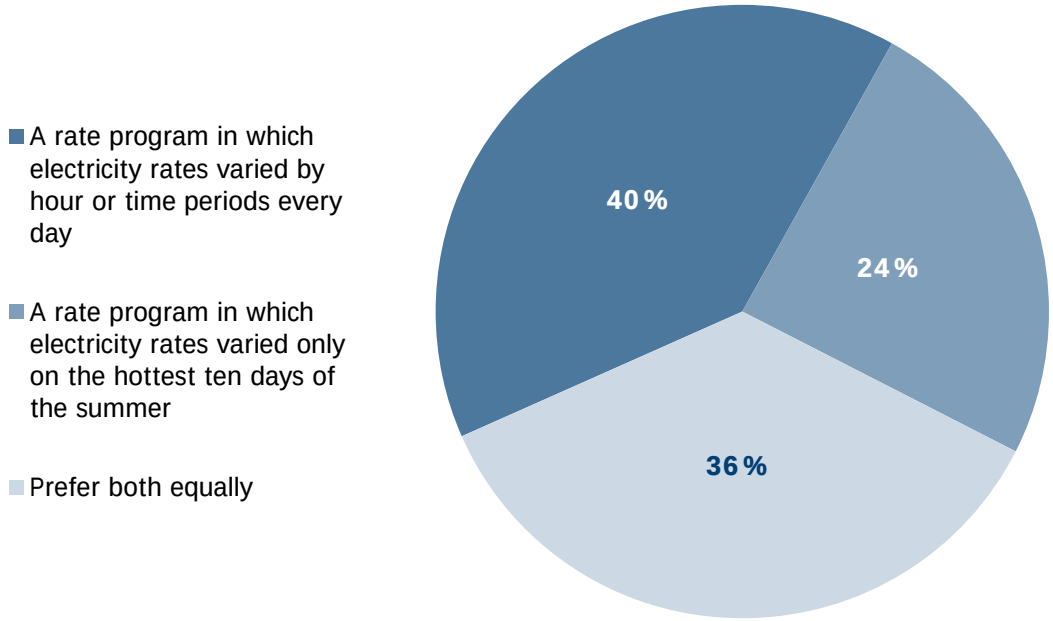


Table 5-1 looks at the percentage of respondents who are likely takers for various measures. Considering all of the measures tested, the group of measures with the highest adoption rates is comprised almost entirely of measures associated with purchasing or installing energy efficient equipment. This is likely because they are based on a normal replacement cycle, and thus the measures in the "Purchasing / Installing Energy Efficient Equipment" group are among those that take the least amount of additional effort to implement, especially in comparison to the measures with the lowest take rates.

Table 5-1 Opportunities for Residential Measures, High to Low

Measures: Highest Opportunity	Likely Takers @ 3-yr Payback (or payback irrelevant for *No Upfront Investment Measures)* (n range=166-761)	Measures for
Turn down the heating or cooling while sleeping/away from home[2]	43%	No Upfront Investment
Purchase an EE refrigerator *(price difference eliminated by Ameren)*	39%	Price Difference Eliminated by Ameren
Purchase an EE refrigerator[3]	39%	Purchasing / Installing EE Equipment
Purchase EE light bulbs[2]	39%	Purchasing / Installing EE Equipment
Purchase an EE water heater[2]	38%	Purchasing / Installing EE Equipment
Purchase an EE television *(price difference eliminated by Ameren)*	37%	Price Difference Eliminated by Ameren
Purchase an EE furnace / boiler[2]	36%	Purchasing / Installing EE Equipment
Purchase an EE clothes dryer[2]	36%	Purchasing / Installing EE Equipment
Purchase an EE air conditioner[2]	36%	Purchasing / Installing EE Equipment
Measures: Middle Opportunity	**Likely Takers @ 3-yr Payback (n range=166-761)**	**Measures for:**
Maintain cooling system regularly	34%	Improving EE of Existing Systems
Maintain heating system regularly	33%	Improving EE of Existing Systems
Purchase an EE stovetop or range[2]	33%	Purchasing / Installing EE Equipment
Purchase an EE dehumidifier *(price difference eliminated by Ameren)*	33%	Price Difference Eliminated by Ameren
Install a programmable thermostat	33%	Improving EE of Existing Systems
TOU with bill protection	33%	DR Programs and Rate Designs
PTR	32%	DR Programs and Rate Designs
Purchase an EE television[2]	32%	Purchasing / Installing EE Equipment
Install 'Smart' power strips	31%	Purchasing / Installing EE Equipment
Purchase an EE personal computer[2]	30%	Purchasing / Installing EE Equipment
Install exterior lighting controls	30%	Improving EE of Existing Systems
Install more EE exterior windows	30%	Improving EE of Existing Systems
Inspect / repair HVAC ductwork	30%	Improving EE of Existing Systems
Reduce water heater temperature[1]	30%	No Upfront Investment

[2] No Payback period associated with measure
[3] Assumes a normal replacement cycle

Table 5-1 Opportunities for Residential Measures, High to Low (continued)

Measures: Lowest Opportunity	Likely Takers @ 3-yr Payback (n range=166-761)	Measures for:
TOU	29%	DR Programs and Rate Designs
Add / upgrade home insulation	29%	Improving EE of Existing Systems
Add HVAC ductwork insulation	29%	Improving EE of Existing Systems
Swimming pool pump	29%	Improving EE of Existing Systems
RTP with bill protection	28%	DR Programs and Rate Designs
CPP with bill protection	27%	DR Programs and Rate Designs
Install a dehumidifier	26%	Improving EE of Existing Systems
RTP	25%	DR Programs and Rate Designs
Get rid of a secondary refrigerator[1]	25%	No Upfront Investment
Install 'low flow' showerheads	25%	Improving EE of Existing Systems
CPP	24%	DR Programs and Rate Designs
Install a whole house / attic fan	22%	Improving EE of Existing Systems

Table 5-2 examines the differences between groups exhibiting the highest and lowest opportunity for new EE programs. The only demographic difference is that the Likely Takers group is significantly more likely to include homeowners. More striking differences in the mean take rate, however, relate to attitudinal differences. Unsurprisingly, customers who have highly "green" and/or highly cost-savings-focused attitudes consistently show much higher likelihoods to adopt energy efficiency measures. Another key factor in likelihood to adopt energy efficiency measures is the degree to which customers have favorable opinions of Ameren Missouri. Customers who have more favorable opinions about Ameren Missouri consistently show much higher likelihoods to adopt energy efficiency measures.

Table 5-2 Summary of Likely vs. Unlikely EE Takers, Residential

	Likely EE Takers	Unlikely EE Takers
Household Energy Usage & Attitudes	• Higher on all positive EE attitudes and more focused on actively reducing energy usage • Taking significantly more EE actions on a consistent basis • Using significantly more CFLs	• Generally less focused on reducing energy usage • Only a quarter strongly agree that the threat from global warming is real and significant
Perceptions of Ameren Missouri	• Significantly more satisfied with Ameren Missouri • Significantly more likely to perceive Ameren Missouri as a credible information source for EE and as a company that actively promotes cost-saving programs • Higher ratings on importance of Ameren Missouri pursuing EE efforts • Think it's important that Ameren Missouri do both: keep costs low and support EE measures	• Believe keeping costs low should be the top priority for Ameren Missouri
Demographics	• More likely to be homeowners	• Vast majority homeowners, but significantly more renters than Likely EE Takers

For new DR programs, Table 5-3 shows how the likely and unlikely taker groups exhibit the same basic attitudes toward energy efficiency and Ameren Missouri as described above for EE likely and unlikely takers, but two key differences emerge:

- Unlikely Takers are more likely to be female
- Unlikely Takers are significantly more likely to have a member of the household who is home during the day

This latter difference, in particular, speaks to a perceived inability to adjust to aspects of the DR programs.

Table 5-3 Summary of Likely vs. Unlikely DR Takers, Residential

	Likely DR Takers	Unlikely DR Takers
Household Energy Usage & Attitudes	• Higher on all positive EE attitudes and more focused on actively reducing energy usage • Taking significantly more EE actions on a consistent basis	• Significantly more likely to have someone home during the day
Perceptions of Ameren Missouri	• Significantly more likely to perceive Ameren Missouri as a credible information source for EE • Higher ratings on importance of Ameren Missouri pursuing EE efforts • Think it's important that Ameren Missouri do both: keep costs low and support EE measures	• Believe keeping costs low should be the top priority for Ameren Missouri
Demographics	• More likely to be male • Majority live in the suburbs, but Likely DR Takers are significantly more likely than Unlikely Takers to live in an urban area	• More likely to be female

Summary: Overall Response to EE Programs by Ameren Missouri Residential Customers

As the preceding pages have suggested, it appears that psychographic factors (attitudes) have a larger impact on customer response to tested EE and DR programs than do demographic differences. In other words, how customers think about Ameren Missouri and energy efficiency in general is likely to be much more important in predicting how they will respond to new EE and DR programs offered by the company, than will differences in how they are situated (where they live or how large is their income). This is important for two reasons:

- It may explain why the overall take rates for Ameren Missouri's programs are lower than they are for those observed at many other US utilities.
- It is even more important to understand the impact of customer attitudes by understanding psychographic segments, which can help identify the confluence of attitudes and concerns that map to differences in overall reaction to potential Ameren Missouri EE and DR programs.

The segmentation analysis in the following section focuses on these issues.

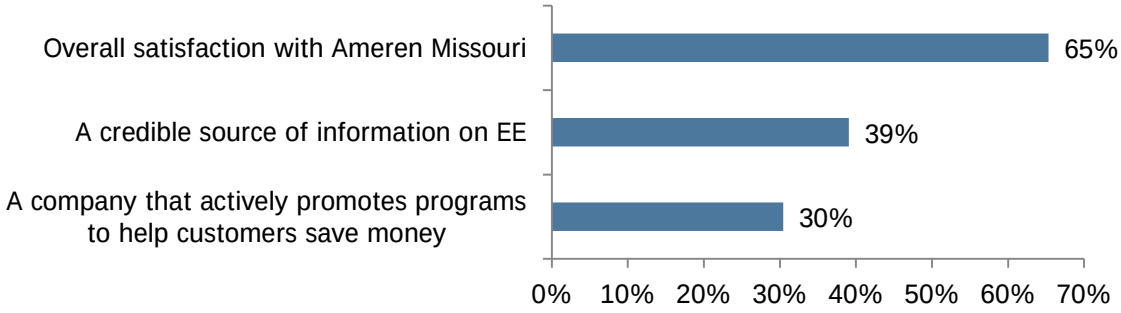
RESIDENTIAL CUSTOMER PERSPECTIVES ON ENERGY ISSUES

To understand what lies beneath customer reaction to new EE and DR options that might be offered by Ameren Missouri, it is worth exploring overall customer perspectives, both toward the company and toward energy issues as a whole. These characteristics can then be used to group customers into descriptive segments with common attitudes. For each segment group thus defined, we suggest what marketing messages may resonate and the role that Ameren Missouri can play in working with these customers. We also provide information the percentage of each segment that are likely takers for the various EE and DR measures or programs analyzed in the research.

Understanding Overall Customer Opinions of Ameren Missouri

We begin this section by exploring overall customer perspectives toward Ameren Missouri, as reported in Figure 6-1. In terms of their overall opinion toward the company, more than two-thirds (65%)[4] give the company a top-three box rating (8–10 on a 10-point scale) on overall satisfaction. On the more specific attributes relating to the company's activity and credibility in promoting and providing information about energy efficiency, fewer people (and less than half) give the company top-three box ratings.

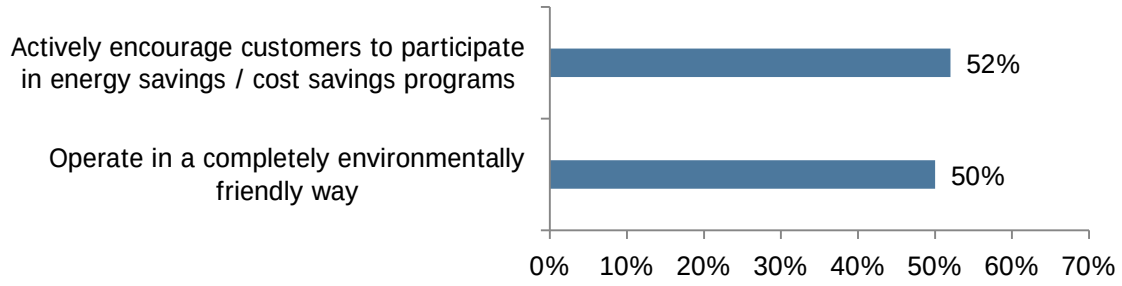
Figure 6-1 Residential, Overall Ratings of Ameren Missouri (Ratings of 8–10 on 10-pt. scale)



Turning to the question of whether or not Ameren Missouri **should** promote energy efficiency and/or greener energy options, the results displayed in Figure 6-2 suggest that a majority of customers do support this activity. A total of 52% believe the company should "actively encourage" customers to participate in energy / cost savings programs, while half (50%) say the company should operate in a "completely environmentally friendly way."

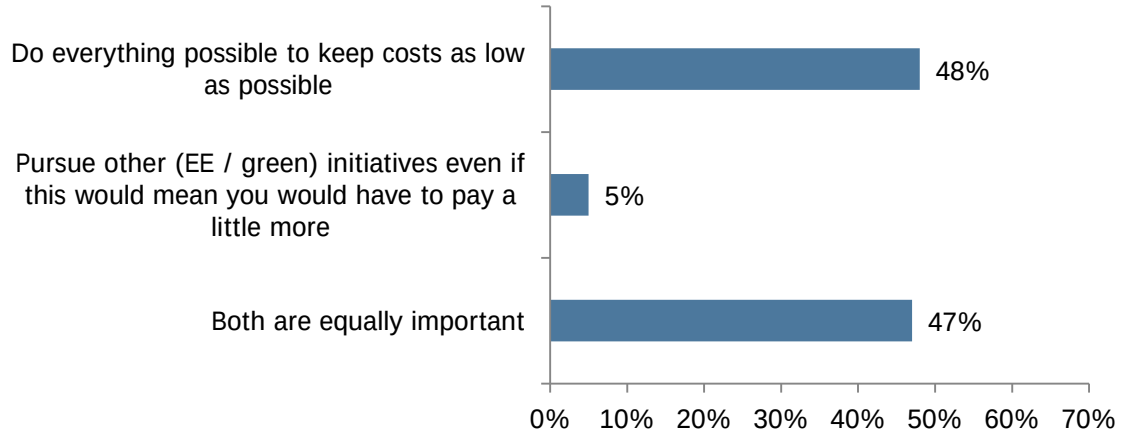
[4] Note that this compares to a 53% top-three-box rating for Ameren Missouri that we observed in similar research conducted in July 2009.

Figure 6-2 Residential Ratings of Ameren Missouri on EE-Specific Issues (Ratings of 8–10 on 10-pt. scale)



Note, however, that while Ameren Missouri customers appear to support EE and green-focused activities by the company in the abstract, **they do not want** these activities to cost them more. Figure 6-3 shows that when customers are asked a forced choice question, half say that the company should do everything possible to keep costs as low as possible, while only 5% say the company should pursue EE or green options if doing so would mean customers would have to pay a little more. The remainder of the population wants both things at the same time (to keep costs as low as possible **and** to pursue these other initiatives).

Figure 6-3 Residential Responses to Forced Choice Question on EE / Green vs. Cost Options



Understanding Customer Perspectives on Energy Issues

To provide additional context and understanding concerning why customers, are — or are not — interested in implementing a variety of EE measures, the research team explored customer thinking across a variety of background energy issues. These specific questions covered the following issues:

- How customers think about using energy in their homes (how much they think about energy costs, for example, or the relative importance of comfort vs. cost)
- What is important to them as they evaluate new appliances (initial cost vs. operating cost savings, for example)
- How they shop for new appliances

We conducted what is called a factor analysis of all of the attitudinal items included in these different sections of the questionnaire. Factor analysis allows us to understand how customers organize their thinking about energy issues by grouping together the questionnaire items that customers evaluate similarly.

The first block of items that customers tend to rate similarly, suggesting that they see these items as addressing the same or at least very similar issues, are questions that asked them to rate the importance of / agreement with:

- The total amount of money that a product or service would cost
- Any cost savings you might see from using the product
- The features and functions included with the product
- Saving money on energy costs is something you focus on every day

This finding suggests that customers tend to aggregate together all of the cost related issues as similarly important, and further, they tend to link in feature functionality as tied to cost.

Besides this first bundle of customer perspectives on energy issues, which we might label as "cost focus," the findings suggest that five other factors or bundles can be defined in relation to customer opinions on these issues. These include:

High quality / tech products. The items aggregated here include expressed preferences for high quality and innovative products that help customers live more comfortably. What is perhaps most interesting is that having a product labeled as energy efficient or ENERGY STAR is viewed as fitting in with this bundle of attributes.

Importance of conservation. The questionnaire items that were aggregated together in this bundle of opinions included those related to concern about the threat of global warming, and any environmental effects from using products, but also items that indicated a lack of confidence in the impact of energy efficiency / conservation: that there isn't much they can do to save money on energy costs, and they just want to be left alone to use energy however they prefer in their homes.

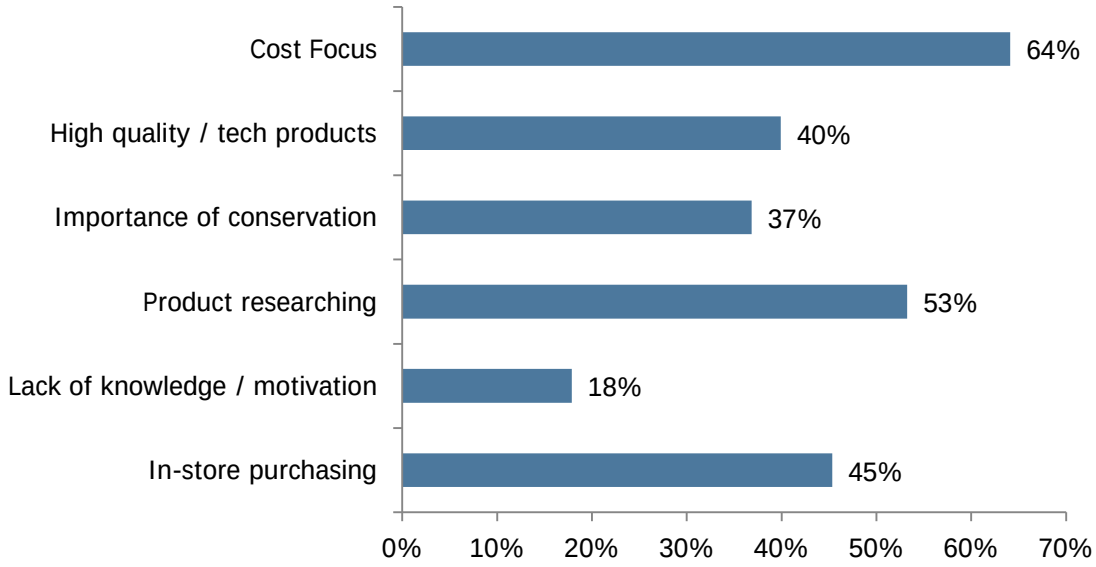
Product researching. Customers also reacted similarly to items that had to do with descriptions of themselves as taking the time to research and shop carefully for products. Also included in this grouping were items that described the respondent as living in a do-it-yourself sort of household, and in a household that tended to only buy things when they were on sale.

Lack of knowledge / motivation. Customers also rated similarly statements items that described the respondent as willing to do more to make their home more efficient, but not knowing where to start, and feeling like there wasn't much they could do to save money on energy costs.

In-store purchasing. Finally, customers answered a questionnaire item indicating the desire to purchase products in a physical store, rather than on the internet, by itself.

Having defined these bundles into which customers organized their responses, the next step is to consider how these bundles are rated as most important or descriptive of Ameren Missouri customers. Figure 6-4 indicates that customers most commonly rated the items in the "cost focus" bundle as most important to them, followed by the "product researching" bundle. The question bundles having to do with not valuing energy conservation or having a lack of knowledge about what to do to conserve energy were rated as least important or descriptive of them.

Figure 6-4 Residential Average Importance / Agreement for Top Items in Each Attitude Bundle

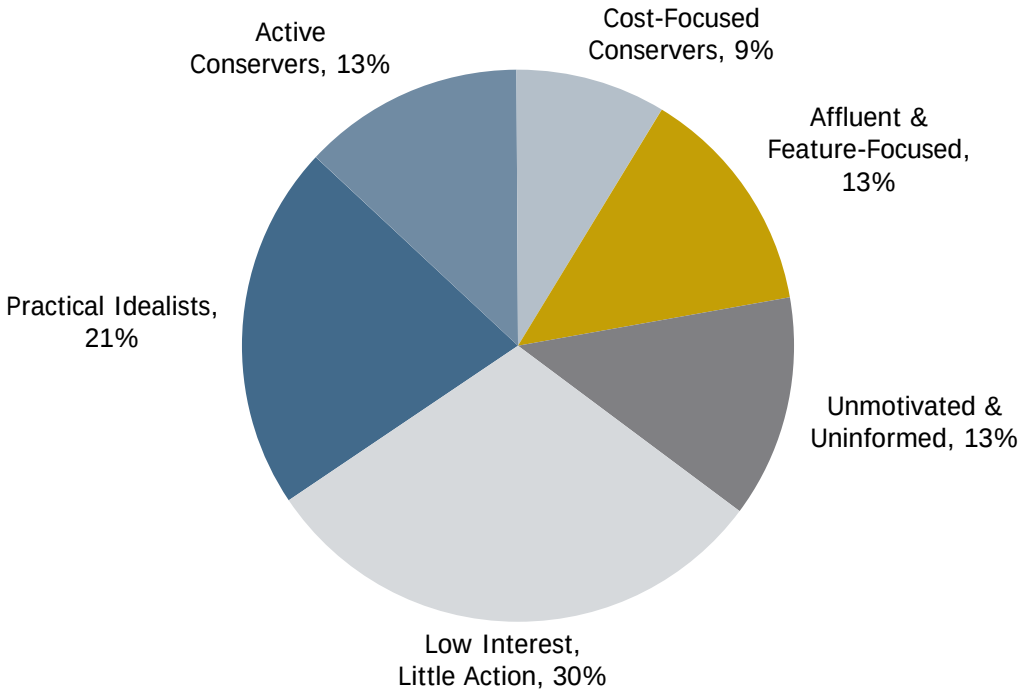


Exploring Customer Segments

So far, our analysis of customer perspectives on energy issues has only considered customers as a whole. Customers differ, however, and this section of the report explores key divisions that exist within the residential customer base. Specifically, the team developed a segmentation model that disaggregated residential customers into groups that differ in terms of whether, and why, they might be interested in pursuing energy efficiency options. The goal of the segmentation analysis was to define customer groups that Ameren Missouri can use to prioritize customer targets for EE program marketing and to develop targeted messages for each of those segments.

Using a variety of attitudinal and behavioral inputs (see the discussion earlier in this report), the team identified a set of six residential customer segments that best represent the differences in this population on these issues. The segment and their sizes are outlined in Figure 6-5.

Figure 6-5 Residential Segment Distribution



Summary descriptions for each of the segments follow.

Practical Idealists (21%) are concerned with conserving energy, both from a cost focus and an environmental perspective. They are technology and feature oriented when considering appliance purchases, but they also say they research options and compare prices. With higher education levels and higher income, they also have the largest homes, though with only average total annual kWh usage. Their familiarity, and experience with EE / conservation measures tends to be high, and they are very likely to say that they would adopt new EE / conservation measures.

Active Conservers (13%) are the group that is the most informed, and most active, when it comes to EE / conservation. Saving costs on energy usage is something they focus on daily, and ongoing cost savings are the most important feature they consider when making energy/appliance related purchases. They have above average education and income, and average annual kWh usage. They are likely to say that they would adopt new EE / conservation measures.

Cost-focused Conservers (9%) are informed about conservation / EE measures, but for cost reasons rather than environmental reasons. This group believes in the value of EE as a way to save money, and has taken many prior EE actions. They would prefer the company reduce rates than spend money on EE or green options. They have the highest proportion of retirees, are the most likely segment to have someone at home during the day, and the second highest average kWh. They have moderate interest in participating in new EE / conservation options.

Affluent & Feature-Focused (13%) are positive in their overall assessment of Ameren Missouri, but feel the company should not prioritize green options for its customers over trying to keep costs as low as possible. This group is relatively uninformed and inexperienced when it comes to EE / conservation, though they prioritize functionality and high-tech features when considering new appliances. They tend to live in average-sized homes, but have the highest annual kWh levels, along with higher than average educations and the highest income among the segments. They are moderate on their likelihood to participate in new EE programs.

Unmotivated & Uninformed (13%) are positive toward Ameren Missouri and believe in the importance of saving energy, but they are the most uninformed and inexperienced with EE / conservation measures to-date. Comfort is very important to this group, which has the highest

proportion of seniors and is more likely than not to have someone at home during the day. They have the smallest homes and lowest annual kWh usage, as well as the lowest annual income but above average education levels. They are low on take rates across programs.

Low Interest, Little Action (30%) is a group with very little interest in conservation or EE. This group actively dislikes Ameren Missouri. They do not want the company to encourage customers to save energy, nor do they want it to pursue green options. They do, however, want the company to keep low costs as its sole focus. They have average-sized homes and average kWh levels, with average incomes and somewhat lower levels of education. They are the lowest on likelihood to adopt new EE programs and one of the lowest on existing familiarity / experience with EE / conservation options.

By appropriately prioritizing EE marketing activity and refining communications content to appeal to segment-specific decision drivers, Ameren Missouri will have the greatest opportunity to optimize its EE and DR marketing investments. Table 6-1 provides further information on these groups and marketing messages that are likely to resonate with them. Table 6-2 indicates how Ameren Missouri could prioritize efforts to reach these segments and the role that the company can play in motivating them. In particular, we note the following:

- Two groups — Practical Idealists and Active Conservers — account for 34% of all customers and represent the best targets for EE programs. While they have different reasons for considering EE measure adoption, they are indeed inclined to take these actions, and have more experience implementing other, similar actions in the past.
- Two groups — Cost-Focused Conservers and Affluent & Feature-Focused — account for 22% of all residential customers and are open to the idea of adopting new EE measures, but will require unique approaches in order to convince / enable these groups to implement much in the way of new EE measures.
- The final two groups — Unmotivated & Uninformed and Low Interest, Little Action — account for 43% of all residential customers and represent the least attractive targets for the adoption of new EE measures. For their own reasons, these two groups are the least likely to consider new EE actions.

Table 6-3 shows the percentage of each segment that are likely takers for the various EE and DR measures or programs analyzed in the research.

Residential Segments – Changes Over Time

When a similar study was conducted in 2009, the residential customer base was segmented into six segments: Green Idealists (13%), Cost-Focused Conservers (7%), Practical Idealists (23%), Affluent Conservers (27%), Comfort is King (16%), and Low Interest, Little Action (15%). In comparing the 2009 segmentation with the 2013 segmentation, it's clear that customer attitudes have shifted over time. Three of the current customer segments overlap with the segments from the 2009 study: Cost-Focused Conservers, Practical Idealists, and Low Interest, Little Action, but while the Cost-Focused Conserver and Practical Idealist segments have stayed roughly the same size, the Low Interest, Little Action segment has doubled — a concerning shift given the analysis finds that segment to be the least appealing target for Ameren Missouri. Green Idealists appear to have morphed into Active Conservers, heeding the call to do more and remaining an extremely attractive target for Ameren Missouri.

Two new segments have emerged: Affluent & Feature-Focused and Unmotivated & Uninformed, replacing the Affluent Conservers and Comfort as King segments. Affluent respondents appear to have become less concerned with saving money since 2009, perhaps a reflection of the improvements in the economy.

Table 6-1 Residential Segment Marketing

Segment	Marketing Effort	Potential Load Impact	Receptivity to Future Conservation Programs	Going Forward
Practical Idealists (21%)	Receptive to messages on both the positive environmental impact of EE / conservation, as well as cost-savings – plus satisfaction with Ameren Missouri is high, making them likely to trust their utility as a reliable source for energy efficiency suggestions.	Home size is large, but annual kWh usage is average, suggesting that this segment is probably already relatively efficient in its use of energy. However, given a large number of end uses that could be impacted and stated desire to do more, there is likely to be opportunity for additional efficiency gains. As one of the wealthier segments, they also may have income to invest more aggressively in EE	Projected take rates are the highest here of any of the other segments. Also note that high opinions of Ameren Missouri would likely make them more receptive to further education/ encouragement on the benefits of participating in new EE options.	They are already inclined to take EE actions – and they have already made some EE changes. Encouraging them to do more may just mean helping them to find the opportunity.
Active Conservers (13%)	Also receptive to messages on both the positive environmental impact of EE / conservation and cost-savings, this group is likely already participating in EE programs through Ameren Missouri and open to doing more.	Home size and annual kWh are both average, but this group is already doing quite a bit to conserve. The challenge will be convincing and enabling them to do even more.	Take rates are high for this segment, and given their past/current participation in Ameren Missouri programs, their receptivity to new options is likely high as well – particularly if those options will result in long-term / ongoing cost savings.	They are extremely active in taking EE measures and are likely to continue to look to Ameren Missouri for assistance in saving both energy and costs.
Cost-Focused Conservers (9%)	This is a challenging segment because they appear to be green, but are not deeply so. They focus on saving energy daily, but purely for cost reasons. They are moderately favorable toward Ameren Missouri, whom they want to do everything they can to keep energy costs low, regardless of EE / conservation efforts.	This group has the 2nd highest annual kWh use. Having said that, they are quite familiar with EE and conservation actions and programs, so while there may be opportunity for load reduction, the simple (and low cost) things have probably been done already.	This segment expresses moderate take rates across new EE / load control options. Environmental messages won't have much effect on them, nor will messages that feel like "education" (because they think they are pretty knowledgeable). They likely need to be convinced that such options won't greatly impact their comfort as the majority has someone who is at home during the day.	This group tends to like Ameren Missouri, and thus should be open and receptive to messages about reasons to consider EE / conservation actions. On the other hand, they do not want Ameren Missouri to spend "their" money on helping other customers to save money or to invest in green initiatives that do not benefit them directly.

Table 6-1 Residential Segment Marketing (continued)

Segment	Marketing Effort	Potential Load Impact	Receptivity to Future Conservation Programs	Going Forward
Affluent & Feature-Focused (13%)	This is a somewhat challenging segment for Ameren Missouri. While they have some interest in EE, they have not done much so far, and they are comfortable financially so motivation to cut costs is low. They are broadly favorable to the company and its efforts to help customers save energy (and to green efforts), but are generally unaware as to what they, personally, can be doing.	This group has the highest income and highest annual kWh usage, but is relatively uninformed about EE / conservation issues. They have the most to cut, and the means to invest in doing so in a significant way, so there is substantial opportunity here, if it can be realized.	This group is also somewhat responsive to the EE measures tested, but there will be challenges – largely motivational – in getting them to participate. Education will be key with this group in order to convince them of the importance and benefit of EE.	This group also likes and is satisfied with Ameren Missouri, and would likely be receptive to ongoing education efforts by the company regarding EE and conservation.
Unmotivated & Uninformed (13%)	This segment is broadly positive toward Ameren Missouri, and believes in the importance of EE/conservation – it's just not something they focus on for their own household.	Houses are smallest in size and use the lowest annual kWh. While receptive to new EE programs, the benefit of their participation is likely quite small.	Take rates are low for this segment, and they have little or no interest in saving energy if it costs them any comfort. They are not opposed to saving money, but only if this does not "cost" them in other ways.	This group is relatively uninformed about EE, and while they'd likely be receptive to education given their approval of Ameren Missouri, investing in such efforts would likely yield little return given their already low energy usage.
Little Interest, Little Action (30%)	This segment would likely be the most difficult to market to as they are the least likely to like Ameren Missouri, and the least concerned with environmental issues. Beyond this, they appear to simply be unconcerned with energy issues, appliances, and related issues.	Houses in this segment tend to be average and with average kWh. They have done relatively little to-date in terms of EE measures.	Take rates are the lowest in this group and familiarity / experience with EE is also very low. Given their lack of involvement in this category, it is not clear at all what sort of messaging would be likely to get this group's attention.	While it could be argued that EE education is needed with this group, it is unclear how to get their attention to attend to any type of education.

Table 6-2 Residential Segment Prioritization

	Practical Idealists	Active Conservers	Cost-Focused Conservers	Affluent & Feature-Focused	Unmotivated & Uninformed	Low Interest, Little Action
Size (% of customers)	21%	13%	9%	13%	13%	30%
Opportunity	**High** They have done a lot already, but are open to – and able to – do more	**Medium-High** Experienced in EE - so much so that while motivated to save even more, doing so may be a challenge	**Medium-Low** Eager to save money on energy costs, but having someone home during the day could pose a barrier	**Medium-Low** Large potential to cut energy usage, but low motivation to save - likely due to high incomes	**Low** Already using the least amount of energy, with little need or motivation to participate in EE or DR programs	**Low** No interest in the EE category; "leave me alone"
Role for Ameren Missouri	***Trusted Green Partner:*** They like the company and see Ameren Missouri as having an important role in both EE and promoting green initiatives	***Give Us More*:** Already the most likely to be participating in EE programs, they'll be looking for new opportunities to continue saving	***Help Me:*** They like the company and want it to help them save money, but may need to be convinced doing so is both possible and won't compromise comfort.	***Help Me*:** They like the company but are relatively uninformed about EE issues and don't focus much on cutting costs or usage. Education will likely be key in motivating this segment.	***Doing Okay On My Own:*** Like the company, but not interested in energy issues generally, and see little likely value in EE actions	***Leave Me Alone:*** Don't like the company, don't trust it, and just want to b left alone

Table 6-3 Residential Likely Takers Given a Three-Year Payback Period

	Practical Idealists	Active Conservers	Cost-Focused Conservers	Affluent & Feature-Focused	Unmotivated & Uninformed	Low Interest, Little Action
Size **(% of customers)**	21%	13%	9%	13%	13%	30%
Measures for purchasing/installing energy efficient equipment[5]						
Light bulbs	54%	50%	36%	35%	35%	28%
Refrigerator	49%	45%	38%	40%	37%	30%
Water heater	49%	45%	36%	37%	31%	27%
Furnace / boiler	48%	43%	33%	37%	29%	26%
Clothes dryer	48%	43%	34%	36%	33%	26%
AC unit	48%	45%	32%	37%	30%	26%
Stove / range	46%	41%	31%	34%	28%	23%
TV	45%	40%	27%	33%	27%	22%
PC	43%	38%	27%	30%	27%	20%
Pool pump	38%	32%	19%	35%	22%	21%
Measures for improving energy efficiency of existing systems						
Maintain cooling system regularly	47%	41%	29%	34%	30%	23%
Maintain heating system regularly	47%	39%	30%	32%	30%	23%
Install a programmable thermostat	49%	38%	29%	29%	27%	24%
Install 'Smart' power strips	47%	38%	29%	26%	27%	22%
Install exterior lighting controls	44%	35%	23%	28%	26%	21%
Install more EE exterior windows	43%	35%	26%	29%	22%	23%
Inspect, repair, and seal duct-work	44%	36%	23%	28%	27%	21%
Add / upgrade insulation	44%	32%	27%	26%	23%	21%
Add duct-work insulation	43%	35%	25%	27%	25%	20%
Install a de-humidifier	39%	34%	21%	23%	21%	19%
Install low-flow shower-heads	39%	32%	23%	18%	20%	18%
Install a whole house / attic fan	32%	27%	19%	20%	21%	16%

[5] Assumes a normal replacement cycle

Table 6-3 Residential Likely Takers Given a Three-Year Payback Period (continued)

	Practical Idealists	Active Conservers	Cost-Focused Conservers	Affluent & Feature-Focused	Unmotivated & Uninformed	Low Interest, Little Action
Measures not requiring an investment by the customer						
Turning down the heating/cooling systems while sleeping/away	49%	49%	45%	42%	43%	37%
Reduce water heater temperature	38%	37%	35%	26%	28%	22%
Get rid of secondary refrigerator	33%	29%	23%	20%	27%	20%
Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference						
Purchase a higher than standard efficiency refrigerator	51%	48%	37%	39%	37%	30%
Purchase a higher than standard efficiency television	49%	47%	34%	37%	34%	27%
Purchase a higher than standard efficiency dehumidifier	44%	44%	32%	32%	28%	24%
Measures For Potential Demand Response Programs and Rate Designs						
TOU	39%	34%	25%	28%	28%	23%
TOU with bill protection	41%	37%	26%	33%	30%	27%
RTP	33%	29%	22%	24%	24%	20%
RTP with bill protection	37%	33%	22%	30%	26%	22%
CPP	33%	26%	21%	22%	24%	19%
CPP with bill protection	35%	31%	21%	27%	26%	22%
PTR	40%	38%	29%	32%	32%	25%

BUSINESS SECTOR METHODOLOGY

This section covers business sector sample design, questionnaire development, and data analysis. Data was collected for an additional group of large customers via onsite visits.

Sample Design

The EnerNOC team provided Ameren Missouri with instructions for selecting multiple iterations of independent random samples from within the total Ameren Missouri business customer database. The customer list provided included a variety of information for each commercial customer, including company name, address, annual kWh usage, annual therm usage, division, account number, etc. Contact names of individuals were not provided in the list. The EnerNOC team created a sample design with 124 separate sample cells based on account industry and electric usage, against which survey responses were targeted and monitored. This sample design grid was implemented separately and independently for two surveys, a Program Interest survey and a Saturation survey.

Ameren Missouri generated a total of 47,970 randomly selected company locations. In total, postcard invitations were mailed to 29,950 locations, with 14,856 cards sent for the Program Interest survey and 15,094 sent for the Saturation survey in several different mailing iterations. These postcards were allocated across the desired quota cells and invited respondents to go online and complete a survey. Customers were originally offered a $25 check for completing the survey, but that amount was increased to $50 approximately halfway through fielding in order to increase response to the survey site. Reminder postcards were sent to customer companies in quota cells that had limited sample available. A total of 6,970 reminders were sent across the two studies.

In order to qualify to complete the survey, respondents/companies had to meet the following criteria:

- The site must be a business, or a residence used for a home-operated business
- The respondent must be knowledgeable about decision-making for energy issues for the business at the specified location
- The company must be responsible for the cost of their electricity, and Ameren must be a provider of electricity
- The location must not be only an outdoor structure or facility

A total of 798 Ameren Missouri Business customers completed the Program Interest survey, while 800 completed the Saturation survey. Approximately 86% and 85% of those who attempted to complete the Program Interest and Saturation surveys respectively qualified based on applying the criteria above. The overall net response rate was approximately 8% across the surveys. Approximately 21% of those who started the surveys abandoned them before completing the survey. The average online survey length was approximately 29 minutes.

Questionnaires

The **Program Interest** questionnaire was designed to cover multiple content areas, including:

1. Screening questions
2. Customer energy needs
3. Basic energy usage

4. Attitudes toward energy usage
5. Energy efficiency measures already taken
6. Purchasing attitudes / behavior & environmental attitudes
7. Interest in potential energy efficiency measures offered by Ameren Missouri

The **Saturation** questionnaire was designed to cover multiple content areas, including:

1. Screening questions
2. Description of building type: business-use area
3. Description of building type: entire building area
4. Heating and cooling
5. Lighting
6. Office and other equipment
7. Manufacturing / processing operations
8. Energy efficiency measures

Information on the programs and measures tested, as well as the sample design appears in Appendix D. The residential Program Interest questionnaires appear in Appendices E and F respectively.

Data Analysis

Estimating Take Rates

As described in Chapter 3 on the residential sector, business sector results were also adjusted to account for the "say-do" problem, which refers to how customers tend to over-estimate their likelihood to participate in new programs and services within the context of a market research study. Different options are available for adjusting stated likelihood-to-participate ratings into more realistic estimates of likely customer response, and the best option depends in part on the nature of the product, service, or program being evaluated. For example, reactions to socially desirable (including "green") options need to be adjusted down more aggressively, while those for certain new technologies need to be adjusted less. The method used by the YGDI / EnerNOC team is based on proprietary research conducted by YGDI during 2010 and is described in Chapter 3.

The resulting adjustment factors for translating "stated intent" to realistic estimates of likely behavior are outlined in Table 7-1. The adjustment factors depend on how the respondent answered each of the "likelihood to acquire" questions, and on their level of information about, and familiarity with, EE issues. Note that these primary adjustment factors are intended to apply to relatively infrequent purchases (no more often than once a year or so). For more regular purchases that occur several times a year, YGDI uses a somewhat different formula, as discussed later in this section.

Essentially, the primary adjustment for irregular purchases says that among those respondents who rate a given program as a "10" ("extremely likely to participate") and who also are rated as "high" on EE information / familiarity, then realistically, about 72% of those people will ultimately sign up for the program. At the other end of the scale, it says that among the respondents who rate their likelihood to participate as a "1" on the scale ("extremely unlikely to participate"), only 3% of those businesses will ultimately sign up for the program. For purposes of this analysis, the team assumed that Ameren Missouri could potentially achieve "high" information levels for all customers, and so used those adjustment rates for all respondents.

Table 7-1 Translating Business Stated Intent into Take Rates for Irregular Purchases, Customers with High Information Levels

Scale Rating	Adjustment Value for Irregular Purchases
1	3%
2	3%
3	4%
4	8%
5	30%
6	38%
7	48%
8	58%
9	61%
10	72%

As noted above, YGDI uses a different adjustment for products that are purchased more frequently, because customers are more familiar with their choices and have established typical purchases that they tend to make in a given category. Lighting is the only measure tested in this survey that falls into this "regular purchase" category, and the adjustment values outlined in Table 7-2 were used for this option. Note that Information level is not used as a differentiator in adjustments for this category because by definition all buyers are more familiar with regular purchases.

Table 7-2 Translating Business Stated Intent into Take Rates for Regular Purchases

Scale Rating	Adjustment Value for Regular Purchases
1	0%
2	0%
3	0%
4	5%
5	12%
6	26%
7	44%
8	58%
9	67%
10	83%

Testing Programs at Different Payback Levels

Similar to the residential sector case described in Chapter 3, the business survey explored the impact that varying payback periods of 1, 3, and 5 years might have on customer response to the programs tested.

Weighting

To better mirror the Ameren Missouri business market, data were weighted on the basis of the 124 sample cells. This ensured that the weighted sample mapped back to the underlying population on electric usage.

Psychographic Segmentation Analysis

One of the goals of the analysis was to explore whether or not there were psychographic customer segments that could be helpful in providing an understanding of why customers responded as they did to the programs tested, and to support initial thinking about how to prioritize marketing efforts and marketing communications. Several steps were involved in developing this psychographic segmentation:

- The team analyzed the groups of items included in the questionnaire that were designed to generate psychographic insights. These included Q2 and Q4, addressing opinions toward Ameren Missouri; Q14, exploring how customers think about using energy in their facility; and Q23 and Q25, regarding priorities when evaluating energy-related products and services for their facility.
- The team conducted analyses that were intended to identify groups of items that respondents tended to evaluate similarly. This process, called "factor analysis," refers to the process of finding and interpreting these groups of items that people think of as similar.
- The team considered all of the attitudinal factors that were identified in the factor analysis, along with a variety of other variables to find the ones that generated the most useful segmentation model. This was partly a trial and error process, but ultimately, the variables selected to be included in the segmentation model included:
    - Whether the business owns or leases their facility (QS5)
    - Overall satisfaction with Ameren Missouri (Q3)
    - Preference for whether Ameren Missouri should focus on pursuing EE and conservation initiatives, or on keeping costs low for customers (Q5)
    - Total square footage of the location's enclosed floor space (QS13)
    - Kilowatt hours (from sample)
    - Agreement / disagreement with the item "Our organization believes that the long-term threat from global warming and climate change is real, and potentially devastating" (Q14_7)
    - Agreement / disagreement with the item "The reality is that the most energy-efficient equipment is also almost always the best equipment on the market" (Q25_6)
    - Agreement / disagreement with the item "Since energy costs make up such a small portion of our total operating costs, energy issues just don't get a lot of attention" (Q25_11)
    - A calculated variable that was called "EE Informed Level" and was based on indicators of experience with / awareness of EE end use options to-date, and awareness and use of existing Ameren EE programs
    - A calculated variable called "Likely EE Taker Level," based on a count of the frequency that a given respondent rated themselves as "8" or higher on the "1" to "10" likelihood to participate scale for each of the 37 EE programs tested
    - A calculated variable called "Likely DR Taker Level," based on a count of the frequency that a given respondent rated themselves as "8" or higher on the "1" to "10" likelihood to participate scale for each of the 7 DR programs tested

Once these inputs were identified, the team tested a wide variety of segmentation solutions, ultimately selecting a solution that optimized relative segment size, absolute segment sample size, and overall meaningfulness of segment profiles. The solution selected as most appropriate was a solution containing six segments with different response patterns to the final set of selected segmentation inputs.

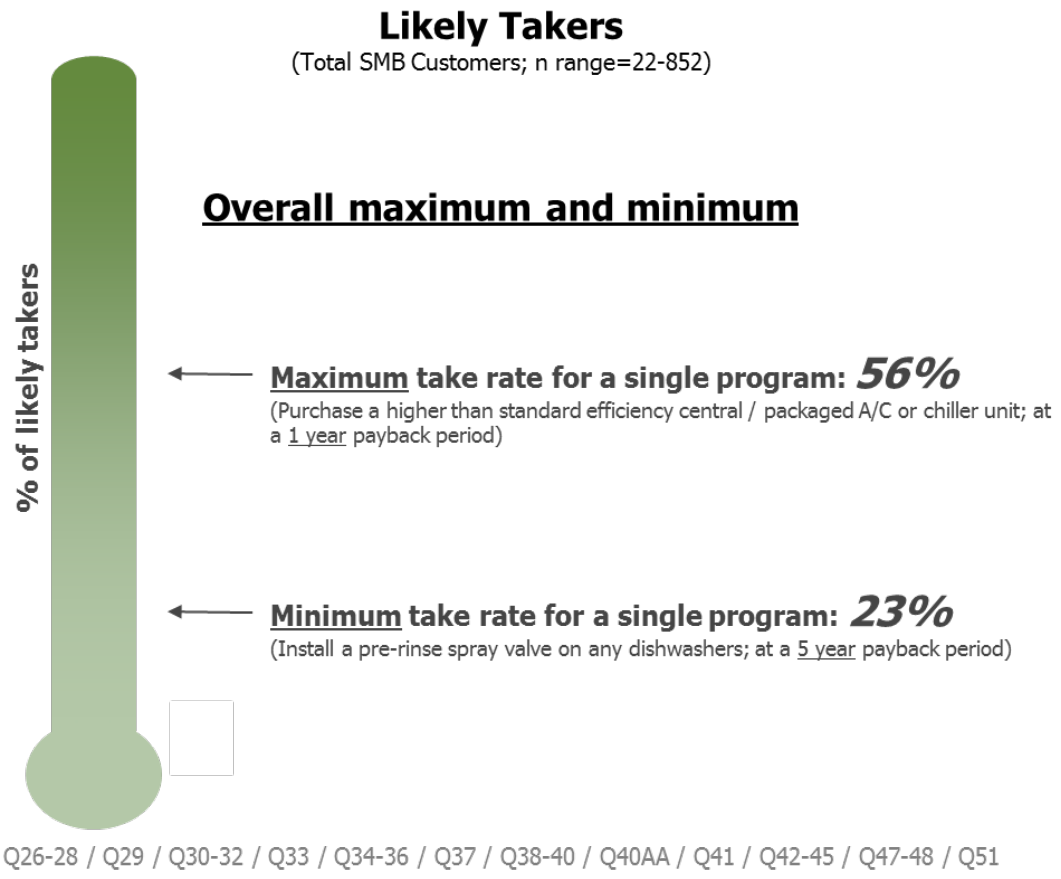
FINDINGS ON BUSINESS TAKE RATES

This chapter presents the project team's best estimate of the most likely proportion of business customers who would actively sign up for each program, given that they were eligible to do so, and were fully aware of the program and its potential benefits for them. Note that the take rates reported here have been adjusted using the say / do adjustment model referenced in Chapter 3.

A total of 37 different DSM measures were tested in the survey, 29 of which involved actions that had some cost associated with them, and could be tested at 1-, 3-, and 5-year payback levels. Three other options had no cost attached, e.g., raising/lowering the thermostat settings. The remaining five options explored likelihood to purchase an energy efficient model over a standard efficiency model if provided an incentive by Ameren Missouri that would completely eliminate the price difference between the two models.

The range of take rates across the full range of programs / measures tested, as illustrated in Figure 8-1, spans from a low of around one quarter of all eligible customers to a high slightly greater than one-half of all eligible customers.

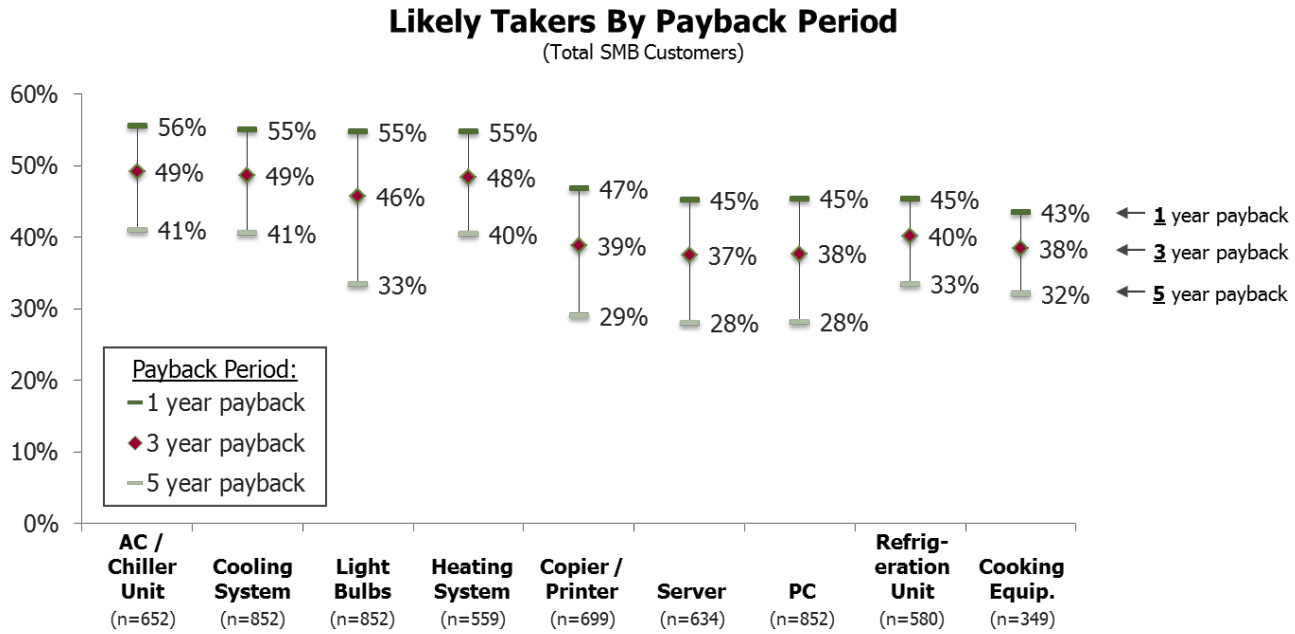
Figure 8-1 Maximum and Minimum Business Take Rates



Energy Efficiency Take Rates

The first full category of EE measures that were explored involves purchasing nine higher than standard efficiency appliances within the context of a normal replacement cycle. Figure 8-2 shows that within the nine appliances or end uses considered, AC/Chiller Units and Cooling Systems are the technologies that business customers are most likely to upgrade to a higher-efficiency option at each payback period level. Across the other technologies, the take rates are highest at each payback period level for light bulbs and heating systems. While take rates are higher for lower payback periods, as expected, the ranges are smallest for smaller office equipment, such as copiers, printers, servers, and PCs (dipping to 28% at a 5-year payback period).

*Figure 8-2 Business Measures for Purchasing / Installing Energy-Efficient Equipment**

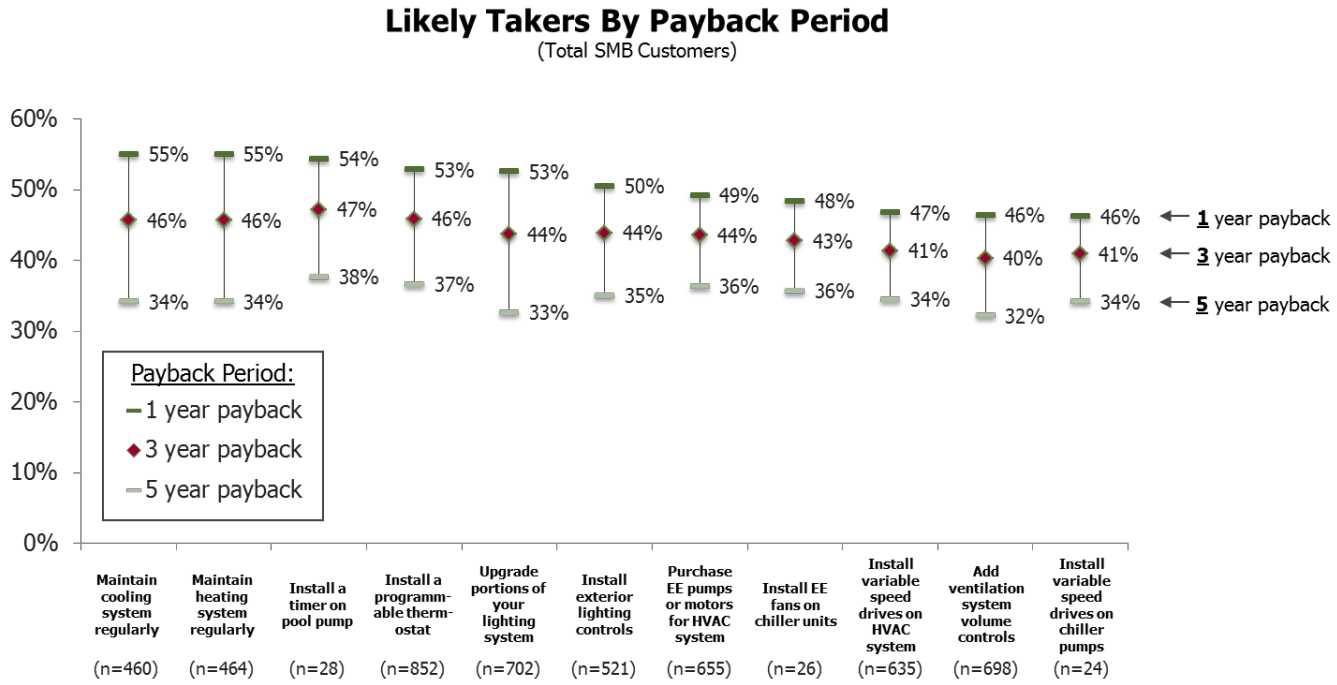


Q26-28/Q29/Q34-36/Q37/Q38-40
*Note: Assumes a normal replacement cycle

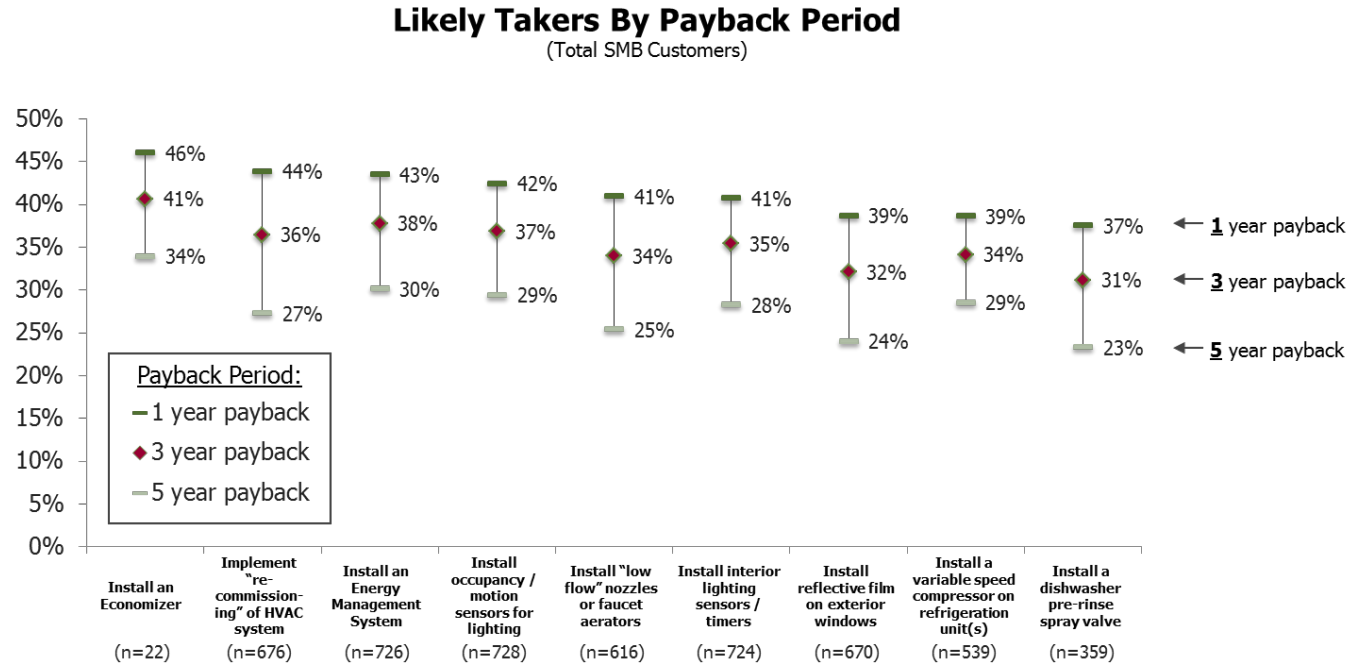
Figure 8-3 shows that among 20 measures for upgrading existing systems or improved maintenance, business customers indicate a higher likelihood to maintain their cooling and heating systems. The take rates differ widely across these options, ranging from a high of 55% for maintaining cooling and heating systems at a 1-year payback to a low of 23% for installing a dishwasher pre-rinse spray valve at a 5-year payback period.

Responses for the next group of three measures, which do not require any up-front investment on the part of the customer, appear in Figure 8-4. As such, these measures are not associated with different payback periods. Likely take rates for these options ranged from 40% for energy efficient motors or pumps for non-HVAC equipment to 30% for a timer altering the control algorithm on industrial processes.

Figure 8-3 Business Measures for Improving Energy Efficiency of Existing Systems

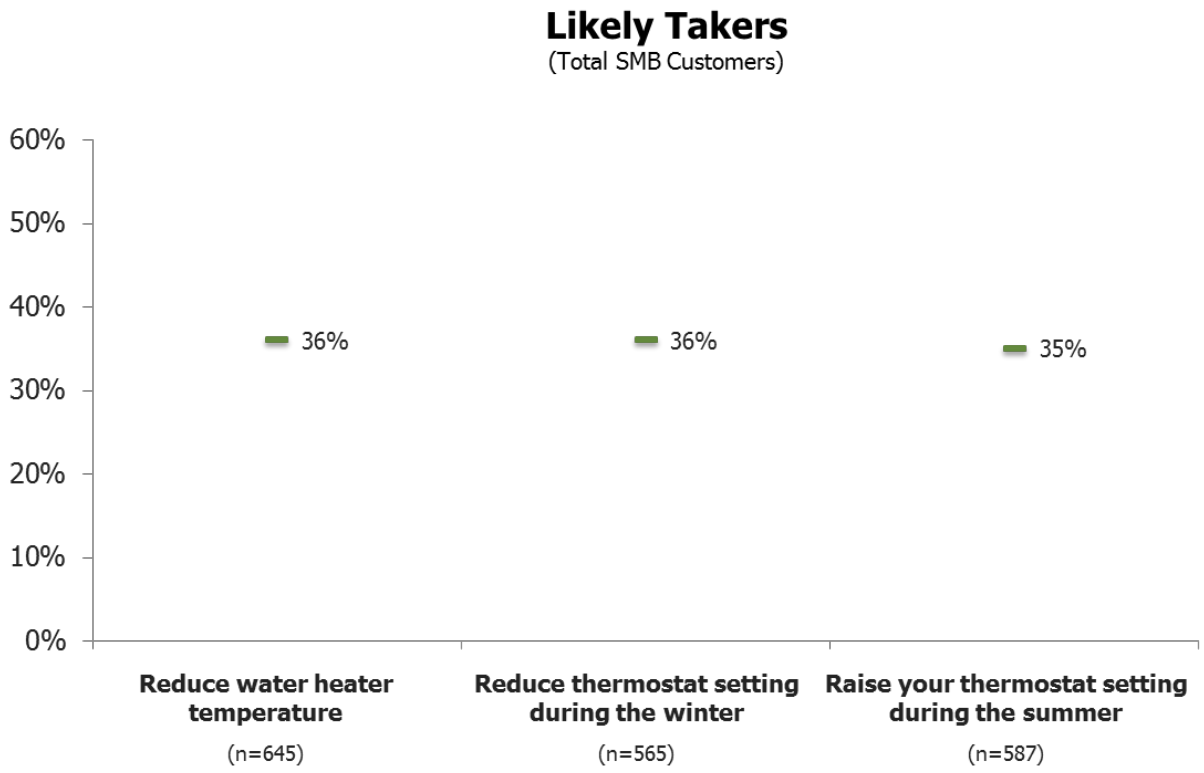


Q29/Q30-32/Q33/Q37



Q29/Q30/Q33/Q37

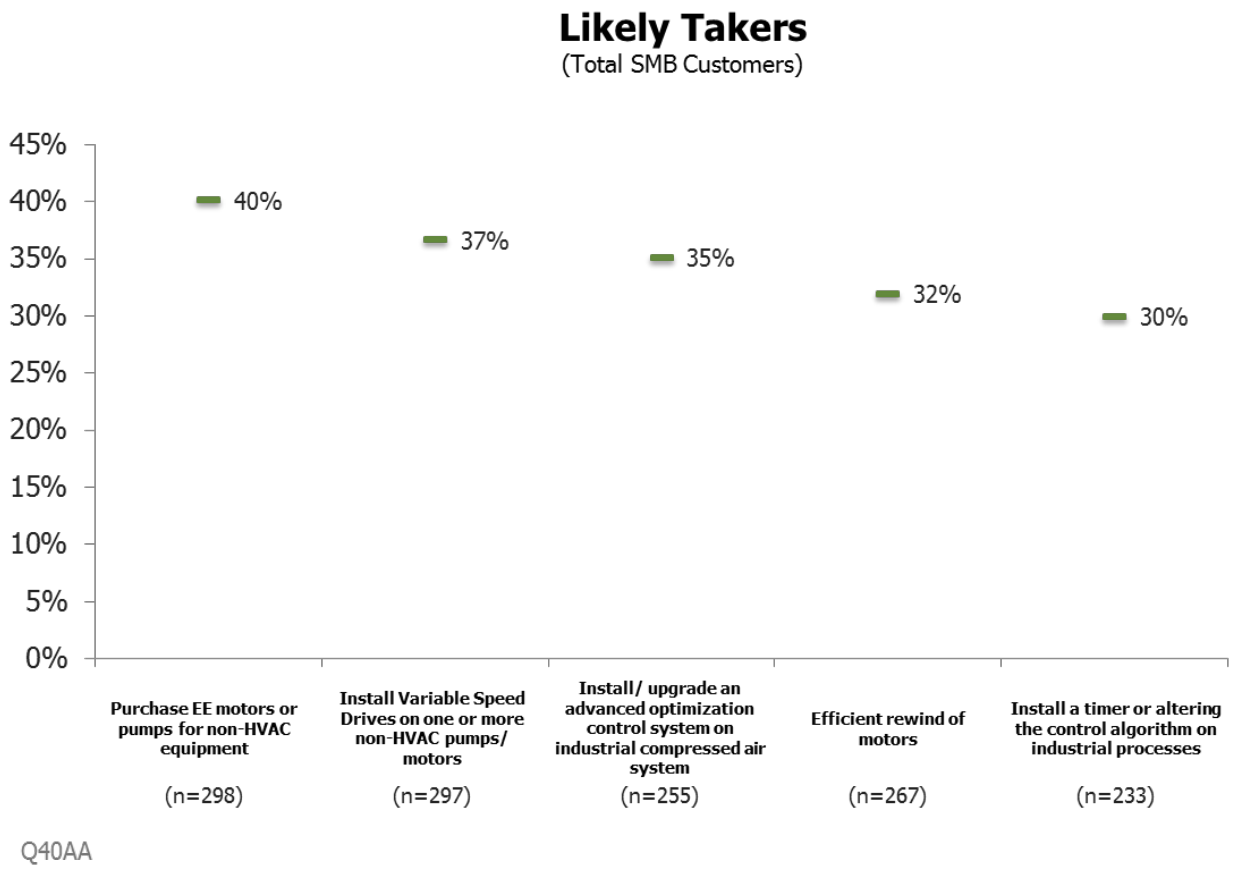
Figure 8-4 Business Measures Not Requiring an Investment by the Customer (and Not Involving a Payback Period)



Q41

An additional set of measures were tested to explore the likelihood to purchase an energy efficient model rather than a standard efficiency model if provided an incentive by Ameren Missouri that would completely eliminate the price difference between the two models. As shown in Figure 8-5, respondents were most likely to upgrade to higher than standard efficiency motors for pumps for their non-HVAC equipment if offered the cost difference incentive.

Figure 8-5 Business Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference

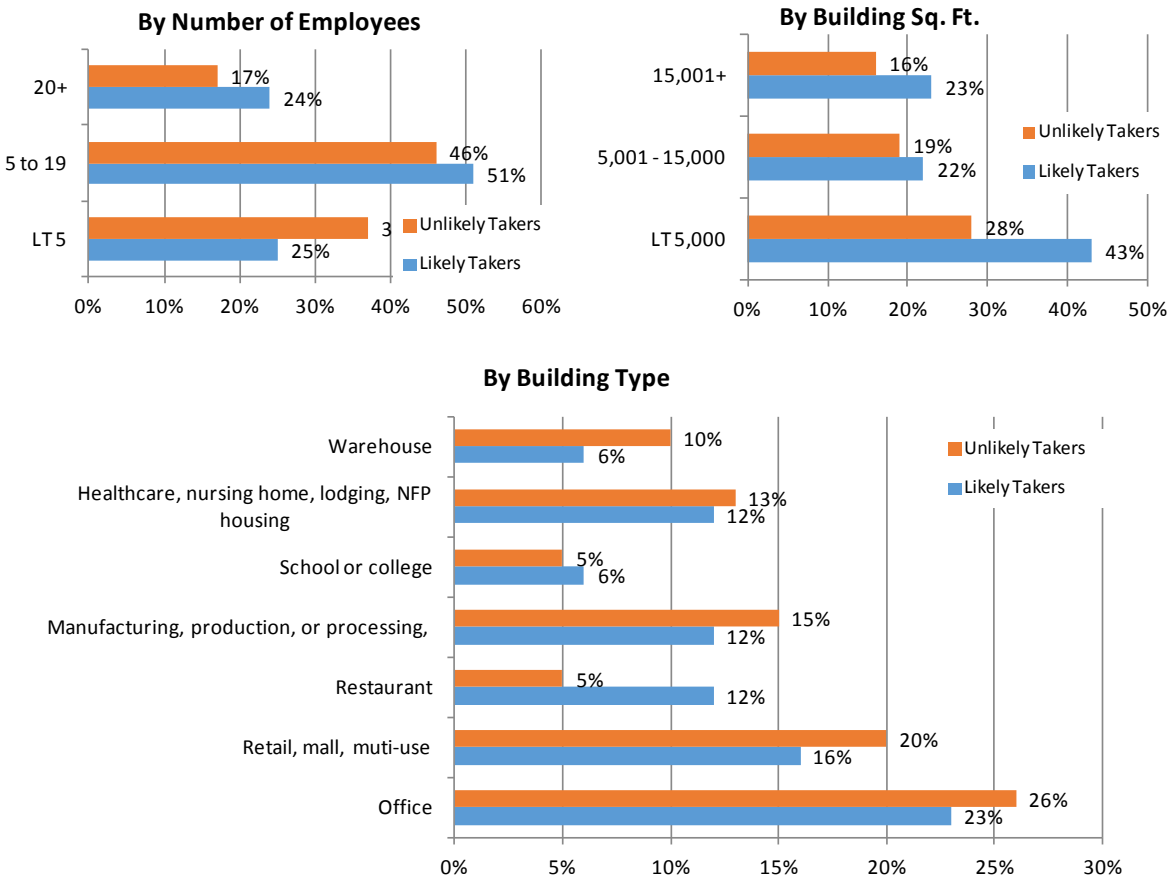


Q40AA

Some subtle differences exist in the mean take rates among various firmographic groups, as shown in Figure 8-6. Groups exhibiting the higher opportunity than their counterparts include:

- Organizations with 20 or more employees
- Organizations with either small facilities (less than 5,000 sq. ft.) or very large facilities (greater than 15,000 sq. ft.)
- Organizations operating as restaurant

Figure 8-6 Likely Takers by Demographics

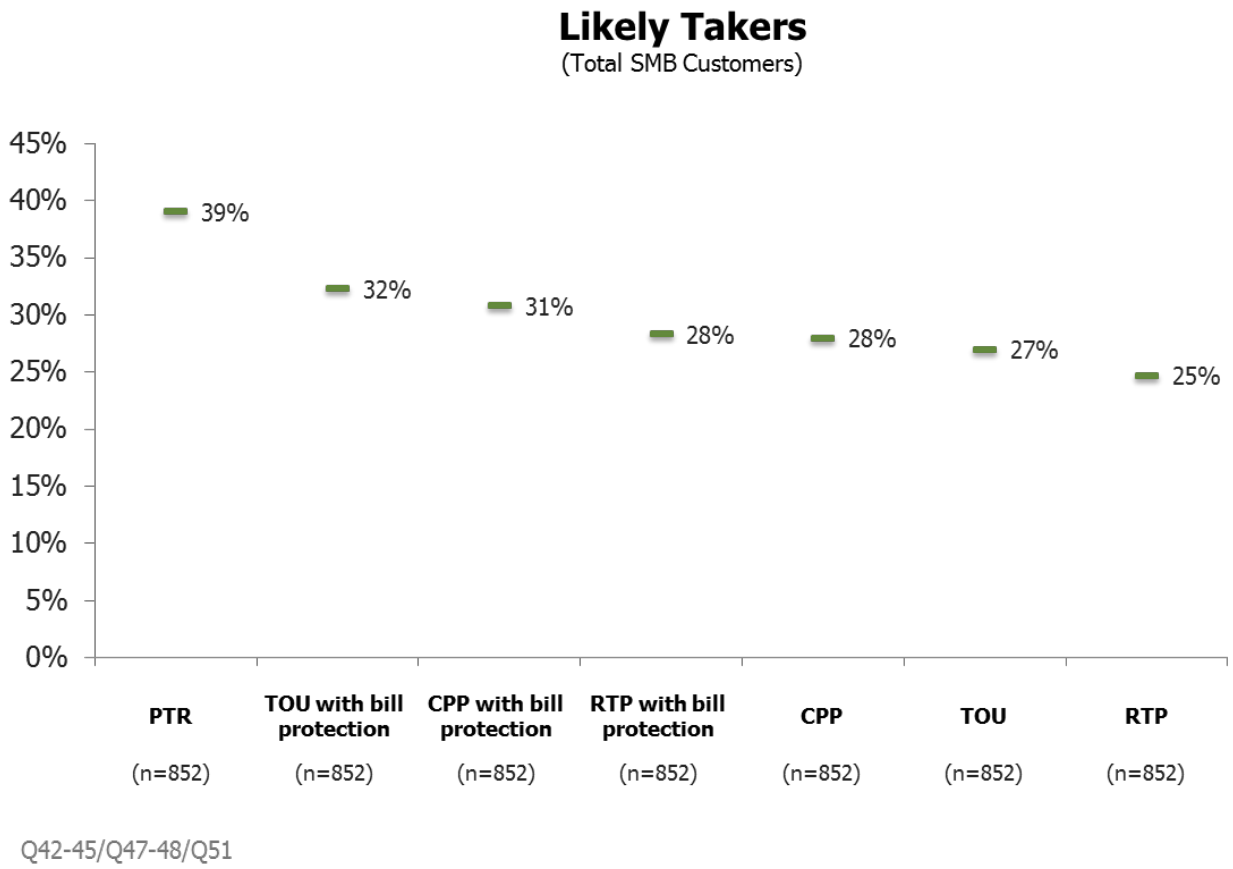


Demand Response and Pricing Take Rates

A set of demand response and rate design programs were also tested. Take rates ranged from a high of 39% for PTR to 25% for RTP, as shown in Figure 8-7.

Figure 8-8 and Figure 8-9 show respondents' preferences among various rate options. When asked which type of rate plan they prefer, TOU or RTP, the majority prefer both equally. Few prefer RTP over TOU. Respondents were also asked to state their preference between TOU/RTP-type rate programs and a CPP-type program, and the majority once again stated that they prefer both equally.

Figure 8-7 Business Potential Demand Response Programs and Rate Designs



Q42-45/Q47-48/Q51

Figure 8-8 Business Preferred Type of Electricity Rate: TOU vs. RTP

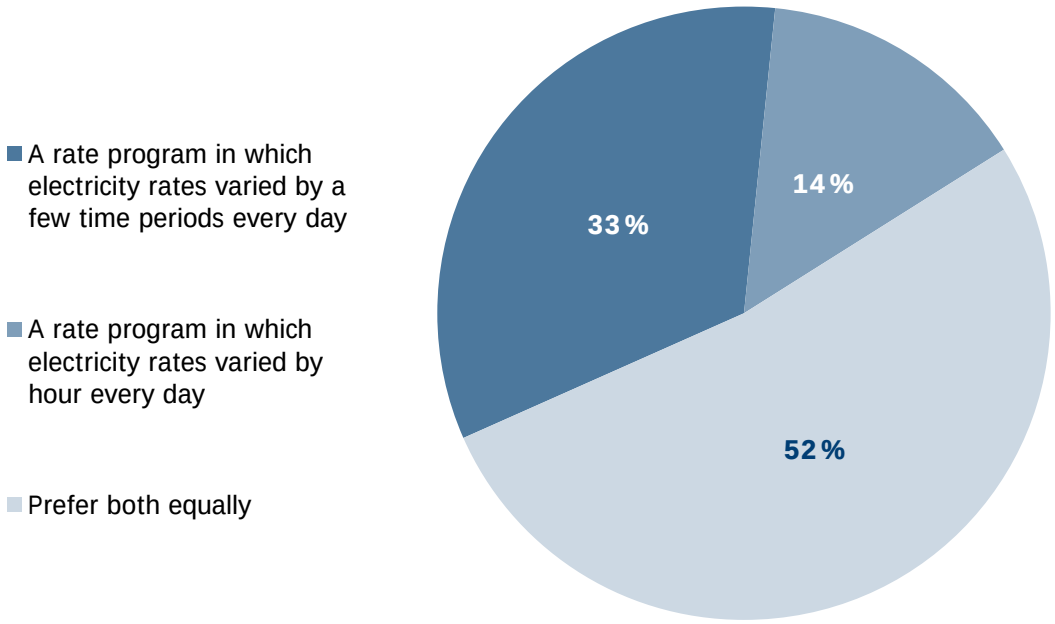


Figure 8-9 Business Preferred Type of Electricity Rate: TOU/RTP vs. CPP

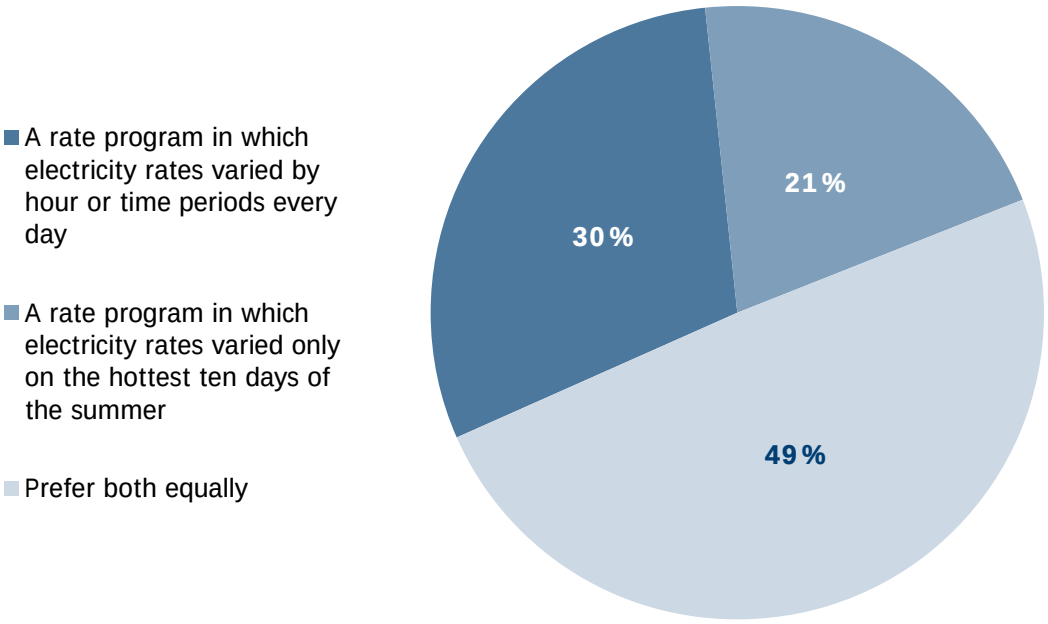


Table 8-1 looks at the percentage of respondents who are likely takers for various measures. Considering all of the measures tested, the group of measures with the highest adoption rates is comprised of a mix of both measures associated with purchasing or installing energy efficient equipment and measures for improving the energy efficiency of existing systems.

Table 8-1 Opportunities for Business Measures, High to Low

Measures: Highest Opportunity	Likely Takers @ 3-yr Payback (or payback irrelevant for *No Upfront Investment Measures)* (n range=22-852)	Measures for
Purchase EE central / packaged AC or chiller unit[2]	49%	Purchasing / Installing EE Equipment
Purchase EE cooling system[2]	49%	Purchasing / Installing EE Equipment
Purchase EE heating system[2]	48%	Purchasing / Installing EE Equipment
Install a timer on pool pump	47%	Improving EE of Existing Systems
Install an advanced programmable, clock-based thermostat	46%	Improving EE of Existing Systems
Maintain cooling system regularly	46%	Improving EE of Existing Systems
Purchase EE light bulbs[2]	46%	Purchasing / Installing EE Equipment
Maintain heating system regularly	46%	Improving EE of Existing Systems

1. No Payback period associated with measure
2. Assumes a normal replacement cycle

Table 8-1 Opportunities for Business Measures, High to Low (continued)

Measures: Middle Opportunity	Likely Takers @ 3-yr Payback (n range=22-852)	Measures for:
Install exterior lighting controls	44%	Improving EE of Existing Systems
Upgrade portions of your lighting system	44%	Improving EE of Existing Systems
Purchase EE pumps or motors for HVAC system	44%	Improving EE of Existing Systems
Install EE fans on chiller units[2]	43%	Improving EE of Existing Systems
Install variable speed drives on HVAC system	41%	Improving EE of Existing Systems
Install variable speed drives on chiller pumps	41%	Improving EE of Existing Systems
Install an Economizer	41%	Improving EE of Existing Systems
Add ventilation system volume controls	40%	Improving EE of Existing Systems
Purchase EE motors / pumps for non-HVAC equip	40%	Price Difference Eliminated by Ameren
Purchase EE refrigeration unit[2]	40%	Purchasing / Installing EE Equipment
PTR	39%	DR Programs and Rate Designs
Purchase EE copier / printer[2]	39%	Purchasing / Installing EE Equipment
Install EE cooking equipment[2]	38%	Purchasing / Installing EE Equipment
Install an Energy Management System	38%	Improving EE of Existing Systems
Purchase EE PC[2]	38%	Purchasing / Installing EE Equipment
Purchase EE server[2]	37%	Purchasing / Installing EE Equipment
Install occupancy / motion sensors for lighting	37%	Improving EE of Existing Systems
Install variable speed drives on non-HVAC pumps / motors	37%	Price Difference Eliminated by Ameren
Reduce thermostat setting during the winter[1]	36%	No Upfront Investment
Implement “re-commissioning” of HVAC system	36%	Improving EE of Existing Systems
Reduce water heater temperature[1]	36%	No Upfront Investment
Measures: Lowest Opportunity	**Likely Takers @ 3-yr Payback (n range=22-852)**	**Measures for:**
Install interior lighting sensors / timers	35%	Improving EE of Existing Systems
Install/ upgrade advanced optimization control system on industrial compressed air system	35%	Price Difference Eliminated by Ameren
Raise your thermostat setting during the summer[1]	35%	No Upfront Investment
Install a variable speed compressor on refrigeration unit(s)	34%	Improving EE of Existing Systems
Install low-flow nozzles or faucet aerators	34%	Improving EE of Existing Systems
TOU with bill protection	32%	DR Programs and Rate Designs
Install reflective film on exterior windows	32%	Improving EE of Existing Systems
Efficient rewind of motors	32%	Price Difference Eliminated by Ameren
Install a dishwasher pre-rinse spray valve	31%	Improving EE of Existing Systems
CPP with bill protection	31%	DR Programs and Rate Designs
Install a timer or alter the control algorithm on industrial processes	30%	Price Difference Eliminated by Ameren
RTP with bill protection	28%	DR Programs and Rate Designs
CPP	28%	DR Programs and Rate Designs
TOU	27%	DR Programs and Rate Designs
RTP	25%	DR Programs and Rate Designs

1. No Payback period associated with measure
2. Assumes a normal replacement cycle

Table 8-2 examines the differences between groups exhibiting the highest and lowest opportunity for new EE programs, the only demographic differences are that the Likely Takers have much larger average building sizes and Unlikely Takers are significantly more likely to have fewer than five employees. More striking differences in the mean take rate, however, relate to attitudinal differences. Unsurprisingly, customers who have highly "green" and/or highly cost-savings-focused attitudes consistently show much higher likelihoods to adopt energy efficiency measures. Another key factor in likelihood to adopt energy efficiency measures is the degree to which customers have favorable opinions of Ameren Missouri. Customers who have more favorable opinions about Ameren Missouri consistently show much higher likelihoods to adopt energy efficiency measures.

Table 8-2 Summary of Likely vs. Unlikely EE Takers, Business

	Likely EE Takers	Unlikely EE Takers
Energy Usage & Attitudes	• Higher on all positive EE attitudes and more focused on actively reducing energy usage • More likely to have upgraded standard bulbs to CFLs in the past 12 months	• Generally less focused on reducing energy usage • More likely to categorize their approach to EE as trying to be mindful but not making any big changes such as upgrading equipment to more efficient models
Perceptions of Ameren Missouri	• Significantly more familiar with Ameren Missouri, and more satisfied than Unlikely EE Takers • Significantly more likely to perceive Ameren Missouri as a credible information source for EE and as a company that actively promotes cost-saving programs • Higher ratings on importance of Ameren Missouri pursuing EE efforts • Think it's important that Ameren Missouri do both: keep costs low and support EE measures	• Believe keeping costs low should be the top priority for Ameren Missouri
Firmographics	• Larger mean square footage	• More likely to have less than 5 employees

For new DR programs, Table 8-3 shows how the likely and unlikely taker groups exhibit the same basic attitudes toward energy efficiency and Ameren Missouri as described above for EE likely and unlikely takers, though notably less pronounced.

Table 8-3 Summary of Likely vs. Unlikely DR Takers, Business

	Likely DR Takers	Unlikely DR Takers
Energy Usage & Attitudes	• Higher on all positive EE attitudes and more focused on actively reducing energy usage • More likely to have experienced an energy or cost savings as a result of EE actions taken in the past few years	
Perceptions of Ameren Missouri	• Significantly more likely to perceive Ameren Missouri as a credible information source for EE • Higher ratings on importance of Ameren Missouri pursuing EE efforts	
Firmographics	• Larger mean square footage	• More likely to be a traditional, office-based business

Summary: Overall Response to EE Programs by Ameren Missouri Business Customers

As the preceding pages have suggested, it appears that psychographic factors (attitudes) have a larger impact on customer response to tested EE programs than do demographic differences. How customers think about Ameren Missouri is likely to be much more important in predicting how they will respond to new EE programs offered by the company, than will differences in how they operate their business (building type and size, number of employees).

This means that it is critical to understand the impact of customer attitudes by understanding psychographic segments. These segments may identify the confluence of attitudes and concerns that map to differences in overall reaction to potential Ameren Missouri EE and DR programs. The segmentation analysis reported in the following section focuses on these issues.

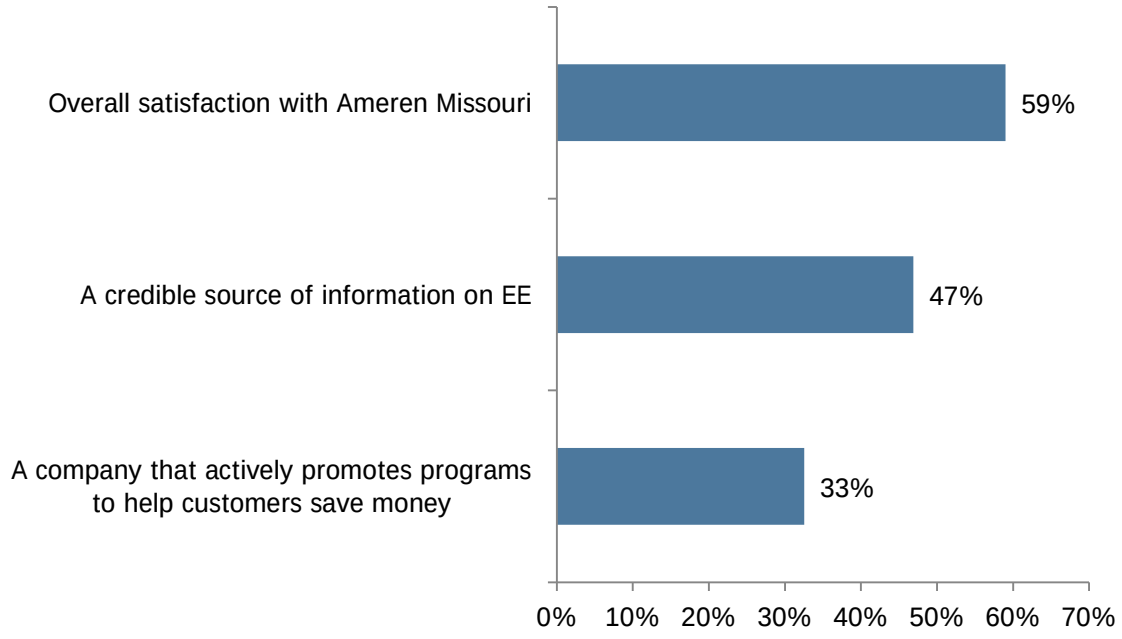
BUSINESS CUSTOMER PERSPECTIVES ON ENERGY ISSUES

To understand what lies beneath business customer reaction to new EE and DR options that might be offered by Ameren Missouri, it is worth exploring overall customer perspectives, both toward the company and toward energy issues as a whole. These characteristics can then be used to group customers into descriptive segments with common attitudes, similar to the process described above for residential customers. For each segment group thus defined, we consider what marketing messages may resonate and the role that Ameren Missouri can play in working with these customers. We also provide information on the percentage of each segment that is likely takers for the various EE and DR measures or programs analyzed in the research.

Understanding Overall Customer Opinions of Ameren Missouri

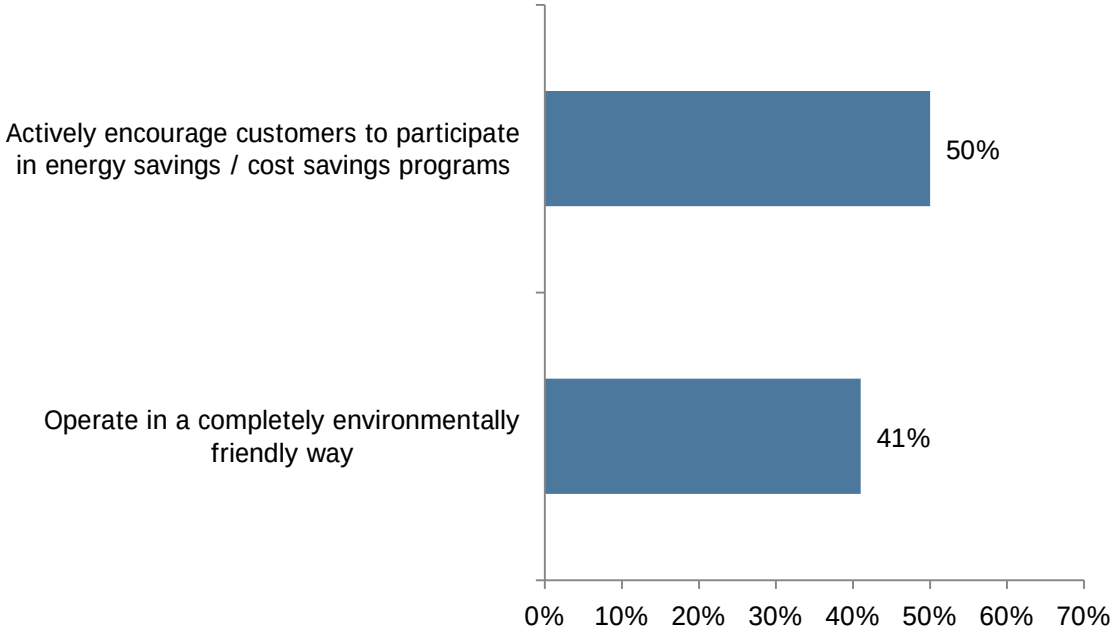
We begin this section by exploring customer perspectives toward Ameren Missouri and these findings, as reported in Figure 9-1. Nearly two-thirds (59%) of Ameren Missouri customers say they are satisfied with the company's performance overall, giving the company a top-three box rating (8-10 on a 10-point scale) on overall satisfaction. On the more specific attributes relating to the company's activity and credibility in promoting and providing information about energy efficiency, slightly fewer people (between a third and a half) give the company top-three box ratings.

Figure 9-1 Business, Overall Ratings of Ameren Missouri (Ratings of 8–10 on 10-pt. Scale)



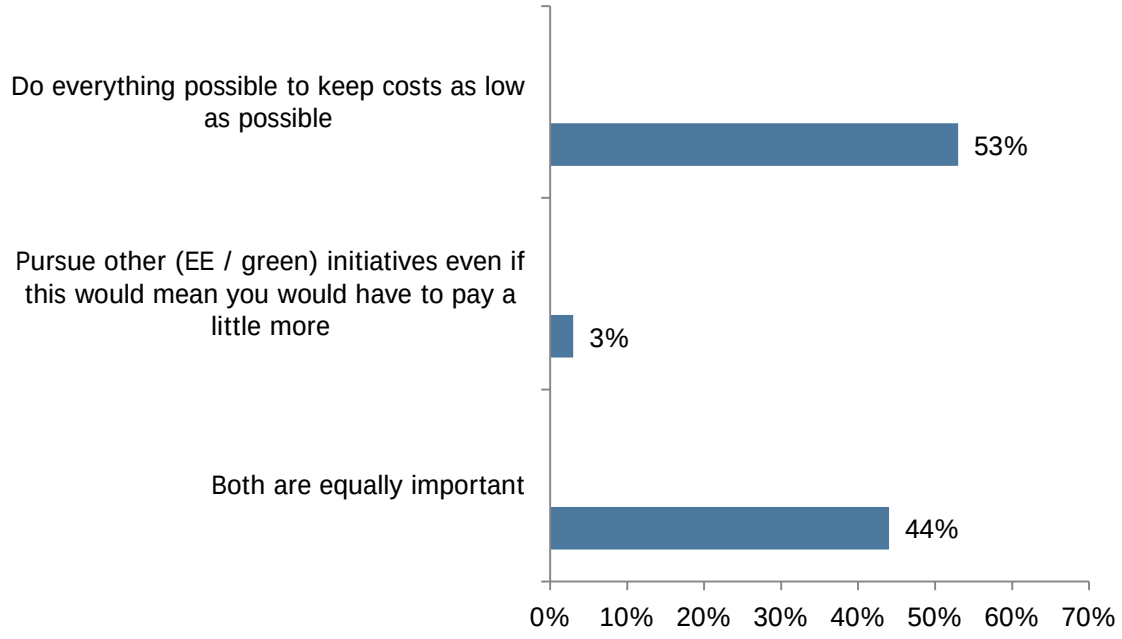
Turning to the question of whether or not Ameren Missouri **should** promote energy efficiency, and/or, greener energy options, the results displayed in Figure 9-2 suggest that a majority of customers do not support this activity. A total of 50% believe the company should "actively encourage" customers to participate in energy / cost savings programs, but less than half (41%) say the company should operate in a "completely environmentally friendly way."

Figure 9-2 Business Ratings of Ameren Missouri on EE-Specific Issues (Ratings of 8–10 on 10-pt. Scale)



Note, however, that while Ameren Missouri customers appear to support EE and green-focused activities by the company in the abstract, **they do not want** these activities to cost them more. Figure 9-3 indicates that when customers are asked a forced choice question, just over half say that the company should do everything possible to keep costs as low as possible, while only 3% say the company should pursue EE or green options if doing so would mean they would have to pay a little more. The remainder of the population wants both things at the same time (to keep costs as low as possible **and** to pursue these other initiatives).

Figure 9-3 Business Responses to Forced Choice Question on EE / Green vs. Cost Options

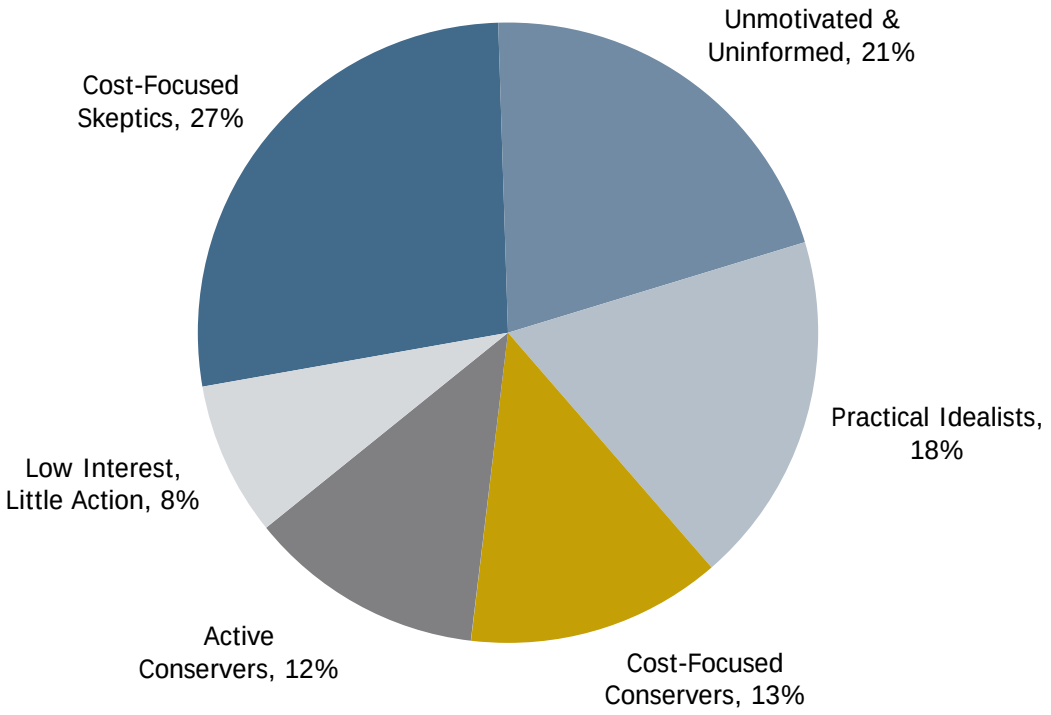


Exploring Customer Segments

So far, our analysis of customer perspectives on energy issues has only considered customers as a whole. Customers differ, however, and this section of the report explores key divisions that exist within the non-residential customer base. Specifically, the team developed a segmentation model that disaggregated business customers into groups that differ in terms of whether, and why, they might be interested in pursuing EE options. The goal of the segmentation analysis was to define groups of customers that were different in ways that would allow Ameren Missouri to prioritize customer targets for EE program marketing and to develop targeted messages for each of those segments.

Using a variety of attitudinal and behavioral inputs (see the discussion earlier in this report), the team identified a set of six business customer segments that seemed to best represent the differences in this population on these issues. The segment sizes are displayed in Figure 9-4.

Figure 9-4 Business Segment Distribution



Summary descriptions for each of the segments follow.

Cost-Focused Conservers (13%) are somewhat informed about EE measures, but primarily for cost reasons rather than environmental reasons. This group believes in the value of EE as a way to cut their energy bills and has acted to reduce their usage in the past. They would prefer the company reduce rates than spend money on EE or green options. They have average kWh usage, and smaller than average building size and number of employees. They have the highest interest in participating in new EE options.

Active Conservers (12%) are the group that is the most informed, and most active, when it comes to EE / conservation. This group believes in the value of EE as a way to save both energy and money and has taken many prior EE actions. They see Ameren Missouri as a credible source for EE information, and believe the company should keep costs low for customers while also pursuing green options. They have the highest average kWh, average building size and number of employees, and the second highest EE program take rate.

Practical Idealists (18%) are concerned with conserving energy, both from a cost-focus and an environmental perspective (they are the "greenest" segment). They are primarily cost-focused when considering equipment, but they also place a high importance on the environmental impact of new equipment. They have the highest opinion of Ameren Missouri, particularly on the dimensions of credibility and satisfaction. They tend to be moderate on familiarity with EE measures to date, and are moderately likely to say that they would adopt new EE measures in the future.

Unmotivated & Uninformed (21%) are positive toward Ameren Missouri and believe in the importance of saving energy in general, but they are the most uninformed and inexperienced with EE / conservation measures to-date. With relatively few employees and smaller than average building size, they have the lowest annual kWh among the segments and appear unmotivated to save energy as a result. They are among the lowest on take rates across programs.

Cost-Focused Skeptics (27%) are skeptical about global warming and the need for EE, and thus this group is only focused on saving energy if it will in turn save them money. They have a relatively low opinion of Ameren Missouri and believe its priority should be keeping costs low for customers rather than focusing on conservation. While somewhat familiar with EE measures, this group is the least likely to adopt new EE / conservation measures in the future.

Low Interest, Little Action (8%) customers have very little interest in EE. This group actively dislikes Ameren Missouri, particularly on the dimensions of satisfaction and their promotion of programs to help businesses save money. They do not want the company to encourage customers to save energy, nor do they want it to pursue green options. They do, however, want the company to keep low costs as its sole focus. They operate in the smallest size buildings and have among the smallest company size. They are the second lowest on likelihood to adopt new EE programs and on existing familiarity.

By appropriately prioritizing EE marketing activity and refining communications content to appeal to segment-specific decision drivers, Ameren Missouri will have the greatest opportunity to optimize its EE and DR marketing investments. Table 9-1 provides further information on these groups and marketing messages that are likely to resonate with them. Table 9-3 indicates how Ameren Missouri could prioritize efforts to reach these segments and the role that the company can play in motivating them. In particular, we note the following:

- Two groups,— Cost-Focused Conservers and Active Conservers — account for 26% of all non-residential customers and represent the best targets for EE programs. While they have different reasons for considering EE measure adoption, they are inclined to take these actions, and have more experience implementing other similar actions in the past.
- Practical Idealists, who account for 18% of all non-residential customers, are somewhat open to the idea of adopting new EE measures, but despite their belief that protecting the environment is the right thing to do; they have yet to do much in the way of EE action. They appear more likely to act with increased education.
- The final three groups — Unmotivated and Uninformed, Cost-Focused Skeptics, and Low Interest, Little Action — account for 56% of all non-residential customers and represent the least attractive targets for the adoption of new EE measures. For their own reasons, these three groups are the least likely to consider new EE actions. There is potential, however, to increase interest among the Unmotivated and Uninformed through education and among Cost-Focused Skeptics by appealing to their strong desire to cut costs.

Table 9-4 shows the percentage of each segment that are likely takers for the various EE and DR measures or programs analyzed in the research.

Table 9-1 Business Segment Marketing

Segment	Marketing Effort	Potential Load Impact	Receptivity to Future Conservation Programs	Going Forward
Cost-Focused Conservers (13%)	While this segment thinks encouraging customers to participate in energy saving programs is important - keeping energy costs low is even more so, and for their business cost cutting is top of mind. They will likely be very receptive to messages about saving energy as a way to save money.	Building and company sizes tend to be smaller than average, but they have higher than average kWh usage. They are somewhat familiar with EE and conservation actions and programs, and while they've taken some EE actions in the past, they admit there's more they can be doing.	They are not fans of Ameren Missouri, but are fans of saving money (they have the highest average EE and DR program take rate). Environmental messages will not have much effect on them.	Despite their ambivalence toward Ameren Missouri as a company, they appear open and receptive to messages from the company about reasons to consider EE / conservation actions, especially as a way to save money.
Active Conservers (12%)	Receptive to messages on both the positive environmental impact of EE / conservation and cost-savings, this group is most familiar with EE programs offered by Ameren Missouri and open to future participation.	Building size and annual kWh are the highest of any segment, but this group is already doing quite a bit to conserve. The challenge will be convincing and enabling them to do even more.	Take rates are high for this segment, and given their familiarity and experience with EE, their receptivity to new options is likely high – particularly if those options will result in long-term / ongoing cost savings.	They are extremely active in taking EE measures and are likely to continue to look to Ameren Missouri for assistance in saving both energy and costs.
Practical Idealists (18%)	This is a challenging segment because they appear to be green, but more in attitude than in action. They agree with overall statements of environmental concern and are the most familiar with EE/conservation of any segment, but admit that energy issues don't get much attention in terms of day-to-day operations.	This group has smaller than average size buildings and company size, with average kWh. They have taken some action to reduce their energy usage in the past, but doing so isn't top of mind.	Despite a current lack of action in EE/conservation measures, this segment is interested in participating in EE options in the future. Motivating this segment to act will be challenging, but there is potential to tap into their strong belief in the importance of EE to convince them that participation would result in both cost and energy savings.	This group believes in EE and that Ameren Missouri should focus their efforts on both lowering energy costs and pursuing green initiatives. And while willing to participate in those initiatives, they will likely need messaging around how such programs would benefit them directly in order to become motivated to act.

Table 9-2 Business Segment Marketing (continued)

Segment	Marketing Effort	Potential Load Impact	Receptivity to Future Conservation Programs	Going Forward
Unmotivated & Uninformed (21%)	This segment is broadly positive toward Ameren Missouri, and believes in the importance of EE/conservation – it's just not something they focus on for their own company.	Buildings are smaller than average in size and use the lowest annual kWh. While receptive to new EE programs, the benefit of their participation is likely quite small.	Take rates are low for this segment, and they are the least informed and experienced with EE / conservation measures.	This group is uninformed about EE, and while they'd likely be receptive to education given their approval of Ameren Missouri, investing in such efforts would likely yield little return given their already low energy usage.
Cost-Focused Skeptics (27%)	This is likely the most challenging segment for Ameren Missouri. They are highly skeptical about the need for EE measures, and only moderately favorable toward Ameren Missouri, who they believe should be focused only on decreasing energy costs for their customers.	This group has higher than average kWh and has yet to take much action to reduce their energy usage. There is definite opportunity for load reduction here, though they will need to be convinced of the cost benefit as messages around energy savings won't appeal to them.	This group was mostly unresponsive to the EE measures tested. They don't believe in the need for EE / conservation and are relatively unfamiliar with such efforts to-date, and it's doubtful they could be swayed by opportunities to cut costs.	This group is the most adamant that Ameren Missouri focuses solely on helping their customers save on energy costs. Increasing awareness of the need for EE/conservation, as well as promoting EE initiatives that will have a near-term cost savings would likely be important starting points for this population.
Low Interest, Little Action (8%)	This segment would likely be difficult to market to as they are the least likely to like Ameren Missouri, and among the least concerned with environmental issues.	Buildings and company sizes are the smallest of any segment, and with lower kWh. They have done relatively little to-date in terms of EE measures.	Take rates are second lowest in this group and familiarity / experience with EE is also very low. Given their lack of involvement in this category, it is not clear at all what sort of messaging would be likely to get this group's attention.	While it could be argued that EE education is needed with this group, it is unclear how to get their attention to attend to any type of education.

Table 9-3 Business Segment Prioritization

	Cost-Focused Conservers	Active Conservers	Practical Idealists	Unmotivated & Uninformed	Cost-Focused Skeptics	Low Interest, Little Action
Size	13%	12%	18%	21%	27%	8%
Opportunity	**High** Eager to save money on energy costs	**Medium-High** Experienced in EE and willing to do more	**Medium** The greenest in attitude but not action	**Low** Already using the least amount of energy, with little need or motivation to participate in EE or DR programs	**Low** Skeptical about the need for EE and uninterested in its cost saving benefits	**Very Low** Relatively uninvolved with the energy category and little interest in becoming so
Role for Ameren Missouri	*Save Us Money*: Positive opinion of the company, but just want Ameren Missouri to focus on lowering costs (for me)	*Give Us More*: Already the most likely to be participating in EE programs, they'll be looking for new opportunities to continue saving	*Help Me:* They like the company and want it to help them become more energy efficient; they just need more information about what to do	*Doing Okay On My Own:* Like the company, but not interested in energy issues generally, and see little likely value in EE actions	*Don't Bother Me:* Dislike the company, not interested in energy issues generally, and see little likely value in EE actions	*Leave me alone:* Don't like the company and just want to be left alone

Table 9-4 Business Likely Takers Given a Three-Year Payback Period

	Cost-Focused Conservers	Active Conservers	Practical Idealists	Unmotivated & Uninformed	Cost-Focused Skeptics	Low Interest, Little Action
Size	13%	12%	18%	21%	27%	8%
Category 1: Programs / Measures for Purchasing / Installing Energy Efficient Equipment[6]						
AC / Chiller Unit	60%	58%	49%	50%	42%	34%
Copier / Printer	48%	46%	45%	40%	28%	33%
Cooling System	57%	59%	51%	48%	41%	43%
Light Bulbs	65%	58%	56%	40%	32%	34%
Heating System	61%	59%	46%	50%	42%	32%
Server	51%	46%	40%	41%	27%	30%
PC	47%	44%	40%	39%	29%	36%
Refrigeration Unit	57%	53%	34%	40%	31%	31%
Cooking Equipment	54%	51%	36%	37%	27%	24%
Category 2: Programs / Measures for Improving Energy Efficiency of Existing Systems						
Maintain cooling system regularly	57%	53%	56%	45%	36%	35%
Maintain heating system regularly	57%	52%	55%	45%	36%	38%
Install a timer on pool pump	66%	47%	59%	N/A	32%	N/A
Install a programmable thermostat	56%	52%	50%	48%	36%	39%
Upgrade portions of your lighting system	58%	55%	49%	42%	33%	32%
Install exterior lighting controls	57%	55%	50%	44%	34%	28%
Purchase EE pumps or motors for HVAC system	55%	56%	42%	44%	34%	29%
Install EE fans on chiller units	33%	64%	63%	3%	46%	9%
Install variable speed drives on HVAC system	51%	55%	41%	42%	32%	29%
Add ventilation system volume controls	52%	53%	45%	42%	29%	25%
Install variable speed drives on chiller pumps	34%	65%	43%	3%	52%	4%

[6] Assumes a normal replacement cycle

Table 9-3 Business Likely Takers Given a Three-Year Payback Period (continued)

	Cost-Focused Conservers	Active Conservers	Practical Idealists	Unmotivated & Uninformed	Cost-Focused Skeptics	Low Interest, Little Action
Size	13%	12%	18%	21%	27%	8%
Category 2: Programs / Measures for Improving Energy Efficiency of Existing Systems (continued)						
Install an Economizer	30%	64%	43%	3%	52%	9%
Implement "re-commissioning" of HVAC system	50%	45%	39%	36%	27%	25%
Install an Energy Management System	54%	50%	41%	34%	28%	27%
Install occupancy / motion sensors for lighting	49%	49%	42%	34%	27%	26%
Install "low flow" nozzles or faucet aerators	46%	43%	32%	36%	25%	24%
Install interior lighting sensors / timers	48%	46%	41%	33%	26%	23%
Install reflective film on exterior windows	49%	37%	35%	32%	22%	21%
Install a variable speed compressor on refrigeration unit(s)	44%	52%	32%	30%	27%	23%
Install a dishwasher pre-rinse spray valve	53%	42%	27%	29%	23%	22%
Category 3: Programs / Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference						
Purchase EE motors or pumps for non-HVAC equipment	57%	54%	36%	31%	32%	25%
Install Variable Speed Drives on one or more non-HVAC pumps/ motors	52%	51%	35%	27%	28%	13%
Install/ upgrade an advanced optimization control system on industrial compressed air system	53%	46%	32%	35%	25%	21%
Efficient rewind of motors	45%	44%	26%	27%	26%	17%
Install a timer or altering the control algorithm on industrial processes	44%	43%	26%	25%	26%	9%

Table 9-3 Business Likely Takers Given a Three-Year Payback Period (continued)

	Cost-Focused Conservers	Active Conservers	Practical Idealists	Unmotivated & Uninformed	Cost-Focused Skeptics	Low Interest, Little Action
Size	13%	12%	18%	21%	27%	8%
Category 4: Programs / Measures Not Requiring an Investment by the Customer						
Reduce thermostat setting during the winter	40%	42%	41%	37%	32%	30%
Raise your thermostat setting during the summer	39%	39%	37%	34%	32%	29%
Reduce water heater temperature	44%	39%	36%	34%	32%	34%
Category 5: Programs / Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference						
TOU	36%	29%	30%	22%	23%	28%
TOU with bill protection	43%	34%	37%	30%	26%	28%
RTP	33%	25%	29%	20%	21%	25%
RTP with bill protection	38%	28%	34%	25%	22%	28%
CPP	39%	34%	35%	22%	21%	21%
CPP with bill protection	45%	37%	38%	26%	22%	25%
PTR	56%	40%	40%	38%	32%	33%

APPENDIX A

RESIDENTIAL SURVEY DETAILS

List of All Programs/Measures Tested in Residential Surveys

<u>Category 1</u> (Q25-27, Q28, Q37-39): How likely would your household be to buy the higher than standard efficiency model (and take the rebate), rather than buying an equivalent standard efficiency model of each item?

- Purchase a higher than standard efficiency refrigerator
- Purchase a higher than standard efficiency air conditioner
- Purchase a higher than standard efficiency furnace or boiler
- Purchase a higher than standard efficiency water heater
- Purchase a higher than standard efficiency TV
- Purchase a higher than standard efficiency personal computer
- Purchase a higher than standard efficiency stovetop or range
- Purchase a higher than standard efficiency clothes dryer
- Purchase a higher than standard efficiency swimming pool pump
- Purchase higher than standard efficiency light bulbs (higher than standard efficiency light bulbs could be compact fluorescent light bulbs (CFLs) or lower wattage incandescent light bulbs than you usually buy)

<u>Category 2</u> (Q29-31, Q32, Q33-35, Q36): How likely would your household be to make each improvement (and take the rebate)?

- Replace your exterior windows with more energy efficient models
- Install a whole house / attic fan to improve air flow in your home
- Have your cooling and / or heating system ductwork professionally inspected, repaired, and sealed
- Add insulation to the ductwork that serves your cooling and/or heating or systems
- Install additional or upgraded home insulation to ceilings, walls, or floors
- Install controls on your outside lights that make sure they are only on at certain times
- Install a new – or replace an existing standard efficiency – dehumidifier
- Have regular maintenance performed on your cooling system by a professional service technician
- Have regular maintenance performed on your heating system by a professional service technician
- Install a thermostat on your heating and / or cooling system that would allow you to pre-set different heating or cooling levels for different days and different times of the day
- Install “low flow” showerheads that reduce the amount of hot water used
- Install one or more “Smart” power strips that automatically turn off devices (such as computers, printers, or phone chargers) after a period of time when they are not use

Category 3[7] **(Q40): Please indicate how likely you would be to take any of these energy saving actions…**

- Reduce the temperature of the hot water that your water heater delivers
- Turn down the heating or cooling while sleeping or away from home
- Get rid of a secondary refrigerator that you may only use sometimes and might be in a garage or basement

Category 4 (Q41): If you were going to replace each of the following appliances – and with the incentive, there would be no difference between the higher and standard efficiency options – how likely would you be to purchase the higher efficiency appliance, rather than the standard efficiency equivalent?

- Purchase a higher than standard efficiency refrigerator
- Purchase a higher than standard efficiency television
- Purchase a higher than standard efficiency dehumidifier

- **Category 5 (Q42-51): If this electricity rate was available to you, how interested would you be in signing up for it?**
- TOU
- TOU with bill protection
- RTP
- RTP with bill protection
- CPP
- CPP with bill protection
- PTR

[7] No payback periods were associated with Category 3 programs / measures

Eligibility & Take Rates

Table A-1 Residential Eligibility & Take Rates

Program / Measure	% Eligible	Likely Takers		
		1-year payback period	3-year payback period	5-year payback period
Category 1: Programs / Measures for Purchasing / Installing Energy Efficient Equipment[8]				
Refrigerator	100%	43%	39%	34%
AC	> 99%	40%	36%	31%
Furnace or boiler	81%	40%	36%	31%
Water heater	80%	42%	38%	32%
TV	100%	35%	32%	28%
PC	100%	33%	30%	26%
Stovetop or range	100%	37%	33%	29%
Clothes dryer	97%	40%	36%	31%
Swimming pool pump	22%	32%	29%	25%
Light bulbs	100%	44%	39%	32%
Category 2: Programs / Measures for Improving Energy Efficiency of Existing Systems				
Install more energy efficient windows	100%	35%	30%	24%
Install a whole house / attic fan	76%	26%	22%	18%
Inspect HVAC ductwork	96%	35%	30%	24%
Upgrade HVAC ductwork insulation	96%	34%	29%	24%
Upgrade home insulation	91%	34%	29%	24%
Install exterior lighting controls	85%	35%	30%	24%
Install a dehumidifier	100%	32%	26%	21%
Perform regular cooling system maintenance	>99%	40%	34%	27%
Perform regular heating system maintenance	88%	40%	33%	27%
Install a Programmable thermostat	83%	39%	33%	27%
Install 'low flow' showerheads	100%	30%	25%	20%
Install one or more "Smart" power strips	100%	37%	31%	25%
Category 3: Programs / Measures Not Requiring an Investment by the Customer				
Reduce water heater temperature	100%		30%	
Turn down the heating / cooling while sleeping or away	100%		43%	
Get rid of secondary refrigerator	100%		25%	
Category 4: Programs / Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference				
Refrigerator	100%		39%	
Television	100%		37%	
Dehumidifier	100%		33%	
Category 5: Programs / Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference				
TOU	100%		29%	

[8] Assumes a normal replacement cycle

TOU with bill protection	100%		33%	
RTP	100%		25%	
RTP with bill protection	100%		28%	
CPP	100%		24%	
CPP with bill protection	100%		27%	
PTR	100%		32%	

Table A-2 Residential Sample Design Matrix

Usage Stratum	Annual Usage Breakpoint (kWh)	Sample Size	Population Count by usage level and region	Percentage Total Population by Sample Cell
1	< 8,300	113	216,058	25%
2	>=8,300 and < 13,800	121	276,814	32%
3	>=13,800 and <21,100	120	208,543	24%
4	>=21,100 and >34,000	121	123,712	14%
5	>=34,000 and < 658,300	125	29,164	2.6%

RESIDENTIAL PROGRAM INTEREST SURVEY QUESTIONNAIRE

DEFINITIVE INSIGHTS

Ameren Missouri DSM Market Potential – Program Interest Questionnaire RESIDENTIAL
V10 FINAL 1/21/2013

QUALIFYING CRITERIA AND QUOTAS

Qualifying Criteria

- The respondent must have primary or shared responsibility for making energy-related decisions
- The respondent must be at least 18 years old
- No one in the respondent's household may work for a gas or electric utility company
- The respondent household must be billed for electricity directly by Ameren Missouri

PRELOAD ALL SAMPLE FIELDS.

Hard Quotas

Total: n=600

Soft Quotas

THE MAIN QUOTA VARIABLE IS STRATUM ID / ALL OTHER QUOTAS ARE DRIVEN BY THAT ONE.

USAGE STRATUM

N=SEE QUOTA GRID

Age (S3)

N=AS FALLS BUT WE WANT TO TRACK

Geography – READ IN FROM SAMPLE: **[REGION]**

N=SEE QUOTA GRID

FOR ENTIRE SURVEY, [ADDRESS] =THE FOLLOWING SAMPLE FIELDS:

ADDR#
ADDRDIR
ADDRSTR
ADDRSUF
ADDRSTRUC
ADDRCITY
ADDRSTATE
ADDRZIP

RESPONDENT IDENTIFICATION / VERIFICATION

Welcome. This survey is sponsored by Ameren Missouri.
[PROGRAMMER: INCLUDE AMEREN MISSOURI LOGO]

Survey results will be collected and summarized by Definitive Insights, a market research company.

Please enter the 5-digit "Survey ID#" that appears on the survey invitation postcard you received. It should be located just above the mailing address on the front side of the postcard.

Survey ID# : _____

[PROGRAMMER: VERIFY VALID CODE AND READ IN ALL VARIABLES FROM SAMPLE FILE]

We at Ameren Missouri and Definitive Insights value your privacy. We will use the information you provide for research purposes only and will NOT share it with third parties for marketing purposes. Information you provide will be stored in a secure database. If you have questions about our privacy practices or would like to get any other information about this study, please contact us via one of the following methods:

e-mail:	AmerenSurveyHelp@definitiveinsights.com
phone:	1-855-888-9270
postal mail:	Definitive Insights ATTN: Ameren Missouri Project Director 601 SW Oak Street Portland, Oregon 97205

INTRODUCTION

Thank you for taking the time to see if you and your household qualify to participate in a new research study about energy. The study is sponsored by Ameren Missouri, and it has a very important purpose. Ameren Missouri is delivering programs to help its customers use energy more efficiently. Your answers to this survey will help the company to improve these programs so that they work best for everyone.

Your household is one of a small number being asked to respond to the survey. To show our appreciation for your time and effort in completing the survey, you will have the option of choosing a **$10 Amazon electronic gift card or a $10 check** at the end of the survey, if you complete all of the questions. (You may decline to receive payment if desired.)

You will first be asked a few questions to make sure your household qualifies for participation. If you do qualify, you will then be invited to complete the full survey.

> *Note: If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the URL and the Survey ID# from your survey invitation to access your survey again. The survey will automatically take you to the point where you left off.*

Please note: any word or phrase that appears in blue, underlined font will have a hyperlinked definition that pops-up in a separate browser window when you click on that word or phrase. Clicking on any of these hyperlinks will NOT make you navigate away from the survey site.

Please click “Continue” to begin.

RESPONDENT SCREENING

A1. Our records indicate that your address is:

[READ IN RESPONDENT ADDRESS FROM SAMPLE FILE]

Is this correct?
1. Yes
2. No

[IF A1=2, TERMINATE VIA A1 AND READ A1 TERMINATE TEXT; OTHERWISE GO TO S1.]

[A1 TERMINATE TEXT:]
We truly appreciate your time and effort in responding to our survey, but our questions are related to a specific address.

If you would like information on how your home can save money on your energy bills, please visit us at **Act**OnEnergy.com

Thank you. Have a nice day!

S1. What is your role in making energy-related decisions about things such as: adjusting your home's thermostat, choosing to install insulation, or selecting new appliances, large electronic devices, and light bulbs for your home?

Any reference to "your home or household," here and throughout the rest of this survey, refers specifically to the residence at ***[*READ IN RESPONDENT ADDRESS FROM SAMPLE FILE*]****.*

1. You are primarily responsible for some or all of these decisions
2. Someone else in your household is primarily responsible for these types of decisions **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA R1]**
3. You share responsibility for these decisions with others in your household, or with a landlord or property manager
4. Don't know **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA R1]**

[IF S1=1 OR 3, SKIP TO S2; OTHERWISE SHOW R1 AND TERMINATE WITHOUT SHOWING STANDARD TERMINATE LANGUAGE]

R1. Thank you for taking the time to see if you are eligible to participate in this survey. At this time we need responses from someone in your household who has specific knowledge about the way your household makes decisions about energy-related issues.
We would appreciate it if you would provide that person with the invitation postcard you received or refer them to the following link so that they may complete this survey:
LINK: http://tiny.cc/ameren
ID: XXXXX

[PROGRAMMER NOTE: IF A RESPONDENT TERMINATES VIA R1, DELETE DATA COLLECTED AND RESET SURVEY REENTRY POSITION FOR THAT SURVEY ID# BACK TO THE BEGINNING OF THE SURVEY. RECORD THE DATA DELETED FOR THAT SURVEY ID# ELSEWHERE SO WE CAN TRACK THE NUMBER OF TIMES AND REASONS RESPONDENTS DISQUALIFY AT R1 AS WELL AS THE NUMBER OF TIMES THESE PREVIOUSLY USED SURVEY ID#'S ARE REUSED. FOR ALL RESPONDENTS THAT DO NOT TERMINATE VIA R1, DO NOT ALLOW SURVEY ID# TO BE USED AGAIN.]

S2. Do you own or rent your home?
1. Own (or in the process of buying it)
2. Rent / lease

S3. Which of the following categories represents your current age?

1. Less than 18 years old **[TERMINATE AFTER S7]**
2. 18-24
3. 25-34
4. 35-44
5. 45-54
6. 55-64
7. 65 or more years old

[IF S3=2-7, ASK S4; OTHERWISE ASK S4 AND TERMINATE AFTER S7]

S4. Do you, or does anyone else in your household work for a gas or electric utility company?

1. Yes
2. No

[IF S4=2, CONTINUE; OTHERWISE, TERMINATE]

S5. How is your household billed for the electricity you use?

1. My household is billed directly by Ameren Missouri
2. My household is NOT billed directly by Ameren Missouri; the cost for our electricity is included in our rent, or is paid by someone else **[TERMINATE]**
3. My household's electricity is provided by another utility; **not** Ameren Missouri **[TERMINATE]**
4. Don't know **[TERMINATE]**

S7. Who is billed by your electric company for each of the following things used in your home?

	1. Your household	2. Someone else (e.g., landlord, property manager)	3. Not sure	4. Not used in your home
A. Heating all or most of the space in your house / unit	○	○	○	○
B. Air conditioning or cooling all or most of the space in your house / unit (including any fans, dehumidifiers, etc.)	○	○	○	○
C. Water heating	○	○	○	○
D. Lights on the outside of your home or building	○	○	○	○
E. Pump for a swimming pool or hot tub	○	○	○	○
F. Heater for a swimming pool or hot tub	○	○	○	○

S8. **[ASK ALL:]** What is the **primary fuel type** used for each of the purposes listed below?

	Primary Fuel Type					
	1. Electricity	2. Natural gas (piped gas)	3. Propane	4. Something else [SPECIFY]	5. Not sure	6. Not applicable
1. Heating all or most of the space in your house / unit	○	○	○	○	○	○
2. Hot water heating for your home	○	○	○	○	○	○
3. Cooking	○	○	○	○	○	○
4. Clothes dryer	○	○	○	○	○	○

[IF ALL S7=3 (NOT SURE) AND ALL S8=5 (NOT SURE), TERMINATE; OTHERWISE, CONTINUE TO S10]

S10. Which of the following systems/equipment do you use to **cool** your home, even if only once in a while, and / or for part of your home? *Select all that apply.*

1. Central air conditioner
2. One or more room air conditioners mounted in or near a window or on a wall
3. Air-source heat pump
4. Geothermal heat pump
5. Whole-house fan
6. Attic fan
7. One or more portable room air conditioners
8. One or more portable dehumidifiers
9. One or more ceiling fans
10. One or more window or room fans

990. Other **[SPECIFY]**

996. Not sure **[EXCLUSIVE]**

998. My home has no cooling systems/equipment **[EXCLUSIVE]**

[IF >1 ITEM SELECTED IN S10, DISLAY S11; OTHERWISE AUTOCODE S11=S10 AND SKIP TO S12]

S11. Which one of these cooling systems/equipment do you use to cool **all or most** of your home? **[ONLY DISPLAY ITEMS SELECTED IN S10]**

1. Central air conditioner
2. One or more room air conditioners mounted in or near a window or on a wall
3. Air-source heat pump
4. Geothermal heat pump
5. Whole-house fan
6. Attic fan
7. One or more portable room air conditioners
8. One or more portable dehumidifiers
9. One or more ceiling fans
10. One or more window or room fans

990. **[INSERT S10_990 RESPONSE]**

996. Not sure **[EXCLUSIVE]**

998. Home has no cooling systems/equipment that cool all or most of my home **[EXCLUSIVE]**

S12. Which of the following systems/equipment do you use to **heat** your home, even if only once in a while, and / or for part of your home? *Select all that apply.*

1. Electric central warm air furnace with ducts/vents to individual rooms

11. Natural gas central warm air furnace with ducts/vents to individual rooms

2. Natural gas central boiler with hot water/steam radiators or baseboards in individual rooms
3. Electric baseboard or electric coils radiant heating

4. Air-source heat pump
5. Geothermal heat pump
6. Wall furnace(s)
7. Fireplace(s)
8. Wood burning stove(s)
9. Wall-mounted space heater(s)
10. Portable space heater(s)

990. Other **[SPECIFY]**

996. Not sure **[EXCLUSIVE]**

998. My home has no heating systems/equipment **[EXCLUSIVE]**

[IF >1 ITEM SELECTED IN S12, DISLAY S13; OTHERWISE AUTOCODE S13=S12 AND SKIP TO END OF SCREENER]

S13. Which one of these heating systems/equipment do you use to heat **all or most** of your home?

1. Electric central warm air furnace with ducts/vents to individual rooms

11. Natural gas central warm air furnace with ducts/vents to individual rooms

2. Natural gas central boiler with hot water/steam radiators or baseboards in individual rooms
3. Electric baseboard or electric coils radiant heating

4. Air-source heat pump

5. Geothermal heat pump
6. Wall furnace(s)
7. Fireplace(s)
8. Wood burning stove(s)
9. Wall-mounted space heater(s)
10. Portable space heater(s)

990. **[INSERT S12_990 RESPONSE]**

[TERMINATE IF DISQUALIFIED; OR OVER-QUOTA AND GO TO TERMINATE LANGUAGE; OTHERWISE GO TO INVITATION LANGUAGE]

TERMINATE LANGUAGE FOR NON-QUALIFYING AFTER QS1.0 OR OVER-QUOTA RESPONDENTS

We truly appreciate your time and effort in responding to our survey invitation and answering these initial questions, which were designed to see if you are eligible to participate.
In order to achieve a representative sample, quotas with specific criteria have been designated. At this point, we have reached the number of respondents we can accept from individuals with your type of experience or background. Again, we would like to thank you for your time and effort.

If you would like information on how your home can save money on your energy bills, please visit us at **Act**OnEnergy.com

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Thank you. Have a nice day!

INVITATION LANGUAGE FOR QUALIFYING RESPONDENTS

Thank you for your responses so far! You qualify for the survey. As we indicated earlier, only a limited number of individuals have been invited to participate in this survey, so we appreciate your time in filling out the survey as completely as possible.
The survey should take about 20 - 25 minutes to complete. Once you complete the survey you will be eligible to receive our $10 thank you payment. Information about how to receive this payment will be provided at the end of the survey.
Your responses are important to us, so please press "Continue" to begin answering the survey questions. All information provided in this survey will be kept strictly confidential, and at no time will you be asked to purchase anything.
If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the personalized URL to access your survey again. The survey will automatically take you to the point where you left off.
As you complete the survey, you will **not** be able to use your browser's "back" button. If you mistakenly press your browser's "back" button, you will need to press the "refresh" button to continue the survey.

I – ATTITUDES

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT]

Q1. Overall, how familiar would you say you are with Ameren Missouri as your electric utility?

[RECORD NUMBER; 1=NOT AT ALL FAMILIAR, 10=EXTREMELY FAMILIAR]

Not at all familiar								Extremely familiar	
1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

Q2. Using a 10-point scale where '1' means you strongly disagree, and '10' means you strongly agree, please indicate how much your household agrees or disagrees with each of the following statements about Ameren Missouri.

Note: If you don't feel like you are very familiar with Ameren Missouri on any of the following, please just give your best guess.

Ameren Missouri is…

[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-5]	Strongly disagree								Strongly agree	
	1	2	3	4	5	6	7	8	9	10
1. …a credible information source for the community on energy efficiency	○	○	○	○	○	○	○	○	○	○
2. …a company that actively promotes programs to help its customers save money	○	○	○	○	○	○	○	○	○	○

Q3. Overall, how satisfied would you say your household is with the service provided by Ameren Missouri?

[RECORD NUMBER; 1=NOT AT ALL SATISFIED, 10=EXTREMELY SATISFIED]

Not at all satisfied								Extremely satisfied	
1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

Q4. Using a 10-point scale, where '1' means it is not at all important and '10' means it is extremely important, please indicate how important it is to your household that Ameren Missouri do the following things, even if that means you would have to pay a little more in order for the company to pursue these types of initiatives.

[RECORD NUMBER; 1=NOT AT ALL IMPORTANT, 10=EXTREMELY IMPORTANT]

[ROTATE 1-4]	Not at all important								Extremely important	
	1	2	3	4	5	6	7	8	9	10
1. Actively encourage its customers to participate in energy saving and cost saving programs	○	○	○	○	○	○	○	○	○	○
2. Operate its business in a completely environmentally friendly manner	○	○	○	○	○	○	○	○	○	○

Q5. Considering the types of initiatives we asked about in the previous question, which would you prefer your electric utility do…? *PLEASE SELECT ONE*

1. Pursue these and other initiatives even if you would have to pay a little more
2. Do everything possible to keep energy costs as low as possible
3. Both are equally important

Q6. We'd like to understand how your household as a whole thinks about using energy at your home. Using a 10-point scale where '1' means you strongly disagree, and '10' means you strongly agree, please indicate how much you agree or disagree with each of the following statements.
[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-9]	Strongly disagree									Strongly agree
	1	2	3	4	5	6	7	8	9	10
1. Comfort is very important to your household – even if it means spending more each month for energy	○	○	○	○	○	○	○	○	○	○
2. Saving money on energy costs is something you focus on every day	○	○	○	○	○	○	○	○	○	○
3. Realistically, there isn't much you can do to save money on energy costs	○	○	○	○	○	○	○	○	○	○
4. You just want to be left alone to use energy however you want in your home	○	○	○	○	○	○	○	○	○	○
5. You would do more to make your home more energy efficient, but you don't know where to start	○	○	○	○	○	○	○	○	○	○
6. The threat from global warming is real, and significant	○	○	○	○	○	○	○	○	○	○

II – ENERGY EFFICIENCY MEASURES IMPLEMENTED

Q7. Which, if any, of the following items have been purchased for your home in the **last 12 months**? Which, if any, do you plan to purchase for your home in the **next 12 months**? *Select all that apply.*

[ROTATE 1-13]	**A. Purchased in last 12 months**	**B. Plan to purchase in next 12 months**
1. Water heater **[ASK THIS ROW IF S2=1]**	☐	☐
2. Furnace or boiler**[ASK THIS ROW IF S2=1]**	☐	☐
3. Central air conditioner **[ASK THIS ROW IF S2=1]**	☐ **[OFFER IF S10_1 IS SELECTED]**	☐
4. Room air conditioner	☐ **[OFFER IF S10_2 IS SELECTED]**	☐
5. Clothes washer or dryer	☐	☐
6. Refrigerator	☐	☐
7. Freezer	☐	☐
8. Dishwasher	☐	☐
9. TV	☐	☐
10. Computer	☐	☐
11. Pump for pool or hot tub	☐ **[ASK IF S2=1 AND S7_E NOT=4]**	☐
12. Heater for pool or hot tub	☐ **[ASK IF S2=1 AND S7_F NOT=4]**	☐
13. Heat pump	☐ **[ASK IF S2=1 OR IF ANY OF S10_3, S10_4, S12_4,S12_5 SELECTED]**	☐
14. Other significant energy-using item **[SPECIFY ONE ITEM]**	☐	☐
15. Other significant energy-using item **[SPECIFY ONE ITEM]**	☐	☐
16. Other significant energy-using item **[SPECIFY ONE ITEM]**	☐	☐
17. Not sure **[EXCLUSIVE]**	☐	☐
18. **None** of the above **[EXCLUSIVE]**	☐	☐

[IF ANY Q7_1 THRU Q7_16 SELECTED, ASK Q8; OTHERWISE SKIP TO FILTER BEFORE Q9]

Q8. To the best of your recollection, were any of the items purchased for your household **in the last 12 months** ones that were specifically described as "high energy efficiency," or "highly energy efficient" appliances or devices?

High energy efficiency models are often labeled as" ENERGY STAR® " appliances or devices.

[DISPLAY ONLY ITEMS SELECTED AT Q3A]	1. Yes	2. No	3. Not sure
1. Water heater	○	○	○
2. Furnace or boiler	○	○	○
3. Central air conditioner	○	○	○
4. Room air conditioner	○	○	○
5. Clothes washer or dryer	○	○	○
6. Refrigerator	○	○	○
7. Freezer	○	○	○
8. Dishwasher	○	○	○
9. TV	○	○	○
10. Computer	○	○	○
11. Pump for pool or hot tub	○	○	○
12. Heater for pool or hot tub	○	○	○
13. Heat pump	○	○	○
14. **[INSERT Q7_14 OTHER SPECIFY]**	○	○	○
15. **[INSERT Q7_15 OTHER SPECIFY]**	○	○	○
16. **[INSERT Q7_16 OTHER SPECIFY]**	○	○	○

[IF ANY Q8_1 THROUGH Q8_16 SELECTED, ASK Q9; OTHERWISE SKIP TO Q10]

Q9. Of the appliances and equipment that you **plan to purchase** in the next 12 months, do you plan for any of these to be "high energy efficiency," or "highly energy efficient" models?

High energy efficiency models are often labeled as "ENERGY STAR® " appliances or devices.

[DISPLAY ONLY ITEMS SELECTED AT Q3B]	1. Yes	2. No	3. Not sure
1. Water heater	○	○	○
2. Furnace or boiler	○	○	○
3. Central air conditioner	○	○	○
4. Room air conditioner	○	○	○
5. Clothes washer or dryer	○	○	○
6. Refrigerator	○	○	○
7. Freezer	○	○	○
8. Dishwasher	○	○	○
9. TV	○	○	○
10. Computer	○	○	○
11. Pump for pool or hot tub	○	○	○
12. Heater for pool or hot tub	○	○	○
13. Heat pump	○	○	○
14. **[INSERT Q8_14 OTHER SPECIFY]**	○	○	○
15. **[INSERT Q8_15 OTHER SPECIFY]**	○	○	○
16. **[INSERT Q8_16 OTHER SPECIFY]**	○	○	○

Q10. Before today, have you ever heard of compact fluorescent light bulbs (CFLs)?

1. Yes
2. No
3. Not sure

[IF Q10=2-3, ASK Q11; OTHERWISE SKIP TO Q12)

Q11. Compact fluorescent light bulbs (CFLs) usually do not look like regular incandescent bulbs. The most common type of CFL is made with a glass tube bent into a spiral, resembling a soft-serve ice cream, and it fits in a regular light bulb socket (see image below). Before today, were you familiar with CFLs?

1. Yes
2. No
3. Not sure

A compact fluorescent bulb, or CFL

[IF Q10=1 OR Q11=1, ASK Q12; OTHERWISE SKIP TO Q13]

Q12. Approximately how many compact fluorescent light bulbs (CFLs) are you currently using in your home? *Your best estimate is fine.*

1. None
2. 1 to 5
3. 6 to 10
4. More than 10
5. Not sure

Q13. Have you purchased ***any*** lighting products within the last 6 months?

This includes any incandescent light bulbs, CFLs, LEDs, halogens, fixtures and other lighting products.

1. Yes
2. No
3. Not sure

[IF Q13=1, ASK Q14; OTHERWISE SKIP TO Q16]

Q14. For your lighting purchases made in the last 6 months, please record for each type below how many were bought for your home. *Your best estimate is fine.*
If a package of bulbs contained multiple units, please count each bulb separately.

A. Light bulb type		**Bulbs purchased in the last 6 months**
[DISPLAY ROW IF Q10=1 OR Q11=1; OTHERWISE AUTOCODE Q14A1=0] 1. Compact fluorescent light bulbs (CFLs)		**[RECORD NUM 0-99]**
2. Incandescent light bulbs		**[RECORD NUM 0-99]**
3. LED lamps		**[RECORD NUM 0-99]**
4. Halogen light bulbs		**[RECORD NUM 0-99]**
5. Tubular fluorescent light bulbs		**[RECORD NUM 0-99]**
6. Low-voltage lamps		**[RECORD NUM 0-99]**
990. Other light bulbs **[SPECIFY]**		**[RECORD NUM 0-99]**
TOT. **Total**		**[CALCULATE TOT]**

B. Lighting fixture type		Units purchased in the last 6 months
1. Hard-wired incandescent fixtures		**[RECORD NUM 0-99]**
2. Hard-wired halogen fixtures		**[RECORD NUM 0-99]**
3. Hard-wired fluorescent fixtures		**[RECORD NUM 0-99]**
[DISPLAY ROW IF Q10=1 OR Q11=1; OTHERWISE AUTOCODE Q14B4=0] 4. Hard-wired CFL-specific fixtures		**[RECORD NUM 0-99]**
5. Plug-in incandescent fixtures		**[RECORD NUM 0-99]**
6. Plug-in halogen fixtures		**[RECORD NUM 0-99]**
7. Plug-in fluorescent fixtures		**[RECORD NUM 0-99]**
[DISPLAY ROW IF Q10=1 OR Q11=1; OTHERWISE AUTOCODE Q14B8=0] 8. Plug-in CFL-specific fixtures		**[RECORD NUM 0-99]**
9. Incandescent torchieres (floor lamps)		**[RECORD NUM 0-99]**
10. Halogen torchieres (floor lamps)		**[RECORD NUM 0-99]**
11. Fluorescent torchieres (floor lamps)		**[RECORD NUM 0-99]**
[DISPLAY ROW IF Q10=1 OR Q11=1; OTHERWISE AUTOCODE 14B12=0] 12. CFL-specific torchieres (floor lamps)		**[RECORD NUM 0-99]**
990. Other lighting fixtures **[SPECIFY]**		**[RECORD NUM 0-99]**
TOT. **Total**		**[CALCULATE TOT]**

[IF Q14ATOT>0, ASK Q15; OTHERWISE SKIP TO Q16]

Q15. For the bulbs you said you purchased within the past 6 months, please tell us how many were purchased within the **last 3 months**.

Light bulb type [ONLY DISPLAY ROWS >0 AT Q14]	**Bulbs purchased in the last 6 months**	**Number of those purchased within the past 3 months?**
1. Compact fluorescent light bulbs (CFLs)	**[Q14A1 RESPONSE]**	**[RECORD NUM 0-Q14A1]**
2. Incandescent light bulbs	**[Q14A2 RESPONSE]**	**[RECORD NUM 0-Q14A2]**
3. LED lamps	**[Q14A3 RESPONSE]**	**[RECORD NUM 0-Q14A3]**
4. Halogen light bulbs	**[Q14A3 RESPONSE]**	**[RECORD NUM 0-Q14A3]**
5. Tubular fluorescent light bulbs	**[Q14A4 RESPONSE]**	**[RECORD NUM 0-Q14A4]**
6. **[INSERT Q10A990 OTHER SPECIFY]**	**[Q14A5 RESPONSE]**	**[RECORD NUM 0-Q14A1]**
TOT. **Total**	**[Q14ATOT]**	**[CALCULATE TOT]**

[IF Q14A_1>0, ASK Q16; OTHERWISE SKIP TO Q17]

Q16. You mentioned having purchased **[Q14A1 RESPONSE]** Compact Fluorescent light bulbs CFL(s) for your home within the **last 6 months**.
[IF Q14A_1=1; DISPLAY At which one of the following did you purchase this CFL?**] [IF Q14A_1>1; DISPLAY** At which of the following types of stores did you purchase these CFLs? *Select all that apply.***]**

1. Discount store (e.g., Dollar Store or Deals)
2. Drug store / pharmacy (e.g., CVS, Walgreens)
3. Large home improvement store (e.g., Lowe's, Home Depot, Menards)
4. Smaller hardware store (e.g., Ace, True Value, Sears Hardware)
5. Mass merchandise store (e.g., Wal-Mart, Target, Kmart)
6. Online store (e.g., Amazon.com, Ebay, Lowes.com)
7. Specialty lighting or electronics store
8. Supermarket / grocery store (e.g., Schnucks, Dierbergs, Shop & Save, Aldi, Kroger)
9. Warehouse / membership club store (e.g., Costco, Sam's Club)

990. Other **[SPECIFY]**

Q17. Some utilities offer incentives or price discounts to encourage people to purchase highly energy efficient products such as appliances, furnaces, heat pumps, water heaters, compact fluorescent light bulbs (CFLs), and home insulation.
To the best of your knowledge, does Ameren Missouri have any such programs that offer you a discount off the purchase price on qualified items?

1. Yes
2. No
3. Not sure

[IF Q17=1, ASK Q18; OTHERWISE SKIP TO Q19]

Q18. Has your household participated in any price discounts or conservation incentive programs provided by Ameren Missouri, either through a contractor or retailer, or directly by Ameren Missouri within the **last 2 years**?

1. Yes
2. No
3. Not sure

[IF Q18=1, ASK Q18A; OTHERWISE GO TO Q19]

Q18a. Which of these programs did your household participate in within the last 2 years?

	Energy Efficiency Program [RANDOMIZE]	**Participated in the last 2 years**
1.	Refrigerator Recycling Program (RRP)	☐
2.	Lighting and Appliance Program (L&A)	☐
3.	CheckMe! Plus	☐
4.	Multifamily Income Qualified (MFIQ)	☐
5.	Home Energy Performance (HEP)	☐
6.	HVAC Program	☐
7.	LightSavers	☐
8.	RebateSavers	☐
9.	ApplianceSavers	☐
10.	ConstructionSavers	☐
11.	CommunitySavers	☐
12.	CoolSavers	☐
990.	Other program(s) **[SPECIFY]**	☐
998.	**NONE [EXCLUSIVE]**	☐

Q19. In addition to the items we've reviewed so far, which, if any, of these other energy efficiency related actions have you **[IF S2=2, "**, your landlord,**"]** or any other members of your household taken in your home in the **last 12 months**? *Select all that apply.*

[ROTATE 1-10]	**Other energy efficiency related actions taken in last 12 months**
1. Conducted a home energy audit	☐
2. Installed storm doors	☐
3. Added weather stripping, caulking, or insulation of windows or doors	☐
4. Installed enhanced insulation of ducts, ceilings, walls, attics, or foundation	☐
5. Installed enhanced water pipe insulation	☐
6. Installed low-flow shower heads or faucet aerators	☐
7. Had a furnace or heat pump tuned up to operate more efficiently	☐
8. Participated in a refrigerator/freezer recycling program	☐
9. Installed a programmable thermostat	☐
11. Sealed ductwork	☐
10. Installed one or more "Smart" power strips that automatically turn off devices (such as computers, printers, phone chargers) after a period of time when they are not used	☐
990. Implemented any other energy efficiency measures **[SPECIFY]**	☐
11. None of the above **[EXCLUSIVE]**	☐

Q20. Which of the following actions are you consistently taking in your home today? *Select all that apply*. *By "consistently", we mean that you do this every time, or on a regular basis.*
[ROTATE 1-7]

1. Using a power strip to turn off electronic equipment when it is not in use
2. Unplugging battery rechargers (e.g., for laptops, cell phones, MP3 players) when they are not being used
3. **[DISPLAY IF ANY S10_1, S10_3, S10_4, OR S12_1, S12_2, S12_4, S12_5 SELECTED]** Performing annual maintenance on your HVAC (heating, ventilation, or air conditioning) equipment
4. Using a water heater insulation blanket / jacket
5. Using a lower water heater temperature
6. Turning off lights when no one is in the room
7. Using a clothes dryer that has a sensor that turns the dryer off when the clothes are dry
8. Turning down heating and/or cooling equipment when away from home and/or at night

990. None of the above **[EXCLUSIVE]**

Q21. Have you noticed any energy or cost savings as a result of any actions you might have taken over the last 12 months to conserve energy?

1. Yes
2. No
3. Not sure

III – PURCHASING ATTITUDES

Now, we'd like to ask you how important various factors are when you and/or other members of your household shop for energy-related products and services for your home.

Q22. Using a 10 point scale where '1' means it is **not at all important** to your household and '10' means it is **extremely important** to your household, please indicate **how important** to your household each of the following factors is when selecting which appliances, electronic devices, or other energy-related products or services to purchase for your home.

[RECORD NUMBER; 1=NOT AT ALL IMPORTANT, 10=EXTREMELY IMPORTANT]

[ROTATE 1-7, but make sure 1-2 always appear next to each other, and make sure 1-2 rotate]	Not at all important									Extremely important
	1	2	3	4	5	6	7	8	9	10
1. Any cost savings you might see from using the product / service	○	○	○	○	○	○	○	○	○	○
2. Any positive environmental impacts that might result from using the product / service	○	○	○	○	○	○	○	○	○	○
3. Features and functions included with the product / service	○	○	○	○	○	○	○	○	○	○
4. The total amount of money the product / service would cost	○	○	○	○	○	○	○	○	○	○

Q24. Using a 10 point scale where '1' means you **strongly disagree** and '10' means you **strongly agree**, please indicate how much you **agree** or **disagree** with each of the following statements.
[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-7]	Strongly disagree									Strongly Agree
	1	2	3	4	5	6	7	8	9	10
1. The most important thing about a heating system or air conditioner is how comfortable it makes your home	○	○	○	○	○	○	○	○	○	○
2. You enjoy having leading-edge appliances or devices with the most innovative features	○	○	○	○	○	○	○	○	○	○
3. It's worth spending more money to get the highest quality product available	○	○	○	○	○	○	○	○	○	○
4. It's worth spending more for an appliance or electronic device that has been rated as an energy efficient or "ENERGY STAR®" product	○	○	○	○	○	○	○	○	○	○

IV – INTEREST IN POTENTIAL ENERGY EFFICIENCY PROGRAMS THAT COULD BE OFFERED BY AMEREN MISSOURI

[PROGRAMMER NOTE: REBATE/INCENTIVE PROGRAM INTRODUCTION SCREEN]

The next section of the survey asks for your reaction to a wide variety of energy efficiency programs that Ameren Missouri may be able to offer to customers like you. For each of the programs you will see, we would like to know how likely you think your household would be to participate in the program.

Q25. With many of these programs, Ameren Missouri would offer your household a rebate or other financial incentive to purchase a more energy efficient version of an item that uses energy in your home. As an example, consider the fact that you can purchase refrigerators that are "standard" efficiency or "higher than standard" efficiency. Higher efficiency refrigerators cost a little bit more, but they use less energy. Often, the energy that you can save by using a more energy efficient appliance can pay for the higher cost of that appliance within a few years.

Ameren Missouri might be able to offer a rebate or other financial incentive to households that opt to purchase a higher efficiency refrigerator or other appliance. Because these incentives would reduce the cost difference between a highly energy efficient unit and a standard unit, it would take less time to save on electricity costs to make up for the higher initial cost of the more efficient unit. And remember that you would continue to save money on electricity costs, even after the energy efficient unit "paid for itself," throughout the entire 10 or more year lifespan of the appliance or other measure.

Please assume for now that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the additional cost of a higher efficiency refrigerator within **3 years**. If you were going to acquire a new refrigerator, how likely would your household be to buy the higher than standard efficiency refrigerator (and take the incentive), rather than buying an equivalent standard efficiency refrigerator?

Please use a 10 point scale where '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q25 =7-10]

Q26. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the additional cost to

buy a "higher than standard efficiency" refrigerator in **5 years**. If this were true, and you were going to acquire a new refrigerator, how likely would your household be to buy the higher than standard efficiency refrigerator (and take the incentive), rather than buying an equivalent standard efficiency refrigerator?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q25 =1-6]

Q27. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the additional cost to buy a "higher than standard efficiency" refrigerator in **1 year**. If this were true, and you were going to acquire a new refrigerator, how likely would your household be to buy the higher than standard efficiency refrigerator (and take the incentive), rather than buying an equivalent standard efficiency refrigerator?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

Q28. Now, for each of the items described below, let's assume that an incentive from Ameren Missouri would mean that you would save enough on electricity, in **3 years**, to pay for the additional cost to buy a "higher than standard efficiency" model of that item. If this were true, and you were going to acquire each of these items, how likely would your household be to buy the higher than standard efficiency model (and take the incentive), rather than buying an equivalent standard efficiency model of each item?

Please use a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

[ROTATE 1-8] 3 Year Payback Period	Not at all likely to do this									Extremely likely to do this
	1	2	3	4	5	6	7	8	9	10
[DISPLAY IF S7B=1 OR 3 AND S10=1-8, 990,996] 1. Purchase a higher than standard efficiency **air**	○	○	○	○	○	○	○	○	○	○

conditioner										
IF S2=1 & S7A=1 OR 3] 2. Purchase a higher than standard efficiency **furnace or boiler**	○	○	○	○	○	○	○	○	○	○
[IF S2=1 & S7C=1 OR 3] 3. Purchase a higher than standard efficiency **water heater**	○	○	○	○	○	○	○	○	○	○
4. Purchase a higher than standard efficiency **TV**	○	○	○	○	○	○	○	○	○	○
5. Purchase a higher than standard efficiency **personal computer**	○	○	○	○	○	○	○	○	○	○
[IF S8_3=1-4] 6. Purchase a higher than standard efficiency **stovetop or range**	○	○	○	○	○	○	○	○	○	○
[IF S8_4=1-4] 7. Purchase a higher than standard efficiency **clothes dryer**	○	○	○	○	○	○	○	○	○	○
[S7E=1 OR 3] 8. Purchase a higher than standard efficiency s**wimming pool pump**	○	○	○	○	○	○	○	○	○	○

Q29. In addition to offering programs that would help you buy more energy efficient appliances for your home, Ameren Missouri might also be able to offer your household a rebate or other financial incentive to do other things that might make your home more energy efficient. For example, they might provide an incentive to help you replace your

exterior windows with more energy efficient models that have greater insulating properties. Once the exterior windows are installed, the energy saved could potentially make up for the associated cost of installing the windows within a few years.

Assuming that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the cost of installing the more energy efficient exterior windows within **3 years**, how likely would you be to install the windows (and take the incentive)?

Please use a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q29 =7-10]

Q30. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the cost to install more energy efficient exterior windows in **5 years**. If you were given this option, how likely would you be to replace the exterior windows in your home (and take the incentive)?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q29 =1-6]

Q31. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the cost to install more energy efficient exterior windows in **1 year**. If you were given this option, how likely would you be to replace the exterior windows in your home (and take the incentive)?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

Q32. Now, for each of the following energy efficiency improvements you could make in your home, let's assume that the impact of the incentive from Ameren Missouri was that you would save enough on electricity, in **3 years**, to pay for the additional cost to make the energy efficiency improvement. If this were true, how likely would your household be to make each improvement (and take the incentive)?

Please use a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

[ROTATE SECTIONS A-B] [ROTATE ITEMS WITHIN EACH SECTION] 3 Year Payback Period	Not at all likely to do this									Extremely likely to do this
	1	2	3	4	5	6	7	8	9	10
A. Cooling / Heating System Improvements [DISPLAY THIS SECTION IF S7B=1 OR 3 AND ANY S10_1-S10_996 SELECTED]										
[DISPLAY IF S10 NE 5-6] 1. Install a whole house / attic fan to improve air flow in your home	○	○	○	○	○	○	○	○	○	○
[DISPLAY IF S12=1- 4 OR S10=1, 3 OR 4] 2. Have your cooling and / or heating system ductwork professionally inspected, repaired, and sealed	○	○	○	○	○	○	○	○	○	○
[DISPLAY IF S12=1- 4 OR S10=1, 3 OR 4] 3. Add insulation to the ductwork that serves your cooling and/or heating or systems.	○	○	○	○	○	○	○	○	○	○
B. Exterior Building Improvements [DISPLAY THIS SECTION IF S2=1]										
4. Install additional or upgraded home insulation to ceilings, walls, or floors	○	○	○	○	○	○	○	○	○	○
[DISPLAY IF S7D=1 OR 3] 5. Install controls on your outside lights that make sure they are only on at certain times	○	○	○	○	○	○	○	○	○	○

Q33. In addition to the options described so far, Ameren Missouri might also be able to offer your household a rebate or other financial incentive to implement some lower cost measures that could still help make your home more energy efficient. For example, they might provide an incentive to help you install a new – or replace an existing standard efficiency -- dehumidifier, with a more energy efficient model. Installing a high efficiency dehumidifier typically reduces air conditioning costs and saves energy overall. Once the dehumidifier is installed, the energy savings could potentially make up for the cost of the unit within a few years.

Assuming that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the cost of installing the more efficient dehumidifier within **3 years**, how likely would you be to install or replace a dehumidifier (and take the incentive)?

Please use a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q33 =7-10]

Q34. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the cost to install the more energy efficient dehumidifier in **5 years**. If you were given this option, how likely would you be to install or replace a dehumidifier in your home (and take the incentive)?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q33 =1-6]

Q35. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the cost to install or replace a more energy efficient dehumidifier in **1 year**. If you were given this option, how likely would you be to install or replace a dehumidifier in your home (and take the incentive)?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

Q36. Now, for each of the following energy efficiency improvements you could make in your home, let's assume that the impact of the incentive from Ameren Missouri was that you would save enough on electricity, in **3 years**, to pay for the additional cost to make the energy efficiency improvement. If this were true, how likely would your household be to make each improvement (and take the incentive)?

Please use a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

[ROTATE SECTIONS A-C] [ROTATE ITEMS WITHIN EACH SECTION] 3 Year Payback Period	Not at all likely to do this									Extremely likely to do this
	1	2	3	4	5	6	7	8	9	10
A. Cooling Improvements [DISPLAY THIS SECTION IF S7B=1 OR 3 AND ANY S10_1-S10_996 SELECTED]										
[DISPLAY IF S10=1- 8, 990,996] 1. Have regular maintenance performed on your cooling system by a professional service technician	○	○	○	○	○	○	○	○	○	○
B. Heating Improvements [DISPLAY THIS SECTION IF S7A=1 OR 3 AND IF S12 NE 9]										
2. Have regular maintenance performed on your heating system by a professional service technician										
[DISPLAY IF S13=1- 4 OR S10=1, 3 OR 4] 3. Install a thermostat on your heating and / or cooling system that would allow you to pre-set different heating or cooling levels for different days and different times of the day	○	○	○	○	○	○	○	○	○	○
C. Water Heating Improvements										
4. Install "low flow" showerheads that reduce the amount of hot water used	○	○	○	○	○	○	○	○	○	○
D. Other In-Home Improvements										
5. Install one or more "Smart" power strips that automatically turn off devices (such as computers, printers, or phone chargers) after a period of time when they are not used	○	○	○	○	○	○	○	○	○	○

Q37. So, finally in terms of new energy efficiency options that Ameren Missouri might also be able to offer your household is an incentive to install new light bulbs that are more energy efficient than traditional incandescent bulbs. Light bulbs such as compact fluorescent light bulbs (CFLs) or **LED (light emitting diode)** bulbs fit into this category. Installing these higher efficiency bulbs saves energy, and could potentially make up for the higher cost of the bulb within a few years.

Assuming that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the cost of installing the more efficient bulbs within **3 years**, how likely would you be to install one or more of the bulbs (and take the incentive)?

Please use a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q37 =7-10]

Q38. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the cost to install the more energy efficient light bulbs in **5 years**. If you were given this option, how likely would you be to install one or more of these bulbs in your home (and take the incentive)?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q37 =1-6]

Q39. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the cost to install the more energy efficient light bulbs in **1 year**. If you were given this option, how likely would you be to install one or more of these bulbs in your home (and take the incentive)?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

Q40. Now, please consider the following list of actions you can take to make your home more energy efficient, which don't have any up-front costs, but may require some tradeoffs in terms of a small amount of comfort or convenience.

Using a 10 point scale where, '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this, please indicate how likely you would be to take any of these energy saving actions.

[ROTATE 1-2]	Not at all likely to do this									Extremely likely to do this
	1	2	3	4	5	6	7	8	9	10
1. Reduce the temperature of the hot water that your water heater delivers	○	○	○	○	○	○	○	○	○	○
2. Turn down the heating or cooling while sleeping or away from home	○	○	○	○	○	○	○	○	○	○
3. Get rid of a secondary refrigerator that you may only use sometimes and might be in a garage or basement	○	○	○	○	○	○	○	○	○	○

Q41. So far in this section we have asked you about your reaction to different situations in which Ameren Missouri would offer your household an incentive to purchase a more energy efficient version of an appliance. In each case, the incentive would reduce the cost difference between the standard efficiency option and the higher efficiency option so that the appliance would pay for itself in either 1, 3, or 5 years.

Imagine now, however, that Ameren Missouri might be able to offer an incentive that would completely eliminate the price difference between the higher efficiency option and the standard efficiency option – the two options would effectively be the same price. If you were going to replace each of the following appliances – and with the incentive, there would be no difference between the higher and standard efficiency options – how likely would you be to purchase the higher efficiency appliance, rather than the standard efficiency equivalent?

Please use a 10 point scale where '1' means you think your household would be not at all likely to do this and '10' means your household would be extremely likely to do this.

[ROTATE 1-3]	Not at all likely to do this							Extremely likely to do this		
	1	2	3	4	5	6	7	8	9	10
Purchase a higher than standard efficiency refrigerator	○	○	○	○	○	○	○	○	○	○
Purchase a higher than standard efficiency television	○	○	○	○	○	○	○	○	○	○
Purchase a higher than standard efficiency dehumidifier	○	○	○	○	○	○	○	○	○	○

V – INTEREST IN POTENTIAL DEMAND RESPONSE PROGRAMS AND RATE DESIGNS THAT COULD BE OFFERED BY AMEREN MISSOURI

Finally, we'd like to ask how interested you would be in different rate options that could make it possible for you to lower your overall electricity bill.

We will describe several options for how your electricity rate could be different and you will have the chance to say how interested you would be in signing up for each rate.

[PROGRAMMER: PLACE Q42 & Q43 ON SAME SCREEN]

Q42. First, consider an electricity rate in which the price for electricity more closely connects to the price of producing that electricity.

With such a rate, electricity consumed during "off-peak" hours in the early mornings, evenings, nights

and weekends would be cheaper than today, while electricity consumed during "on-peak" hours in the late morning and afternoon weekday hours (when most electricity is consumed on the whole) would be more expensive than it is today.

You could lower your monthly electric bill by as much as 5-10% by moving electricity use to off-peak hours or reducing use during on-peak hours.

If this electricity rate was available to you, how interested would you be in signing up for it?

Not At All Interested In Signing Up									Extremely Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q43. Now, assume that this same electricity rate would be available, but with complete bill protection for the first two years. That is, you would never pay more on the new rate than you would have paid on the standard, current rate, for the first two years.

If this electricity rate was available to you with bill protection in place for two years, how much more interested would you be in signing up for this rate?

Would Not Be Any More Interested In Signing Up									Would Be Much More Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

[PROGRAMMER: PLACE Q44 & Q45 ON SAME SCREEN]

Q44. Now, consider an electricity rate in which electricity prices would vary for each hour of every day.

While electricity prices would differ every hour, it would still be true that electricity prices would be higher during times of "peak" demand, or during weekday afternoons, and lowest during times of "off-peak" demand.
With this rate, you could potentially save as much as 5-10% by moving electricity use to times when electricity prices are lower, or reducing usage during times when electricity prices are highest.
If this rate option was available to you, how interested would you be in signing up for this program?

Not At All Interested In Signing Up									Extremely Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q45. Now, assume that this same electricity rate would be available to you, but with complete bill protection for the first two years. That is, you would never pay more on the new rate than would have been paid on the standard, current rate, for the first two years.

If such an electricity rate was available to you with bill protection in place for two years, how much more interested would you be in signing up for this rate?

Would Not Be Any More Interested In Signing Up									Would Be Much More Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q46. You've been asked to consider two ways in which electricity rates could vary each day:

- One in which electricity prices would differ across a few time periods each day (like afternoons, evenings, etc.), with some periods having lower electricity rates, and other periods having higher electricity rates

- And, one in which electricity prices would vary across every hour, though it would still generally be true that electricity prices would be higher during hours of "peak" demand

Assuming that both provided similar opportunities for you to save money, which type of electricity rate program would you most prefer?

1. A rate program in which electricity rates varied by a few time periods every day
2. A rate program in which electricity rates varied by hour every day
3. Prefer both equally

[PROGRAMMER: PLACE Q47 & Q48 ON SAME SCREEN]

Q47. Now consider another electricity rate in which electricity prices would be lower than they are today for all hours of the day and year except for the hottest 10-12 days of the summer. For the hottest 10-12 days of the summer electricity prices would be much higher than they are today.

You could potentially lower your electric bill by as much as 5-10% by reducing or moving electricity use during these 10-12 days each year.

If such an electricity rate was made available, how interested would you be in signing up for this rate?

Not At All Interested In Signing Up									**Extremely Interested In Signing Up**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Q48. Now, assume that this same electricity rate would be available, but with complete bill protection for the first two years. That is, you would never pay more on the new rate than would have been paid on the standard, current rate, for the first two years.

If this electricity rate was available to you with bill protection in place for two years, how much more interested would you be in signing up for this rate?

Would Not Be Any More Interested In Signing Up									**Would Be Much More Interested In Signing Up**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Q49. You've been asked to consider several different types of electricity rates:

- In two of these options, electricity prices would vary by time every day (either every hour, or during larger time periods like afternoons, evenings, etc.), with some hours / periods having lower electricity rates, and other hours / periods having higher electricity rates

- In one of these options electricity prices would be higher only on the hottest ten days of the summer

Assuming that both provided similar opportunities for you to save money, which type of electricity rate program would you most prefer?

1. A rate program in which electricity rates varied by hour or time periods every day
2. A rate program in which electricity rates varied only on the hottest ten days of the summer
3. Prefer both equally

[IF Q42 OR Q44 OR Q47 <7 ASK Q50, OTHERWISE GO TO Q51]

Q50. Assume now that at some point in the future one of the new electricity rates you have evaluated, in which electricity prices would vary by hour each day, time period each day, or time of year, would become the default rate for all customers (meaning customers would be placed on that rate whether they wanted it or not).

However, even if one of these options did become the default rate for all customers, you could still opt-out of such a rate and go back on your old flat rate program (or one very similar to your current rate) if you wanted to do so.

Assuming this were the case, how likely would you be to opt-out of the new electricity rate programs to go back on your current rate program?

Not At All Likely To Opt-Out of New Rate Program									**Extremely Likely To Opt-Out of New Rate Program**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Q51. Now, consider a program in which your electricity rate would remain unchanged, but your household could instead earn an incentive by reducing its overall electricity use during the hottest 10-12 days of the year. Your electricity bill cannot increase under this program (compared to the standard rate), but you will be paid for any reductions in electricity usage made during the "peak" hours, or weekday afternoons. Households could potentially lower their electric bill by as much as 5-10% by reducing or moving electricity use during these 10-12 days each year.

If such a program was made available, how interested would you be in signing up for this program?

Not At All Interested In Signing Up									**Extremely Interested In Signing Up**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

V – PURCHASING ATTITUDES / BEHAVIOR & ENVIRONMENTAL ATTITUDES

Q41. Now we'd like to understand **how your household shops for products and services for your home**. Using a 10-point scale where '1' means you strongly disagree, and '10' means you strongly agree, please indicate how much you agree or disagree with each of the following statements.

[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-6]	Strongly disagree								Strongly agree	
	1	2	3	4	5	6	7	8	9	10
1. You carefully research product features and reviews to select the best product	○	○	○	○	○	○	○	○	○	○
2. You usually don't buy things unless they're on sale, or you have a coupon or discount	○	○	○	○	○	○	○	○	○	○
3. Someone in your household does a lot of do-it-yourself / home-improvement projects	○	○	○	○	○	○	○	○	○	○
4. You usually take the time to shop and explore all of your options before you make a final purchase decisions	○	○	○	○	○	○	○	○	○	○
5. You prefer to shop and make purchases in a store, rather than on the Internet	○	○	○	○	○	○	○	○	○	○
6. To be honest, the environmental impact of your day-to-day purchases is not something you spend a lot of time worrying about	○	○	○	○	○	○	○	○	○	○

VII – ADDITIONAL HOUSEHOLD CHARACTERISTICS / DEMOGRAPHICS

In order to help us classify your responses, the last few questions are on your household's characteristics.

D1. **Including yourself**, how many individuals normally live in your home?
Please do not include anyone who is just visiting, or not currently living with you due to their enrollment in college and/or military service."
[RECORD NUMBER 1-20] individuals

D2. Are there any individuals in your home that regularly stay at home all or most **weekdays**?

1. Yes
0. No

D3. Which of the following best describes your home?
1. Single-family house detached from any other houses
2. Single-family house attached to one or more houses
3. Multi-family house or building with 2-4 apartments/units
4. Multi-family house or building with 5 or more apartments/units
5. Mobile/manufactured home
990. Other **[SPECIFY]**

D4. For about how many years have you lived in your present home?
Your best estimate is fine, but please enter a whole number rather than a range of numbers.

1. Less than 1 year
2. **[RECORD NUMBER 1-100]** years

D5. Is this home your primary place of residence or is it a seasonal/vacation home that is only occupied for part of the year?
1. Primary residence
2. Seasonal / vacation home
990. Other **[SPECIFY]**

[ASK IF D5=2]

D6. How many months out of the year do you or any other members of your household typically occupy this home? *Your best estimate is fine, but please enter a whole number rather than a range of numbers.*
[RECORD NUMBER 0-12] months

D7. What is the approximate square footage of your home? Please include only heated living space in your response.
If you are not certain, please give your best estimate.
1. Less than 500 sq. ft.
2. 500 – 999
3. 1,000 – 1,499
4. 1,500 – 1,999
5. 2,000 – 2,499
6. 2,500 – 2,999
7. 3,000 – 3,499
8. 3,500 – 3,999
9. 4,000 sq. ft. or more

D8. How many bedrooms are in your home?
0. 0 / Studio/Efficiency apartment / SRO
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6 or more

D9. Which of the following best characterizes the city / town / community in which you live?
1. Urban
2. Suburban
3. Rural

D10. What is your gender?
1. Male
2. Female

D11. What is the highest level of education 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. Bachelors degree
6. Graduate / professional degree, e.g., J.D., MBA, MD, etc.
7. Professional certification, e.g., CPA, CNP, etc.

D12. What is your current employment status?

1. Employed full-time
2. Employed part-time
3. Not currently employed
4. Retired

990. Other **[SPECIFY]**

D13. Which of the following categories includes your household's total annual income before taxes in 2012? Please include the income of **all** people living in your home in this figure.

1. Less than $60,000
2. $60,000 or more

D14. Which of the following categories includes your household's total annual income before taxes in 2012? Please include the income of **all** people living in your home in this figure.

[IF D13=1, DISPLAY OPTIONS 1-7 AND 13; IF D13=2, DISPLAY OPTIONS 8-13]

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

D15. When thinking about your household's current financial situation compared to what it was a year ago, would you say that **overall your current financial situation is**…?

1. Better than it was a year ago
2. The same as it was a year ago
3. Worse than it was a year ago
4. Prefer not to say

D16. When thinking about your household's current financial situation compared to what you anticipate it will be in a year from now, would you say that **overall your anticipated financial situation in a year from now will be**…?

1. Better than your current financial situation
2. The same as your current financial situation
3. Worse than your current financial situation
4. Prefer not to say

D17. Which of the following best describes your race or ethnic background?

1. White, Caucasian
2. Black, African American, Caribbean American
3. American Indian (Native American), Alaska Native
4. Asian
6. Hispanic, Latino
5. Native Hawaiian, Pacific Islander

990. Other **[SPECIFY]**

7. Prefer not to say

VIII - CONCLUSION

[INCENTIVE NAME/ADDRESS COLLECTION SCREEN]

Those are all the questions we have for you today. Thanks for your participation!

Please click 'Continue' to proceed to the payment screen.

C0. Please indicate which of the following you would prefer:

1. Please email me a $10 Amazon Gift Card
2. I would prefer to have a $10 check mailed to me
3. I would like to decline and not receive an incentive

[IF C0=1, ASK C1; IF C0=2, ASK C2; IF C0=3, ASK C0A]

COA. You have indicated that you do NOT want to receive your $10 payment. Is that correct?

1. Yes
2. No

[IF YES, GO TO THANK YOU SCREEN; IF NO, RE-ASK C0]

C1. So that we may email your incentive to you, please provide your email address below.

[RECORD EMAIL ADDRESS –VALIDATE FOR FORMAT]

C2. So that we may mail your incentive to you, please provide your name and address below.

A. Full name
C. Mailing Address Line #1
D. Mailing Address Line #2 (optional)
E. City
F. State
G. ZIP Code

[INCENTIVE NAME/ADDRESS VERIFICATION SCREEN]

Please review the information you provided and verify that it is complete and correct:

[DISPLAY ALL NAME AND ADDRESS OR EMAIL INFORMATION COLLECTED]

If you would like to edit any of this information, please click the "Back" button to go to the previous screen, where you can make any needed changes.
Otherwise, please click "Continue" to submit your information.

[PROGRAMMER: INCLUDE BACK BUTTON FOR THIS SCREEN DURING LIVE VERSION]

[IF CHOOSE TO RECEIVE AN INCENTIVE, DISPLAY:]
You have successfully submitted the information we need so we can send you your $10 thank you gift. Your check or gift card will be issued within 4-6 weeks to the address or email address you provided. Thank you and have a nice day!
If you would like information on how your household can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

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[IF CHOOSE NOT TO RECEIVE AN INCENTIVE, DISPLAY:]
Thank you for taking the time to answer our survey questions. Have a nice day!
If you would like information on how your household can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

SURVEY CLOSED MESSAGE – only display for terms or survey closed…do NOT display if respondent finishes survey.

We truly appreciate your time and effort in responding to the survey invitation you received, but the survey sponsored by Ameren Missouri is now closed.
In order to achieve a representative sample for this survey, quotas with specific criteria needed to be designated. Because these quotas have now been filled, we are not accepting any more responses.
If you would like information on how your home can save money on your energy bills, please visit Ameren Missouri at
ActOnEnergy.com

DEFINITIONS

[THE DEFINITIONS IN THE TABLE BELOW WILL EACH BE SHOWN IN A POP-UP BOX THAT IS TRIGGERED BY A HYPERLINKED WORD OR PHRASE]

Word / Phrase	Definitions	
Air-source heat pump	A single system that draws in outside air to use in both heating and cooling your home	
Attic fan	A ventilation fan which regulates the heat level of a home's attic by exhausting hot air. Unlike a whole-house fan, which removes heat from the entire home, an attic fan *only* removes heat *from the attic area* of the home.	
Compact fluorescent lamp (CFL)		A newer type of light bulb that screws into a light socket, but which is a fluorescent light rather than a traditional incandescent light bulb, and which also often has a non-traditional swirly or curved shape.
Conventional bulb / Incandescent bulb		A traditional screw-in light bulb that may range from 15 – 100 watts or more
Electric baseboard or electric coil radiant heating	Devices that use electricity directly to produce heat for your home from baseboards or under-floor heating.	
ENERGY STAR®		A label for some new appliances that indicates the appliance meets the standards for high efficiency appliances
Geothermal heat pump	A single system that uses water that circulates through underground piping to provide both heating and cooling for your home	
Halogen lamp		A type of lamp, which uses filaments like a traditional incandescent bulb, but is also filled with inert gas and a small amount of halogen. Compared to traditional incandescent bulbs, halogen lamps get hotter, give off light of a brighter / whiter quality, and have a longer life span.
Hard-wired fixture		A fixture that is hard-wired or fixed to the wall in the home. Examples of hard-wired fixtures are recessed lighting, sconces, chandeliers, pendant lights, track lighting, and under-the-cabinet lighting.
LED lamp		A “light emitting diode” lamp is an electronic form of lighting that does not use filaments like traditional incandescent bulbs, but instead, uses solid state electronics.
Low Voltage lighting		Low power lights (often used under counters or in other similar situations) that use a much lower wattage than do most traditional incandescent lights

Plug-in fixture		A fixture that is portable or free-standing with a cord that plugs into an outlet. Examples of plug-in fixtures are table lamps, or task lighting.
CFL-specific fixture	A fixture that has a CFL-ballast located inside, which is larger and lasts longer than integrated CFLs (CFLs with a screw-in mechanism so that they can replace incandescent bulbs). CFL-specific fixtures use replaceable bulbs that have a starter in the base of the bulb.	
Tubular fluorescent lamp		Traditional fluorescent lights are generally tubes of 3 or more feet in length and are installed in special fixtures made specifically for these tubes
Wall furnace	A furnace that works “through the wall,” meaning that it is a box that draws air directly from the outside and then warms it before sending the resulting warm air into a room.	
Whole-house fan	A ventilation fan mounted in the ceiling of a central part of a home that removes heat from the *entire* home. It does this by first drawing that heat from the living areas of the home into the home’s attic, and then pushing the heat trapped in the attic to the outside through vents. Unlike an attic fan, which only removes heat from a home’s attic, a whole-house fan removes heat from the entire home.	

RESIDENTIAL SATURATION SURVEY QUESTIONNAIRE

QUALIFYING CRITERIA AND QUOTAS

Qualifying Criteria

- The respondent must have primary or shared responsibility for making energy-related decisions
- The respondent must be at least 18 years old
- The respondent must be billed for electricity directly by Ameren Missouri

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PRELOAD ALL SAMPLE FIELDS.

Hard Quotas

Total: n=600

Soft Quotas

SEE QUOTA GRID: STRATUM_ID – we will track and enforce only if we need to

Age (S2)

N=TBD

FOR ENTIRE SURVEY, [ADDRESS]=THE FOLLOWING SAMPLE FIELDS:

CLEAN_ADDRESS1

CLEAN_ADDRESS2

RESPONDENT IDENTIFICATION / VERIFICATION

Welcome. This survey is sponsored by Ameren Missouri.
[PROGRAMMER: INCLUDE AMEREN Missouri LOGO]

Survey results will be collected and summarized by Definitive Insights, a market research company.

Please enter the 5-digit "Survey ID#" that appears on the survey invitation postcard you received. This ID# should be located just above the mailing address on the front side of your postcard.

Survey ID# : _____

[PROGRAMMER: VERIFY VALID CODE AND READ IN ALL VARIABLES FROM SAMPLE FILE]

We at Ameren Missouri and Definitive Insights value your privacy. We will use the information you provide for research purposes only and will NOT share it with third parties for marketing purposes. Information you provide will be stored in a secure database. If you have questions about our privacy practices or would like to get any other information about this study, please contact us via one of the following methods:

e-mail:	AmerenSurveyHelp@definitiveinsights.com
phone:	**1- 855-888-9270**
postal mail:	Definitive Insights ATTN: Ameren Missouri Project Director 601 SW Oak Street Portland, Oregon 97205

INTRODUCTION

Thank you for taking the time to see if you and your household qualify to participate in a new research study about energy. The study is sponsored by Ameren Missouri, and it has a very important purpose; Ameren Missouri is delivering programs to help its customers use energy more efficiently. Your answers to this survey will help the company to improve these programs so that they work best for everyone.

Your household is one of a small number being asked to respond to the survey. To show our appreciation for your time and effort in completing the survey, **you will have the option of choosing a $10 Amazon electronic gift card or a $10 check at the end of the survey if you complete all of the questions.** (You may decline to receive payment if desired.)
If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the RL and the Survey ID# from your survey invitation to access your survey again. The survey will automatically take you to the point where you left off.

Please note: any word or phrase that appears in blue, underlined font will have a hyperlinked definition that pops-up in a separate browser window when you click on that word or phrase. Clicking on any of these hyperlinks will NOT make you navigate away from the survey site.

Please click "CONTINUE" to begin.

RESPONDENT SCREENING

A1. Our records indicate that your address is:
[ADDRESS]

Is this correct?
3. Yes
4. No

[IF A1=2, TERMINATE AND READ A1 TERMINATE TEXT; OTHERWISE, GO TO S1.]

[A1 TERMINATE TEXT:]
We truly appreciate your time and effort in responding to our survey, but our questions are related to a specific address.

If you would like information on how your home can save money on your energy bills, please visit us at **Act**OnEnergy.com

Thank you. Have a nice day!

[DO NOT SHOW STANDARD THANK YOU SCREEN.]

S1. What is your role in making energy-related decisions about things such as: adjusting your home's thermostat, choosing to install insulation, selecting new appliances, large electronic devices, and light bulbs that are used in your home?

*Any reference to "your home," here and throughout the rest of this survey, refers specifically to the residence at **[ADDRESS]**.*

1. You are primarily responsible for some or all of these decisions
2. Someone else in your household is primarily responsible for these types of decisions **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA R1]**
3. You share responsibility for these decisions with others in your household, or with a landlord or property manager
4. Don't know **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA R1]**

[IF S1=1 OR 3, ASK S2; OTHERWISE SHOW R1 AND TERMINATE WITHOUT SHOWING STANDARD TERMINATE LANGUAGE]

[R1 TERMINATE TEXT – NOT A DECISION MAKER]

R1. Thank you for taking the time to see if you are eligible to participate in this survey. At this time we need responses from someone in your household who has specific knowledge about the way your household makes decisions about energy-related issues.
We would appreciate it if you would provide that person with the invitation postcard you received or refer them to the following link so that they may complete this survey with the following ID:

Link: http://tiny.cc/ameren2
ID: AXXXXX

[PROGRAMMER NOTE: IF A RESPONDENT TERMINATES VIA S2, DELETE DATA COLLECTED AND RESET SURVEY REENTRY POSITION FOR THAT SURVEY ID# BACK TO THE BEGINNING OF THE SURVEY. RECORD THE DATA DELETED FOR THAT SURVEY ID# ELSEWHERE SO WE CAN TRACK THE NUMBER OF TIMES AND REASONS RESPONDENTS DISQUALIFY AT S2 AS WELL AS THE NUMBER OF TIMES THESE PREVIOUSLY USED SURVEY ID#'S ARE REUSED. FOR ALL RESPONDENTS THAT DO NOT TERMINATE VIA S5R, DO NOT ALLOW SURVEY ID# TO BE USED AGAIN.]

[FOR ALL TERMINATES BEYOND THIS POINT, USE THE GENERAL TERMINATE TEXT ON PG 6]

S2. Which of the following categories represents your current age?

1. Less than 18 years old **[TERMINATE AFTER S7]**
2. 18-24
3. 25-34
4. 35-44
5. 45-54
6. 55-64
7. 65 or more years old

[IF S2=2-7, ASK S3; OTHERWISE ASK S3 BUT FLAG AS TERMINATE AND END SCREENER AFTER S7]

S3. Do you, or does anyone else in your household work for a gas or electric utility company?

1. Yes **[TERMINATE AFTER S7]**
2. No

[ASK ALL]

S4. Do you own or rent your home?

1. Own (or in the process of buying it)
2. Rent / lease

S5. How is your household billed for the electricity you use?

1. My household is billed directly by Ameren Missouri **[CONTINUE]**
2. My household is NOT billed directly by Ameren Missouri; the cost for our electricity is included in our rent, or is paid by someone else **[TERMINATE]**
3. My household's electricity is provided by another utility; **not** Ameren Missouri **[TERMINATE]**
4. Don't know **[TERMINATE]**

S6. [QUESTION DELETED]

S7. Which of the following things are included in an electric bill that you pay directly, as opposed to things that might be paid for by a landlord, a property management company, or someone else? *Please select all that apply.*

Things for which you pay directly

1. Heating all or most of the space in your house / unit
2. Air conditioning
3. Water heating
4. Lights on the outside of your home or building
5. None of the above – I am not billed directly for any of these things in my gas or electric bill **[EXCLUSIVE]**

[IF S2=1 OR S3=2, TERMINATE HERE, BUT TERM LABEL SHOULD BE FOR THE ACTUAL TERMINATION REASON…NOT THE LAST QUESTION VIEWED)
[QUOTA CHECK – IF OVER-QUOTA, TERMINATE AND SHOW TERMINATE LANGUAGE BELOW; OTHERWISE GO TO INVITATION LANGUAGE]

GENERAL TERMINATE LANGUAGE ONLY FOR NON-QUALIFYING AFTER QS1.0 OR OVER-QUOTA RESPONDENTS

We truly appreciate your time and effort in responding to our survey invitation and answering these initial questions, which were designed to see if you are eligible to participate.

In order to achieve a representative sample, quotas with specific criteria have been designated. At this point, we have reached the number of respondents we can accept from individuals with your type of experience or background. Again, we would like to thank you for your time and effort.

If you would like information on how your home can save money on your energy bills, please visit us at **Act**OnEnergy.com

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Thank you. Have a nice day!

INVITATION LANGUAGE FOR QUALIFYING RESPONDENTS

Thank you for your responses so far! You qualify for the survey. As we indicated earlier, only a limited number of individuals will be able to complete this survey, so we appreciate your time in filling out the survey as completely as possible.

The survey should take about 20 minutes to complete. Once you complete the survey you will be eligible to receive our $10 thank you payment. Information about how to receive this payment will be provided at the end of the survey.

Your responses are important to us, so please press "CONTINUE" to begin answering the survey questions. All information provided in this survey will be kept strictly confidential, and at no time will you be asked to purchase anything.

If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the personalized URL to access your survey again. The survey will automatically take you to the point where you left off.

As you complete the survey, you will **not** be able to use your browser's "back" button. If you mistakenly press your browser's "back" button, you will need to press the "refresh" button to continue the survey.

I – HOUSEHOLD INFORMATION

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT]
[PROGRAMMER NOTE: PLEASE PREVENT A CLICKED HYPERLINK FROM SELECTING THAT RESPONSE IF THE WORD IS A QUESTION RESPONSE OPTION; ALSO REQUIRE WHOLE NUMBERS ONLY – NO DECIMALS]]

Q1. **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.

[RECORD NUMBER 1-20] individuals

Q2. Which of the following best describes your home at **[ADDRESS]**?

1. Single-family house detached from any other houses
2. Single-family house attached to one or more houses
3. Multi-family house or building with 2-4 apartments/units
4. Multi-family house or building with 5 or more apartments/units
5. Mobile/manufactured home

990. Other **[SPECIFY]**

[PROGRAMMER: DISPLAY DIRECTLY BELOW Q2 ON SCREEN: Note is displayed above Q3 "PLEASE NOTE THAT ALL OF OUR REMAINING QUESTIONS REFER SPECIFICALLY TO THE RESIDENCE AT THE LOCATION CITED ABOVE."]

[IF Q2=990, ASK Q3; OTHERWISE SKIP TO Q4]

Q3. Rather than using one of the residence type descriptions we offered in the last question, you described your home as: "**[INSERT Q2=990 RESPONSE]**." Which of the following would you say best describes this dwelling?

Note: The term "single-family" does not necessarily mean that the individuals living in the house/building/structure must be family members. Rather, this term indicates individuals voluntarily living together in a single dwelling who share common areas and do not consider each other neighbors or tenants.

1. A **single-family fully detached house/building/structure** – a house/building/structure that is fully separated from any other house/building/structure (i.e., it has open space on all four sides of its ground-to-roof outer walls)

2. Either…
   - a **single-family semi-detached house/building/structure** – a house/building/structure that is **not** fully separated from all other houses/buildings/structures (i.e., it shares a wall with at least one other house/building/structure) and is occupied by a single party of individuals

   or…

   - **a multi-family house/building/structure**– a single house/building/structure that incorporates several relatively self-contained housing units, each of which are occupied by separate parties of individuals

(This option includes any condominiums, town houses, row houses, duplexes, triplexes, apartment buildings, etc.)

Q4. About when was your home built?

1. Before 1940
2. 1940-1949
3. 1950-1959
4. 1960-1969
5. 1970-1979
6. 1980-1989
7. 1990-1999
8. 2000-2009
9. 2010-present
10. Not sure

Q5. For about how many years have you lived in your present home?

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

1. Less than 1 year
2. **[RECORD NUMBER 1-100]** years

Q6. Is this home your primary place of residence or is it a seasonal/vacation home that is only occupied for part of the year?

1. Primary residence
2. Seasonal / vacation home
990. Other **[SPECIFY]**

[IF Q6=2, ASK Q7; OTHERWISE SKIP TO Q8]

Q7. How many months out of the year do you or any other members of your household typically occupy this home? *Your best estimate is fine, but please enter a whole number rather than a range of numbers.*

[RECORD NUMBER 0-12]

Q8. What is the approximate square footage of your home? Please include only heated living space in your response.

If you are not certain, please give your best estimate.

1. Less than 500 sq. ft.
2. 500 – 999
3. 1,000 – 1,499
4. 1,500 – 1,999
5. 2,000 – 2,499
6. 2,500 – 2,999
7. 3,000 – 3,499
8. 3,500 – 3,999

9. 4,000 sq. ft. or more

Q9. How many stories or levels are there in your **[IF Q2=1 OR 5 OR Q3=1, DISPLAY, "**home**"; IF Q2=2-4 OR Q3=2, DISPLAY "**apartment / unit**"]**? Please do NOT count any basements or attics in your response.

1. 1 story / level
2. 2 stories / levels
3. 3 stories / levels
4. 4 or more stories / levels

Q10. How many bedrooms are in your home, include any that might be located in the basement or attic?

0. 0 / Studio/Efficiency apartment / SRO
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6 or more

Q11. How many bathrooms are in your home?

Please consider a bathroom that does not include either a bathtub or shower as a half-bathroom.

A. Full bathrooms **[DROP DOWN WITH 0 - 4 OR MORE]**

B. Half bathrooms **[DROP DOWN WITH 0 - 4 OR MORE]**

Q12. Does your home have an attic or basement? *Select all that apply.*

[IF Q2=2-4 OR Q3=2, DISPLAY, "*Consider only an attic or basement that is reserved solely for the use of those living in your specific apartment/unit; Do not consider an attic or basement that is available to others living in other apartments/units in your building*.**"]**

1. My home has an attic
2. My home has a basement
3. My home has neither an attic nor a basement **[EXCLUSIVE]**

[IF Q12_1=1 OR Q12_2=1, ASK Q13; OTHERWISE SKIP TO Q14]

Q13. How much, if at all, is your **[DISPLAY IF Q12_1=1, "**attic**"] [DISPLAY IF Q12_1=1 AND Q12_2=1, "**or**"] [DISPLAY IF Q12_2=1, "**basement**"]** finished and/or heated during the winter months?

		Area	How much of this area is finished?	How much of this area is heated during the winter months?
1.	**[DISPLAY ROW IF Q12_1=1]**	Attic	1. All or most of it (75%+) 2. Some of it (25-74%) 3. Little or none of it (<25%)	1. All or most of it (75%+) 2. Some of it (25-74%) 3. Little or none of it (<25%)
2.	**[DISPLAY ROW IF Q12_2=1]**	Basement	1. All or most of it (75%+) 2. Some of it (25-74%) 3. Little or none of it (<25%)	1. All or most of it (75%+) 2. Some of it (25-74%) 3. Little or none of it (<25%)

Q14. Of all the windows in your home, what percentage are single pane windows, and what percentage are double pane windows or better?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

	Window Type	Percent
1.	Single pane windows *(windows with just 1 layer of glass)* 	**[RECORD NUMBER 0-100]%**
2.	Double pane windows or better *(windows with 2 or more layers of glass)* 	**[RECORD NUMBER 0-100]%**
3.	Not sure **[EXCLUSIVE]**	☐
TOT.	**Total**	**[CALCULATE TOTAL]%**

[PROGRAMMER: Q14TOT MUST EQUAL 100, OR Q14_3 MUST BE SELECTED ("NOT SURE") IN ORDER TO CONTINUE TO NEXT SCREEN]

II – HEATING AND COOLING

Now we'd like to ask you some questions about your home's heating, cooling, and water heating systems.

Q15. During the winter (December through February), which of the following heating equipment do you use most often in your home? **[DEFAULT ANSWER IS 'NEVER' FOR EACH OPTION]**

	Heating Equipment	[A] Never (I don't have it or I never use it)	[B] Primary heating system	[C] Supplementary system
1.	Electric central warm air furnace with ducts/vents to individual rooms **[REMOVED HYPERLINK]**	○	○	○
2.	Natural gas central warm air furnace with ducts/vents to individual rooms	○	○	○
3.	Natural gas central boiler with hot water/steam radiators or baseboards in individual rooms **[REMOVED HYPERLINK]**	○	○	○
4.	Electric baseboard or electric coils radiant heating	○	○	○
5.	Air-source heat pump	○	○	○
6.	Geothermal heat pump	○	○	○
7.	Wall furnace(s)	○	○	○
8.	Fireplace(s) – wood burning	○	○	○
12.	Fireplace(s) – natural gas burning	○	○	○
9.	Wood burning stove(s)	○	○	○
10.	Wall-mounted space heater(s)	○	○	○
11.	Portable space heater(s)	○	○	○
990.	**Other (please specify)**	○	○	○

Programming note added – respondent cannot select "Never" for all options.

NEW 1/14:

[If Q15_11 Portable space heater(s) SELECTED, ASK Q15A; OTHERWISE, SKIP TO Q16]

Q15a. How many portable space heaters do you have? [enter number 1-10]

[RECORD NUMBER 1-10]

Q15b. How many rooms are heated using portable space heaters on a typical winter day? [enter number 1-10]

[RECORD NUMBER 1-10]

Q15c. On average, how many hours per day, is the portable space heater on? [enter number 1-24]

[RECORD NUMBER 1-24]

Q16. When was your heating system (**[INSERT Q15 RESPONSE]**) purchased or installed? **[Repeat for each system selected in Q15]**

[IF Q15=7-10, DISPLAY, "*If you have more than one heating unit as part of this heating system but all the units were not purchased at the same time, answer for the unit you use most often.***"]**

1. Before 1970 **[SHOW IF Q4 = 1-4, OR 10]**
2. 1970-1979 **[SHOW IF Q4 = 1-5, OR 10]**
3. 1980-1989 **[SHOW IF Q4 = 1-6, OR 10]**
4. 1990-1994 **[SHOW IF Q4 = 1-7, OR 10]**
5. 1995-1999 **[SHOW IF Q4 = 1-7, OR 10]**
6. 2000-2004 **[SHOW IF Q4 = 1-8, OR 10]**
7. 2005-2009 **[SHOW IF Q4 = 1-8, OR 10]**
8. 2010-present **[SHOW IF Q4 = 1-9, OR 10]**
9. Not sure **[SHOW FOR ALL Q4 MENTIONS]**

[IF Q15=1-7, ASK Q17 FOR EACH MENTION; PIPE IN EACH Q15 RESPONSE GIVEN BETWEEN 1-7]
NEW Q17. Please tell us which of the following best describes the **[Q15 RESPONSE 1-7]** heating system.

1. It was already there before we purchased or moved into the home
2. It was added to a home that did not already have a heating system
3. It was a replacement for a broken system
4. We wanted a more energy efficient appliance to replace a still-working system
5. It was purchased to replace a still-working system for other reasons
6. Other (please specify)

Q18. During the summer (June through August), which of the following do you use to cool your home?
[PROGRAMMER: THE A, B, C, ETC; BELOW IS FOR DATA LABELING – DO NOT SHOW ON SCREEN]
[PROGRAMMER, ALLOW ONLY 1 RESPONSE IN COLUMN B BELOW; ACCEPT MULTIPLES FOR COLUMNS C&A; CHOICES FOR COLUMN A ARE EXCLUSIVE ACROSS A, B, and C…I.E. CANNOT SAY Q18A5=B IF Q18A5=A]

	Cooling Equipment	A. None (I don't have it or I never use it)	B. Primary cooling system (please select ONE)	C. Supplementary cooling system (select all that apply)
1.	Central air conditioner	○	○	○
2.	One or more room air conditioners mounted in or near a window or on a wall	○	○	○
3.	Air source heat pump	○	○	○
4.	Geothermal heat pump	○	○	○
5.	One or more portable room air conditioners	○	○	○
6.	One or more portable dehumidifiers	○	○	○
7.	One or more ceiling, window, or room fans	○	○	○
8.	Whole-house fan	○	○	○
9.	Attic fan	○	○	○
990.	**Other (please specify)**	○	○	○

[IF Q15_5 > A. Never AND Q18_3=A. None] OR [If Q15_6 > A. Never AND Q18_4=A. None] ASK Q19; OTHERWISE SKIP TO Q22]

Q19. You indicated that you use a heat pump to heat your home in the winter, but do not use it to cool your home in the summer. For verification purposes, please select your primary heating and cooling system.

	Q19A. Heating Equipment [Show any for which Q15>A. Never]		**Q19B. Cooling Equipment [Show any for which Q18>A. None]**
1.	Electric central warm air furnace with ducts/vents to individual rooms **[REMOVED HYPERLINK]**	1.	Central air conditioner
2.	Natural gas central warm air furnace with ducts/vents to individual rooms **[REMOVED HYPERLINK]**	2.	One or more room air conditioners mounted in or near a window or on a wall
3.	Natural gas central boiler with hot water/steam radiators or baseboards in individual rooms	3.	Air source heat pumps
4.	Electric baseboard or electric coils radiant heating	4.	Geothermal heat pump
5.	Air-source heat pump	5.	One or more portable room air conditioners
6.	Geothermal heat pump	6.	One or more portable dehumidifiers
7.	Wall furnace(s)	7.	One or more ceiling, window, or room fans
8.	Fireplace(s) – wood burning	8.	Whole-house fan
12.	Fireplace(s) – natural gas burning	9.	Attic fan
9.	Wood burning stove(s)	**990.**	**Other (please specify)**
10.	Wall-mounted space heater(s)		
11.	Portable space heater(s)		
990.	**Other (please specify)**		

[IF Q19A>0, RECODE Q15B TO Q19A VALUE; IF Q19B>0, RECODE Q18B RESPONSES WITH Q19B VALUE]
IF ANY Q18=1-9,990 >A. None, ASK Q20; OTHERWISE SKIP TO Q23]

Q20. When was this cooling system purchased or installed? **[Repeat for each system selected in Q18]**

[IF Q18=2,5-7, DISPLAY, "*If you have more than one cooling unit as part of this cooling system but all the units were not purchased at the same time, answer for the unit you use most often.***"]**

1. Before 1970 **[SHOW IF Q4 = 1-4 OR 10]**
2. 1970-1979 **[SHOW IF Q4 = 1-5 OR 10]**
3. 1980-1989 **[SHOW IF Q4 = 1-6 OR 10]**
4. 1990-1994 **[SHOW IF Q4 = 1-7 OR 10]**
5. 1995-1999 **[SHOW IF Q4 = 1-7 OR 10]**
6. 2000-2004 **[SHOW IF Q4 = 1-8 OR 10]**
7. 2005-2009 **[SHOW IF Q4 = 1-8 OR 10]**
8. 2010-present **[SHOW IF Q4 = 1-9 OR 10]**
9. Not sure **[SHOW FOR ALL Q4 MENTIONS]**

[IF Q18=1-5 >NONE, ASK Q21 FOR EACH MENTION Q18=1-5; PIPE IN EACH Q18 RESPONSE GIVEN BETWEEN 1-5]

NEW Q21. Which best describes the **[Q18 RESPONSE 1-5]** cooling system?

1. It was already there before we purchased or moved into the home
2. It was added to a home that did not already have a cooling system
3. It was a replacement for a broken system
4. We wanted a more energy efficient appliance to replace a still-working system
5. It was purchased to replace a still-working system for other reasons
6. Other (please specify)

[IF (Q18=2, 5, 6 OR 7 Not Equal to A. NONE), ASK Q22; OTHERWISE SKIP TO Q23]

Q22. How many of the following does your home have?

1.	**[DISPLAY IF Q18_2 NE A. None]**	Room air conditioners mounted in or near a window or on a wall	**[RECORD NUM 0-19]**
2.	**[DISPLAY IF Q18_5 NE A. None]**	Portable room air conditioners	**[RECORD NUM 0-19]**
3.	**[DISPLAY IF Q18_6 NE A. None]**	Portable dehumidifiers	**[RECORD NUM 0-19]**
4.	**[DISPLAY IF Q18_7 NE A. None]**	Window/room fans	**[RECORD NUM 0-19]**
5.	**[DISPLAY IF Q18_7 NE A. None]**	Ceiling fans	**[RECORD NUM 0-19]**

Programming note added – respondent must answer at least one choice with a numerical value of 1 or greater.

Q23. Does your home use a thermostat to control heating and/or cooling?

1.	Yes, a **programmable thermostat** (one that lets you program a schedule and set the temperature up or down at different times of the day and/or different days of the week)	□
2.	Yes, a **standard/manual thermostat** (one that you have to manually adjust and that has only one setting for the internal temperature you want)	□
3.	No thermostat	□

[IF Q23=1, ASK Q24, OTHERWISE SKIP TO FILTER BEFORE Q24]

Q23a. Which of the following best describes the way that you use your programmable thermostat?

1.	We use the programming feature of our thermostat to control our heating / cooling system most or all of the time	□
2.	We really don't use the programming feature of our thermostat most of the time	□
3.	We use the programming feature of the thermostat only in certain situations	□
4.	We use the programming feature in some other way	

[IF Q23=1-2, ASK Q24; OTHERWISE SKIP TO FILTER BEFORE Q25]

Q24. At what temperature do you set your thermostat during the following portions of the day?

		A. On days when you are using your **HEATING system**	B. On days when you are using your **COOLING System**
1.	Day	1. Less than 66°F 2. 66-69°F 3. 70-74°F 4. 75-79°F 5. 80°F or higher 6. Not Applicable	1. Less than 66°F 2. 66-69°F 3. 70-74°F 4. 75-79°F 5. 80°F or higher 6. Not Applicable
2.	Night	1. Less than 66°F 2. 66-69°F 3. 70-74°F 4. 75-79°F 5. 80°F or higher 6. Not Applicable	1. Less than 66°F 2. 66-69°F 3. 70-74°F 4. 75-79°F 5. 80°F or higher 6. Not Applicable

[IF S7=3, ASK Q25, OTHERWISE SKIP TO INTRO TEXT BEFORE Q29]

Q25. How many water heaters does your home have?

0. None; hot water is provided by the building to residents
1. 1
2. 2
3. 3 or more

IF Q25=1-3; ASK Q26; OTHERWISE SKIP TO TEXT BEFORE Q29]

Q26. **[IF Q25=1, DISPLAY, "**What kind of water heater is this?**" IF Q25=2-3, DISPLAY, "**What kind of water heaters are these?**"]**

[IF Q25=3, DISPLAY, "*Please answer for the two water heaters used most often.***"]**

		A. Conventional water heater with storage tank	B. Tankless (instantaneous/on demand) water heater	C. Heat pump water heater	D. Other [SPECIFY]	E. Not sure
1.	Water heater **[IF Q25>1, DISPLAY,** "Water heater #1**"]**	○	○	○	○	○
2.	**[DISPLAY ROW IF Q25>1]** Water heater #2	○	○	○	○	○

Q27. **[IF Q25=1, DISPLAY, "**What type of fuel does this water heater use? When was it installed?**"; IF Q25=2-3, DISPLAY, "**What type of fuel do these water heaters use? When were they installed?**"] [If Q26_1=conventional water heater with storage tank or If Q26_2= conventional water heater with storage tank, DISPLAY** "What size tank is your water heater?"

[IF Q25=3, DISPLAY, "*Please answer for the two water heaters used most often.***"]**

		Water Heater Type	Fuel Type	Year Installed	Tank Size [Display if Q26=1]
1.	Water heater **[IF Q25>1, DISPLAY,** "Water Heater #1**"]**	**[INSERT RESPONSE SELECTED AT Q26]**	1. Natural gas 2. Electricity 3. Fuel oil 4. Propane (bottled gas) 5. Wood 990. Other **[SPECIFY]** 998. Not sure	1. Before 1970 [SHOW IF Q4 = 1-4] 2. 1970-1979 [SHOW IF Q4 = 1-5] 3. 1980-1989 [SHOW IF Q4 = 1-6] 4. 1990-1994 [SHOW IF Q4 = 1-7] 5. 1995-1999 [SHOW IF Q4 = 1-7] 6. 2000-2004 [SHOW IF Q4 = 1-8] 7. 2005-2009 [SHOW IF Q4 = 1-8] 8. 2010-present [SHOW IF Q4 = 1-9] 998. Not sure	1. Under 55 gallons 2. 55 gallons or more 3. Not sure
2.	**[DISPLAY ROW IF Q25>1]** Water heater #2	**[INSERT RESPONSE SELECTED AT Q26]**	1. Natural gas 2. Electricity 3. Fuel oil 4. Propane (bottled gas) 5. Wood 990. Other **[SPECIFY]** 998. Not sure	1. Before 1970 [SHOW IF Q4 = 1-4] 2. 1970-1979 [SHOW IF Q4 = 1-5] 3. 1980-1989 [SHOW IF Q4 = 1-6] 4. 1990-1994 [SHOW IF Q4 = 1-7] 5. 1995-1999 [SHOW IF Q4 = 1-7] 6. 2000-2004 [SHOW IF Q4 = 1-8] 7. 2005-2009	1. Under 55 gallons 2. 55 gallons or more 3. Not sure

				[SHOW IF Q4 = 1-8] 8. 2010-present [SHOW IF Q4 = 1-9] 998. Not sure	

[IF Q25>0 Q25>0, ASK Q28; OTHERWISE SKIP TO TEXT BEFORE Q29]
NEW Q28. Which of these best describes your water heating system?

1. It was already there before we purchased or moved into the home
2. It was added to a home that did not already have a water heating system
3. It was a replacement for a broken system
4. We wanted a more energy efficient appliance to replace a still-working system
5. It was purchased to replace a still-working system for other reasons
6. Other (please specify)

III – LIGHTING

Thank you for your responses so far! Next we are going to ask you about your home's lighting.

Q29. About how many of the following types of light bulbs/lamps would you say you are currently using inside your home? *Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.* **[PROGRAMMER NOTE: DO NOT ACCEPT DECIMALS]**
Note: To make it easier for you to account for all the lighting inside your home, we've broken this down by areas that might be included in your home. If the list of areas provided does not account for all the lighted areas inside your home, please include the number of each type of light bulb/lamp in the "Any other areas in your home" row.

		A.	B.	C.	D.	E.	F.	G.	
	Area	**Conventional light bulbs /Incandescent lamps**	**Compact fluorescent lamps (CFLs)**	**Tubular fluorescent lamps**	**Halogen light bulbs**	**LED light bulbs**	**Low voltage lamps**	**Other types of lighting [SPECIFY]**	**Total**
									
1.	Bedrooms **[DISPLAY ROW IF Q10>0]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**
2.	Bathrooms **[DISPLAY ROW IF Q11>0]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**
3.	Kitchen / dining areas	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**
4.	Living area(s) (e.g., Living rooms, great rooms, family rooms)	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**

5.	Hallways, entryways/ foyers, stairwells, closets/pantries	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**
6.	Utility rooms, garages	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**
7.	Any other areas in your home **[SPECIFY]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC. TOTAL]**
	Total	**[CALC. TOTAL]**	**[CALC. TOTAL]**	**[CALC. TOTAL]**	**[CALC. TOTAL]**	**[CALC. TOTAL]**	**[CALC. TOTAL]**	**[CALC. TOTAL]**	**Grand Total: [CALC. TOTAL]**

[PROGRAMMER: GRAND TOTAL MUST BE GREATER THAN 0 FOR RESPONDENT TO MOVE TO NEXT SCREEN]

[IF Q29_C GRANDTOT>0, ASK Q30; OTHERWISE SKIP TO Q31]

Q30. What percentage of all the **interior fluorescent lamps / fixtures** in your home can be described as each of the following types?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

	[SET DEFAULT RESPONSE AT 0]	**% of all fluorescent lamps / fixtures used…**
1.	Standard fluorescent tubes (T12)	[RECORD NUM 0-100]%
2.	High-efficiency fluorescent tubes (T8)	[RECORD NUM 0-100]%
3.	Super high-efficiency fluorescent tubes (T5)	[RECORD NUM 0-100]%
4.	LED	[RECORD NUM 0-100]%
5.	Other	[RECORD NUM 0-100]%
TOT.	Total	[CALCULATE TOTAL]%

[IF Q29GRANDTOT>0, ASK Q31; OTHERWISE SKIP TO Q32]

[FOR Q31, SHOW ONLY THOSE RESPONSES THAT MATCH TO WHAT WAS ANSWERED IN Q29]

Q31. Approximately what is the average **number of HOURS** that each of these types of lighting (used inside your home) is on per day? *Your best estimate is fine, but please use only WHOLE numbers.*

Note: Once again, we've broken this down by areas that might be included in your home. If the list of areas provided does not account for all the lighted areas inside your home, please include the number of hours for each type of light bulb/lamp in the "Any other areas in your home" row.

[PROGRAMMER: DO NOT ACCEPT DECIMALS]

		A.	B.	C.	D.	E.	F.	G.	
	Area	**Conventional light bulbs /Incandescent lamps**	**Compact fluorescent lamps (CFLs)**	**Tubular fluorescent lamps**	**Halogen light bulbs**	**LED light bulbs**	**Low voltage lamps**	**Other types of lighting [SPECIFY]**	**Total Hours**
									
1.	Bedrooms **[DISPLAY ROW IF Q10>0]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
2.	Bathrooms **[DISPLAY ROW IF Q11>0]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
3.	Kitchen / dining areas	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
4.	Living area(s) (e.g., Living rooms, great rooms, family rooms)	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
5.	Hallways, entryways/ foyers, stairwells, closets/pantries	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
6.	Utility rooms, garages	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
7.	Any other areas in your home **[SPECIFY]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALC. TOTAL]**
	Total	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**Grand Total: [CALC. TOTAL]**

[PROGRAMMER: GRAND TOTAL MUST BE GREATER THAN 0 FOR RESPONDENT TO MOVE TO NEXT SCREEN]

Q32. Approximately how many of each of the following devices do you have to control lighting inside your home?
[PROGRAMMER, PLEASE PRE-POPULATE WITH ZERO]

1. Timers: **[RECORD NUMBER 0-50]**
2. Motion detectors or occupancy sensors: **[RECORD NUMBER 0-50]**

[IF S7=4, ASK Q33; OTHERWISE SKIP TO INTRO BEFORE Q36]

Q33. About how many of each of the following types of light bulbs/lamps would you say you are currently using on the outside of your home? *Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.*

	1.	2.	3.	4.	5.	
Area	**Conventional light bulbs /Incandescent lamps**	**Compact fluorescent lamps (CFLs)**	**Halogen light bulbs**	**LED lamps**	**Other [SPECIFY]**	**Total**
						
Outside your home	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[RECORD NUM 0-100]**	**[CALC TOTAL]**

[IF Q33TOT>0, ASK Q34; OTHERWISE SKIP TO Q35]

Q34. Approximately, how many **HOURS** per day do you use the following lights outside your home, on average? *Your best estimate is fine.*

		Average number hours on per day
1.	**[DISPLAY ROW IF Q33_1>0]** Conventional light bulbs / Incandescent lamps 	**[RECORD NUM 0-24]**
2.	**[DISPLAY ROW IF Q33_2>0]** Compact fluorescent lamps (CFLs) 	**[RECORD NUM 0-24]**
3.	**[DISPLAY ROW IF Q33_3>0]** Halogen light bulbs 	**[RECORD NUM 0-24]**
4.	**[DISPLAY ROW IF Q33_4>0]** LED lamps 	**[RECORD NUM 0-24]**
5.	**[DISPLAY ROW IF Q33_5>0]** Other	**[RECORD NUM 0-24]**

Q35. Which of the following types of devices do you use to control lighting outside your home? *Select all that apply.*

1. Timers
2. Motion detectors
3. Dusk-to-dawn sensors
4. None of the above **[EXCLUSIVE]**

IV – MAJOR APPLIANCES

The following questions relate to some common appliances that may be used in your home.

Q36. Which of the following major appliances does your home have? *Select all that apply.*

[IF Q2=2-4 OR Q3=2, DISPLAY, "*Include only appliances that are located within your specific condo / apartment / unit. Do not include appliances that are located in common areas of your building and available for use by the entire community of residents within your building.***"]**

1. Refrigerator and/or freezer
2. Stovetop/range and/or oven
3. Dishwasher
4. Clothes washer
5. Clothes dryer
6. None of the above **[EXCLUSIVE]**

[IF Q36_1=1, ASK Q37; OTHERWISE AUTOCODE ALL (Q37_1 thru Q37_3)=0 AND SKIP TO FILTER BEFORE Q39]
Q37. How many refrigerators, freezers, and refrigerator / freezer combos does your home have?
[PROGRAMMER: DEFAULT SHOULD BE ZERO]

	Unit Type	Number of Units
1.	Combination refrigerator / freezer units	**[RECORD NUM 0-5]**
2.	Refrigerator-only units	**[RECORD NUM 0-5]**
3.	Freezer-only units	**[RECORD NUM 0-5]**
TOT.	**Total # of units in your home:**	**[CALCULATE TOTAL]**

[IF Q37TOT>0, ASK Q38; OTHERWISE SKIP TO FILTER BEFORE Q39]
Q38. **[IF Q37TOT=1, DISPLAY, "**When was this refrigerator, freezer, or refrigerator / freezer combo purchased?**"] [IF Q37TOT>1, DISPLAY, "**When were each of these refrigerator, freezer, or refrigerator / freezer combo units purchased?**"]**

[IF Q37_1>2 OR Q37_2>2 OR Q37_3>2, DISPLAY "*When your home has more than two units in a category, please answer for the largest two units in that category.***"]**

		Unit Type [DISPLAY COLUMN IF Q37TOT>1]	Year Purchased
1.	**[DISPLAY ROW IF Q37_1>=1]**	Combination refrigerator / freezer unit **[DISPLAY IF Q37_1>1, "**#1**"]**	1. Before 1993 2. 1993-2001 3. 2002-2007 4. 2008- present 5. Not sure
2.	**[DISPLAY ROW IF Q37_3>=2]**	Combination refrigerator / freezer unit #2	1. Before 1993 2. 1993-2001 3. 2002-2007 4. 2008- present 5. Not sure
3.	**[DISPLAY ROW IF Q37_2>=1]**	Refrigerator-only unit **[DISPLAY IF Q37_2>1, "**#1**"]**	1. Before 1993 2. 1993-2001 3. 2002-2007 4. 2008- present 5. Not sure

4.	**[DISPLAY ROW IF Q37_2>=2]**	Refrigerator-only unit #2	1. Before 1993 2. 1993-2001 3. 2002-2007 4. 2008- present 5. Not sure
5.	**[DISPLAY ROW IF Q37_3>=1]**	Freezer-only unit **[DISPLAY IF Q37_3>1, "**#1**"]**	1. Before 1993 2. 1993-2001 3. 2002-2007 4. 2008- present 5. Not sure
6.	**[DISPLAY ROW IF Q37_3>=2]**	Freezer-only unit #2	1. Before 1993 2. 1993-2001 3. 2002-2007 4. 2008- present 5. Not sure

[IF Q36_2=1, ASK Q396; OTHERWISE SKIP TO FILTER BEFORE Q41]
You mentioned you have a stovetop/range and/or oven.

Q39. What type of fuel does your stovetop/range use?

1. Natural gas
2. Electricity
3. Propane (bottled gas)
990. Other **[SPECIFY]**
5. Do not have a stovetop/range – only have an oven

Q40. What type of fuel does your oven use?

1. Natural gas
2. Electricity
3. Propane (bottled gas)
990. Other **[SPECIFY]**
5. Do not have an oven – only have a stovetop/range

[IF Q36_5=1, ASK Q41; OTHERWISE SKIP TO FILTER BEFORE Q42]

Q41. What type of fuel does your clothes dryer use?

1. Natural gas
2. Electricity
3. Propane (bottled gas)
990. Other **[SPECIFY]**
5. Not sure

[IF Q36_1=1 OR Q36_3=1 OR Q36_4=1, ASK Q42; OTHERWISE SKIP TO INTRO TEXT BEFORE Q43]

Q42. Which, if any, of the following appliances in your home are ENERGY STAR® appliances? *Select all that apply.*

[DISPLAY IF Q37_1>2 OR Q37_2>2 OR Q37_3>2, "*When your home has more than two units in a category, please answer for the largest two units in that category.***"]**

1.	**[DISPLAY ROW IF Q37_1>=1]**	Combination refrigerator / freezer unit **[DISPLAY IF Q37_1>1, "#1"]**	☐
2.	**[DISPLAY ROW IF Q37_3>=2]**	Combination refrigerator / freezer unit #2	☐
3.	**[DISPLAY ROW IF Q37_2>=1]**	Refrigerator-only unit **[DISPLAY IF Q37_2>1, "#1"]**	☐
4.	**[DISPLAY ROW IF Q37_2>=2]**	Refrigerator-only unit #2	☐
5.	**[DISPLAY ROW IF Q37_3>=1]**	Freezer-only unit **[DISPLAY IF Q37_3>1, "#1"]**	☐
6.	**[DISPLAY ROW IF Q37_3>=2]**	Freezer-only unit #2	☐
7.	**[DISPLAY ROW IF Q33_3>=1]**	Dishwasher	☐
8.	**[DISPLAY ROW IF Q33_4>=1]**	Clothes washer	☐
9.		Not sure	☐
10.		None of the above **[EXCLUSIVE]**	☐

IV – ELECTRONICS

The next few questions ask about some other electronics that might be used in your home.

Q43. How many of the following types of TV sets are used in your home?
[PROGRAMMER: DO NOT ACCEPT DECIMALS]

	TV Set Type	Number of sets
1.	Standard Tube TVs	**[RECORD NUM 0-5]**
2.	LCD TVs	**[RECORD NUM 0-5]**
3.	LED TVs	**[RECORD NUM 0-5]**
4.	Plasma TVs	**[RECORD NUM 0-5]**
5.	Rear projection TVs	**[RECORD NUM 0-5]**
TOT.	**Total # of TV sets in your home:**	**[CALCULATE TOTAL]**

[IF Q43TOT>0, ASK Q44; OTHERWISE SKIP TO FILTER BEFORE Q45]
Q44. What is the size of **[IF Q40TOT=1, DISPLAY "**this TV set?**"] [IF Q40TOT>1, DISPLAY "**each of these TV sets?**"]** *Your best estimate is fine. Also note if you purchased the television since January 1, 2011.*

[IF ANY Q43_1 thru Q43_4 >3, DISPLAY, "*When you have more than 3 of any one TV type (standard tube, LCD, plasma, rear projection), answer for the largest 3 of that type.***"]**

		TV Set Type	TV Size	Purchased since January 1, 2011?
1.	**[DISPLAY ROW IF Q43_1>0]**	Standard Tube TV **[DISPLAY IF Q43_1>1, "**#1**"]**	1. 35" or less 2. More than 35"	1. Yes 2. No 3. Not sure
2.	**[DISPLAY ROW IF Q43_1>1]**	Standard Tube TV #2	1. 35" or less 2. More than 35"	1. Yes 2. No 3. Not sure
3.	**[DISPLAY ROW IF Q43_1>2]**	Standard Tube TV #3	1. 35" or less 2. More than 35"	1. Yes 2. No 3. Not sure
4.	**[DISPLAY ROW IF Q43_2>0]**	LCD TV **[DISPLAY IF Q43_2>1, "**#1**"]**	1. Less than 40" 2. 40" to 50" 3. More than 50"	1. Yes 2. No 3. Not sure
5.	**[DISPLAY ROW IF Q43_2>1]**	LCD TV #2	1. Less than 40" 2. 40" to 50" 3. More than 50"	1. Yes 2. No 3. Not sure
6.	**[DISPLAY ROW IF Q43_2>2]**	LCD TV #3	1. Less than 40" 2. 40" to 50" 3. More than 50"	1. Yes 2. No 3. Not sure
7.	**[DISPLAY ROW IF Q43_3>0]**	LED TV **[DISPLAY IF Q43_3>1, "**#1**"]**	1. Less than 40" 2. 40" to 50" 3. More than 50"	1. Yes 2. No 3. Not sure

8.	**[DISPLAY ROW IF Q43_3>1]**	LED TV #2	1. Less than 40” 2. 40” to 50” 3. More than 50”	1. Yes 2. No 3. Not sure
9.	**[DISPLAY ROW IF Q43_3>2]**	LED TV #3	1. Less than 40” 2. 40” to 50” 3. More than 50”	1. Yes 2. No 3. Not sure
10.	**[DISPLAY ROW IF Q43_4>0]**	Plasma TV **[DISPLAY IF Q43_4>1, “**#1**”]**	1. Less than 42” 2. 42” to 50” 3. More than 50”	1. Yes 2. No 3. Not sure
11.	**[DISPLAY ROW IF Q43_4>1]**	Plasma TV #2	1. Less than 42” 2. 42” to 50” 3. More than 50”	1. Yes 2. No 3. Not sure
12.	**[DISPLAY ROW IF Q43_4>2]**	Plasma TV #3	1. Less than 42” 2. 42” to 50” 3. More than 50”	1. Yes 2. No 3. Not sure
13.	**[DISPLAY ROW IF Q43_5>0]**	Rear projection TV **[DISPLAY IF Q43_5>1, “**#1**”]**	1. 56” or less 2. More than 56”	1. Yes 2. No 3. Not sure
14.	**[DISPLAY ROW IF Q43_5>1]**	Rear projection TV #2	1. 56” or less 2. More than 56”	1. Yes 2. No 3. Not sure
15.	**[DISPLAY ROW IF Q43_5>2]**	Rear projection TV #3	1. 56” or less 2. More than 56”	1. Yes 2. No 3. Not sure

[IF Q43TOT>0, ASK Q45; OTHERWISE AUTOPUNCH Q45TOT=0 AND SKIP TO Q47]

Q45. On average, how many hours per day **[IF Q43TOT=1, DISPLAY “**is this TV set turned on?**”] [IF Q43TOT>1, DISPLAY “**are each of these TV sets turned on?**”]**

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

		TV Set Type	TV Size	Number of hrs per day turned on
1.	**[DISPLAY ROW IF Q43_1>0]**	Standard Tube TV **[DISPLAY IF Q43_1>1, “**#1**”]**	**[INSERT RESPONSE SELECTED AT Q44_1]**	**[RECORD NUM 0-24]**
2.	**[DISPLAY ROW IF Q43_1>1]**	Standard Tube TV #2	**[INSERT RESPONSE SELECTED AT Q44_2]**	**[RECORD NUM 0-24]**
3.	**[DISPLAY ROW IF Q43_1>2]**	Standard TV #3	**[INSERT RESPONSE SELECTED AT Q44_3]**	**[RECORD NUM 0-24]**
4.	**[DISPLAY ROW IF Q43_2>0]**	LCD TV **[DISPLAY IF Q43_2>1, “**#1**”]**	**[INSERT RESPONSE SELECTED AT Q44_4]**	**[RECORD NUM 0-24]**
5.	**[DISPLAY ROW IF Q43_2>1]**	LCD TV #2	**[INSERT RESPONSE SELECTED AT Q44_5]**	**[RECORD NUM 0-24]**
6.	**[DISPLAY ROW IF Q43_2>2]**	LCD TV #3	**[INSERT RESPONSE SELECTED AT Q44_6]**	**[RECORD NUM 0-24]**
7.	**[DISPLAY ROW IF Q43_3>0]**	LED TV **[DISPLAY IF Q43_2>1, “**#1**”]**	**[INSERT RESPONSE SELECTED AT Q44_7]**	**[RECORD NUM 0-24]**
8.	**[DISPLAY ROW IF Q43_3>1]**	LED TV #2	**[INSERT RESPONSE SELECTED AT Q44_8]**	**[RECORD NUM 0-24]**
9.	**[DISPLAY ROW IF**	LED TV #3	**[INSERT RESPONSE**	**[RECORD NUM 0-**

	Q43_3>2]		**SELECTED AT Q44_9]**	**24]**
10.	**[DISPLAY ROW IF Q43_4>0]**	Plasma TV **[DISPLAY IF Q43_3>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_10]**	**[RECORD NUM 0-24]**
11.	**[DISPLAY ROW IF Q43_4>1]**	Plasma TV #2	**[INSERT RESPONSE SELECTED AT Q44_11]**	**[RECORD NUM 0-24]**
12.	**[DISPLAY ROW IF Q43_4>2]**	Plasma TV #3	**[INSERT RESPONSE SELECTED AT Q44_12]**	**[RECORD NUM 0-24]**
13.	**[DISPLAY ROW IF Q43_5>0]**	Rear projection TV **[DISPLAY IF Q43_4>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_13]**	**[RECORD NUM 0-24]**
14.	**[DISPLAY ROW IF Q43_5>1]**	Rear projection TV #2	**[INSERT RESPONSE SELECTED AT Q44_14]**	**[RECORD NUM 0-24]**
15.	**[DISPLAY ROW IF Q43_5>2]**	Rear projection TV #3	**[INSERT RESPONSE SELECTED AT Q44_15]**	**[RECORD NUM 0-24]**
TOT.	**[DISPLAY ROW IF Q43TOT>1]**	**Total # of hours per day a TV is turned on in your home:**		**[CALCULATE TOTAL]**

Q46. **[IF Q43TOT=1, DISPLAY "**Is this TV set an ENERGY STAR® TV set?**"] [IF Q43TOT>1, DISPLAY "**Are any of these TV sets ENERGY STAR® TV sets?**"]**

				ENERGY STAR®?		
		TV Set Type	**TV Size**	**Yes**	**No**	**Not sure**
1.	**[DISPLAY ROW IF Q43_1>0]**	Standard Tube TV **[DISPLAY IF Q43_1>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_1]**	○	○	○
2.	**[DISPLAY ROW IF Q43_1>1]**	Standard Tube TV #2	**[INSERT RESPONSE SELECTED AT Q44_2]**	○	○	○
3.	**[DISPLAY ROW IF Q43_1>2]**	Standard TV #3	**[INSERT RESPONSE SELECTED AT Q44_3]**	○	○	○
4.	**[DISPLAY ROW IF Q43_2>0]**	LCD TV **[DISPLAY IF Q43_2>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_4]**	○	○	○
5.	**[DISPLAY ROW IF Q43_2>1]**	LCD TV #2	**[INSERT RESPONSE SELECTED AT Q44_5]**	○	○	○
6.	**[DISPLAY ROW IF Q43_2>2]**	LCD TV #3	**[INSERT RESPONSE SELECTED AT Q44_6]**	○	○	○
7.	**[DISPLAY ROW IF Q43_3>0]**	LED TV **[DISPLAY IF Q43_3>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_7]**	○	○	○
8.	**[DISPLAY ROW IF Q43_3>1]**	LED TV #2	**[INSERT RESPONSE SELECTED AT Q44_8]**	○	○	○
9.	**[DISPLAY ROW IF Q43_3>2]**	LED TV #3	**[INSERT RESPONSE SELECTED AT Q44_9]**	○	○	○
10.	**[DISPLAY ROW IF Q43_4>0]**	Plasma TV **[DISPLAY IF Q43_4>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_10]**	○	○	○
11.	**[DISPLAY ROW IF Q43_4>1]**	Plasma TV #2	**[INSERT RESPONSE SELECTED AT Q44_11]**	○	○	○
12.	**[DISPLAY ROW IF Q43_4>2]**	Plasma TV #3	**[INSERT RESPONSE SELECTED AT Q44_12]**	○	○	○

13.	**[DISPLAY ROW IF Q43_5>0]**	Rear projection TV **[DISPLAY IF Q43_5>1, "#1"]**	**[INSERT RESPONSE SELECTED AT Q44_13]**	○	○	○
14.	**[DISPLAY ROW IF Q43_5>1]**	Rear projection TV #2	**[INSERT RESPONSE SELECTED AT Q44_14]**	○	○	○
15.	**[DISPLAY ROW IF Q43_5>2]**	Rear projection TV #3	**[INSERT RESPONSE SELECTED AT Q44_15]**	○	○	○

Q47. How many desktop and laptop computers are regularly used in your home?

	Computer Type	**Number of Computers**
1.	Desktops	**[RECORD NUM 0-5]**
2.	Laptops	**[RECORD NUM 0-5]**
3.	Tablets	**[RECORD NUM 0-5]**
TOT.	**Total # of computers regularly used in your home:**	**[CALCULATE TOTAL]**

[IF Q47_1>0, ASK Q48; OTHERWISE SKIP TO FILTER BEFORE Q49]

Q48. **[IF Q47_1=1, DISPLAY "**What kind of monitor does your desktop computer have?**"] [IF Q47_1>1, DISPLAY "**What kind of monitors do your desktop computers have?**"]**

[IF Q47_1>3, DISPLAY, "*When you have more than 3 desktop computers, please answer for the 3 desktop computers that are used most often*.**"]**

			Monitor Type		
			Flat panel (e.g., LCD or LED)	**Non-flat panel / standard tube**	**Not sure**
		[DISPLAY COLUMN IF Q47TOT>1]			
1.	**[DISPLAY ROW IF Q47_1>0]**	Desktop **[DISPLAY IF Q47_1>1, "#1"]**	○	○	○
2.	**[DISPLAY ROW IF Q47_1>1]**	Desktop #2	○	○	○
3.	**[DISPLAY ROW IF Q47_1>2]**	Desktop #3	○	○	○

[IF Q47TOT>0, ASK Q49; OTHERWISE AUTOPUNCH Q49ATOT=0 AND Q49BTOT=0 AND THEN SKIP TO Q50]

Q49. On average, how many hours per day **[IF Q47TOT=1, DISPLAY "**is this desktop turned on or is the laptop computer or tablet plugged in?**"] [IF Q47TOT>1, DISPLAY "**are each of these desktops turned on or are the laptop computers or tablets plugged in?**"]** *Be sure to include time in which this/these computer(s) are asleep or in stand-by mode.*

[IF ANY Q47_1 thru Q43_3 >3, DISPLAY, "*When you have more than 3 of any one computer type (desktop, laptop), answer for the 3 of that type that are used most often*.**"]**

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

			Number of hrs per day turned on and…		
		Computer Type [DISPLAY COLUMN IF Q47TOT>1]	**A. In use**	**B. NOT in use (in standby / sleep mode)**	**Total**
1.	**[DISPLAY ROW IF Q47_1>0]**	Desktop **[DISPLAY IF Q47_1>1, "**#1**"]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
2.	**[DISPLAY ROW IF Q47_1>1]**	Desktop #2	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
3.	**[DISPLAY ROW IF Q47_1>2]**	Desktop #3	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
4.	**[DISPLAY ROW IF Q47_2>0]**	Laptop **[DISPLAY IF Q47_2>1, "**#1**"]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
5.	**[DISPLAY ROW IF Q47_2>1]**	Laptop #2	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
6.	**[DISPLAY ROW IF Q47_2>2]**	Laptop #3	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
7.	**[DISPLAY ROW IF Q47_3>0]**	Tablet **[DISPLAY IF Q47_3>1, "**#1**"]**	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
8.	**[DISPLAY ROW IF Q47_3>1]**	Tablet #2	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
9.	**[DISPLAY ROW IF Q47_3>2]**	Tablet #3	**[RECORD NUM 0-24]**	**[RECORD NUM 0-24]**	**[CALCULATE TOTAL 0-24]**
TOT.	**[DISPLAY ROW IF Q47TOT>1]**	**Total # of hours per day a computer is turned on in your home:**	**[CALCULATE TOTAL]**	**[CALCULATE TOTAL]**	**Grand Total: [CALCULATE TOTAL]**

Q50. **[IF Q47TOT=1, DISPLAY "**Is this desktop or laptop computer an ENERGY STAR® computer?**"] [IF Q47TOT>1, DISPLAY "**Are any of these desktop or laptop computers ENERGY STAR® computers?**"]**

			ENERGY STAR®?		
		Computer Type [DISPLAY COLUMN IF Q47TOT>1]	**Yes**	**No**	**Not sure**
1.	**[DISPLAY ROW IF Q47_1>0]**	Desktop **[DISPLAY IF Q47_1>1, "#1"]**	○	○	○
2.	**[DISPLAY ROW IF Q47_1>1]**	Desktop #2	○	○	○
3.	**[DISPLAY ROW IF Q47_1>2]**	Desktop #3	○	○	○
4.	**[DISPLAY ROW IF Q47_2>0]**	Laptop **[DISPLAY IF Q47_2>1, "#1"]**	○	○	○
5.	**[DISPLAY ROW IF Q47_2>1]**	Laptop #2	○	○	○
6.	**[DISPLAY ROW IF Q47_2>2]**	Laptop #3	○	○	○

Q51. How many of the following items are used in your home?

[PROGRAMMER: DEFAULT IS ZERO]

	[ROTATE LIST]	**Number**
1.	Cable set-top box / satellite set-top box / analog-to-digital TV converter set-top box	**[RECORD NUM 0-9]**
2.	Digital video recorder (TIVO, DVR)	**[RECORD NUM 0-9]**
3.	Stand-alone speakers and subwoofers that are part of a home theater system (not embedded in other devices like TVs or CD players)	**[RECORD NUM 0-49]**
4.	Gaming consoles (Xbox360, Wii, etc.)	**[RECORD NUM 0-9]**
5.	Medical equipment that is plugged into an electrical outlet	**[RECORD NUM 0-9]**
6.	Heated waterbeds	**[RECORD NUM 0-9]**
7.	Heated aquariums	**[RECORD NUM 0-9]**
8.	Air Purifier/Cleaner	**[RECORD NUM 0-9]**
9.	Dehumidifier	**[RECORD NUM 0-9]**

[IF Q51_8>0 or If Q51_9>0, ASK Q52, OTHERWISE SKIP TO Q53.]

Q52. **[IF Q51_8>0, DISPLAY "**Is this air purifier/air cleaner an ENERGY STAR® appliance?**"] [IF Q51_9>0, DISPLAY "**Is this dehumidifier an ENERGY STAR® appliance?**"]**

			ENERGY STAR®?		
		Appliance	**Yes**	**No**	**Not sure**
1.	**[DISPLAY ROW IF Q51_8>0]**	Air Purifier/ Air Cleaner	○	○	○
2.	**[DISPLAY ROW IF Q51_9>0]**	Dehumidifier	○	○	○

Q53. Does your home have any of the following? *Select all that apply.*

[IF Q2=2-4 OR Q3=2, DISPLAY, Please c*onsider only those that are exclusively reserved for use by you, by others who live in your specific apartment, or by any guests to whom you choose to allow access. DO NOT consider common-access pools/spas/tubs which that can be used by any other residents within your building/community.***"]**

1. A swimming pool that includes a heater, filtration system, and/or pump
2. A spa / hot tub that includes a heater, filtration system, and/or jet pump
3. None of the above **[EXCLUSIVE]**

[IF Q53_1 OR Q53_2 SELECTED, ASK Q54; OTHERWISE SKIP TO INTRO TEXT BEFORE Q55]

Q54. You mentioned your home has **[IF Q53=1, DISPLAY, "**a pool**"] [IF Q53=1 AND 2, DISPLAY, "**and**"] [IF Q53=2, DISPLAY, "**a spa/hot tub**"]** that includes a heater, filtration system, and/or pump/jet pump. What type of fuel does **[IF Q53=1 OR 2 (BUT NOT BOTH 1 AND 2), DISPLAY, "**does this heater**"] [IF Q53=1 AND 2, DISPLAY, "**do each of the heaters**"]** use?

		Natural gas	**Electricity**	**Propane (bottled gas)**	**Other**	**Not sure**	**My home does not have this**
1.	**[DISPLAY IF Q53_1=1]** Swimming pool heater	○	○	○	○	○	○
2.	**[DISPLAY IF Q53_2=1]** Spa/hot tub heater	○	○	○	○	○	○

V – ENERGY-RELATED ACTIONS

The next few questions ask you about some actions you might have taken which may affect the amount of energy your home uses.

Q55. Which, if any, of the following home improvement / remodeling efforts have you or a previous **[IF S4=2, DISPLAY, "**or current**"]** owner made in the last 5 years? *Select all that apply.*

[IF Q2=2-4 OR Q3=2, DISPLAY, "*Please answer only for your particular apartment / unit.***"]**

1.	Enhanced insulation of ducts	☐
2.	Enhanced insulation of ceiling	☐
3.	Enhanced insulation of walls	☐
4.	Enhanced insulation of attic	☐
5.	Enhanced insulation of the foundation	☐
6.	Enhanced water pipe insulation	☐
7.	Installed low-flow showerheads	☐
8.	Installed low-flow faucet aerators	☐
9.	Installed a furnace with a brushless permanent magnet (BPM/ECM) furnace blower motor	☐
10.	Installed a high efficiency bathroom exhaust fan	☐
11.	Weather stripped/caulked windows and/or doors	☐
12.	Installed storm doors	☐
13.	None of the above **[EXCLUSIVE]**	☐

Q56. Which, if any, of the following actions are you currently taking in your home?
If you are not currently doing a task, please indicate if that task would be physically possible for you.

For example, if you do not have a clothes dryer, you could NOT use a dryer that has a sensor that turns the dryer off when the clothes are dry.

		[A] Currently doing this	**[B] Could do this but currently not**	**[C] Could NOT do this**
1.	Use a "Smart strip" power strip to turn off electronic equipment when it's not in use	☐	☐	☐
2.	Unplug battery rechargers (e.g., for laptops, cell phones, MP3 players) when they are not being used	☐	☐	☐
3.	Perform annual maintenance on your HVAC (heating, ventilation, or air conditioning) equipment	☐	☐	☐
4.	Use a water heater insulation blanket/jacket	☐	☐	☐
5.	Lower the water heater temperature to 125 degrees F	☐	☐	☐
6.	Use a clothes dryer that has a sensor that turns the dryer off when the clothes are dry	☐	☐	☐
7.	Regularly turn out the lights when leaving a room	☐	☐	☐

VI – UTILITY PROGRAMS

Q57. Some utilities offer rebate, low interest loan or price discount programs to encourage people to purchase highly energy efficient products such as appliances, air conditioners, furnaces, heat pumps, water heaters, compact fluorescent light bulbs (CFLs), and home insulation.

To the best of your knowledge, does Ameren Missouri offer any such programs that offer customers like you a discount off the purchase price on qualified items?

1. Yes
2. No
3. Not sure

[IF Q57=1 ASK Q58, OTHERWISE SKIP TO Q59]

Q58. Are you aware of any of the following programs offered by Ameren Missouri? Has your household participated in any of the following programs in the past 3 years?

	Energy Efficiency Program [RANDOMIZE]	**A. Aware of program**	**B. Participated in the last 3 years**
1.	Refrigerator Recycling Program (RRP)	☐	☐
2.	Lighting and Appliance Program (L&A)	☐	☐
3.	CheckMe! Plus	☐	☐
4.	Multifamily Income Qualified (MFIQ)	☐	☐
5.	Home Energy Performance (HEP)	☐	☐
6.	HVAC Program	☐	☐
7.	LightSavers	☐	☐
8.	RebateSavers	☐	☐
9.	ApplianceSavers	☐	☐
10.	ConstructionSavers	☐	☐
11.	CommunitySavers	☐	☐
12.	CoolSavers	☐	☐
990.	Other program(s) **[SPECIFY]**	☐	☐
998.	**NONE [EXCLUSIVE]**	☐	☐

[IF 58B SELECTED, AUTOFILL 58A AS SELECTED]
[NOTE: CANNOT RANDOMIZE THIS ONE WITHOUT SPLITTING OUT INTO TWO SCREENS]

VII – ADDITIONAL HOUSEHOLD DEMOGRAPHICS

In order to help us classify your responses, the last few questions are on your household's characteristics.

Q59. Does anyone in your household regularly telecommute or work from home during the day on **weekdays**?

1. Yes
0. No

[IF Q59=1, ASK Q60; OTHERWISE SKIP TO Q61]

Q60. On average, how many **weekdays** does anyone in your household work from home each week?

1. 1 weekday
2. 2 weekdays
3. 3 weekdays
4. 4 weekdays
5. 5 weekdays

Q61. **[IF Q59=1, DISPLAY, "**Other than those that work from home or telecommute, are**"] [IF Q59=0, DISPLAY, "**Are**']** there any individuals in your home that regularly stay at home all or most **weekdays**?

1. Yes
0. No

[IF Q1>1, ASK Q62; OTHERWISE AUTOCODE Q62_5=1 AND SKIP TO Q63]

Q62. Of the **[INSERT (Q1 RESPONSE MINUS 1)]** individuals that currently live in your household besides yourself, how many are children younger than 18 years old? *Select all that apply.*

1. Birth to 2 years old **[RECORD NUMBER 0-10]**
2. 3 to 6 years old **[RECORD NUMBER 0-10]**
3. 7 to 12 years old **[RECORD NUMBER 0-10]**
4. 13 to 17 years old **[RECORD NUMBER 0-10]**
5. There are no children younger than 18 years old in my household. **[EXCLUSIVE]**

[TOTAL OF Q62_1 through Q62_4 MUST BE LESS THAN (Q1 RESPONSE MINUS 1)]

Q63. Which of the following best characterizes the city / town / community in which you live?

1. Urban
2. Suburban
3. Rural

Q64. What is your gender?

1. Male
2. Female

Q65. What is the highest level of education 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. Bachelors degree
6. Graduate / professional degree, e.g., J.D., MBA, MD, etc.
7. Professional certification, e.g., CPA, CNP, etc.

Q66. What is your current work status?

1. Employed full-time
2. Employed part-time
3. Not currently employed
4. Retired

990. Other **[SPECIFY]**

Q67. Which of the following categories includes your household's total annual income before taxes in 2011? Please include the income of **all** people living in your home in this figure.

1. Less than $60,000
2. $60,000 or more

Q68. Which of the following categories includes your household's total annual income before taxes in 2011? Please include the income of **all** people living in your home in this figure.

[IF Q67=1, DISPLAY OPTIONS 1-7 AND 13; IF Q67=2, DISPLAY OPTIONS 8-13]

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

Q69. How many vehicles are used in your household?
By 'vehicles' we mean cars, trucks and SUV's.

1. One
2. Two
3. Three
4. Four or more
0. None

[If Q69=1-4, ASK Q70, OTHERWISE SKIP to Q72]

Q70. What type of vehicle do you drive?

		Conventional gasoline	Natural gas	Diesel	HEV - A hybrid using gas & an electric battery as fuel (Prius, etc.)	PHEV - Hybrid using gas and a plug-in rechargeable battery (Chevy Volt, etc.)	BEV - All electric (Tesla, Leaf, etc.)	Other
1.	**[DISPLAY IF Q69=1-4]** Car #1	○	○	○	○	○	○	○
2.	**[DISPLAY IF Q69=2-4]** Car #2	○	○	○	○	○	○	○
3.	**[DISPLAY IF Q69=3-4]** Car #3	○	○	○	○	○	○	○
4.	**[DISPLAY IF Q69=4-4]** Car #4	○	○	○	○	○	○	○

Q71. What type of car are you considering for your next purchase? *Select the one you are most likely going to purchase*.

1. Conventional gasoline
2. Diesel
3. Natural gas
4. Gas/electric hybrid, such as a Prius
5. Plug-in electric, such as a Volt
6. All electric vehicle, such as the Leaf or Tesla
7. Other (please specify)
8. Not sure / Not considering a purchase at this time

Q72. Which of the following best describes your race or ethnic background?

1. White, Caucasian
2. Black, African American, Caribbean American
3. American Indian (Native American), Alaska Native
4. Asian
6. Hispanic, Latino
5. Native Hawaiian, Pacific Islander

990. Other **[SPECIFY]**

7. Prefer not to say

VIII - CONCLUSION

[INCENTIVE NAME/ADDRESS COLLECTION SCREEN]

Those are all the questions we have for you today. Thanks for your participation!

Please click 'Continue' to proceed to the payment screen.

C0. Please indicate which of the following you would prefer:

4. Please email me a $10 Amazon Gift Card
5. I would prefer to have a $10 check mailed to me
6. I would like to decline and not receive an incentive

[IF C0=1, ASK C1; IF C0=2, ASK C2; IF C0=3, ASK C0A]

COA. You have indicated that you do NOT want to receive your $10 payment. Is that correct?

3. Yes
4. No

[IF YES, GO TO THANK YOU SCREEN; IF NO, RE-ASK C0]

C1. So that we may mail your incentive to you, please provide your name and address below.

A. Full name
C. Mailing Address Line #1
D. Mailing Address Line #2 (optional)
E. City
F. State
G. ZIP Code

C1. So that we may email your incentive to you, please provide your email address below.

[RECORD EMAIL ADDRESS –VALIDATE FOR FORMAT]

[INCENTIVE NAME/ADDRESS VERIFICATION SCREEN]

Please review the information you provided and verify that it is complete and correct:

[DISPLAY ALL NAME AND ADDRESS OR EMAIL INFORMATION COLLECTED]

If you would like to edit any of this information, please click the "Back" button to go to the previous screen, where you can make any needed changes.

Otherwise, please click "Continue" to submit your information.

[PROGRAMMER: INCLUDE BACK BUTTON FOR THIS SCREEN DURING LIVE VERSION]

[IF CHOOSE TO RECEIVE AN INCENTIVE, DISPLAY:]
You have successfully submitted the information we need so we can send you your $10 thank you gift. Your check or gift card will be issued within 4-6 weeks to the address or email address you provided. Thank you and have a nice day!
If you would like information on how your household can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

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[IF CHOOSE NOT TO RECEIVE AN INCENTIVE, DISPLAY:]
Thank you for taking the time to answer our survey questions. Have a nice day!
If you would like information on how your household can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

SURVEY CLOSED MESSAGE

We truly appreciate your time and effort in responding to the survey invitation you received, but the survey sponsored by Ameren Missouri is now closed.

In order to achieve a representative sample for this survey, quotas with specific criteria needed to be designated. Because these quotas have now been filled, we are not accepting any more responses.

If you would like information on how your home can save money on your energy bills, please visit us at **Act**OnEnergy.com

---

Thank you. Have a nice day!

DEFINITIONS

[THE DEFINITIONS IN THE TABLE BELOW WILL EACH BE SHOWN IN A POP-UP BOX THAT IS TRIGGERED BY A HYPERLINKED WORD OR PHRASE]

<table>
<tr><th>Word / Phrase</th><th>Definitions</th></tr>
<tr><td>Air-source heat pump</td><td>A single system that draws in outside air to use in both heating and cooling your home</td></tr>
<tr><td>Attic fan</td><td>A ventilation fan which regulates the heat level of a home's attic by exhausting hot air. Unlike a whole-house fan, which removes heat from the entire home, an attic fan only removes heat from the attic area of the home.</td></tr>
<tr><td>Central boiler with hot water/steam radiators or baseboards in individual rooms</td><td>A furnace that sends either hot water or steam to individual room radiators or baseboards to heat your home</td></tr>
<tr><td>Combination refrigerator / freezer units</td><td>Units that contain both a refrigerator and a freezer.

This kind of unit comes in multiple configurations, such as:

<table>
<tr><th colspan="2">Unit Type</th><th>Description</th></tr>
<tr><td>Side-by-side freezer refrigerator</td><td>  </td><td>The freezer and refrigerator sections are adjacent to one another, allowing portions of both sections to appear at eye-level.</td></tr>
<tr><td>Top-mount freezer refrigerator</td><td>  </td><td>The freezer section of the unit appears at eye level, mounted above the refrigerator section.</td></tr>
<tr><td>Traditional bottom-mount freezer refrigerator</td><td>  </td><td>The freezer section of the unit is mounted below the refrigerator section of the unit, allowing the refrigerator section to be at eye-level. Sometimes the freezer consists of one or more pull-out freezer drawers.</td></tr>
<tr><td>French door bottom-mount freezer refrigerator</td><td>  </td><td>The refrigerator section of the unit has dual / twin doors. The freezer section of the unit is mounted below the refrigerator section of the unit, allowing the refrigerator section to be more at eye-level. The freezer consists of one or more pull-out freezer drawers.</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td>Compact fluorescent lamp (CFL)</td><td>A newer type of light bulb that screws into a light socket, but which is a fluorescent light rather than a traditional incandescent light bulb, and which also often has a non-traditional shape for a light bulb</td></tr>
<tr><td>Conventional bulb / Incandescent lamp</td><td>A traditional screw-in light bulb that may range from 15 – 100 watts or more</td></tr>
<tr><td>Standard fluorescent tubes (T12)</td><td>Traditional fluorescent tube lights with standard efficiency (T12) tubes</td></tr>
<tr><td>Higher than standard efficiency fluorescent tubes (T10)</td><td>Fluorescent tube lights that provide more light output than a T12. The T10 lights have a 1 ¼ inch diameter while the T12 lights have a larger diameter of 1 ½ inches.</td></tr>
<tr><td>High-efficiency fluorescent tubes (T8)</td><td>Newer fluorescent tubes (T8s) that fit into traditional fixtures, but which represent a more efficient (lower wattage) tube</td></tr>
<tr><td>Super high-efficiency fluorescent tubes (T5)</td><td>T5 lamps are high-efficiency fluorescent tubes. T5 lamps further increase efficiency from T8 fluorescent tubes by reducing the lamp diameter to 5/8”.</td></tr>
<tr><td>Conventional water heater with storage tank</td><td>A traditional water heater that heats a tank of hot water, and keeps that tank of water hot at all times. Most tanks range from 30-80 gallons in size.</td></tr>
<tr><td>Dimming switches</td><td>Light switches that can work to dim lights, rather than simply turning them on and off</td></tr>
<tr><td>Double pane windows or better</td><td>Window systems that have two or more layers of glass with an insulating layer of air (or special gas) added between the glass layers</td></tr>
<tr><td>Dusk-to-dawn sensors</td><td>Electronic devices that use a light sensor (photocell) to automatically turn on outside lights at dusk and turn them off at dawn</td></tr>
<tr><td>Electric baseboard or electric coil radiant heating</td><td>Devices that use electricity directly to produce heat for your home from baseboards or under-floor heating.</td></tr>
<tr><td>ENERGY STAR®</td><td>A label for some new appliances that indicate that the appliance meets the standards for high efficiency appliances</td></tr>
<tr><td>Freezer-only units</td><td>Units that function only as freezers (i.e., do NOT function as refrigerators).

This kind of unit comes in multiple configurations, such as:

<table>
<tr><th colspan="2">Unit Type</th><th>Description</th></tr>
<tr><td>Chest freezer</td><td>  </td><td>A freezer unit that opens from the top and often contains storage baskets.</td></tr>
<tr><td>Upright freezer</td><td>  </td><td>A freezer unit that opens from the front and contains shelf storage.</td></tr>
</table>
</td></tr>
<tr><td>Geothermal heat pump</td><td>A single system that uses water or fluid that circulates through underground piping to provide both heating and cooling for your home</td></tr>
<tr><td>Halogen lamp</td><td>A type of lamp which uses filaments like a traditional incandescent bulb, but is also filled with inert gas and a small amount of halogen. Compared to traditional incandescent bulbs, halogen lamps get hotter, give off light of a brighter / whiter quality, and have a longer life span.</td></tr>
</table>

<table>
<tr><td>Heat pump water heater</td><td>A system that uses a refrigeration cycle in reverse to draw heat out of the surrounding air to provide hot water in a traditional water heater storage tank</td></tr>
<tr><td>H.I.D. lamp (mercury vapor, metal halide, sodium vapor)</td><td>High power outside lights with special bulbs that are typically only used for outside lighting</td></tr>
<tr><td>LED lamp</td><td>A “light emitting diode” lamp is an electronic form of lighting that does not use filaments like traditional incandescent bulbs, but instead, uses solid state electronics.</td></tr>
<tr><td>Low voltage lighting</td><td>Low power lights (often used under counters or in other similar situations) that use a much lower wattage than do most traditional incandescent lights</td></tr>
<tr><td>Motion detectors</td><td>Electronic devices that are used to control lights in a room so that when someone is moving in a room, the lights are on, but when there is no motion in the room for several minutes, the lights are turned off</td></tr>
<tr><td>Occupancy sensors</td><td>Electronic devices that are used to control lights in a room so that when someone is present the lights are on, but where there is no one in the room for several minutes, the lights are turned off</td></tr>
<tr><td>Refrigerator-only units</td><td>Units that have only a refrigerator function (i.e., do NOT have a freezer function). They are much less common than freezer-only units.

This kind of unit, which is sometimes called a freezerless refrigerator, comes in multiple configurations, such as:

<table>
<tr><th colspan="2">Unit Type</th><th>Description</th></tr>
<tr><td>Chest refrigerator</td><td>  </td><td>An all-refrigerator unit that opens from the top and often contains storage baskets.</td></tr>
<tr><td>Upright refrigerator</td><td>  </td><td>An all-refrigerator unit that opens from the front and contains shelf storage.</td></tr>
</table>
</td></tr>
<tr><td>Single pane windows</td><td>Traditional windows that have only a single pane of glass, without any insulating layer of air, or anything else inserted inside the glass. Note that single pane windows may have reflective film or other additions applied to the single layer of glass.</td></tr>
<tr><td>Smart strip</td><td>Controlled Power Strips (or Smart Strips) which are multi-plug power strips with the ability to automatically disconnect specific connected loads depending upon the power draw of a “control” load, also plugged into the strip. For example, if a desktop computer is the control load, when it shuts down it might also disconnect an associated monitor, printer, and scanner, thereby reducing standby power loads. The same can be true for a television controlling a DVD, DVR, and audio system. Uncontrolled outlets are also provided on the strip that are not affected by the control device and so are always providing power to any device plugged into it.</td></tr>
<tr><td>Tankless (instantaneous/on demand) water heater</td><td>A water heater that only heats water for delivery to your home when you ask for it by using hot water. These systems do not keep a tank of water hot at all times.</td></tr>
</table>

Timers	Timers are typically used to control lights, turning them on and off at specific times of the day
Tubular fluorescent lamp	Traditional fluorescent lights are generally tubes of 3 or more feet in length and are installed in special fixtures made specifically for these tubes
Wall furnace	A furnace that works "through the wall," meaning that it is a box that draws air directly from the outside and then warms it before sending the resulting warm air into a room.
Whole-house fan	A ventilation fan mounted in the ceiling of a central part of a home that removes heat from the *entire* home. It does this by first drawing that heat from the living areas of the home into the home's attic, and then pushing the heat trapped in the attic to the outside through vents. Unlike an attic fan, which only removes heat from a home's attic, a whole-house fan removes heat from the entire home.

BUSINESS SURVEY DETAILS

List of All Programs/Measures Tested in Business Surveys

Category 1 (Q26-28, Q29, Q34-36, Q38-40): How likely would your business be to buy the higher than standard efficiency model (and take the rebate), rather than buying an equivalent standard efficiency model of each item?

- Purchase higher than standard efficiency light bulbs (higher than standard efficiency light bulbs could be compact fluorescent light bulbs (CFLs) or lower wattage incandescent light bulbs than you usually buy)
- Purchase a higher than standard efficiency cooling system
- Purchase a higher than standard efficiency heating system
- Purchase a higher than standard efficiency central / packaged air conditioner or chiller unit
- Purchase a higher than standard efficiency refrigeration unit
- Purchase a higher than standard efficiency copier / printer
- Purchase a higher than standard efficiency PC
- Purchase a higher than standard efficiency server
- Install higher than standard efficiency cooking equipment (Ovens, Fryers, Cooktops, Fryers, etc.)

Category 2 (Q29, Q33, Q37): How likely would your business be to make each improvement (and take the rebate)?

- Install higher than standard efficiency fans on chiller units
- Install an Economizer
- Install variable speed drives on chiller pumps
- Install a variable speed compressor on one or more of your refrigeration units
- Purchase higher than standard efficiency pumps or motors that are part of your HVAC system
- Install Variable Speed Drives on one or more of your pumps and motors that are part of your HVAC system
- Install an Energy Management System that is designed to optimize the performance of all your energy using systems
- Add controls to your ventilation system to enable variable – rather than constant – air volumes
- Install a thermostat on your heating and / or cooling system that would allow you to pre-set different heating or cooling levels for different days and different times of the day
- Install occupancy / motion sensors to turn lights off when rooms are not in use
- Install daylight sensors or time clocks / timers to turn interior lights off at specified times when not in use
- Install a timer on the swimming pool pump to control the number of hours it operates
- Install controls on your outside lights that make sure they are only on at certain times
- Install “low flow” nozzles or faucet aerators that reduce the amount of hot water used
- Install a pre-rinse spray valve on any dishwashers, which would reduce hot water use
- Perform regular, professional maintenance on your cooling system in order to optimize its performance
- Perform regular, professional maintenance on your heating system in order to improve its performance
- Implement a full professional “re-commissioning” of your HVAC system which evaluates and optimizes each element of the system’s performance
- Install reflective film on exterior windows

- Upgrade portions of your lighting system including fixtures, lamps and/or ballasts

Category 3 (Q40AA): How likely would your business be to make each improvement (and take the incentive)?

- Purchase higher than standard efficiency motors or pumps for your non-HVAC equipment
- Install Variable Speed Drives on one or more of your non-HVAC pumps or motors
- Install a timer or altering the control algorithm on industrial processes
- Install or upgrade an advanced optimization control system on your industrial compressed air system
- Efficient rewind of motors (reduces stator losses by adding copper wire to reduce resistance)

Category 4[9] (Q41): Please indicate how likely you would be to take any of these energy saving actions…

- Reduce the temperature of the water that your water heater delivers
- Reduce your thermostat setting (making it cooler) during the winter
- Raise your thermostat setting (making it warmer) during the summer

Category 5 (Q42-51): If this electricity rate was available to you, how interested would you be in signing up for it?

- TOU
- TOU with bill protection
- RTP
- RTP with bill protection
- CPP
- CPP with bill protection
- PTR

Eligibility & Take Rates

Table D-1 Eligibility & Take Rates

Program / Measure	% Eligible	Likely Takers		
		1 year payback period	3 year payback period	5 year payback period
Category 1: Programs / Measures for Purchasing / Installing Energy Efficient Equipment[10]				
AC / Chiller Unit	76%	56%	49%	41%
Cooling System	100%	55%	49%	41%
Light Bulbs	100%	55%	46%	33%
Heating System	65%	55%	48%	40%
Copier / Printer	84%	47%	39%	29%
PC	100%	45%	38%	28%
Refrigeration Unit	67%	45%	40%	33%
Server	74%	45%	37%	28%
Cooking Equipment	38%	43%	38%	32%

[9] No payback periods were associated with Category 4 programs / measures
[10] Assumes a normal replacement cycle

Program / Measure	% Eligible	Likely Takers		
		1 year payback period	3 year payback period	5 year payback period
Category 2: Programs / Measures for Improving Energy Efficiency of Existing Systems				
Maintain cooling system regularly	55%	55%	46%	34%
Maintain heating system regularly	56%	55%	46%	34%
Install a timer on pool pump	3%	54%	47%	38%
Install a programmable thermostat	100%	53%	46%	37%
Upgrade portions of your lighting system	82%	53%	44%	33%
Install exterior lighting controls	61%	50%	44%	35%
Purchase EE pumps or motors for HVAC system	74%	49%	44%	36%
Install EE fans on chiller units	3%	48%	43%	36%
Install variable speed drives on HVAC system	70%	47%	41%	34%
Add ventilation system volume controls	80%	46%	40%	32%
Install variable speed drives on chiller pumps	2%	46%	41%	34%
Install an Economizer	2%	46%	41%	34%
Implement “re-commissioning” of HVAC system	77%	44%	36%	27%
Install an Energy Management System	84%	43%	38%	30%
Install occupancy / motion sensors for lighting	86%	42%	37%	29%
Install “low flow” nozzles or faucet aerators	72%	41%	34%	25%
Install interior lighting sensors / timers	85%	41%	35%	28%
Install reflective film on exterior windows	79%	39%	32%	24%
Install a variable speed compressor on refrigeration unit(s)	60%	39%	34%	29%
Install a dishwasher pre-rinse spray valve	39%	37%	31%	23%
Category 3: Programs / Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference				
Purchase EE motors or pumps for non-HVAC equipment	30%	45%	40%	33%
Install Variable Speed Drives on one or more non-HVAC pumps/ motors	29%	41%	37%	31%
Install/ upgrade an advanced optimization control system on industrial compressed air system	26%	40%	35%	28%
Efficient rewind of motors	27%	37%	32%	25%
Install a timer or altering the control algorithm on industrial processes	22%	34%	30%	24%
Category 4: Programs / Measures Not Requiring an Investment by the Customer				
Reduce thermostat setting during the winter	65%	n/a	36%	n/a
Raise your thermostat setting during the summer	68%	n/a	35%	n/a
Reduce water heater temperature	74%	n/a	36%	n/a
Category 5: Programs / Measures For Which Ameren MO Incentive Would Completely Eliminate the Price Difference				

Program / Measure	% Eligible	Likely Takers		
		1 year payback period	3 year payback period	5 year payback period
TOU	100%		27%	
TOU with bill protection	100%		32%	
RTP	100%		25%	
RTP with bill protection	100%		28%	
CPP	100%		28%	
CPP with bill protection	100%		31%	
PTR	100%		39%	

Table D-2 Business Sample Design Matrix

Sector	Segment	Electricity (MWh)	% Total MWh	Total Premises (N)	Sample size (n)	% of Total Sample
Commercial	Office	2,252,682	14%	4,731	95	11%
Commercial	Restaurant	481,571	3%	2,419	35	4%
Commercial	Retail	1,029,177	7%	6,150	77	9%
Commercial	Grocery	547,267	3%	971	40	5%
Commercial	Schools	850,175	5%	1,385	50	6%
Commercial	College	447,548	3%	120	14	2%
Commercial	Health	1,523,222	10%	1,511	72	8%
Commercial	Lodging	436,023	3%	700	45	5%
Commercial	Other Com	2,317,785	15%	7,377	110	13%
Commercial Total		**9,885,451**	**63%**	**25,364**	**538**	**61%**
Manufacturing	Chemicals	514,335	3%	215	28	3%
Manufacturing	Elec. Equip.	182,162	1%	143	23	3%
Manufacturing	Food	385,528	2%	258	30	3%
Manufacturing	Plastics	420,823	3%	159	26	3%
Manufacturing	Stone, clay, glass	605,476	4%	99	14	2%
Manufacturing	Transportation Eq.	79,820	1%	76	15	2%
Manufacturing	Other Mfg	924,530	6%	1,422	67	8%
Manufacturing Total		**3,112,674**	**20%**	**2,372**	**203**	**23%**
Ag-Fish-Mining		144,036	1%	512	37	4%
Unknown		2,666,517	17%	21,937	97	11%
Grand Total		**15,808,678**	**100%**	**50,185**	**875**	**100%**
Census sample		*2,698,229*	*17%*	*87*	*87*	*10%*

BUSINESS PROGRAM INTEREST SURVEY QUESTIONNAIRE

DEFINITIVE INSIGHTS

Ameren Missouri DSM Market Potential – Program Interest Questionnaire Business
Rev V9 FINAL 1/21/13

QUALIFYING CRITERIA AND QUOTAS

Qualifying Criteria

- The respondent must be knowledgeable about decision-making about energy issues for the business at the specified location
- Utility bills must be paid for that location

Hard Quotas

Total: n=800

Additional sample groups to monitor during fielding

- **MAIN QUOTA VARIABLE IS 'Usage-Segment-Stratum'**

RESPONDENT IDENTIFICATION / VERIFICATION

Welcome. This survey is sponsored by Ameren Missouri.
[PROGRAMMER: INCLUDE AMEREN MISSOURI LOGO]

Please enter the "Survey ID#" that appears on the survey invitation postcard you received. This Survey ID# should be located just above the mailing address on the front side of your postcard.

Survey ID# : _____

We at Ameren Missouri and Definitive Insights value your privacy. We will use the information you provide for research purposes only and will NOT share it with third parties for marketing purposes. Information you provide will be stored in a secure database. If you have questions about our privacy practices or would like to get any other information about this study, please contact us via one of the following methods:

e-mail: AmerenSurveyHelp@definitiveinsights.com

phone: 1-855-888-9270

postal mail: Definitive Insights
ATTN: Ameren Missouri Project Director
601 SW Oak Street
Portland, Oregon 97205

[PROGRAMMER: VERIFY VALID CODE AND READ IN ALL VARIABLES FROM SAMPLE FILE]

INTRODUCTION

Thank you for taking time to see if you and your business qualify to participate in a new research study about the potential for reducing the energy costs of Ameren's business customers. The study is sponsored by Ameren Missouri, and it has a very important purpose. Ameren Missouri is delivering programs to help its customers use energy more efficiently. Your answers to this survey will help the company to improve these programs so that they work best for everyone.

Your business is one of a small number being asked to respond to the survey. To show our appreciation for your time and effort, we will send you $25 upon submitting your answers. (Note: Payment may be declined if required by your company's policies.)

You will first be asked a few questions to make sure your business qualifies for participation. If you do qualify, you will then be invited to complete the full survey.

> *Note: If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the URL and the Survey ID# from your survey invitation to access your survey again. The survey will automatically take you to the point where you left off.*

Please note: any word or phrase that appears in blue, underlined font will have a hyperlinked definition that pops-up in a separate browser window when you click on that word or phrase. Clicking on any of these hyperlinks will NOT make you navigate away from the survey site.

Please click "CONTINUE" to begin.

RESPONDENT SCREENING

A1. While this may not be the address at which you received this card, our survey today is about the electricity that your business uses at the following address:
[PREMISE ADDRESS]
Is this address associated with your company, or does your company make energy use decisions for this address?
1. Yes
2. No

A1_a. This card was mailed to [COMPANY NAME]. Is this your company, or is it the name of the company that manages or owns the building your company is located in?
1. My company
2. Another company that manages this property/building
3. A former tenant or occupant of this space

[IF A1 OR A1A=1, CONTINUE; OTHERWISE TERMINATE]

A2. Please let us know if this address is for a business or a residence:
1. This is a business address

4. This is a business address that is associated with the operation of a rental or leased multifamily residential property.
2. This is a residential address, but a home-operated business is located here
3. This is a residential address – it is not associated with a business

[IF A1=2 OR IF A2=3, TERMINATE AND READ A1-A2 TERMINATE TEXT; OTHERWISE, GO TO S1.]

[A1-A2 TERMINATE TEXT:]

We truly appreciate your time and effort in responding to our survey, but our questions are related to the energy-related aspects for a specific business address.
If you would like information on how you or your business can save money on your energy bills, please visit us at **Act**OnEnergy.com
Thank you. Have a nice day!

S1. Which of the following describes how knowledgeable you are about the way your organization makes decisions about energy-related issues?

1. You are **very knowledgeable** about **all** of the issues your organization takes into account as it makes decisions about changing out equipment, or about other energy-related issues
2. You are **knowledgeable** about **most** of the factors that your organization takes into account as it makes decisions about changing out equipment, or about other energy-related issues
3. You are **not that knowledgeable** about how and why your organization makes the decisions it does about energy-related issues. **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA S2]**
4. Don't know **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA S2]**

[IF S1=1-2, SKIP TO S3; OTHERWISE GO TO S2 TERMINATE TEXT]

S2. Thank you for taking the time to see if you are eligible to participate in this survey. At this time we need responses from someone in your organization who has specific knowledge about the way your organization makes decisions about energy-related issues.

We would appreciate it if you would provide that person with the invitation postcard you received or refer them to the following link so that they may complete this survey with the following ID:

Link: **http://tiny.cc/ameren3**
ID: **[xxxxx]**

[PROGRAMMER NOTE: IF A RESPONDENT TERMINATES VIA S2, DELETE DATA COLLECTED AND RESET SURVEY REENTRY POSITION FOR THAT SURVEY ID# BACK TO THE BEGINNING OF THE SURVEY. RECORD THE DATA DELETED FOR THAT SURVEY ID# ELSEWHERE SO WE CAN TRACK THE NUMBER OF TIMES AND REASONS RESPONDENTS DISQUALIFY AT S2 AS WELL AS THE NUMBER OF TIMES THESE PREVIOUSLY USED SURVEY ID#'S ARE REUSED. FOR ALL RESPONDENTS THAT DO NOT TERMINATE VIA S2, DO NOT ALLOW SURVEY ID# TO BE USED AGAIN.]
{NOTE: THIS WILL ALLOW A RESPONDENT WHO DOES NOT PERSONALLY QUALIFY TO FORWARD THEIR SURVEY ID# TO A CO-WORKER WHO MAY BE BETTER QUALIFIED TO ANSWER THE SURVEY.}

[NEW PROGRAMMER NOTE 7/16 –FOR ALL TERMINATES BEYOND THIS POINT, USE THE GENERAL TERMINATE TEXT ON PG 11]

S3. Which of the following best describes how your business is billed for electricity at **[READ IN ADDRESS FROM SAMPLE]**?

1. We are **billed directly by Ameren Missouri** for the electricity we use
2. We are **NOT billed directly by Ameren Missouri** for the electricity we use; our electric **bill is handled by another part of our company or by a third party service provider**, but ultimately, our company is responsible for the cost for our electricity
3. We are **NOT billed directly by Ameren Missouri** for the electricity we use; the cost for our electricity is **included in our rent/lease [TERMINATE]**
4. We are **served by another utility; not Ameren Missouri [TERMINATE]**
5. Don't know **[TERMINATE]**

S4 REMOVED

[PROGRAMMER: DISPLAY DIRECTLY ABOVE S5 ON SCREEN:
PLEASE NOTE THAT ALL OF OUR REMAINING QUESTIONS REFER SPECIFICALLY TO THE FACILITY AT [READ IN ADDRESS FROM SAMPLE]

S5. Does your business own or lease the building space at this location?

If you both lease some space, and own some space at this location, which accounts for the majority of the space?

1. Own (or in the process of buying it)
2. Shorter term lease / rent (less than 3 years)
3. Longer term lease / rent (3 years or more)

S6. Does your operation at this location occupy any enclosed space, or is it an outdoor structure or operation, such as a billboard, a parking lot, a communications tower, or the like?

Our location… **[SELECT ONE]**

1. Is ONLY an enclosed space
2. Is ONLY an outdoor structure or facility **[TERMINATE AFTER S7 – SHOW GENERAL TERMINATE TEXT]**
3. Includes both an enclosed space AND an outdoor structure or operation

[IF S6=2, ASK S7 AND THEN TERMINATE; IF S6=3, ASK S7 AND CONTINUE; OTHERWISE SKIP TO S8]
{1/5/13 NOTE: ADDED PUMP OPTION #3 BACK)
S7. What type of outdoor structure does your organization operate at this site?

1. Billboard
2. Communications / telecommunications tower or other facility
3. Pump
4. Parking lot
5. Traffic light or other type of outdoor lighting
990. Other **[SPECIFY]**

S8. Which of the following best describes the type of facility your organization occupies?

1. Office (finance, insurance, real estate, law, etc.)
2. Retail (department stores, services, boutiques, etc.)
3. Grocery (supermarkets, convenience store, market, etc.)
4. Restaurant (sit-down, fast food, coffee shop, etc.)
5. Warehouse
6. School (day care, pre-school, elementary, secondary)
7. College, university or trade school
8. Health Care (health practitioner office, hospital, urgent care center, etc.)
9. Nursing home / assisted living facility / residential treatment facility
10. Lodging / housing facility (hotel, motel, bed and breakfast, apartment building, etc.)

11. Not-for profit housing facility (shelter, prison, jail, etc.)
12. Entertainment / recreation facility (movie theater, bowling alley, health club/gym, library, museum, etc.)
13. Public assembly facility (convention / conference center, etc.)
14. Worship (church, temple, etc.)
15. Multi-use or shopping mall (i.e., mixed use of space for offices, restaurants, stores, service, apartments, etc.)
16. Manufacturing, production, or processing facility (including for-profit businesses and governmental facilities)
17. Agricultural (farms, ranches, dairies, greenhouses, nurseries, orchards, hatcheries, etc.)

990. Other **[SPECIFY]**

S9. Which of the following best describes the activity in which your business is engaged at this location? *Please select the <u>one option</u> that best describes the activity.*

{NOTE TO TEAM: IF THE RESPONDENT SELECTS RESPONSE "15" ABOVE ("MIXED USE"), THEY ARE SHOWN ALL POSSIBLE OPTIONS FOR BUSINESS ACTIVITY EXCEPT HOSPITAL (80,82), WAREHOUSE (30-33), AND MANUFACTURING / PROCESSING (67-79)}

<u>Traditional Office-Based Business</u> [IF S8=1 OR 15 OR 990, DISPLAY CODES 1-7]	
1. Finance	○
2. Insurance	○
4. Real estate / construction	○
5. Government	○
6. Other not-for-profit	○
7. Other office **[SPECIFY]**	○
<u>Retail [IF S8=2 OR 15 OR 990, DISPLAY CODES 8-19]</u>	
8. Major retail store	○
9. Department store	○
10. Small retail (boutique, store in strip mall)	○
11. Convenience store	○
12. Supermarket	○
13. Market	○
14. Laundry	○
15. Dry cleaning	○
16. Copy center	○
17. Barber / salon	○
18. Gas station / auto shop	○
19. Other retail **[SPECIFY]**	○
<u>Grocery</u> [IF S8=3 OR 15 OR 990, DISPLAY CODES 20-23]	
20. Supermarket	○
21. Convenience store	○
22. Market	○
23. Other grocery **[SPECIFY]**	○
<u>Restaurant / Food Service</u> [IF S8=4 OR 15 OR 990, DISPLAY CODES 24-29]	
24. Sit-down restaurant	○
25. Casual restaurant, diner, etc.	
26. Fast food	○
27. Bakery	○
28. Coffee shop	○
29. Other restaurant/food service **[SPECIFY]**	○
<u>Warehouse</u> [IF S8=5 OR 990, DISPLAY CODES 30-33] **[DO NOT DISPLAY FOR S8=15 FOLLOWUP]**	
30. Refrigerated warehouse	○

31. Non-refrigerated warehouse	○
32. Combination of refrigerated and non-refrigerated space	○
33. Other warehouse **[SPECIFY]**	○
School [IF S8=6 OR 15 OR 990, DISPLAY CODES 34-37]	
34. Preschool / daycare	○
35. Elementary school	○
36. Secondary school	○
37. Other pre-college **[SPECIFY]**	○
College, University or Trade School [IF S8=7 OR 15 OR 990, DISPLAY CODES 38-41]	
38. College	○
39. University	○
40. Trade school	○
41. Other post-secondary **[SPECIFY]**	○
Health Care [IF S8=8 OR 15 OR 990, DISPLAY CODES 81-86]	
85. Medical / dental office or office for other health practitioners	○
80. General medical or surgical hospital **[DO NOT DISPLAY FOR S8=15 FOLLOWUP]**	○
81. Veterinary hospital	○
82. Other hospital **[SPECIFY]** **[DO NOT DISPLAY FOR S8=15 FOLLOWUP]**	○
83. Urgent care center	○
84. Other health care facility **[SPECIFY]**	○
Nursing Home / Assisted Living [IF S8=9 OR 15 OR 990, DISPLAY CODES 42-45]	
42. Nursing home	○
43. Assisted living facility	○
44. Residential treatment facility	○
45. Other care facility **[SPECIFY]**	○
Lodging / Housing [IF S8=10 OR 15 OR 990, DISPLAY CODES 46-49]	
46. Hotel	○
47. Motel	○
48. Bed & Breakfast	○
87. Apartment building / condominium association	○
49. Other lodging / housing **[SPECIFY]**	○
Not-For-Profit Housing [IF S8=11 OR 15 OR 990, DISPLAY CODES 50-52]	
50. Shelter	○
51. Prison / jail	○
52. Other not-for-profit housing **[SPECIFY]**	○
Entertainment / Recreation [IF S8=12 OR 15 OR 990, DISPLAY CODES 53-59]	
53. Health club / gym	○
54. Movie theater	○
55. Theater	○
56. Library	○
57. Museum	○
58. Bowling alley	○
59. Other entertainment / recreation **[SPECIFY]**	○
Public Assembly [IF S8=13 OR 15 OR 990, DISPLAY CODES 60-62]	
60. Conference / convention center	○
61. Community center	○
62. Other public assembly **[SPECIFY]**	○
Worship [IF S8=14 OR 15 OR 990, DISPLAY CODES 63-66]	
63. Church	○
64. Temple	○
65. Synagogue	○
86. Mosque	○
66. Other worship **[SPECIFY]**	○

Manufacturing / Production / Processing [IF S8=16 OR 990, DISPLAY CODES 67-79] **[DO NOT DISPLAY FOR S8=15 FOLLOWUP]**	
68. Chemical processing	○
69. Electronics / technology	○
70. Food / beverage production or processing	○
71. General / light assembly or manufacturing	○
72. Glass production or processing	○
73. Metals production or processing or fabricated metal work	○
74. Machinery / appliance / equipment manufacturing	○
75. Paper products processing, printing or manufacturing	○
76. Textiles / apparel production or processing	○
77. Water / wastewater treatment	○
78. Wood products manufacturing	○
79. Other manufacturing / processing **[SPECIFY]**	○
Agricultural [IF S8=17 OR 990, DISPLAY CODES 80-81]	
80. Agricultural production (farms, ranches, dairies, greenhouses, nurseries, orchards, hatcheries, etc.)	○
81. Other agricultural support activities	○
Something else [IF S8=15 OR 990, DISPLAY CODE 80]	
82. Something else **[SPECIFY]**	○

S9B. Briefly describe your company's business space. For example, "Our business space occupies 4 floors of a 6 story building" or "Our business occupies 8 buildings on a campus." **[OPEN-ENDED TEXT QUESTION]**

S10. Approximately how many employees work at this location?

1. Less than 5 employees
2. 5 – 9
3. 10 – 19
4. 20 – 49
5. 50 – 99
6. 100 – 199
7. 200 – 299
8. 300 – 399
9. 400 – 499
10. 500 – 999
11. 1,000 – 2,499
12. 2,500 – 4,999
13. 5,000 – 9,999
14. 10,000 – 24,999
15. 25,000 or more employees

S11. What is the approximate square footage of all of the **enclosed floorspace** at your business's location, including all buildings and any enclosed parking?

Please give your best estimate, including only indoor or enclosed space. If your business shares the space with other companies / organizations, only list the space your business uses. If your business occupies several floors or buildings, add the square footage together.

Please enter a whole number rather than a range of numbers.

1. **[RECORD NUMBER]** square feet
2. Not sure

[IF S11_1>0, ASK S12 IN ORDER TO VALIDATE S11_1 RESPONSE; OTHERWISE SKIP TO S13]

S12. You said the approximate total square footage of all of the **enclosed floorspace** at your business's location is **[INSERT S11_1 RESPONSE, USING COMMAS] square feet**.

Is this what you intended?

1. Yes
0. No, I would like to edit my response

[IF S12=1, CONTINUE TO FILTER BEFORE S13; IF S12=0 SKIP BACK TO S11]

[IF S11=2, ASK S13; OTHERWISE SKIP TO S14]

S13. We understand you aren't sure, so using the ranges listed below, please just choose your best estimate of the total square footage of all of the **enclosed floorspace** at this location, including all buildings and any enclosed parking?

Please give your best estimate, including only indoor or enclosed space. If your business shares the space with other companies / organizations, only list the space your business uses. If your business occupies several floors or buildings, add the square footage together.

1. Less than 1,000 sq. ft.
2. 1,000 – 4,999
3. 5,000 – 9,999
4. 10,000 – 14,999
5. 15,000 – 24,999
6. 25,000 – 49,999
7. 50,000 – 99,999
8. 100,000 – 499,999
9. 500,000 – 1 million
10. 1 million sq. ft. or more

S14. Which of the following uses of **electricity** do you pay for at this location? In other words, does your electric bill include the cost of…? *Select all that apply.*

1. Heating some or all of your space
2. Cooling some or all of your space
3. Providing hot water or steam for your use
4. Interior lighting
5. Exterior lighting
6. Industrial Process Equipment
7. Compressed Air Systems
8. Pumping Equipment for water or other liquids
9. Substantial Information technology equipment (servers etc)
10. Refrigeration equipment (commercial freezers, coolers etc)

S15. Which of the following are present at this location? *Select all that apply.*

1. Natural gas service
2. Propane service

3. Purchased steam or hot water
4. Fuel oil for one or more end uses
5. Onsite electricity generation with/without heat recovery (i.e., combustion turbine, steam turbine, reciprocating engine (or "generator"), microturbine, photovoltaic, fuel cell etc.)
6. Electric Vehicle charging stations
7. None of the above **[EXCLUSIVE]**

{NOTE TO TEAM: THESE RESPONSES WILL BE USED TO SCREEN RESPONDENTS OUT OF THE RELEVANT END USE SECTIONS BELOW; I.E., IF THEY SAY THEIR ENERGY BILL DOES NOT COVER SPACE HEATING, THEY WILL BE SKIPPED OUT OF THE SPACE HEATING SECTION}

[IF NOT OVER-QUOTA, GO TO INVITATION LANGUAGE; OTHERWISE TERMINATE]

ALL TERMINATES AND OQ EXCEPT FOR TERMS AT A1 AND REFERRALS AT S2 SHOULD GET THIS TERM TEXT:

TERMINATE LANGUAGE FOR NON-QUALIFYING AFTER QS2.0 OR OVER-QUOTA RESPONDENTS

We appreciate the time and effort you have spent in responding to our survey invitation and answering these initial questions, which were designed to see if you are eligible to participate in this research study.

In order to achieve a representative sample, quotas with specific criteria have been designated. At this point, we have reached the number of respondents we can accept from individuals with your type of experience or background. Again, we would like to thank you for your time and effort.

If you would like information on how your business can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

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[ONLY ASKED IF RESPONDENT TERMINATES OR IS OVER QUOTA]

R1. Additionally, if you would like someone from the Ameren Missouri's energy efficiency implementation team to contact you about further energy efficiency opportunities, please provide the appropriate contact information below:

(NOTE: All other information you have provided in this survey will continue to remain anonymous, even if you choose to be contacted. None of your prior responses will be communicated to the Ameren Missouri energy efficiency implementation team.)

1. **Yes,** we would like to be contacted by someone from Ameren Missouri's energy efficiency implementation team. *Please supply the appropriate contact information below.*

[PROGRAMMER NOTE: RESPONDENT SHOULD NOT BE FORCED TO ENTER ANY INFO IF IT'S NOT FOR THEIR PREFERRED CONTACT METHOD]

Contact Name:_____

Business Name:_____

Preferred contact method(s) – *Select all that apply*:

☐ phone ☐ e-mail ☐ postal mail

Daytime phone number :_____ **[ALLOW UP TO 20 CHARACTERS – ALLOW ALPHA CHARACTERS]**

E-mail address:_____

Postal address:_____

_____

_____

2. **No,** we would NOT like to be contacted

[IF R1=1, GO TO FOLLOW-UP REQUEST VERIFICATION SCREEN AT R2]
R2. Please review the contact information you provided and verify that it is complete and correct:

[RESTORE CONTACT INFORMATION PROVIDED]

1. **Yes, the information provided is correct**
2. **No, some information provided needs to be corrected**

[IF R2=2, RETURN TO R1 FOR CORRECTIONS, RESTORING WHAT WAS ORIGINALLY PROVIDED]

IF R1=2, SHOW:
Thank you and have a nice day!

INVITATION LANGUAGE FOR QUALIFYING RESPONDENTS

Thank you for your responses so far. You and your business have qualified to complete this survey. As we indicated earlier, only a limited number of individuals have been invited to participate in this survey, so we appreciate your time in filling out the survey as completely as possible.

The survey should take about 20 – 25 minutes to complete. Once you complete the survey you will be eligible to receive our $25 thank you payment. Information about how to receive this payment will be provided at the end of the survey.

Your responses are important to us, so please press "CONTINUE" to begin answering the survey questions. All information provided in this survey will be kept strictly confidential, and at no time will you be asked to purchase anything.

If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the personalized URL to access your survey again. The survey will automatically take you to the point where you left off.

Please note: any word or phrase that appears in blue, underlined font will have a hyperlinked definition that pops-up in a separate browser window when you click on that word or phrase. Clicking on any of these hyperlinks will NOT make you navigate away from the survey site.

As you complete the survey, you will **not** be able to use your browser's "back" button. If you mistakenly press your browser's "back" button, you will need to press the "refresh" button to continue the survey.

I – CUSTOMER ENERGY NEEDS

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT]

Now, let's turn specifically to your organization's thoughts about Ameren Missouri.

Q1. Overall, how familiar would you say your organization is with Ameren Missouri?

[RECORD NUMBER; 1=NOT AT ALL FAMILIAR, 10=EXTREMELY FAMILIAR]

Not at all familiar									Extremely familiar
1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

Q2. Using the scale below, please indicate how much your organization agrees or disagrees with each of the following statements about Ameren Missouri.

Note: If you don't feel like your organization is very familiar with Ameren Missouri on any of the following, please just give your best guess.

Ameren Missouri is…

[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-4]	Strongly disagree									Strongly agree
	1	2	3	4	5	6	7	8	9	10
1. …a credible information source on the kinds of things you can do to save energy	○	○	○	○	○	○	○	○	○	○
2. …a company that actively promotes programs to help its business customers save money	○	○	○	○	○	○	○	○	○	○

Q3. Overall, how satisfied would you say your organization is with Ameren Missouri as your electric utility?

[RECORD NUMBER; 1=NOT AT ALL SATISFIED, 10=EXTREMELY SATISFIED]

Not at all satisfied									Extremely satisfied
1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

Q4. Using the scale below, please indicate how important it is to your organization that your electric utility company do the following things, even if that means that your organization would have to pay a little more in order for your utility to pursue these types of initiatives?

[RECORD NUMBER; 1=NOT AT ALL IMPORTANT, 10=EXTREMELY IMPORTANT]

[ROTATE 1-3]	Not at all important									Extremely important
	1	2	3	4	5	6	7	8	9	10
1. Actively encourage its customers to participate in energy saving and cost saving programs	○	○	○	○	○	○	○	○	○	○
2. Operate its business in a completely environmentally friendly manner	○	○	○	○	○	○	○	○	○	○

Q5. Considering the types of initiatives we asked about in the previous question, would you prefer your electric utility …? **[SELECT ONE]**

1. Pursue these and other initiatives even if your organization had to pay a little more
2. Do everything possible to keep energy costs as low as possible
3. Both are equally important

II – BASIC ENERGY USAGE

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT]

Our next few questions are about the equipment you have at this facility.

Q6. Approximately what percentage of the space your business occupies, or uses, at this location is heated?

1. None
2. Less than 10%
3. 10-20%
4. 21-30%
5. 31-40%
6. 41-50%
7. 51-60%
8. 61-70%
9. 71-80%
10. 81-90%
11. More than 90%

[IF Q6=2-11, ASK Q7; OTHERWISE SKIP TO Q8]

Q7. What type of space heating system is used as a means of heating your space? *Please select one in each column.*

[PROGRAMMER: ONLY ONE TYPE CAN BE SELECTED IN EACH COLUMN]

	Heating Equipment	A. Primary	B. Secondary
1.	Natural gas warm air furnace with ducts/vents to individual rooms	☐	☐
2.	Electric warm air furnace with ducts/vents to individual rooms	☐	☐
3.	Natural gas boiler with hot water/steam radiators or baseboards in individual rooms	☐	☐
4.	Electric boiler with hot water/steam radiators or baseboards in individual rooms	☐	☐
5.	Electric baseboard or electric coils radiant heating (no supply ducts or water/steam pipes)	☐	☐
6.	Air-source heat pump	☐	☐
7.	Geothermal heat pump	☐	☐

	Heating Equipment	A. Primary	B. Secondary
8.	Natural gas unit heater or wall furnace	☐	☐
9.	Electric unit heater or wall furnace	☐	☐
10.	None	☐	☐
999.	Not sure [EXCLUSIVE]	☐	☐
990.	Other (please specify)	☐	☐

Q8. What type of cooling system is your primary means to cool your space?

By "primary", we mean the cooling system that you use for the largest amount of your space.

1. Air cooled chiller
2. Water cooled chiller
3. Central air conditioner
4. Packaged air conditioner units
5. Floor-by-floor packaged water cooled DX (Direct Expansion) units
6. Wall or window air conditioner units
7. Air-source heat pump
8. Geothermal heat pump
9. Other **[SPECIFY]**
10. Not sure

Q9. What type of water heater does your business use?

1. None
2. Hot water either purchased or provided by building to tenants
3. Self-contained or stand-alone storage water heaters/boilers
4. Central boiler
5. Tankless (instantaneous) water heater
6. Heat pump water heater
7. Heat recovery water heater
8. Other **[SPECIFY]**
9. Not sure

Q10. What size kitchen, if any, is used for food preparation in your facility, including any kitchens used for employees' personal use?

1. None
2. Small kitchenette
3. Residential-scale kitchen
4. Commercial-scale kitchen

5. Institution-scale kitchen (in larger hospitals, universities)

Q11. **[IF Q10=2-5, DISPLAY, "**How many of the following units can be found in your kitchen / food preparation / food storage and/or sales area(s)?**"] [IF Q10=1, DISPLAY, "**Even though you mentioned you don't have any kitchens, do you have any refrigerator and/or freezer units? Please indicate how many you have at your location.**"]**

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

1. Refrigerator, units	**[RECORD NUMBER 0-99]**
2. Freezer, units	**[RECORD NUMBER 0-99]**
3. Refrigerator, walk-in	**[RECORD NUMBER 0-99]**
4. Freezer, walk-in	**[RECORD NUMBER 0-99]**

[IF S8 NE 5, ASK Q12; OTHERWISE SKIP TO Q13]

Q12. Is there any warehouse or large storage space at your location?

1. No
2. Yes, unrefrigerated
3. Yes, refrigerated
4. Yes, both unrefrigerated and refrigerated

Q13. Do you have any swimming pools, hot tubs, spas, or other similar items at your location?

1. No
2. Yes, unheated
3. Yes, heated using electricity as a heat source
4. Yes, heated using natural gas as a heat source
5. Yes, heated using another heat source

III – ATTITUDES

We'd like to understand how your organization as a whole thinks about using energy at this facility.

Q14. At an organizational level, to what extent does your firm agree or disagree with each of the following statements? Please use a 10-point scale where '1' means you strongly disagree, and '10' means you strongly agree.

We are interested in your firm's attitudes, regardless of whether or not it has acted on these beliefs.

[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-8]	Strongly disagree								Strongly agree	
	1	2	3	4	5	6	7	8	9	10
1. We care about the cost of the energy we use, but realistically, other issues take up much more of our management time	○	○	○	○	○	○	○	○	○	○
2. There is really very little our organization can do to save money on our energy bills	○	○	○	○	○	○	○	○	○	○
3. We would do more to make our facility more energy efficient, but we don't really know where to start, or what to do next	○	○	○	○	○	○	○	○	○	○
4. Our organization has made a public commitment to be a "greener" organization	○	○	○	○	○	○	○	○	○	○
5. Our organization believes that the long-term threat from global warming and climate change is real, and potentially devastating	○	○	○	○	○	○	○	○	○	○
6. We believe that investing in energy efficiency is almost always a good business decision	○	○	○	○	○	○	○	○	○	○

IV – EE MEASURES ALREADY TAKEN

Q15. Which, if any, of the following types of gas or electric appliances, equipment (e.g., HVAC equipment, motors), large electronic devices, or other significant energy-using items has your organization purchased for this facility in the **last 12 months**? *Select all that apply.*

[ROTATE 1-7 AND 13]	**Purchased in last 12 months**
1. Heating equipment used to heat space in your facility	☐
2. Air conditioning equipment used to cool space in your facility	☐
3. Water heating equipment	☐
4. Refrigeration equipment	☐
5. Motors	☐
13. Drives	☐
6. Office equipment (computers, printers, copiers)	☐
7. Ventilation equipment	☐
8. Other significant energy-using item **[SPECIFY ONE ITEM]**	☐
9. Other significant energy-using item **[SPECIFY ONE ITEM]**	☐
10. Other significant energy-using item **[SPECIFY ONE ITEM]**	☐
11. Not sure **[EXCLUSIVE]**	☐
12. None of the above **[EXCLUSIVE]**	☐

[IF ANY Q15_1 THRU Q15_10 SELECTED, ASK Q16; OTHERWISE SKIP TO Q17]

Q16. To the best of your recollection, were any of the items purchased for your facility in the last 12 months ones that were specifically described as "ENERGY STAR®," "high energy efficiency" or "highly energy efficient"?

High energy efficiency models are often labeled as " ENERGY STAR® *" appliances or devices.*

[DISPLAY ONLY ITEMS SELECTED AT Q10] [ROTATE 1-7]	**1. Yes**	**2. No**	**3. Not sure**
1. Space heating equipment	○	○	○
2. Space cooling equipment	○	○	○
3. Water heating equipment	○	○	○
4. Refrigeration equipment	○	○	○
5. Motors	○	○	○
11. Drives			
6. Office equipment (computers, printers, copiers)	○	○	○
7. Ventilation equipment	○	○	○
8. **[INSERT Q15_8 SPECIFY]**	○	○	○
9. **[INSERT Q15_9 OTHER SPECIFY]**	○	○	○
10. **[INSERT Q15_10 OTHER SPECIFY]**	○	○	○

Q17. In the last 12 months, has your organization replaced any of the interior lighting at this facility with high efficiency lighting, including any compact fluorescent light bulbs (or CFLs), CFL-only light fixtures, LED or T-8 or Super T-8 lamps or fixtures?

1. Yes
2. No
3. Not sure

[IF Q17=1; ASK Q18; OTHERWISE SKIP TO Q19]

Q18. Approximately how many high efficiency bulbs and / or ballasts has your organization installed in this facility **within the last 12 months**? *Your best estimate is fine.*

	Number installed within the last 12 months
1. High efficiency bulbs / lamps	**[RECORD NUMBER 0-999]**
2. High efficiency fixtures / ballasts	**[RECORD NUMBER 0-999]**

[Q18TOT (not displayed) MUST BE >0 IN ORDER TO MOVE TO NEXT SCREEN]

Q19. Some utilities offer incentives or price discounts to encourage people to purchase highly energy efficient products, including HVAC equipment, refrigeration equipment, motors, water heaters, lighting, and other items.

To the best of your knowledge, does Ameren Missouri have any such programs that offer organizations like yours a discount off the purchase price on qualified items?

1. Yes
2. No
3. Not sure

[IF Q19=1, ASK Q20; OTHERWISE SKIP TO Q21]

Q20. Has your organization participated in any price discounts or conservation incentive programs sponsored by Ameren Missouri **within the last 2 years**?

1. Yes
2. No
3. Not sure

Q21. Which of the following statements best describes your organization's approach to implementing energy efficiency actions **at this facility**? *Please select the **one** answer that best fits this facility.*

1. We don't really pay much attention to energy efficiency
2. We try and watch our energy use, and attempt to remind people about how they use lights and equipment, but we haven't actually done much in terms of changing out equipment for higher efficiency models
3. We have done some things to become more energy efficient (e.g., watch our energy use and have replaced some equipment), but I wouldn't say we have done everything we can
4. We make consistent and aggressive efforts to make our facility as energy efficient as possible and have documented these efforts

Q22. Has your organization noticed any energy or cost savings as a result of any of the actions your organization might have taken over the last few years to conserve energy or be more energy efficient at this facility?

1. Yes – the energy efficiency actions taken have had a **large impact** on energy or cost savings
2. Yes – the energy efficiency actions taken have had a **small or moderate impact** on energy or cost savings
3. No – the energy efficiency actions taken have had **no impact** on energy or cost savings
4. Not sure
5. Not applicable – We have not taken any actions to conserve energy or be more energy efficient at this facility over the last few years

V – PURCHASING ATTITUDES / BEHAVIOR & ENVIRONMENTAL ATTITUDES

Now, we'd like to find out about your organization's priorities when evaluating energy-related products and services for your facility.

Q23. Using the scale below, please indicate how important each of the following factors is to your organization when selecting which pieces of equipment, electronic devices, or other energy-related products or services to purchase for this facility.

[RECORD NUMBER; 1=NOT AT ALL IMPORTANT, 10=EXTREMELY IMPORTANT]

[ROTATE 1-7, but make sure 1-2 always appear next to each other]	Not at all Important									Extremely important
	1	2	3	4	5	6	7	8	9	10
1. Any long-term cost savings your organization might see from using the product / service	○	○	○	○	○	○	○	○	○	○
2. Any positive effects on the environment resulting from using the product / service	○	○	○	○	○	○	○	○	○	○
3. The extent to which the product / service is at the leading edge of new technology	○	○	○	○	○	○	○	○	○	○
4. Any potential positive impact on productivity or sales potential	○	○	○	○	○	○	○	○	○	○
5. The total up-front cost of the product / service	○	○	○	○	○	○	○	○	○	○

Q25. Using the scale below, please indicate how much you agree or disagree with each of the statements below that have to do with how your organization selects new energy-using equipment.

[RECORD NUMBER; 1=STRONGLY DISAGREE, 10=STRONGLY AGREE]

[ROTATE 1-11]	Strongly Disagree									Strongly agree
	1	2	3	4	5	6	7	8	9	10
1. These days, we have to take a very short term view when thinking about operational investments	○	○	○	○	○	○	○	○	○	○

2. We continue to take a long-term view of equipment costs – purchase price matters, but we take life-cycle costs into account when evaluating options	○	○	○	○	○	○	○	○	○	○
3. We are far more concerned with what new energy-using equipment can do for us – what benefits we get from using it – than we are concerned about the cost of the energy to run the equipment	○	○	○	○	○	○	○	○	○	○
4. The reality is that the most energy-efficient equipment is also almost always the best equipment on the market	○	○	○	○	○	○	○	○	○	○
5. Unless there's a bona fide reason not to, we typically install the most energy-efficient equipment possible	○	○	○	○	○	○	○	○	○	○
6. To be honest, the environmental impact of our day-to-day purchases is not something we spend time worrying about	○	○	○	○	○	○	○	○	○	○
7. Since energy costs make up such a small portion of our total operating costs, energy issues just don't get a lot of attention	○	○	○	○	○	○	○	○	○	○

VI – INTEREST IN POTENTIAL ENERGY EFFICIENCY MEASURES OFFERED BY AMEREN MISSOURI

[PROGRAMMER NOTE: REBATE/INCENTIVE PROGRAM INTRODUCTION SCREEN]

Thank you for your responses so far!

The next section of the survey asks for your reaction to a wide variety of energy efficiency programs that Ameren Missouri may be able to offer to businesses like yours. For each of the programs you will see, we would like to understand how likely your business would be to participate in the program.

Q26. With many of these programs, Ameren Missouri would offer your business a rebate or other financial incentive to do something to become more energy efficient. As an example, consider the fact that you can purchase cooling systems (air conditioners, heat pumps, chillers, and the like) that are "standard" efficiency or "higher than standard" efficiency. Higher efficiency air conditioners cost more, but they use less energy. Often, the energy saved by using a more energy efficient piece of equipment can pay for the higher cost of that equipment within a few years.

Ameren Missouri might be able to offer a rebate or other financial incentive to businesses that opt to purchase a higher efficiency cooling system, or other, related appliance or piece of equipment. Because these incentives would reduce the cost difference between a highly energy efficient unit and a standard unit, it would take less time to save on electricity costs to make up for the higher initial cost of the more efficient unit. And remember that you would continue to save money on electricity costs, even after the energy efficient unit "paid for itself," throughout the entire 10 or more year lifespan of the appliance or other measure.

[CAN SPLIT HERE ONTO TWO SCREENS]

Please assume for now that Ameren Missouri could provide an incentive that meant your business would save enough on electricity costs to pay for the additional cost of the more efficient cooling

system within **3 years**. If you were going to acquire a new cooling system, how likely would your business be to buy the higher than standard efficiency cooling system (and take the incentive), rather than buying an equivalent standard efficiency cooling system?

Please use a 10 point scale where, '1' means you think your business would be not at all likely to do this and '10' means your business would be extremely likely to do this.

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q26=7 TO 10]

Q27. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the additional cost to buy a "higher than standard efficiency" cooling system in **5 years**. If this were true, and you were going to acquire a new cooling system, how likely would your business be to buy the higher than standard efficiency cooling system (and take the incentive), rather than buying an equivalent standard efficiency cooling system?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q26 =1-6]

Q28. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity to pay for the additional cost to buy a "higher than standard efficiency" cooling system in **1 year**. If this were true, and you were going to acquire a new cooling system, how likely would your business be to buy the higher than standard efficiency air conditioner (and take the incentive), rather than buying an equivalent standard efficiency cooling system?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

Q29. Now, for each of the items described below, let's assume that an incentive from Ameren Missouri would mean that you would save enough on electricity in **3 years** to pay for the additional cost to buy a "higher than standard efficiency" model of that item. If this were true, and you were going to acquire each of these items, how likely would your business be to buy the higher than standard efficiency model (and take the incentive), rather than buying an equivalent standard efficiency model of each item?

Please use a 10 point scale where '1' means you think your business would be not at all likely to do this and '10' means your business would be extremely likely to do this.

How likely would your business be to…?

[KEEP COOLING SECTION FIRST AND DO NOT RANDOMIZE WITHIN; FOLLOWING SECTIONS SHOULD BE RANDOMIZED, BUT NOT ITEMS WITHIN]	Not at all likely to do this									Extremely likely to do this	Not our decision (i.e., Someone else decides)	Not applicable / Don't have	Already have / do this
3 Year Payback Period	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**			
Cooling System Equipment													
[ASK IF Q8=2-5,7] 1. Purchase a higher than standard efficiency **central / packaged air conditioner or chiller unit**	○	○	○	○	○	○	○	○	○	○	○	○	○
[ASK IF Q8=1] 2. Install higher than standard efficiency **fans on chiller units**	○	○	○	○	○	○	○	○	○	○	○	○	○
[ASK IF Q8=1] 3. Install an Economizer	○	○	○	○	○	○	○	○	○	○	○	○	○
[ASK IF Q8=1] 4. Install variable speed drives on **chiller pumps**	○	○	○	○	○	○	○	○	○	○	○	○	○
Heating System Equipment													
[ASK IF S14_1] **5.** Purchase a higher than standard efficiency **primary heating system**	○	○	○	○	○	○	○	○	○	○	○	○	○
Refrigeration Equipment													
[ASK IF ANY Q11_1 THROUGH Q11_4>0] 6. Purchase a higher than standard efficiency **refrigeration unit**	○	○	○	○	○	○	○	○	○	○	○	○	○
7. Install a **variable speed compressor** on one or more of your **refrigeration** units	○	○	○	○	○	○	○	○	○	○	○	○	○

Cooking Equipment													
[ASK IF Q10=2-5] 8. Install higher than standard efficiency **cooking equipment (Ovens, Fryers, Cooktops, Fryers, etc.)**	○	○	○	○	○	○	○	○	○	○	○	○	○
Pumps and Motors													
9. Purchase higher than standard efficiency **pumps or motors that <u>are part</u> of your HVAC system**	○	○	○	○	○	○	○	○	○	○	○	○	○
10. Install **Variable Speed Drives** on one or more of your **pumps and motors that <u>are part</u> of your HVAC system**	○	○	○	○	○	○	○	○	○	○	○	○	○

Q30. In addition to offering programs that would help your business buy more energy efficient equipment, Ameren Missouri might also be able to offer your business a rebate or other financial incentives to install a variety of control systems that could optimize the operational efficiency of your *existing* equipment. For example, they might provide an incentive to help you install or upgrade an advanced programmable, clock-based thermostat on your HVAC system to provide basic automation for this system. Once this thermostat is installed, the energy saved could potentially make up for the associated cost of installing it within a few years.

Assuming that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the cost of installing the advanced programmable, clock-based thermostat within **<u>3 years</u>**, how likely would you be to install this device (and take the incentive)?

Please use a 10 point scale where, '1' means you think your business would be <u>not at all likely to do this</u> and '10' means your business would be <u>extremely likely to do this.</u>

Not At All Likely To Do This									**Extremely Likely to Do This**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

[ASK IF Q30=7 TO 10]

Q31. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity in **<u>5 years</u>** to pay for the cost of installing an advanced programmable, clock-based thermostat. In this case, how likely would your business be to install the thermostat, and take the incentive?

Not At All Likely To Do This									**Extremely Likely to Do This**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

[ASK IF Q30 =1-6]

Q32. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity in **1 year** to pay for the cost of installing an advanced programmable, clock-based thermostat. In this case, how likely would your business be to install the thermostat and take the incentive?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

Q33. Now, for each of the energy control system improvements below, let's assume that the impact of the incentive from Ameren Missouri was that your business would save enough on electricity in **3 years** to pay for the cost associated with each control system improvement. If this were true, how likely would your organization be to make each improvement?

Please use a 10 point scale where '1' means you think your business would not be at all likely to do this and '10' means your business would be extremely likely to do this.

How likely would your organization be to…?

[RANDOMIZE SECTIONS AND ITEMS WITHIN EACH SECTION]	Not at all likely to do this								Extremely likely to do this		Not our decision (i.e., Someone else decides)	Not applicable / Don't have	Already have / do this
3 Year Payback Period	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**			
Building Level													
1. Install an Energy Management System that is designed to optimize the performance of all your energy using systems													
HVAC Equipment													
2. Add controls to your ventilation system to enable variable – rather than constant – air volumes	○	○	○	○	○	○	○	○	○	○	○	○	○
Lighting Equipment													
3. Install occupancy / motion sensors to turn lights off when rooms are not in use	○	○	○	○	○	○	○	○	○	○	○	○	○
4. Install daylighting sensors or time clocks / timers to turn interior lights off at specified times when not in use	○	○	○	○	○	○	○	○	○	○	○	○	○
Swimming Pool Equipment [DISPLAY THIS SECTION IF Q13=2-5]													
5. Install a timer on the	○	○	○	○	○	○	○	○	○	○	○	○	○

swimming pool pump to control the number of hours it operates													
Building Exterior													
7. Install controls on your outside lights that make sure they are only on at certain times	○	○	○	○	○	○	○	○	○	○	○	○	○

Q34. In addition to the options we have discussed already, Ameren Missouri might also be able to offer your business an incentive to install a variety of lower cost equipment, or to implement a variety of services, that could optimize the operational efficiency of your equipment. For example, they might provide an incentive to help you install or upgrade higher energy efficiency personal computer. The more efficient PC could potentially make up for the higher purchase price within a few years.

Assuming that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the cost of installing the higher efficiency PC within **3 years**, how likely would you be to install this device (and take the incentive)?

Please use a 10 point scale where, '1' means you think your business would be not at all likely to do this and '10' means your business would be extremely likely to do this.

Not At All Likely To Do This									**Extremely Likely to Do This**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

[ASK IF Q34=7 TO 10]

Q35. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity in **5 years** to pay for the cost of installing the more energy efficient PC. In this case, how likely would your business be to install the PC, and take the incentive?

Not At All Likely To Do This									**Extremely Likely to Do This**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

[ASK IF Q34 =1-6]

Q36. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity in **1 year** to pay for the cost of installing the more energy efficient PC. In this case, how likely would your business be to install the PC and take the incentive?

Not At All Likely To Do This									**Extremely Likely to Do This**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Q37. Now, for each of the improvements below, let's assume that the impact of the incentive from Ameren Missouri was that your business would save enough on electricity in **3 years** to pay for the cost associated with each improvement. If this were true, how likely would your organization be to make each improvement?

Please use a 10 point scale where '1' means you think your business would not be at all likely to do this and '10' means your business would be extremely likely to do this.

How likely would your organization be to…?

[RANDOMIZE SECTIONS]	Not at all likely to do this									Extremely likely to do this	Not our decision (i.e., Someone else decides)	Not applicable / Don't have	Already have / do this
3 Year Payback Period	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**			
Office Equipment													
1. Purchase a higher than standard efficiency **copier / printer**	○	○	○	○	○	○	○	○	○	○	○	○	○
2. Purchase a higher than standard efficiency **server**	○	○	○	○	○	○	○	○	○	○	○	○	○
Water Heating Equipment [DISPLAY THIS SECTION IF Q9=2-8]													
3. Install "low flow" nozzles or faucet aerators that reduce the amount of hot water used	○	○	○	○	○	○	○	○	○	○	○	○	○
4. Install a pre-rinse spray valve on any dishwashers, which would reduce hot water use													
HVAC System [DISPLAY THIS SECTION IF Q8 NE 9]													
[ASK IF Q8=2-5,7] 5. Perform regular, professional maintenance on your cooling system in order to optimize its performance	○	○	○	○	○	○	○	○	○	○	○	○	○
[ASK IF Q8=1,3-4] 6. Perform regular, professional maintenance on your heating system in order to improve its performance	○	○	○	○	○	○	○	○	○	○	○	○	○
7. Implement a full **professional "re-commissioning"** of your HVAC system which evaluates and optimizes each element of the system's performance													
Building Exterior													
8. Install reflective film on exterior windows	○	○	○	○	○	○	○	○	○	○	○	○	○

Lighting System													
9. Upgrade portions of your lighting system including fixtures, lamps and/or ballasts	○	○	○	○	○	○	○	○	○	○	○	○	○

Q38. Finally, Ameren Missouri might also be able to offer your business an incentive to purchase and install **higher than standard efficiency light bulbs** (higher than standard efficiency light bulbs could include LEDs, compact fluorescents (CFLs), T-5, T-8 fluorescents). The energy saved from installing these higher efficiency lamps could potentially make up for the associated cost of installing them within a few years

.

Assuming that Ameren Missouri could provide an incentive that meant you would save enough on your electricity costs to pay for the cost of installing higher efficiency light bulbs within **3 years**, how likely would you be to install one or more of these bulbs (and take the incentive)?

Please use a 10 point scale where, '1' means you think your business would be not at all likely to do this and '10' means your business would be extremely likely to do this.

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q38=7 TO 10]

Q39. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity in **5 years** to pay for the cost of installing the higher efficiency light bulbs. In this case, how likely would your business be to install the one or more of these bulbs, and take the incentive?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[ASK IF Q38=1-6]

Q40. Now, please think about a situation in which the impact of the incentive from Ameren Missouri was that you would save enough on electricity in **1 year** to pay for the cost of installing the higher efficiency light bulbs. In this case, how likely would your business be to install one or more of the bulbs, and take the incentive?

Not At All Likely To Do This									Extremely Likely to Do This
1	2	3	4	5	6	7	8	9	10

[IF S14-6,7, OR 8 ASK Q40AA, Q40BB AND Q40CC; OTHERWISE, GO TO Q41]
[ADDED FOR INDUSTRIAL CUSTOMERS ONLY]
[IF S14-6,7 OR 8 ASK Q40AA, AND Q40CC; OTHERWISE, GO TO Q41]

Q40AA. Now, for each of the items described below, let's assume that a rebate or financial incentive from Ameren Missouri would mean that you would save enough on electricity in **3 years** to pay for the additional cost to improve the energy efficiency of your industrial equipment. If this were true, and you were going to acquire each of these items, how likely would your business be to make the following energy efficiency improvement (and take the incentive), rather than buying an equivalent standard efficiency model of each item?

Please use a 10 point scale where '1' means you think your business would be not at all likely to do this and '10' means your business would be extremely likely to do this.

How likely would your business be to…?

[SECTIONS SHOULD BE RANDOMIZED, BUT NOT ITEMS WITHIN]	Not at all likely to do this									Extremely likely to do this	Not our decision (i.e., Someone else decides)	Not applicable / Don't have	Already have / do this
3 Year Payback Period	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**			
Pumps and Motors													
1. Purchase higher than standard efficiency **motors or pumps for your non-HVAC equipment**	○	○	○	○	○	○	○	○	○	○	○	○	○
8. Install **Variable Speed Drives** on one or more of your **non-HVAC pumps or motors**	○	○	○	○	○	○	○	○	○	○	○	○	○
Industrial Equipment													
1. Install a timer or altering the control algorithm on industrial processes.	○	○	○	○	○	○	○	○	○	○	○	○	○
2. install or upgrade an advanced optimization control system on your industrial compressed air system	○	○	○	○	○	○	○	○	○	○	○	○	○
3. Efficient rewind of motors (reduces stator losses by adding copper wire to reduce resistance)	○	○	○	○	○	○	○	○	○	○	○	○	○

Q41. Now we'd like to ask how likely your business is to undertake energy conservation measures such as reducing the temperature of your thermostat, or hot water heaters. These actions have no up-front cost, and would reduce your electricity bill. However, they may have some tradeoffs in terms of comfort or convenience.
Please rate the likelihood that your business would take the following actions, using a 10 point scale where '1' means you think your business would be not at all likely to do this and '10' means your business would be extremely likely to do this.

[RECORD NUMBER; 1=NOT AT ALL LIKELY, 10=EXTREMELY LIKELY]

[ROTATE RESPONSES]	Not at all likely to do this								Extremely likely to do this		Already do this
	1	2		4	5	6	7	8	9	10	
1. Reduce the temperature of the water that your water heater delivers	○	○	○	○	○	○	○	○	○	○	○
2. Reduce your thermostat setting (making it cooler) during the winter	○	○	○	○	○	○	○	○	○	○	○
3. Raise your thermostat setting (making it warmer) during the summer	○	○	○	○	○	○	○	○	○	○	○

V – INTEREST IN POTENTIAL DEMAND RESPONSE PROGRAMS AND RATE DESIGNS THAT COULD BE OFFERED BY AMEREN MISSOURI

Finally, we'd like to ask how interested you would be in different rate options that could make it possible for your business to lower your overall electricity bill.

We will describe several options for how your electricity rate could be different and you will have the chance to say how interested you would be in signing up for each rate for your business.

[PROGRAMMER: PLACE Q42 & Q43 ON SAME SCREEN]

Q42. First, please consider an electricity rate program in which the price charged for electricity more closely corresponded to Ameren's actual varying cost of producing that electricity.

With such a rate, electricity consumed during "off-peak" hours in the early mornings, evenings, nights and weekends would be cheaper than today, while electricity consumed during "on-peak" hours in the late morning and afternoon weekday hours (when most electricity is consumed on the whole) would be more expensive than it is today.

You could lower your business's monthly electric bill by as much as 5-10% by moving electricity use to off-peak hours or reducing use during on-peak hours.

If this electricity rate was available to your business, how interested would you be in signing up for it?

Not At All Interested In Signing Up									Extremely Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q43. Now, assume that this same electricity rate would be available, but with complete bill protection for the first two years. That is, your business would never pay more on the new rate than you would have paid on the standard, current rate, for the first two years.

If this electricity rate was available with bill protection in place for two years, how much more interested would your business be in signing up for this rate?

Would Not Be Any More Interested In Signing Up									Would Be Much More Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

[PROGRAMMER: PLACE Q44 & Q45 ON SAME SCREEN]

Q44. Now, consider an electricity rate in which electricity prices would vary for each hour of every day.

While electricity prices would differ every hour, it would still be true that electricity prices would be higher during times of "peak" demand, or during weekday afternoons, and lowest during times of "off-peak" demand.
With this rate, you could potentially save as much as 5-10% by moving electricity use to times when electricity prices are lower, or reducing usage during times when electricity prices are highest.
If this rate option was available to your business, how interested would your business be in signing up for this program?

Not At All Interested In Signing Up									Extremely Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q45. Now, assume that this same electricity rate would be available, but with complete bill protection for the first two years. That is, your business would never pay more on the new rate than would have been paid on the standard, current rate, for the first two years.

If such an electricity rate was available to you with bill protection in place for two years, how much more interested would your business be in signing up for this rate?

Would Not Be Any More Interested In Signing Up									Would Be Much More Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q46. You've been asked to consider two ways in which electricity rates could vary each day:

- One in which electricity prices would differ across a few time periods each day (like afternoons, evenings, etc.), with some periods having lower electricity rates, and other periods having higher electricity rates

- And, one in which electricity prices would vary across every hour, though it would still generally be true that electricity prices would be higher during hours of "peak" demand

Assuming that both provided similar opportunities to save money, which type of electricity rate program would your business most prefer?

1. A rate program in which electricity rates varied by a few time periods every day
2. A rate program in which electricity rates varied by hour every day
3. Prefer both equally

[PROGRAMMER: PLACE Q47 & Q48 ON SAME SCREEN]

Q47. Now consider another electricity rate in which electricity prices would be lower than they are today for all hours of the day and year except for the hottest 10-12 days of the summer. For the hottest 10-12 days of the summer electricity prices would be much higher than they are today.

You could potentially lower your company's electric bill by as much as 5-10% by reducing or moving electricity use during these 10-12 days each year.

If such an electricity rate was made available, how interested would your business be in signing up for this rate?

Not At All Interested In Signing Up									Extremely Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q48. Now, assume that this same electricity rate would be available, but with complete bill protection for the first two years. That is, your business would never pay more on the new rate than would have been paid on the standard, current rate, for the first two years.

If this electricity rate was available to your business with bill protection in place for two years, how much more interested would you be in signing up for this rate?

Would Not Be Any More Interested In Signing Up									Would Be Much More Interested In Signing Up
1	2	3	4	5	6	7	8	9	10

Q49. You've been asked to consider several different types of electricity rates:

- In two of these options, electricity prices would vary by time every day (either every hour, or during larger time periods like afternoons, evenings, etc.), with some hours / periods having lower electricity rates, and other hours / periods having higher electricity rates

- In one of these options electricity prices would be higher only on the hottest ten days of the summer

Assuming that both provided similar opportunities for you to save money, which type of electricity rate program would you most prefer?

1. A rate program in which electricity rates varied by hour or time periods every day
2. A rate program in which electricity rates varied only on the hottest ten days of the summer
3. Prefer both equally

[IF Q42 OR Q44 OR Q47 <7 ASK Q50, OTHERWISE GO TO Q51]

Q50. Assume now that at some point in the future one of the new electricity rates you have evaluated, in which electricity prices would vary by hour each day, time period each day, or time of year, would become the default rate for all customers (meaning customers would be placed on that rate whether they wanted it or not).

However, even if one of these options did become the default rate for all customers, you could still opt-out of such a rate and go back on your old flat rate program (or one very similar to your current rate) if you wanted to do so.

Assuming this were the case, how likely would you be to opt-out of the new electricity rate programs to go back on your current rate program for your business?

Not At All Likely To Opt-Out of New Rate Program									**Extremely Likely To Opt-Out of New Rate Program**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Q51. Now, please consider a program in which your electricity rate would remain unchanged, but your business could instead earn an incentive by reducing its overall electricity use during the hottest 10-12 days of the year. Your electricity bill cannot increase under this program (compared to the standard rate), but you will be paid for any reductions in electricity usage made during the "peak" hours, or weekday afternoons. Businesses could potentially lower their electric bill by as much as 5-10% by reducing or moving electricity use during these 10-12 days each year.

If such a program was made available to your business, how interested would you be in signing up for this program?

Not At All Interested In Signing Up									**Extremely Interested In Signing Up**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

VII - CONCLUSION

[END / COLLECT INFORMATION NECESSARY TO DISTRIBUTE INCENTIVES]

Those are all the questions we have for you today. Thank you for your participation!

C1. The $25 thank you payment you earned by completing our survey will be sent as a check. Please provide your name and address below.

A. Full name

B. Business name
C. Mailing Address Line #1
D. Mailing Address Line #2 (optional)
E. Mailing Address Line #3 (optional)
F. City
G. State
H. ZIP Code

C1I. I would prefer not to receive the $25 thank you payment**.**

[IF C1=I, ASK C1J; OTHERWISE, CONTINUE TO ADDRESS VERIFICATION SCREEN]

C1J. You indicated that you do NOT wish to receive the $25 thank you check. Is that correct?

1. Yes **[CONTINUE TO**
2. No **[RETURN TO C1 TO RECORD NAME AND ADDRESS]**

[IF EITHER NAME/MAILING ADDRESS ENTERED, SHOW INCENTIVE NAME/ADDRESS/EMAIL ADDRESS VERIFICATION SCREEN; OTHERWISE SKIP TO INCENTIVE CONFIRMATION / GOODBYE SCREEN]

[INCENTIVE NAME/ADDRESS/EMAIL ADDRESS VERIFICATION SCREEN]
Please review the information you provided and verify that it is complete and correct:

[DISPLAY NAME/ADDRESS/EMAIL ADDRESS COLLECTED ON PREVIOUS SCREEN]

If you would like to edit any of this information, please click the "Back" button to go to the previous screen, where you can make any needed changes.

Otherwise, please click "CONTINUE" to submit your information.
[PROGRAMMER: INCLUDE BACK BUTTON FOR THIS SCREEN DURING LIVE VERSION]

[INCENTIVE CONFIRMATION / FOLLOW-UP REQUEST SCREEN]
[IF NAME/MAILING ADDRESS ENTERED, DISPLAY, "You have successfully submitted the information we need so we can send you your $25 thank you payment. This payment will be issued to the name you provided and will be mailed within 3-4 weeks to the address you provided.**"]**

[PROGRAMMER: DISPLAY ON SAME SCREEN AS ABOVE LANGUAGE]

C2. If you would like information on how your business can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

Additionally, if you would like someone from Ameren Missouri's energy efficiency implementation team to contact you about further energy efficiency opportunities, please provide the appropriate contact information below:

(NOTE: All other information you have provided in this survey will continue to remain anonymous, even if you choose to be contacted. None of your prior responses will be communicated to the Ameren Missouri energy efficiency implementation team.)

1. **Yes,** we would like to be contacted by someone from Ameren Missouri's energy efficiency implementation team. *Please supply appropriate information.*

Contact Name:_____

Business Name:_____

Preferred contact method(s) – *Select all that apply*:

☐ phone ☐ e-mail ☐ postal mail

Daytime phone number :_____ **[ALLOW 20 CHARACTERS]**

E-mail address:_____

Postal address:_____

_____

_____

2. **No,** we would NOT like to be contacted

[IF C2=1, GO TO FOLLOW-UP REQUEST VERIFICATION SCREEN; IF C2=2, SKIP TO FOLLOW-UP REQUEST CONFIRMATION / COMMENT SCREEN]

[FOLLOW-UP REQUEST VERIFICATION SCREEN]
Please review the contact information you provided and verify that it is complete and correct:

[DISPLAY PROVIDED INFORMATION]

If you would like to edit any of this information, please click the "Back" button to go to the previous screen, where you can make any needed changes.

Otherwise, please click "Next" to submit your information.

[PROGRAMMER NOTE: INCLUDE 'BACK' BUTTON ON THIS SCREEN WHEN SURVEY IS LIVE]

[FOLLOW-UP REQUEST CONFIRMATION / COMMENT SCREEN]
[IF C2=1, DISPLAY, "You have successfully submitted your contact information! You will be contacted by a representative from the Ameren Missouri energy efficiency implementation team within 10 business days.**"]**

If, at this time, you'd like to make any general comments or provide feedback to Ameren Missouri, please use the following text box:
[RECORD TEXT; ALLOW A HIGH MAX NUMBER OF CHARACTERS FOR LONG COMMENTS]

(Note: Any comments you submit here **will <u>not</u>** be linked to your previous survey responses or to any other identifying information when communicated to Ameren Missouri.)

Please click "Next" to submit your comment or to proceed without leaving a comment.

[GOODBYE SCREEN]
[IF STATUS=C, DISPLAY, "Thank you very much for your help with our research. It is greatly appreciated! Have a nice day!**"]**

[IF STATUS=T OR O, DISPLAY, "Thank you. Have a nice day!**"]**
[INCLUDE "Close window**" BUTTON]**

SURVEY CLOSED MESSAGE – DISPLAY ONLY IF RESPONDENT REACHES SITE AFTER WE HAVE CLOSED THE SURVEY

We appreciate your time and effort in responding to the survey invitation you received, but the survey sponsored by Ameren Missouri is now closed.

If you would like information on how your business can save money on energy bills, please visit Ameren Missouri at **Act**OnEnergy.com

---

Thank you. Have a nice day!

DEFINITIONS

[THE DEFINITIONS IN THE TABLE BELOW WILL EACH BE SHOWN IN A POP-UP BOX THAT IS TRIGGERED BY A HYPERLINKED WORD OR PHRASE]

Term / Phrase	Definition
Compressed air - optimization control system	System optimization is a thorough overhaul of the compressed air system which involves the resizing, sequencing, and improving control over all compressors in a system in order to reduce energy consumption to a minimum.
CFL-specific fixture	A fixture that has a CFL-ballast located inside, which is larger and lasts longer than integrated CFLs (CFLs with a screw-in mechanism so that they can replace incandescent bulbs). CFL-specific fixtures use replaceable bulbs that have a starter in the base of the bulb.
Compact fluorescent (CFL)	A newer type of light bulb that screws into a light socket, but which is a fluorescent light rather than a traditional incandescent light bulb, and which also often has a non-traditional swirly or curved shape.
Daylighting sensors	Electronic devices that are used to control lights in a room, so that when there is sufficient daylight / sunlight present, then room lights are turned off
District steam with chiller	A district steam system works by having a central steam plant that typically serves multiple clients, or in larger cities, even multiple city blocks or other areas; district steam with chiller systems use district steam to drive a local chiller system
Floor-by-floor packaged water-cooled DX units	Separate air conditioning units that serve each floor individually; these units are typically water-cooled, rather than air-cooled
Air-source heat pump	An air-source heat pump uses the difference between outdoor and indoor air temperatures to cool and heat the space.
Geo-thermal heat pump	Geothermal heat pumps are similar to ordinary heat pumps, but use the ground instead of outside air to provide heating, air conditioning and, in most cases, hot water.
Central chilled water plant (chiller)	A central chiller plant creates chilled water for distribution throughout the facility. Because of the wide variety of system types and sizes, savings and cost values for efficiency improvements represent an average over screw, reciprocating, and centrifugal technologies.
Economizer (air-side or water-side)	A heat exchanger that uses either cold outdoor air or water cooled by a wet cooling tower to meet the cooling needs of occupied spaces whenever possible.
Electric resistance	Sometimes called electric “baseboard” heat, electric resistance heaters generate hot air to warm an interior space by heating up coils that are located in each individual room or space that is heated
Energy Management System	An electronic system that can be programmed to automatically turn on / off (or to otherwise operate) HVAC, lighting, and / or other building systems according to a schedule that a building operator has established ahead of time
ENERGY STAR®	 A label for some new appliances that indicates the appliance meets the standards for high efficiency appliances

Floor-by-floor packaged water-cooled DX units	Separate air conditioning units that serve each floor individually; these units are typically water-cooled, rather than air-cooled
Forced air furnace	A furnace that operates by heating air which is then forced through ductwork to different outlets throughout a building or facility
Heat pump water heater	A system that uses a refrigeration cycle in reverse to draw heat out of the surrounding air to provide hot water in a traditional water heater storage tank.
Heat recovery water heater	A water heater that uses heat "recovered" from another application (for example, by recovering "waste heat" from a process that heats another material) to heat water for different purposes
High-efficiency fluorescent tubes (T8)	Newer fluorescent tubes (T8s) that fit into traditional fixtures, but which represent a more efficient (lower wattage) tube
Occupancy sensors	An occupancy sensor is a motion detector that is integrated with a timing device. It senses when motion has stopped for a specified time period in order to trigger a light extinguishing signal.
Programmable thermostat	A thermostat that lets you program a schedule and set the temperature up or down at different times of the day and/or different days of the week
T-5	Super high-efficiency fluorescent tubes
Tankless (instantaneous) water heater	A water heater that only heats water for delivery to your application when you ask for it by using hot water. These systems do not keep a tank of water hot at all times.
Variable air volumes	Controls air from a single supply duct and varies the airflow to each zone or room based upon the temperature in the room
Variable speed drive	A more sophisticated control that allows these units to run at many different speeds, rather than simply "on" or "off"

BUSINESS SATURATION SURVEY QUESTIONNAIRE

Ameren Missouri DSM Market Potential – Saturation Questionnaire SMALL TO MEDIUM BUSINESS
1/21/2013 V8 FINAL

QUALIFYING CRITERIA AND QUOTAS

Qualifying Criteria

- The respondent must be familiar with the energy-related aspects of their business's operations at that location
- Utility bills must be paid for that location

Hard Quotas

- Total: n=800
- Other hard quotas TBD

Soft Quotas

- TBD

Tracking Variables

RESPONDENT IDENTIFICATION / VERIFICATION

Welcome. This survey is sponsored by Ameren Missouri.
[PROGRAMMER: INCLUDE AMEREN MISSOURI LOGO]

Survey results will be collected and summarized by Definitive Insights, a market research company.

Please enter the "Survey ID#" that appears on the survey invitation postcard you received. This Survey ID# should be located just above the mailing address on the front side of your postcard.

Survey ID# : _____

We at Ameren Missouri and Definitive Insights value your privacy. We will use the information you provide for research purposes only and will NOT share it with third parties for marketing purposes. Information you provide will be stored in a secure database. If you have questions about our privacy practices or would like to get any other information about this study, please contact us via one of the following methods:

e-mail:	Amerensurveyhelp@definitiveinsights.com
phone:	1-855-888-9270
postal mail:	Definitive Insights ATTN: Ameren Missouri Project Director 601 SW Oak Street Portland, OR 97205

[PROGRAMMER: VERIFY VALID CODE AND READ IN ALL VARIABLES FROM SAMPLE FILE]

INTRODUCTION

Thank you for taking time to see if you and your business qualify to participate in a new research study about the potential for reducing the energy costs of Ameren's business customers. The study is sponsored by Ameren Missouri, and it has a very important purpose. Ameren Missouri is delivering programs to help its customers use energy more efficiently. Your answers to this survey will help the company to improve these programs so that they work best for everyone.

Your business represents one of a small number of businesses that are being asked to respond to the survey. To show our appreciation for the time and effort you place into completing the survey, we will offer you a $25 check upon submitting your answers. (Note: Payment may be declined if required by your company's policies.) You will first be asked a few questions to make sure your business qualifies for participation. If you do qualify, you will then be invited to complete the full survey.

If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the URL and the Survey ID# from your survey invitation to access your survey again. The survey will automatically take you to the point where you left off.

Please note: any word or phrase that appears in blue, underlined font will have a hyperlinked definition that pops-up in a separate browser window when you click on that word or phrase. Clicking on any of these hyperlinks will NOT make you navigate away from the survey site.

RESPONDENT SCREENING

NEW 12/17 - REVISED 1/5:

A1. While this may not be the address at which you received this card, our survey today is about the electricity that your business uses at the following address:

[PREMISE ADDRESS]

Is this address associated with your company, or does your company make energy use decisions for this address?

1. Yes
2. No

A1_a. This card was mailed to [COMPANY NAME]. Is this your company, or is it the name of the company that manages or owns the building your company is located in?

1. My company
2. Another company that manages this property/building
3. A former tenant or occupant of this space

[IF A1 OR A1A=1, CONTINUE; OTHERWISE TERMINATE]

1/5/13 – ADDED #4

A2. Please let us know if this address is for a business or a residence:

2. This is a business address

4. This is a business address that is associated with the operation of a rental or leased multifamily residential property.
2. This is a residential address, but a home-operated business is located here
3. This is a residential address – it is not associated with a business

[IF A1=2 OR IF A2=3, TERMINATE AND READ A1-A2 TERMINATE TEXT; OTHERWISE, GO TO S1.]

[A1-A2 TERMINATE TEXT:] [PROGRAMMER NOTE: PLEASE MAKE SURE THE WWW. DOES NOT SHOW ON THE HYPERLINK FOR ActOnEnergy.com, THAT THE ACT IS BOLD, AND THAT THE A, O AND E ARE CAPITALIZED]

We truly appreciate your time and effort in responding to our survey, but our questions are related to the energy-related aspects for a specific business address.

If you would like information on how you or your business can save money on your energy bills, please visit us at **Act**OnEnergy.com

Thank you. Have a nice day!

S1. Which of the following best describes your familiarity with the energy-related aspects of your business operations at **[READ IN ADDRESS FROM SAMPLE]**?

1. You are **very familiar** with the energy-related aspects of your operations at this location
2. You are **fairly familiar** with the energy-related aspects of your operations at this location
3. You are **not very familiar** with the energy-related aspects of your operations at this location **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA S2]**
4. Don't know **[REQUEST REFERRAL TO DECISION MAKER AND THEN TERMINATE VIA S2]**

[IF S1=1-2, SKIP TO S3; OTHERWISE SHOW S2 AND TERMINATE WITHOUT SHOWING STANDARD TERMINATE LANGUAGE]

S2. Thank you for taking the time to see if you are eligible to participate in this survey. At this time we need responses from someone in your organization who is more familiar with the energy-related aspects of your business operations at this location.

We would appreciate it if you would provide that person with the invitation postcard you received or refer them to the following link so that they may complete this survey:

Link:[http://tiny.cc/ameren1]
ID: xxxxx

[PROGRAMMER NOTE: IF A RESPONDENT TERMINATES VIA S2. DELETE DATA COLLECTED AND RESET SURVEY REENTRY POSITION FOR THAT SURVEY ID# BACK TO THE BEGINNING OF THE SURVEY. RECORD THE DATA DELETED FOR THAT SURVEY ID# ELSEWHERE SO WE CAN TRACK THE NUMBER OF TIMES AND REASONS RESPONDENTS DISQUALIFY AT S2 AS WELL AS THE NUMBER OF TIMES THESE PREVIOUSLY USED SURVEY ID#'S ARE REUSED. FOR ALL RESPONDENTS THAT DO NOT TERMINATE VIA S5R, DO NOT ALLOW SURVEY ID# TO BE USED AGAIN.]
{NOTE: THIS WILL ALLOW A RESPONDENT WHO DOES NOT PERSONALLY QUALIFY TO FORWARD THEIR SURVEY ID# TO A CO-WORKER WHO MAY BE BETTER QUALIFIED TO ANSWER THE SURVEY.}

S3. Which of the following best describes how your business is billed for electricity at **[READ IN ADDRESS FROM SAMPLE]**?

1. We are **billed directly by Ameren Missouri** for the electricity we use
2. We are **NOT billed directly by Ameren Missouri** for the electricity we use; our electric **bill is handled by another part of our company or by a third party service provider** (e.g., City and Village Tax Office, etc.), but ultimately, our company is responsible for the cost for our electricity
3 We are **NOT billed directly by Ameren Missouri** for the electricity we use; the cost for our electricity is **included in our rent/lease [TERMINATE]**
4. We are **served by another utility; not Ameren Missouri [TERMINATE]**
5. Don't know **[TERMINATE]**

[TERMINATE IF S3= 3, 4 or 5
[PROGRAMMER: DISPLAY DIRECTLY BELOW S3 ON SCREEN: "PLEASE NOTE THAT ALL OF OUR REMAINING QUESTIONS REFER SPECIFICALLY TO THE FACILITY AT THE LOCATION CITED ABOVE"]

[IF S3=1,2 OR S3B=1,2, ASK S5; OTHERWISE TERMINATE]

1/5/2013 NOTE: CHANGED SOME SCREENER NUMBERING FROM HERE DOWN TO MATCH PROGRAMMED VERSION.

S5. Does your business own or lease the building space at this location?

If you both lease some space, and own some space at this location, which accounts for the majority of the space?

1. Own (or in the process of buying it)
2. Shorter term lease / rent (less than 3 years)
3. Longer term lease / rent (3 years or more)

S6. Does your operation at this location occupy any enclosed space, or is it an outdoor structure or operation, such as a billboard, a parking lot, a communications tower, or the like?

1. Is ONLY an enclosed space
2. Is ONLY an outdoor structure or facility **[TERMINATE AFTER S7 – SHOW GENERAL TERMINATE TEXT]**
3. Includes both an enclosed space AND an outdoor structure or operation

[IF S6=2, ASK S7 AND THEN TERMINATE

S7. What type of outdoor structure does your organization operate at this site?

1. Billboard
2. Communications / telecommunications tower or other facility
3. Pump
4. Parking lot
5. Traffic light or other type of outdoor lighting

990. Other **[SPECIFY]**

S8. Which of the following best describes the type of facility your organization occupies?

1. Office (finance, insurance, real estate, law, etc.)
2. Retail (department stores, services, boutiques, etc.)
3. Grocery (supermarkets, convenience store, market, etc.)
4. Restaurant (sit-down, fast food, coffee shop, etc.)
5. Warehouse
6. School (day care, pre-school, elementary, secondary)
7. College, university or trade school
8. Health Care (health practitioner office, hospital, urgent care center, etc.)
9. Nursing home / assisted living facility / residential treatment facility
10. Lodging facility (hotel, motel, bed and breakfast, etc.)
11. Not-for profit housing facility (shelter, prison, jail, etc.)
12. Entertainment / recreation facility (movie theater, bowling alley, health club/gym, library, museum, etc.)
13. Public assembly facility (convention / conference center, etc.)
14. Worship (church, temple, etc.)
15. Multi-use or shopping mall (i.e., mixed use of space for offices, restaurants, stores, service, apartments, etc.)
16. Manufacturing, production, or processing facility (including for-profit businesses and governmental facilities)
17. Agricultural

990. Other **[SPECIFY]**

S9. Which of the following best describes the activity in which your business is engaged at this location? *Please select the <u>one option</u> that best describes the activity.*

{NOTE TO TEAM: IF THE RESPONDENT SELECTS RESPONSE "15" ABOVE ("MIXED USE"), THEY ARE SHOWN ALL POSSIBLE OPTIONS FOR BUSINESS ACTIVITY EXCEPT HOSPITAL, WAREHOUSE, AND MANUFACTURING / PROCESSING}

Traditional Office-Based Business [IF S7=1 OR 15 OR 990, DISPLAY CODES 1-7]	
1. Finance	○
2. Insurance	○
4. Real estate / construction	○
5. Government	○
6. Other not-for-profit	○
7. Other office **[SPECIFY]**	○
Retail [IF S7=2 OR 15 OR 990, DISPLAY CODES 8-19]	
8. Major retail store	○
9. Department store	○
10. Small retail (boutique, store in strip mall)	○
11. Convenience store	○
12. Supermarket	○
13. Market	○
14. Laundry	○
15. Dry cleaning	○
16. Copy center	○
17. Barber / salon	○
18. Gas station / auto shop	○
19. Other retail **[SPECIFY]**	○
Grocery [IF S7=3 OR 15 OR 990, DISPLAY CODES 20-23]	
20. Supermarket	○
21. Convenience store	○
22. Market	○
23. Other grocery **[SPECIFY]**	○
Restaurant / Food Service [IF S7=4 OR 15 OR 990, DISPLAY CODES 24-28]	
24. Sit-down restaurant	○
25. Fast food diner	○
26. Bakery	○
27. Coffee shop	○
28. Other restaurant **[SPECIFY]**	○
Warehouse [IF S7=5 OR 990, DISPLAY CODES 29-32]	
29. Refrigerated warehouse	○
30. Non-refrigerated warehouse	○
31. Combination of refrigerated and non-refrigerated space	○
32. Other warehouse **[SPECIFY]**	○
School [IF S7=6 OR 15 OR 990, DISPLAY CODES 33-36]	
33. Preschool / daycare	○
34. Elementary school	○
35. Secondary school	○
36. Other pre-college **[SPECIFY]**	○
College, University or Trade School [IF S7=7 OR 15 OR 990, DISPLAY CODES 37-40]	
37. College	○
38. University	○
39. Trade school	○
40. Other post-secondary **[SPECIFY]**	○
Health Care [IF S7=8 OR 15 OR 990, DISPLAY CODES 80-84]	
85. Medical / dental office or office for other health practitioners	○

80. General medical or surgical hospital	○
81. Veterinary hospital	○
82. Other hospital **[SPECIFY]**	○
83. Urgent care center	○
84. Other health care facility **[SPECIFY]**	○
Nursing Home / Assisted Living [IF S7=9 OR 15 OR 990, DISPLAY CODES 41-44]	
41. Nursing home	○
42. Assisted living facility	○
43. Residential treatment facility	○
44. Other care facility **[SPECIFY]**	○
Lodging [IF S7=10 OR 15 OR 990, DISPLAY CODES 41-44]	
45. Hotel	○
46. Motel	○
47. Bed & Breakfast	○
48. Other lodging **[SPECIFY]**	○
Not-For-Profit Housing [IF S7=11 OR 15 OR 990, DISPLAY CODES 45-47]	
49. Shelter	○
50. Prison / jail	○
51. Other not-for-profit housing **[SPECIFY]**	○
Entertainment / Recreation [IF S7=12 OR 15 OR 990, DISPLAY CODES 48-54]	
52. Health club / gym	○
53. Movie theater	○
54. Theater	○
55. Library	○
56. Museum	○
57. Bowling alley	○
58. Other entertainment / recreation **[SPECIFY]**	○
Public Assembly [IF S7=13 OR 15 OR 990, DISPLAY CODES 55-57]	
59. Conference / convention center	○
60. Community center	○
61. Other public assembly **[SPECIFY]**	○
Worship [IF S7=14 OR 15 OR 990, DISPLAY CODES 58-61]	
62. Church	○
63. Temple	○
64. Synagogue	○
65. Other worship **[SPECIFY]**	○
Manufacturing / Production / Processing [IF S7=16 OR 990, DISPLAY CODES 62-74]	
67. Chemical processing	○
68. Electronics / technology	○
69. Food / beverage production or processing	○
70. General / light assembly or manufacturing	○
71. Glass production or processing	○
72. Metals production or processing or fabricated metal work	○
73. Machinery / appliance / equipment manufacturing	○
74. Paper products processing, printing or manufacturing	○
75. Textiles / apparel production or processing	○
76. Water / wastewater treatment	○
77. Wood products manufacturing	○
78. Other manufacturing / processing **[SPECIFY]**	○
Agricultural [IF S7=17 OR 990, DISPLAY CODES 79-80]	
79. Agricultural production or farming	○
80. Other agricultural	○
Something else [IF S7=15 OR 990, DISPLAY CODE 79]	

S8B. Briefly describe your company's business space. For example, "Our business space occupies 4 floors of a 6 story building" or "Our business occupies 8 buildings on a campus." [OPEN-ENDED TEXT QUESTION]

_____

S10. Approximately how many people are employed full-time at this location?

1. Less than 5 employees
2. 5 – 9
3. 10 – 19
4. 20 – 49
5. 50 – 99
6. 100 – 199
7. 200 – 299
8. 300 – 399
9. 400 – 499
10. 500 – 999
11. 1,000 – 2,499
12. 2,500 – 4,999
13. 5,000 – 9,999
14. 10,000 – 24,999
15. 25,000 or more employees

S11. Which of the following uses of **electricity** do you pay for at this location? In other words, does your electric and/or gas bill include the cost to…? *Select all that apply.*

1. Heat some or all of your space
2. Cool some or all of your space
3. Provide hot water or steam for your use
4. Provide interior lighting
5. Provide exterior lighting

{NOTE TO TEAM: THESE RESPONSES WILL BE USED TO SCREEN RESPONDENTS OUT OF THE RELEVANT END USE SECTIONS BELOW; I.E., IF THEY SAY THEIR ENERGY BILL DOES NOT COVER SPACE HEATING, THEY WILL BE SKIPPED OUT OF THE SPACE HEATING SECTION}

S12. Which of the following are present at this location? *Select all that apply.*

1. Natural gas service
2. Propane service
3. Purchased steam or hot water
4. Fuel oil for one or more end uses
5. Onsite electricity generation with/without heat recovery (i.e., combustion turbine, steam turbine, reciprocating engine (or "generator"), microturbine, photovoltaic, fuel cell etc.)6. Electric Vehicle charging stations
7. None of the above [EXCLUSIVE]

[IF NOT OVER-QUOTA, GO TO INVITATION LANGUAGE; OTHERWISE TERMINATE]

TERMINATE LANGUAGE FOR NON-QUALIFYING OR OVER-QUOTA RESPONDENTS

We appreciate the time and effort you have spent in responding to our survey invitation and answering these initial questions, which were designed to see if you are eligible to participate in this research study.

In order to achieve a representative sample, quotas with specific criteria have been designated. At this point, we have reached the number of respondents we can accept from individuals with your type of experience or background. Again, we would like to thank you for your time and effort.

If you would like information on how your business can save money on energy bills, please visit us at **Act**OnEnergy.com

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Q76. Additionally, if you would like someone from Ameren Missouri energy efficiency implementation team to contact you about further energy efficiency opportunities; please provide the appropriate contact information below:

(NOTE: All other information you have provided in this survey will continue to remain anonymous, even if you choose to be contacted. None of your prior responses will be communicated to the Ameren Missouri energy efficiency implementation team.)

1. **Yes,** we would like to be contacted by someone from Ameren Missouri energy efficiency implementation team. *Please supply the appropriate contact information below.*

   Contact Name:_____

   Business Name:_____

   Preferred contact method(s) – *Select all that apply*:

   ☐ phone ☐ e-mail ☐ postal mail

   Daytime phone number :_____

   E-mail address:_____

   Postal address:_____

   _____

   _____

2. **No,** we would NOT like to be contacted

[IF Q76=1, GO TO CONTACT INFORMATION FOR AMEREN MISSOURI VERIFICATION SCREEN; IF Q76=2, SKIP TO GOOD-BYE SCREEN]

INVITATION LANGUAGE FOR QUALIFYING RESPONDENTS

Thank you for your responses so far. You and your business have qualified to complete this survey. As we indicated earlier, only a limited number of individuals will be able to complete this survey, so we appreciate your time in filling out the survey as completely as possible.

The survey should take about 20 minutes to complete. Once you complete the survey you will be eligible to receive our $25 thank you payment. Information about how to receive the payment will be provided at the end of the survey.

Your responses are important to us, so please press "Next" to begin answering the survey questions. All information provided in this survey will be kept strictly confidential, and at no time will you be asked to purchase anything.

If you need to pause the survey at any time, you can come back later and begin again where you left off. Simply save the personalized URL to access your survey again. The survey will automatically take you to the point where you left off.

Please note: any word or phrase that appears in blue, underlined font will have a hyperlinked definition that pops-up in a separate browser window when you click on that word or phrase. Clicking on any of these hyperlinks will NOT make you navigate away from the survey site.

As you complete the survey, you will **not** be able to use your browser's "back" button. If you mistakenly press your browser's "back" button, you will need to press the "refresh" button to continue the survey.

BUILDING TYPE – BUSINESS-USE AREA

[PROGRAMMER NOTE: THROUGHOUT THIS SURVEY, WORDS OR PHRASES WITH BLUE, UNDERLINED FONT WILL HAVE HYPERLINKED DEFINITIONS THAT POP-UP WHEN THE RESPONDENT CLICKS ON THE WORD OR PHRASE. HYPERLINKED DEFINITIONS ARE PROVIDED AT THE END OF THIS DOCUMENT.]

The first several questions are about the building areas your company uses or occupies at **[READ IN ADDRESS FROM SAMPLE].**

Q1. Approximately when was the facility your business uses at this location constructed?

If your business is located in several buildings across a campus/complex, please estimate the average year across all buildings.

1. Before 1900
2. 1900-1919
3. 1920-1929
4. 1930-1939
5. 1940-1949
6. 1950-1959
7. 1960-1969
8. 1970-1979
9. 1980-1989
10. 1990-1999
11. 2000-2009
12. 2010-present
13. Not sure

Q2. How many years has your business occupied this facility?

1. Less than 1 year
2. 1-2 years
3. 3-4 years
4. 5-9 years
5. 10-19 years
6. 20 years or more

Q3. Has this facility been renovated or undergone tenant improvements in the last 5 years?

1. Yes
2. No
3. Not sure

[IF Q3=1, ASK Q4; OTHERWISE SKIP TO Q5]

Q4. When did these improvements take place?

1. 2007
2. 2008
3. 2009
4. 2010
5. 2011
6. 2012

Q5. Does your business operate at this location continuously all year, or is it shut down for a portion of the year?

1. Operate continuously all year long
2. Shut down for part of the year

[IF Q5=2, ASK Q6; OTHERWISE SKIP TO Q7]

Q6. During which months of the year is your operation at this location SHUT DOWN? S*elect all that apply.*

	Months when operation is SHUT DOWN
1. January	☐
2. February	☐
3. March	☐
4. April	☐
5. May	☐
6. June	☐
7. July	☐
8. August	☐
9. September	☐
10. October	☐
11. November	☐
12. December	☐

Q6A. **(Q7a1 to Q7a12 in ONLINE SURVEY)** During what percentage of each of these months is your operation at this location SHUT DOWN?

For example, if you're open for half of July, enter 50%.

Your best estimate is fine.

[DISPLAY ONLY ITEMS SELECTED AT Q6; AUTOCODE NON-SELECTED ITEMS AS 0%]	% of month during which operation is SHUT DOWN
1. January	**[RECORD NUMBER 1-100]**%
2. February	**[RECORD NUMBER 1-100]**%
3. March	**[RECORD NUMBER 1-100]**%
4. April	**[RECORD NUMBER 1-100]**%
5. May	**[RECORD NUMBER 1-100]**%
6. June	**[RECORD NUMBER 1-100]**%
7. July	**[RECORD NUMBER 1-100]**%
8. August	**[RECORD NUMBER 1-100]**%
9. September	**[RECORD NUMBER 1-100]**%
10. October	**[RECORD NUMBER 1-100]**%
11. November	**[RECORD NUMBER 1-100]**%
12. December	**[RECORD NUMBER 1-100]**%

[AT LEAST ONE MUST BE <100% TO MOVE TO NEXT SCREEN]

Q7. **(Q8a1 to Q8a7 in ONLINE SURVEY)** During the times of year that this building is in use, which days of the week is it OPEN? *Select all that apply.*

By "open," we are referring to times when any employees are present / working.

	Days OPEN
1. Monday	☐
2. Tuesday	☐
3. Wednesday	☐
4. Thursday	☐
5. Friday	☐
6. Saturday	☐
7. Sunday	☐
TOT. **Total number of days open per week**	**[CALCULATE TOTAL ASSUMING THAT EACH SELECTION EQUALS 1]**

[IF Q7TOT<5, ASK Q7A; OTHERWISE SKIP TO FILTER BEFORE Q8]

Q7A. **(Q9 in ONLINE SURVEY)** You indicated that this building is **open** for **fewer than 5 days per week**. Is this what you intended?

1. Yes, this building is open for fewer than 5 days per week
2. No, this is not what I intended

(Q8b1 to Q8b7 in ONLINE SURVEY)
[IF Q7A=2, SKIP BACK TO Q7]
[IF Q7TOT>=5 OR Q7A=1, ASK Q8; OTHERWISE SKIP BACK TO Q7]

Q8. **(Q10a1 in ONLINE SURVEY)** During which hours does your facility operate on each day it is open?

[SHOW THE FOLLOWING OPTIONS IN THE DROP DOWN MENUS USED IN THE TABLE BELOW: N/A – open 24 hours; Midnight; 1 a.m.; 2 a.m.; 3 a.m.; 4 a.m.; 5 a.m.; 6 a.m.;
7 a.m.; 8 a.m.; 9 a.m.; 10 a.m.; 11 a.m.; Noon; 1 p.m.; 2 p.m.; 3 p.m.; 4 p.m.; 5 p.m.; 6 p.m.;
7 p.m.; 8 p.m.; 9 p.m.; 10 p.m.; 11 p.m.]

	A. Opening Hour	B. Closing Hour
[IF Q7_1=1] 1. Monday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_1=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**
☐ **Check this box if your Tuesday – Friday hours are the same as Monday.** **[IF CHECKED, AUTOFILL TUESDAY-FRIDAY WITH THE RESPONSES FROM Q8_1A AND Q8_1B]**		
[IF Q7_2=1] 2. Tuesday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_2=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**
[IF Q7_3=1] 3. Wednesday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_3=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**
[IF Q7_4=1] 4. Thursday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_4=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**
[IF Q7_5=1] 5. Friday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_5=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**
[IF Q7_6=1] 6. Saturday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_6=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**
[IF Q7_7=1] 7. Sunday	**[DISPLAY DROP DOWN MENU]**	**[IF Q8A_7=**"N/A – open 24 hours"**, DO NOT DISPLAY DROP DOWN MENU]**

[IF THERE ARE ANY Q8 ROWS IN WHICH COLUMN A EQUALS COLUMN B, ASK Q8AA; OTHERWISE SKIP TO Q9]

Q8AA. **(Q11a1 in ONLINE SURVEY)** For one or more days you are open, you selected a closing hour that is earlier than an opening hour (e.g., Opening Hour = 11a.m., Closing Hour = 2 a.m.)

To make sure this is what you intended, please answer the following questions.

	Yes	No
[DISPLAY IF Q8_1B<Q8_1A] 1. Is it correct that you are open from Monday at **[INSERT Q8_1A RESPONSE]** to **Tuesday** at **[INSERT Q8_1B RESPONSE]**?	○	○

[DISPLAY IF Q8_2B<Q8_2A] 2. Is it correct that you are open from Tuesday at **[INSERT Q8_2A RESPONSE]** to **Wednesday** at **[INSERT Q8_2B RESPONSE]**?	○	○
[DISPLAY IF Q8_3B<Q8_3A] 3. Is it correct that you are open from Wednesday at **[INSERT Q8_3A RESPONSE]** to **Thursday** at **[INSERT Q8_3B RESPONSE]**?	○	○
[DISPLAY IF Q8_4B<Q8_4A] 4. Is it correct that you are open from Thursday at **[INSERT Q8_4A RESPONSE]** to **Friday** at **[INSERT Q8_4B RESPONSE]**?	○	○
[DISPLAY IF Q8_5B<Q8_5A] 5. Is it correct that you are open from Friday at **[INSERT Q8_5A RESPONSE]** to **Saturday** at **[INSERT Q8_5B RESPONSE]**?	○	○
[DISPLAY IF Q8_6B<Q8_6A] 6. Is it correct that you are open from Saturday at **[INSERT Q8_6A RESPONSE]** to **Sunday** at **[INSERT Q8_6B RESPONSE]**?	○	○
[DISPLAY IF Q8_7B<Q8_7A] 7. Is it correct that you are open from Sunday at **[INSERT Q8_7A RESPONSE]** to **Monday** at **[INSERT Q8_7B RESPONSE]**?	○	○

[IF ANY Q8AA_1 THROUGH Q8AA_7 = "NO", SKIP BACK TO Q8]

Q9. **(Q12a1 in ONLINE SURVEY)** What is the approximate total square footage that your business occupies at this location?

Please give your best estimate, including only indoor or enclosed space. If your business shares the space with other companies / organizations, only list the space your business uses. If your business occupies several floors or buildings, add the square footage together.

Please enter a whole number rather than a range of numbers.

1. **[RECORD NUMBER]** square feet
2. Not sure

[IF Q9_1=0+, ASK Q9A IN ORDER TO VALIDATE Q9_1 RESPONSE; OTHERWISE SKIP TO Q10]

Q9A. **(Q13 in ONLINE SURVEY)** You said the approximate total square footage that your business occupies at this location is...

[INSERT Q9_1 RESPONSE, USING COMMAS] square feet

Is this what you intended?

1. Yes
0. No, I would like to edit my response

[IF Q9A=1, CONTINUE TO NEXT FILTER; OTHERWISE SKIP BACK TO Q9]

[IF Q9_2=1, ASK Q10; OTHERWISE SKIP TO Q11]

Q10. **(Q14 in ONLINE SURVEY)** We understand you aren't sure, so using the ranges listed below, please just choose the best estimate of the total square footage of your business at this location.

Please give your best estimate, including only indoor or enclosed space. If your business shares the space with other companies / organizations, only list the space your business uses. If your business occupies several floors or buildings, add the square footage together.

1. Less than 1,000 sq. ft.
2. 1,000 – 4,999
3. 5,000 – 9,999
4. 10,000 – 14,999
5. 15,000 – 24,999
6. 25,000 – 49,999
7. 50,000 – 99,999
8. 100,000 – 499,999
9. 500,000 – 999,999
10. 1 million sq. ft. or more

Q11. **(Q15a1 in ONLINE SURVEY)** What percentage of the total enclosed floorspace your business occupies in at this location can be characterized by each of the following area descriptions?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

Area description [SET DEFAULT RESPONSE AT 0]	**% of total enclosed floor space**
1. Office	**[RECORD NUM 0-100]%**
2. Data center / computer room	**[RECORD NUM 0-100]%**
3. Food preparation, food service or food sales (e.g., kitchen, cafeteria, restaurant, coffee shop, convenience store, supermarket, market, etc.)	**[RECORD NUM 0-100]%**
4. Retail (e.g., mall, department store, small retail/boutique etc.)	**[RECORD NUM 0-100]%**
5. Common areas (e.g., lobby, hallway, meeting room, auditorium, library, bathroom, workout area, worship area, etc.)	**[RECORD NUM 0-100]%**
6. Lodging (e.g., sleeping quarters, hotel room, bedroom in nursing home, etc.)	**[RECORD NUM 0-100]%**
7. Laboratory	**[RECORD NUM 0-100]%**
8. Warehouse/storage area	**[RECORD NUM 0-100]%**
9. Laundry facilities	**[RECORD NUM 0-100]%**
10. Health services (e.g., hospital, doctor's office, etc.)	**[RECORD NUM 0-100]%**
11. Manufacturing / processing / production	**[RECORD NUM 0-100]%**
990. Other **[SPECIFY ONE AREA]**	**[RECORD NUM 0-100]%**

991. Other **[SPECIFY ONE AREA]**	**[RECORD NUM 0-100]%**
992. Other **[SPECIFY ONE AREA]**	**[RECORD NUM 0-100]%**
TOT. **Total**	**[CALCULATE TOTAL]%**

[PROGRAMMER: Q11TOT MUST EQUAL 100 IN ORDER TO CONTINUE TO NEXT SCREEN]

I – BUILDING TYPE – ENTIRE BUILDING AREA

The following questions refer to the **total** building that your organization occupies, or uses, at this location, even if you only occupy a portion of the building.

Q12. **(Q16 in ONLINE SURVEY)** How many floors are in the entire building? *Your best estimate is fine, but please enter a whole number rather than a range of numbers.*

If your business is located in several buildings across a campus/complex, enter the total number of floors across all the buildings.

[RECORD NUMBER 1-100] floors

Q13. **(Q17 in ONLINE SURVEY)** What percent of the total space in the building does your organization occupy?

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

[RECORD NUMBER 1-100]%

[IF Q13<100, ASK Q13A; OTHERWISE SKIP TO Q14]

Q13A. **(Q18a1 in ONLINE SURVEY)** Approximately what percentage of the remaining space in the building is used for the following types of other business activities? *If you are not sure, please provide your best estimate.*

Please enter whole numbers that will add up to 100%

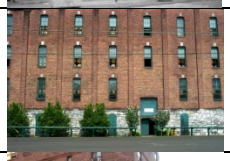
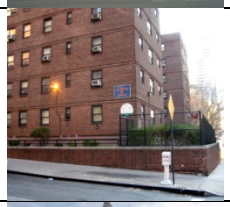
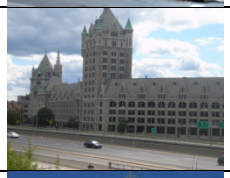
Business Activity	Percentage of space
1. Office space	**[RECORD NUMBER 0-100]**%
2. Restaurant(s)	**[RECORD NUMBER 0-100]**%
3. Retail	**[RECORD NUMBER 0-100]**%
4. Service	**[RECORD NUMBER 0-100]**%
5. Manufacturing	**[RECORD NUMBER 0-100]**%
6. Entertainment	**[RECORD NUMBER 0-100]**%
7. Lodging	**[RECORD NUMBER 0-100]**%
8. Health	**[RECORD NUMBER 0-100]**%
9. Education	**[RECORD NUMBER 0-100]**%
10. Warehouse	**[RECORD NUMBER 0-100]**%
11. Other **[SPECIFY]**	**[RECORD NUMBER 0-100]**%
TOT. **Total**	**[CALCULATE TOTAL]%**

[PROGRAMMER: Q13ATOT MUST EQUAL 100 IN ORDER TO CONTINUE TO NEXT SCREEN]

Q14. **(Q19 in ONLINE SURVEY)** Approximately what percentage of the entire building exterior wall area is covered in glass and/or"windowed"?

If your business is located in several buildings across a campus/complex, please approximate the total percentage across all buildings.

Your best estimate is fine.

% of entire building exterior wall area covered in glass and/or "windowed"	**Example images**	
1. Less than 10%		○
2. 11-25%		○
3. 26-50%		○
4. 51-75%		○
5. More than 75%		○

Q15. **(Q20a1 in ONLINE SURVEY)** Of all the windows located on the exterior walls of your building, about what percentage are single pane windows, and what percentage are double pane windows or better?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

Note: Click on hyperlinked text to view a definition of a term or phrase that pops up in a separate window. Clicking on these hyperlinked terms or phrases will NOT make you navigate away from the survey site.

Window Type	% of all exterior windows
1. Single pane windows *(windows with just 1 layer of glass)* 	**[RECORD NUMBER 0-100]**%
2. Double pane windows or better *(windows with 2 or more layers of glass)* 	**[RECORD NUMBER 0-100]**%
3. Not sure **[EXCLUSIVE]**	☐
TOT. **Total**	**[CALCULATE Q15_1 + Q15_2]**%

[PROGRAMMER: Q15TOT MUST EQUAL 100, OR Q15_3 MUST BE SELECTED ("DON'T KNOW") IN ORDER TO CONTINUE TO NEXT SCREEN]

Q16. **(Q21 in ONLINE SURVEY)** What percentage of these windows is tinted? *Your best estimate is fine.*

If your business is located in several buildings across a campus/complex, please approximate the total percentage across all buildings.

1. Less than 10%
2. 11-25%
3. 26-50%
4. 51-75%
5. More than 75%

Q16a. **(Q22a1in ONLINE SURVEY)** Other than windows, what type of surface covers the exterior walls of the building?

If more than one type of surface covers the exterior of the building(s), please select the surface type that covers the largest portion of your exterior walls.

1. Brick
2. Concrete
3. Stucco
4. Masonry
5. Glass curtain / spandrel
6. Wood
7. Metal
8. Other **[PLEASE SPECIFY]**

Q16b. **(Q23 in ONLINE SURVEY)** How would you characterize the insulation level of the exterior walls of the building(s)?

If the level of insulation varies within or between the buildings at your business's location, please answer for the building that has the largest amount of occupied floorspace.

1. **High** level of insulation
2. **Medium** level of insulation
3. **Low** level of insulation
4. No insulation
5. Not sure

Q17. **(Q24 in ONLINE SURVEY)** Which of the following best describes the building roof?

If more than one description applies, please select the option that accounts for the majority of the roof(s).

1. Steep
2. Moderately slanted
3. Flat
4. Not sure

Q18. **(Q25 in ONLINE SURVEY)** Which of the following best describes the color of the building roof?

If more than one description applies, please select the option that accounts for the majority of the roof(s).

1. Dark
2. Medium-dark
3. White or light
4. "Green roof" (partially or completely covered with vegetation and soil)
5. Not sure

HEATING AND COOLING

The next group of questions focuses on the way that your space at this location is heated and/or cooled.

[IF S10=1, ASK Q19; OTHERWISE SKIP TO FILTER BEFORE Q26]

Q19. **(Q26 in ONLINE SURVEY)** Approximately what percentage of the space your business occupies, or uses, at this location is heated?

1. None
2. Less than 10%
3. 10-20%
4. 21-30%
5. 31-40%
6. 41-50%
7. 51-60%
8. 61-70%
9. 71-80%
10. 81-90%
11. More than 90%

[IF Q19=2-11, ASK Q21; OTHERWISE SKIP TO FILTER BEFORE Q26]

Q21. **(Q27a1 in ONLINE SURVEY)** What type of space heating system is used as a means of heating your space? **[ONLY ONE TYPE CAN BE SELECTED IN EACH COLUMN]**

	Heating Equipment	Primary	Secondary
1.	Natural gas warm air furnace with ducts/vents to individual rooms	™	™
2.	Electric warm air furnace with ducts/vents to individual rooms	™	™
3.	Natural gas boiler with hot water/steam radiators or baseboards in individual rooms	™	™
4.	Electric boiler with hot water/steam radiators or baseboards in individual rooms	™	™
5.	Electric baseboard or electric coils radiant heating (no supply ducts or water/steam pipes)	™	™
6.	Air-source heat pump	™	™
7.	Geothermal heat pump	™	™
8.	Natural gas unit heater or wall furnace	™	™

9.	**Electric unit heater or wall furnace**	™	™
10.	**None**	™	™
999.	**Not sure**	™	™
990.	**Other (please specify)**	™	™

[IF Q21 PRIMARY AND Q21 SECONDARY BOTH EQUAL 11 OR 999, SKIP TO FILTER BEFORE Q26, OTHERWISE ASK Q22]

Q22. **(Q28 in ONLINE SURVEY)** When was your primary space heating equipment installed?

Your best estimate is fine.

1. Before 1960
2. 1961-1970
3. 1971-1980
4. 1981-1990
5. 1991-1995
6. 1996-2000
7. 2001-2003
8. 2004-2006
9. 2007-2009
10. 2010-present

Q22b. **(Q29 in ONLINE SURVEY)** Which of the following best describes how your system is maintained?

1. Regularly each month
2. Regularly each season / quarter
3. Regularly each year
4. As needed
5. Not sure

[ASK IF ANY 1-10 OR 990 AT Q21=SECONDARY, IF 11-999 AT Q21=SECONDARY, SKIP TO Q26]

Q23. **(Q30 in ONLINE SURVEY)** What percentage of your total business space is heated with a supplemental heating system?

1. None
2. Less than 10%
3. 11-25%
4. 26-50%
5. 51-75%
6. More than 75%

Q25. **(Q31 in ONLINE SURVEY)** When was your supplemental heating system installed? *Your best estimate is fine.*

1. Before 1990
2. 1990-1995
3. 1996-2000
4. 2001-2003
5. 2004-2006
6. 2007-2009
7. 2010- present

[IF S10=2, ASK Q26; OTHERWISE SKIP TO FILTER BEFORE Q33]

Q26. **(Q32 in ONLINE SURVEY)** Approximately what percentage of the space your business occupies, or uses, at this location is cooled?

1. None
2. Less than 10%
3. 10-20%
4. 21-30%
5. 31-40%
6. 41-50%
7. 51-60%
8. 61-70%
9. 71-80%
10. 81-90%
11. More than 90%

[IF Q26=2-11, ASK Q27; OTHERWISE SKIP TO FILTER BEFORE Q33]

Q27. **(Q33a in ONLINE SURVEY)** What type of cooling system is your primary means to cool your space? **[ONLY ONE TYPE CAN BE SELECTED IN EACH COLUMN]**

	Cooling Equipment	Primary	Secondary
1.	Air cooled chiller	○	○
2.	Water cooled chiller	○	○
3.	Central air conditioner	○	○
4.	Packaged rooftop air conditioner units	○	○
5.	Floor-by-floor packaged water cooled DX (Direct Expansion) units		
6.	Wall or window air conditioner units	○	○
7.	Air-source heat pump	○	○
8.	Geothermal heat pump	○	○
9.	**None**	○	○
999.	**Not sure**	○	○
990.	**Other (please specify)**	○	○

[IF Q27=1 OR 2, ASK Q28; OTHERWISE SKIP TO Q29]

Q28. **(Q34 in ONLINE SURVEY)** What type of chiller does your facility use?

1. Centrifugal
2. Reciprocating
3. Rotary
4. Scroll
5. Screw
6. Absorption, hot water
7. Absorption, steam
8. Absorption, natural gas
9. Chiller, steam-driven turbine
10. Other **[SPECIFY]**
11. Not sure

[IF Q21_7 = Primary and Q27_7 NE Primary or Secondary] or [If Q21_8 = Primary and Q21_8 NE Primary or Secondary] ASK Q29; OTHERWISE SKIP TO Q21]

Q29. You indicated that you use a heat pump to heat your space in the winter, but do not use it to cool your space in the summer. For verification purposes, please select your primary heating and cooling system.

Q29A. (Q35a in ONLINE SURVEY) Heating Equipment [Show any for which Q21=Primary or Secondary]	**Q29B. (Q35b in ONLINE SURVEY) Cooling Equipment [Show any for which Q27=Primary or Secondary]**
Electric packaged unit(s)/ Roof-top unit(s)	Air cooled chiller
Electric central warm air furnace with ducts/vents to individual rooms	Water cooled chiller
Natural gas central warm air furnace with ducts/vents to individual rooms	Central air conditioner
Electric central boiler with hot water/steam radiators or baseboards in individual rooms	Packaged air conditioner units
Natural gas central boiler	Floor-by-floor packaged water cooled DX (Direct Expansion) units
Electric baseboard or electric coils radiant heating	Wall or window air conditioner units
Air-source heat pump	Air-source heat pump
Geothermal heat pump	Geothermal heat pump
Wall furnace(s)	**None**
Unit heater(s)	**Not sure**
None	**Other**
Not sure	
Other	

Q30. **(Q36 in ONLINE SURVEY)** When was your primary cooling system installed? *Your best estimate is fine.*

1. Before 1980
2. 1980-1989
3. 1990-1994
4. 1995-2000
5. 2001-2003
6. 2004-2006
7. 2007-2009
8. 2010-present

Q30a. **(Q37 in ONLINE SURVEY)** Which of the following best describes how your system is maintained?

1. Regularly each month
2. Regularly each season / quarter
3. Regularly each year
4. As needed
5. Not sure

[ASK IF ANY 1-8 OR 990 AT Q27=SECONDARY, IF 9-999 AT Q27=SECONDARY, SKIP TO Q33]

Q31. **(Q38 in ONLINE SURVEY)** What percentage of your total business space is cooled with a supplemental cooling system?

1. None
2. Less than 10%
3. 11-25%
4. 26-50%
5. 51-75%
6. More than 75%

Q32. **(Q39 in ONLINE SURVEY)** When was the supplemental cooling system installed? *Your best estimate is fine.*

1. Before 1980
2. 1980-1989
3. 1990-1994
4. 1995-2000
5. 2001-2003
6. 2004-2006
7. 2007-2009
8. 2010-present

[IF Q19=2-11 OR Q26=2-11, ASK Q33; OTHERWISE SKIP TO FILTER BEFORE Q36]

Q33. **(Q40 in ONLINE SURVEY)** What type of temperature control is primarily used in your heating and/or cooling system(s)?

1. Manual thermostat
2. Programmable thermostat
3. Energy management system
4. Always on
5. Manual on/off
6. Time clock
7. None of the above

[IF Q26=2-11 AND Q33=1-6, ASK Q34; OTHERWISE SKIP TO FILTER BEFORE Q35]

Q34. **(Q41a1 in ONLINE SURVEY)** For each of the times listed below, what is the typical cooling temperature for the thermostat in **summer (June through August)**?

Please select a range from each drop down menu.

[PROGRAMMER: PLACE DROP DOWN MENU TO INCLUDE THE FOLLOWING OPTIONS:
1=Less than 60°F; 2=60-64°F; 3=65-69°F; 4=70-74°F; 5=75-78°F; and 6=79°F or higher]

1.	Day	**[DROP DOWN MENU]**
2.	Night	**[DROP DOWN MENU]**

[IF Q19=2-11 AND Q33=1-6, ASK Q35; OTHERWISE SKIP TO FILTER BEFORE Q36]

Q35. **(Q42a1 in ONLINE SURVEY)** For each of the times listed below, what is the typical heating temperature for the thermostat in **winter (December through February)**?

Please select a range from each drop down menu.

[PROGRAMMER: PLACE DROP DOWN MENU TO INCLUDE THE FOLLOWING OPTIONS:
1=Less than 60°F; 2=60-64°F; 3=65-69°F; 4=70-74°F; 5=75-78°F; and 6=79°F or higher]

1.	Day	**[DROP DOWN MENU]**
2.	Night	**[DROP DOWN MENU]**

[IF S10=3, ASK Q36; OTHERWISE SKIP TO FILTER BEFORE Q41]

The next few questions focus on any water heating used by your business.

Q36. **(Q43 in ONLINE SURVEY)** What type of water heater does your business use? If more than one type of water heater, indicate the one that is used most often.

1. None
2. Hot water either purchased or provided by building to tenants
3. Self-contained or stand-alone storage water heater/boiler
4. Central boiler
5. Tankless (instantaneous) water heater
6. Heat pump water heater
7. Heat recovery water heater
8. Domestic-type water heater
9. Other **[SPECIFY]**
10. Not sure

[IF Q36=2-9, ASK Q37; OTHERWISE SKIP TO FILTER BEFORE Q41]

Q37. **(Q44 in ONLINE SURVEY)** How many water heater units do you have?

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

[RECORD NUMBER 1-100]

[IF Q36=2-4 OR 6-9, ASK Q38; OTHERWISE SKIP TO Q39]

Q38. **(Q45 in ONLINE SURVEY)** What is the **[IF Q37>1, DISPLAY, "**average**"]** tank size of these water heater unit(s)? *Your best estimate is fine.*

1. Less than 30 gallons
2. 30-54 gallons
3. 55-69 gallons
4. 70-89 gallons
5. 90-119 gallons
6. 120-150 gallons
7. More than 150 gallons
8. Not sure

Q39. **(Q46 in ONLINE SURVEY)** What type of fuel is used by the water heater(s)?

1. Natural gas
2. Electricity
3. Steam
4. Other **[SPECIFY]**
5. Not sure

Q40. **(Q47 in ONLINE SURVEY)** On average, when were the water heaters installed? *Your best estimate is fine.*

1. Before 1980
2. 1980-1989
3. 1990-1994
4. 1995-2000
5. 2001-2003
6. 2004-2006
7. 2007-2009
8. 2010-present
9. Not sure

LIGHTING

[DISPLAY IF S10=4 OR 5; OTHERWISE SKIP TO "Office and Other Equipment" INTRO TEXT]
The next few questions focus on the lighting used in your business's building(s).

[IF S10=4, ASK Q41; OTHERWISE SKIP TO FILTER BEFORE Q44]
Q41. **(Q48xa1 in ONLINE SURVEY)** How many of each of the following types of lamps / fixtures are used in the **interior** of the building(s) at your business, considering only the areas your business occupies?

Your best estimate is fine, but please enter a whole number for each type of lamp / fixture.

Lamp/fixture type	Example Images	Number of interior lamps / fixtures
1. Fluorescent (circuline type, U-type, etc.)		**[RECORD NUM 0-9999]**
2. Incandescent		**[RECORD NUM 0-9999]**
3. Compact fluorescent		**[RECORD NUM 0-9999]**
4. LED		**[RECORD NUM 0-9999]**
5. Mercury vapor		**[RECORD NUM 0-9999]**
6. Metal halide – standard		**[RECORD NUM 0-9999]**

7. Metal halide – Pulse start		**[RECORD NUM 0-9999]**
8. High pressure sodium		**[RECORD NUM 0-9999]**
9. Low pressure sodium		**[RECORD NUM 0-9999]**
10. Neon		**[RECORD NUM 0-9999]**
11. Self / battery powered exit signs		**[RECORD NUM 0-9999]**
12. Quartz / halogen		**[RECORD NUM 0-9999]**
13. Induction		**[RECORD NUM 0-9999]**
14. Other **[SPECIFY]**		**[RECORD NUM 0-9999]**
TOT. **Total number of lamps / fixtures**		**[CALCULATE TOTAL]**

Q41a/b. **(Q49x1 in ONLINE SURVEY)** Of the **interior** lamps/fixtures that you have, what percentage are on during business and non-business hours?

[ONLY DISPLAY RESPONSE OPTIONS >0 AT Q41A]

Lamp/fixture type	Number that you have	Q41a. % on during business hours	Q41b. % on during non-business hours
1. Fluorescent (standard type, circuline type, U-type, etc.)	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
2. Incandescent	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
3. Compact fluorescent	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
4. Mercury vapor	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
5. Metal halide – standard	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
6. Metal halide – Pulse start	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
7. High pressure sodium	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
8. Low pressure sodium	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
9. Neon	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
10. LED	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
11. Self / battery powered exit signs	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
12. Quartz / halogen	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
13. Induction	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
14. Other **[SPECIFY]**	**[DISPLAY Q41A RESPONSE]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**

[IF Q41a_1 > 0, ASK Q42a; OTHERWISE SKIP TO Q43]

Q42a. **(Q50a1 in ONLINE SURVEY)** What percentage of all the **interior** fluorescent lamps your business uses can be described as each of the following types?

Your best estimate is fine, but please enter whole numbers that will add up to 100%.

	[SET DEFAULT RESPONSE AT 0]	**% of all fluorescent lamps / fixtures used…**
1.	T-12	**[RECORD NUM 0-100]**%
2.	T-8	**[RECORD NUM 0-100]**%
3.	Super T-8	**[RECORD NUM 0-100]**%
4.	T-5	**[RECORD NUM 0-100]**%
5.	LED	**[RECORD NUM 0-100]**%
6.	Other **[SPECIFY]**	**[RECORD NUM 0-100]**%
TOT.	**Total**	**[CALCULATE TOTAL]**%

[PROGRAMMER: Q42ATOT MUST EQUAL 100 IN ORDER TO CONTINUE TO NEXT SCREEN]

[IF Q42A_1> 0, ASK Q42B. OTHERWISE SKIP TO Q43]

Q42B. **(Q51 in ONLINE SURVEY)** Approximately how many T-12 lamps do you still have in inventory? *Your best estimate is fine*.
[RECORD NUMBER 1-10,000] T-12 lamps

Q43. **(Q52 in ONLINE SURVEY)** Which of the following types of lighting controls are primarily used to control your interior lighting? *Select all that apply.*

1. Manual – circuit breaker
2. Manual – single switch
3. Manual – bi-level (dual) switch
4. Occupancy sensor
5. Timers / Time clock
6. Photocell
8. Daylighting sensor
9. Energy management system

990. Other **[SPECIFY]**
998. Not sure

[IF S10=5, ASK Q44; OTHERWISE SKIP TO INTRO TEXT BEFORE Q47]

Q44. **(Q52xn1 in ONLINE SURVEY)** Thinking about the exterior lighting that you pay for in your electric bill, how many of each of the following types of lamps / fixtures are used on the **exterior** of your business's building(s)?

Your best estimate is fine, but please enter a whole number for each type of lamp / fixture.

Lamp/fixture type	Example Images	Number of exterior lamps / fixtures	Q44a. % on during business hours	Q44b. % on during non-business hours
1. Fluorescent (standard type, circuline type, U-type, etc.)		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
2. Incandescent		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
3. Compact fluorescent		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
4. Mercury vapor		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
5. Metal halide – standard		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
6. Metal halide – Pulse start		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%
7. High pressure sodium		[RECORD NUM 0-9999]	[RECORD % 0-100]%	[RECORD % 0-100]%

8. Low pressure sodium		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
9. Neon		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
10. LED		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
11. Self / battery powered exit signs		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
12. Quartz / halogen		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
13. Induction		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
14. Other **[SPECIFY]**		**[RECORD NUM 0-9999]**	**[RECORD % 0-100]%**	**[RECORD % 0-100]%**
TOT. **Total number of lamps / fixtures**		**[CALCULATE TOTAL]**		

Q45. DELETED

Q46. **(Q54 in ONLINE SURVEY)** Which of the following types of lighting controls is primarily used to control your exterior lighting?

1. Manual – circuit breaker
2. Manual – single switch
3. Manual – bi-level (dual) switch
4. Occupancy sensor
5. Timers / Time clock
6. Photocell
8. Daylighting sensor
9. Energy management system

990. Other **[SPECIFY]**
998. Not sure

OFFICE AND OTHER EQUIPMENT

Now we would like to ask you some questions about some facilities and equipment your business may operate.

Q47. **(Q55a1 in ONLINE SURVEY)** How many units of the following computing or office equipment can be found within your business space?

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

Office Equipment type	Number
1. Server	**[RECORD NUMBER 0-500]**
2. Personal computer	**[RECORD NUMBER 0-500]**
3. Laptop/Netbook computer	**[RECORD NUMBER 0-500]**
4. Tablet computer	**[RECORD NUMBER 0-500]**
5. Monitor	**[RECORD NUMBER 0-500]**
6. Printer/Copier	**[RECORD NUMBER 0-500]**
7. Scanner	**[RECORD NUMBER 0-500]**
8. Fax machine	**[RECORD NUMBER 0-500]**
9. All-in-one fax/copy/scanner machine	**[RECORD NUMBER 0-500]**
10. Point of sale terminals (POS)	**[RECORD NUMBER 0-500]**
11. Projector	**[RECORD NUMBER 0-500]**

[IF Q11_3>0, ASK Q48; OTHERWISE SKIP TO FILTER BEFORE Q52]
The following questions focus on your kitchen, food preparation, and/or food storage or sales facilities.

Q48. **(Q56 in ONLINE SURVEY)** What size kitchen, if any, is used for food preparation in your facility?

1. None
2. Small kitchenette
3. Residential-scale kitchen
4. Commercial-scale kitchen
5. Institution-scale kitchen (in larger hospitals, universities)

[IF Q48=2-5, ASK Q49; OTHERWISE SKIP TO FILTER BEFORE Q52]

Q49. **(Q57b1 in ONLINE SURVEY)** How many of the following units can be found in your kitchen / food preparation / food storage and/or sales area(s)?

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

Kitchen Equipment type	Number fueled by Gas	Number fueled by Electricity
Broiler	0	0
Infrared broiler	0	0
Fryer	0	0
Griddle/grill	0	0
General oven	0	0
Baking oven	0	0
Combination oven	0	0
Convection oven	0	0
Conveyor oven	0	0
Microwave oven		0
Pasta cooker	0	0
Steamer	0	0
Rotisserie oven	0	0
Hot food holding cabinet	0	0
Salamander broiler	0	0
Range top	0	0
Dishwasher	0	0
Refrigerator, units		0
Freezer, units		0
Refrigerator, walk-in		0
Freezer, walk-in		0
Other		

[IF Q49_19>0, ASK Q50; OTHERWISE SKIP TO FILTER BEFORE Q51]

Q50. **(Q58 in ONLINE SURVEY)** How large is your **walk-in refrigerator space**? Please enter the approximate total square footage of all walk-in refrigerators.

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

[RECORD NUMBER, MIN 1] square feet

[IF Q49_20>0, ASK Q51; OTHERWISE SKIP TO FILTER BEFORE Q52]

Q51. **(Q59 in ONLINE SURVEY)** How large is your **walk-in freezer space**? Please enter the approximate total square footage of all walk-in freezers.

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

[RECORD NUMBER, MIN 1] square feet

[IF Q11_8>0, ASK Q52; OTHERWISE SKIP TO FILTER BEFORE INTRO TEXT ABOVE Q55]

Q52. **(Q60 in ONLINE SURVEY)** Do you have any warehouse space, or large storage space, within the area your business uses at this location?

1. No
2. Yes, unrefrigerated
3. Yes, refrigerated
4. Yes, both unrefrigerated and refrigerated

[IF Q52=2 OR 4, ASK Q53; OTHERWISE SKIP TO FILTER BEFORE Q54]

Q53. **(Q61 in ONLINE SURVEY)** What is the approximate square footage of your **unrefrigerated warehouse space**?

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

[RECORD NUMBER, MIN 1] square feet

[IF Q52=3-4, ASK Q54; OTHERWISE SKIP TO FILTER BEFORE INTRO TEXT ABOVE Q55]

Q54. What is the approximate square footage of your **refrigerated warehouse space**?

Your best estimate is fine, but please enter a whole number rather than a range of numbers.

[RECORD NUMBER, MIN 1] square feet

[IF Q11_9>0, ASK Q55; OTHERWISE SKIP TO FILTER ABOVE Q60B]

The following questions focus on your laundry facilities

Old Q55. DELETED

Q56. **(Q63a1 in ONLINE SURVEY)** How many of the following units are there in your laundry facility?

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

Laundry Equipment type	Number
1. Standard, top loading washer	**[RECORD NUMBER 0-100]**
2. Standard, front loading washer	**[RECORD NUMBER 0-100]**
3. Super capacity washer	**[RECORD NUMBER 0-100]**
4. Clothes dryer, gas	**[RECORD NUMBER 0-100]**
5. Clothes dryer, electric	**[RECORD NUMBER 0-100]**

[IF ANY Q56_1 THROUGH Q56_3>0, ASK Q57; OTHERWISE SKIP TO FILTER BEFORE Q59]

Q57. **(Q64 in ONLINE SURVEY)** On average, when was the typical washer installed? *Your best estimate is fine.*

1. Before 1970
2. 1970-1979
3. 1980-1989

4. 1990-1994
5. 1995-1999
6. 2000-2004
7. 2005-present
998. Not sure

Q58. **(Q65 in ONLINE SURVEY)** On average, how many loads does each washer handle per week? *Your best estimate is fine.*

1. 1-5
2. 6-10
3. 11-20
4. 21-30
5. More than 30
6. Not sure

[IF Q56_4>0 OR Q56_5>0, ASK Q59; OTHERWISE SKIP TO FILTER BEFORE Q60]

Q59. **(Q66 in ONLINE SURVEY)** On average, when was the typical dryer installed? *Your best estimate is fine.*

1. Before 1970
2. 1970-1979
3. 1980-1989
4. 1990-1994
5. 1995-1999
6. 2000-2004
7. 2005-present
998. Not sure

[IF ANY Q56_1 THROUGH Q56_5>0; ASK Q60; OTHERWISE SKIP TO FILTER BEFORE Q60B]

Q60. **(Q67 in ONLINE SURVEY)** In general, how would you characterize the energy efficiency of your laundry equipment?

1. Mostly standard efficiency
2. Mostly high efficiency (ENERGY STAR®, Supersaver)
3. Mix of standard and high-efficiency

[IF S7=6, 7, 10, 12, 13 OR 15 OR 990, ASK Q60B. OTHERWISE SKIP TO FILTER BEFORE Q61]

Q60b. **(Q68 in ONLINE SURVEY)** Do you have a pool and/or spa at this location? *Select all that apply.*

1. Pool
2. Spa
3. None of the above

[IF Q60b=1, ASK Q60c. OTHERWISE SKIP TO FILTER BEFORE Q60d]

Q60c. Is your pool pump controlled by a timer?

1. Yes

2. No
3. Not sure

[IF Q60b=1 OR 2, ASK Q60d. OTHERWISE SKIP TO FILTER BEFORE Q61]

Q60d. **(Q70 in ONLINE SURVEY)** Do you heat your pool or spa?

1. No
2. Yes, year-round
3. Yes, summer only

Q60e. **(Q71 in ONLINE SURVEY)** What type of fuel is used to generate heat for all / most of these water heaters?

1. Natural gas
2. Electricity
3. Solar
4. Other **[SPECIFY]**
5. Not sure

MANUFACTURING / PROCESSING OPERATIONS

[IF Q11_11>1, ASK Q61; OTHERWISE SKIP TO FILTER ABOVE INTRO TEXT ABOVE Q66a]
Now we would like to ask you some questions about your manufacturing / processing operations.

Q61. **(Q72 in ONLINE SURVEY)** Which of the following types of motors are used at your business's location? *Select all that apply.*

1. Motors that drive the different **pumps** that are used at this facility
2. Motors that drive **other machines or uses** at this facility (e.g., mills, assembly lines, air compressors, etc.)
3. None of the above **[EXCLUSIVE]**

[IF Q61=1, ASK Q61a; OTHERWISE SKIP TO FILTER ABOVE Q64]

Q61a. **(Q73 in ONLINE SURVEY)** How many motors are there in each of the following categories that drive the different **pumps** that are used at this facility? **[IF Q61=2, DISPLAY, "**(*Please consider only pumps in your response. Other motor uses are covered in later questions.)***"]**

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

	# of motors
1. Less than 5 HP	**[RECORD NUM 0-999]**
2. 5–24 HP	**[RECORD NUM 0-999]**
3. 25–99 HP	**[RECORD NUM 0-999]**
4. 100–249 HP	**[RECORD NUM 0-999]**
5. 250–499 HP	**[RECORD NUM 0-999]**
6. 500 or more HP	**[RECORD NUM 0-999]**
TOT. **Total**	**[CALCULATE TOTAL]**

[TOTAL MUST BE >=1; ALLOW BLANK CELLS TO BE AUTOCODED AS 0's]

Q62. **(Q74 in ONLINE SURVEY)** Do these pumps tend to operate continuously, or for extended periods of time, while this facility is operating, or only for short periods of time?

1. Continuously / long periods of time
2. Short periods of time
3. Varies / some of both

Q63. **(Q75 in ONLINE SURVEY)** Do these pumps generally have high efficiency motors, and/or variable speed drives, or not?

1. Most are high efficiency and/or high variable speed drives
2. Split 50/50 – some are high efficiency and/or high variable speed drives, some are not
3. Few or none are high efficiency and/or high variable speed drives

[IF Q61=2, ASK Q64; OTHERWISE SKIP TO FILTER ABOVE INTRO TEXT ABOVE Q66a]

Q64. **(Q67a1 in ONLINE SURVEY)** How many **motors** are there in each of the following categories that drive **other machines or uses** at this facility (e.g., mills, assembly lines, air compressors, etc.)?

Your best estimate is fine, but please enter whole numbers rather than ranges of numbers.

	# of motors
1. Less than 5 HP	**[RECORD NUM 0-999]**
2. 5–24 HP	**[RECORD NUM 0-999]**
3. 25–99 HP	**[RECORD NUM 0-999]**
4. 100–249 HP	**[RECORD NUM 0-999]**
5. 250–499 HP	**[RECORD NUM 0-999]**
6. 500 or more HP	**[RECORD NUM 0-999]**
TOT. **Total**	**[CALCULATE TOTAL]**

[TOTAL MUST BE >=1; ALLOW BLANK CELLS TO BE AUTOCODED AS 0's]

Q65. **(Q77 in ONLINE SURVEY)** Do these motors tend to operate continuously, or for extended periods of time, while this facility is operating, or only for short periods of time?

1. Continuously / long periods of time
2. Short periods of time
3. Varies / some of both

Q66. **(Q78 in ONLINE SURVEY)** Do these motors generally have high efficiency motors, and/or variable speed drives, or not?

1. Most are high efficiency and/or high variable speed drives
2. Split 50/50 – some are high efficiency and/or high variable speed drives, some are not
3. Few or none are high efficiency and/or high variable speed drives

[IFS11=5 ASK Q67, OTHERWISE SKIP TO Q69]

Q67. **(Q79 in ONLINE SURVEY)** How many **charging stations** are at this location?
[RECORD NUM 0-999] charging stations

Q67b. **(Q80 in ONLINE SURVEY)** Who pays for the charging stations?

1. Our company
2. The building management
3. Other (specify)
4. Not sure

Q68. **(Q81 in ONLINE SURVEY)** Does your company use electric vehicles for business purposes? If so, how many electric vehicles are used at this location?

1. None
2. Number of Electric Vehicles **[RECORD NUM 0-999]**

ONSITE ELECTRICITY GENERATION

Now, we would like to ask you about any onsite electricity generation facilities that you may have already installed at this location, as well as any that you may be planning on implementing in the near future.

Q68a. Does your company currently generate electricity onsite in a distributed generation (DG) or combined heat and power (CHP) system? Please select all that apply.

1. No, no such systems in place
2. Yes, Solar photovoltaic (PV)
3. Yes, Reciprocating engine ("generator")
4. Yes, Microturbine
5. Yes, Fuel cell
6. Yes, Combustion turbine
7. Yes, Steam turbine
8. Yes, Combined-cycle (combustion turbine followed by steam turbine)

Q68b. Are you considering installing any – or any additional -- onsite generation facilities in the near future?

1. No
2. Yes, we have active plans to install a new system within the next year or so
3. Yes, we are considering this, but have no active plans to do so within the short term future

[IF Q68B=2-3, ASK Q68B1; OTHERWISE, GO TO LOGIC BEFORE Q68C]

Q68b1. What type of system are you thinking of adding?

1. Solar photovoltaic (PV)
2. Reciprocating engine ("generator")
3. Microturbine
4. Fuel cell
5. Combustion turbine
6. Steam turbine
7. Combined-cycle (combustion turbine followed by steam turbine)

[ASK IF Q68A = 2-8, OTHERWISE SKIP TO NEXT SECTION]

Q68c. What is the total capacity of each of your existing DG/CHP system? **[PROGRAMMER: INSERT TABLE WITH A COLUMN FOR EACH SYSTEM SELECTED IN Q68A AND OPTIONS LISTED BELOW]**

1. Less than 10 kW
2. 10 kW to 100 kW
3. 100 kW to 1000 kW
4. 1 MW to 5 MW
5. 5 MW to 10 MW
6. Greater than 10 MW

Q68d. Do you currently recover waste heat from your DG/CHP system(s)? If so, what is the heat used for? **[PROGRAMMER: INSERT TABLE WITH A COLUMN FOR EACH SYSTEM SELECTED IN Q68A AND OPTIONS LISTED BELOW; MULTIPLE RESPONSE EXCEPT FOR #1 IS EXCLUSIVE]**

1. No, not recovering waste heat **[EXCLUSIVE]**
2. Yes, waste heat is used for hot water production
3. Yes, waste heat is used for space heating

4. Yes, waste heat is used for space cooling (requires chiller)
5. Other

ENERGY EFFICIENCY MEASURES

Finally, we'd like to ask you about some **energy efficiency measures** you may have implemented at this location in the recent past, as well as some that you may be planning on implementing in the near future.

Q68. **(Q82b1 in ONLINE SURVEY)** Which of the following **energy efficiency measures** related to **lighting** have been implemented at this location **within the last three years**?

Select all that apply for each time period. Select "NONE" in the appropriate column if you have not implemented / do not plan to implement any of the measures within that time period.

	Energy Efficiency Measures: Interior and Exterior Lighting	**Have implemented in last 3 years**
1.	Upgrading or renovating fluorescent lighting system(s)	☐
2.	Eliminating some fluorescent fixtures and adding reflectors to others to reduce the total number of lighting fixtures or lamps without reducing the total light available (this is sometimes called "delamping")	☐
3.	Replacing traditional incandescent lights with LEDs or higher efficiency light bulbs in lighting fixtures	☐
4.	Replacing general overhead lighting with specific task lighting	☐
5.	Installing occupancy/motion sensors to turn lights off when rooms are not in use	☐
6.	Installing daylighting sensors to turn interior lights off when sufficient daylight is available	☐
990.	Other energy efficiency **lighting** measure(s) **[SPECIFY]**	☐
998.	**NONE / No energy efficiency lighting measures** implemented / planned / possible **[EXCLUSIVE]**	☐

Q69. **(Q83a1 in ONLINE SURVEY)** Which of the following **energy efficiency measures** related to **heating / cooling** have been implemented at this location **within the last three years**?

Which of these measures does your business plan to implement at this location **within the next two years**?

Select all that apply for each time period. Select "NONE" in the appropriate column if you have not implemented / do not plan to implement any of the measures within that time period.

	Energy Efficiency Measures: Heating / Cooling (HVAC)	**Have implemented in last 3 years**	**Plan to implement in next 2 years**
1.	Purchasing a more energy efficient air conditioner, chiller, furnace or boiler when needing to replace a unit	☐	☐

3.	Installing solar panels on your roof that would provide power for some portion of your heating, cooling or water heating needs	☐	☐
4.	Installing a heat recovery system that would capture waste heat from chillers or refrigeration systems to use for heating	☐	☐
5.	Adding insulation to the ductwork that serves your heating and/or cooling systems	☐	☐
6.	Conducting a "retrocommissioning" of your HVAC systems – essentially reviewing all elements of system performance and flow to ensure your operating procedures optimize system performance	☐	☐
7.	Installing variable speed drives on fan motors that are part of your HVAC system – to allow the motors to run at many different speeds, rather than "on" or "off"	☐	☐
8.	Adding an economizer (air-side or water-side)	☐	☐
9.	Adding an energy management/control system	☐	☐
990.	Other energy efficiency **heating** measure(s) **[SPECIFY]**	☐	☐
991.	Other energy efficiency **cooling** measure(s) **[SPECIFY]**	☐	☐
998.	**NONE / No energy efficiency heating / cooling (HVAC) measures** implemented / planned / possible **[EXCLUSIVE]**	☐	☐

Q70. **(Q84a1 in ONLINE SURVEY)** Which of the following **energy efficiency measures** related to **water heating** have been implemented at this location **within the last three years**?

Which of these measures does your business plan to implement at this location **within the next two years**?

Select all that apply for each time period. Select "NONE" in the appropriate column if you have not implemented / do not plan to implement any of the measures within that time period.

	Energy Efficiency Measures: Water Heating	**Have implemented in last 3 years**	**Plan to implement in next 2 years**
1.	Purchasing a more energy efficient water heater when needing to replace a unit	☐	☐
2.	Insulating, or improving the insulation, for the pipes that carry hot water throughout your facility	☐	☐
3.	Reducing the temperature of the hot water that your water heater(s) delivers	☐	☐
4.	Installing 'low flow' nozzles that reduce the amount of hot water used	☐	☐
5.	Installing faucet aerators that introduce air into the flow of hot water, reducing the total amount of water used	☐	☐
990.	Other energy efficiency **water heating** measure(s) **[SPECIFY]**	☐	☐
998.	**NONE / No energy efficiency water heating measures** implemented / planned / possible **[EXCLUSIVE]**	☐	☐

Q71. **(Q85b1 in ONLINE SURVEY)** Which of the following **energy efficiency measures** related to **building structure** have been implemented at this location **within the last three years**?

Select all that apply for each time period. Select "NONE" if you have not implemented

	Energy Efficiency Measures: Building Structure	**Have implemented in last 3 years**
1.	Replacing windows with windows designated as "low-e" glass and/or have a gas core that increases their energy efficiency	☐
2.	Adding or upgrading insulation on exterior doors, walls, ceilings, or roofs	☐
3.	Adding window shades, external shades, reflective film on windows, or trees that would reduce that amount of direct sunlight that enters your buildings	☐
4.	Installing a "cool" or white-colored roof	☐
990.	Other high efficiency **building structure** measure(s)	☐
998.	**NONE / No energy efficiency building structure measures** implemented / planned / possible **[EXCLUSIVE]**	☐

Q72. **(Q86b1 in ONLINE SURVEY)** Which of these **other energy efficiency measures** have been implemented at this location **within the last three years**?

Select all that apply for each time period. Select "NONE" if you have not implemented

	Energy Efficiency Measures: Other	**Have implemented in last 3 years**
1.	Purchasing a more energy efficient refrigeration unit when needing to replace a unit	☐
2.	Purchasing a higher than standard efficiency swimming pool pump or swimming pool heater when needing to replace this unit	☐
3.	Purchasing higher than standard efficiency computer, printer/copier or other office equipment when needing to replace a unit	☐
4.	Purchasing higher than standard efficiency dishwasher, stove or other kitchen equipment when needing to replace a unit	☐
990.	Other energy efficiency measure(s) **[SPECIFY]**	☐
998.	**NONE / No *other* energy efficiency measures** implemented / planned / possible **[EXCLUSIVE]**	☐

Q73. **(Q87 in ONLINE SURVEY)** Some utilities offer incentives or price discount programs to encourage businesses to purchase highly energy efficient heating, cooling, lighting, or other equipment or appliances.

To the best of your knowledge, does Ameren Missouri offer any such programs that offer customers like you a discount off the purchase price on qualified items?

1. Yes
2. No
3. Not sure

[IF Q73=1, ASK Q73B; OTHERWISE SKIP TO Q74B]

Q73B. **(Q88a1 in ONLINE SURVEY)** Are you aware of any of the following programs being offered by Ameren Missouri? Have you participated in any of the following programs in the past 3 years?

	Energy Efficiency Program	Aware of program	Participated in the last 3 years
1.	Business Energy Efficiency	☐	☐
2.	Standard Lighting Incentive	☐	☐
4.	Standard HVAC Incentive	☐	☐
5.	Standard Motor/VFD Incentive	☐	☐
6.	Retro=commissioning	☐	☐
7.	Custom Program	☐	☐
8.	New Construction	☐	☐
9.	Peak Power Rebate	☐	☐
990.	Other program(s) **[SPECIFY]**	☐	☐
998.	**NONE [EXCLUSIVE]**	☐	☐

Q74A. **(Q89 in ONLINE SURVEY)** If we have any questions regarding your responses to the survey, may we contact you via email?

1. Yes
0. No

[IF Q74A=1, ASK Q74B; OTHERWISE SKIP TO Q75]

Q74B. **(Q90 in ONLINE SURVEY)** Please provide your email address. It will only be used to contact you about this survey.

[RECORD EMAIL ADDRESS]

CONCLUSION

[INCENTIVE NAME/ADDRESS COLLECTION SCREEN]
Those are all the questions we have for you today. Thank you for your participation!

Q75. **(QC1a in ONLINE SURVEY)** To receive the $25 thank you check that you earned by completing our survey, please provide your name and address below.

A. Full name
B. Business name (optional)
C. Mailing Address Line #1
D. Mailing Address Line #2 (optional)
E. Mailing Address Line #3 (optional)
F. City
G. State
H. ZIP Code

QC1a I would prefer not to receive the $25 thank you payment
[IF QC1A1=YES, ASK:
QC1j You indicated that you do NOT wish to receive the $25 check. Is that correct?
1 Yes [CONTINUE TO CAPTURE PAYMENT INFO]
2 No [GO TO QC2]

[IF NAME/MAILING ADDRESS ENTERED, SHOW INCENTIVE NAME/ADDRESS/VERIFICATION SCREEN; OTHERWISE SKIP TO INCENTIVE CONFIRMATION / GOODBYE SCREEN]

[INCENTIVE NAME/ADDRESS/VERIFICATION SCREEN]
Please review the information you provided and verify that it is complete and correct:

[DISPLAY NAME/ADDRESS/ COLLECTED ON PREVIOUS SCREEN]

If you would like to edit any of this information, please click the "Back" button to go to the previous screen, where you can make any needed changes.

Otherwise, please click "Next" to submit your information.
[PROGRAMMER: INCLUDE BACK BUTTON FOR THIS SCREEN DURING LIVE VERSION]

[INCENTIVE CONFIRMATION / FOLLOW-UP REQUEST SCREEN]
[IF NAME/MAILING ADDRESS ENTERED, DISPLAY, "You have successfully submitted the information we need so we can send you your $25 thank you payment. This check will be issued to the name you provided and will be mailed within 3-4 weeks to the address you provided.**"]**

[PROGRAMMER: DISPLAY ON SAME SCREEN AS ABOVE LANGUAGE]
Q76. **(QC2 in ONLINE SURVEY)** If you would like information on how your business can save money on energy bills, please visit us at **Act**OnEnergy.com

Additionally, if you would like someone from the Ameren Missouri energy efficiency implementation team to contact you about further energy efficiency opportunities, please provide the appropriate contact information below:

(NOTE: All other information you have provided in this survey will continue to remain anonymous, even if you choose to be contacted. None of your prior responses will be communicated to the Ameren Missouri energy efficiency implementation team.)

1. **(QC2a in ONLINE SURVEY)** **Yes,** we would like to be contacted by someone from the Ameren Missouri energy efficiency implementation team. *Please supply appropriate information.*

   Contact Name:_____

   Business Name:_____

   Preferred contact method(s) – *Select all that apply*:

   ☐ phone ☐ e-mail ☐ postal mail

   Daytime phone number :_____ **[ALLOW UP TO 20 CHARACTERS]**

   E-mail address:_____

   Postal address:_____

   _____

   _____

2. **No,** we would NOT like to be contacted

[IF Q76=1, GO TO FOLLOW-UP REQUEST VERIFICATION SCREEN; IF Q76=2, SKIP TO FOLLOW-UP REQUEST CONFIRMATION / COMMENT SCREEN]

[FOLLOW-UP REQUEST VERIFICATION SCREEN]
Please review the contact information you provided and verify that it is complete and correct:

[DISPLAY PROVIDED INFORMATION]

If you would like to edit any of this information, please click the "Back" button to go to the previous screen, where you can make any needed changes.

Otherwise, please click "Next" to submit your information.

[PROGRAMMER NOTE: INCLUDE 'BACK' BUTTON ON THIS SCREEN WHEN SURVEY IS LIVE]

[FOLLOW-UP REQUEST CONFIRMATION / COMMENT SCREEN]
[IF Q76=1, DISPLAY, "You have successfully submitted your contact information! You will be contacted by a representative from the Ameren Missouri energy efficiency implementation team within 10 business days.**"]**

(QComment in ONLINE SURVEY) If, at this time, you'd like to make any general comments or provide feedback to Ameren Missouri, please use the following text box:
[RECORD TEXT; ALLOW A HIGH MAX NUMBER OF CHARACTERS FOR LONG COMMENTS]

(Note: Any comments you submit here **will <u>not</u>** be linked to your previous survey responses or to any other identifying information when communicated to Ameren Missouri.)

Please click "Next" to submit your comment or to proceed without leaving a comment.

[GOODBYE SCREEN]
[IF STATUS=C, DISPLAY, "Thank you very much for your help with our research. It is greatly appreciated! Have a nice day!**"]**

[IF STATUS=T OR O, DISPLAY, "Thank you. Have a nice day!**"]**
[INCLUDE "Close window**" BUTTON]**

SURVEY CLOSED MESSAGE

We appreciate your time and effort in responding to the survey invitation you received, but the survey sponsored by Ameren Missouri is now closed.

In order to achieve a representative sample for this survey, quotas with specific criteria needed to be designated. Because these quotas have now been filled, we are not accepting any more responses.

If you would like information on how your business can save money on energy bills, please visit us at **Act**OnEnergy.com

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Thank you. Have a nice day!

DEFINITIONS

[THE DEFINITIONS IN THE TABLE BELOW WILL EACH BE SHOWN IN A POP-UP BOX THAT IS TRIGGERED BY A HYPERLINKED WORD OR PHRASE]

Heating systems	
Air-source heat pump	An air-source heat pump uses the difference between outdoor and indoor air temperatures to cool and heat the home.
Geo-thermal heat pump	Geothermal heat pumps are similar to ordinary heat pumps, but use the ground instead of outside air to provide heating, air conditioning and, in most cases, hot water.
Cooling systems/chillers	
District steam with chiller	A district steam system works by having a central steam plant that typically serves multiple clients, or in larger cities, even multiple city blocks or other areas; district steam with chiller systems use district steam to drive a local chiller system
Floor-by-floor packaged water-cooled DX units	Separate air conditioning units that serve each floor individually; these units are typically water-cooled, rather than air-cooled
Centrifugal	Compressor that uses centrifugal force to compress gas by feeding it into a wheel with radial vanes. The wheel is then sealed inside of a cylinder and spun. When the wheel rotates, the gas is thrown away from the wheel center. The outward spinning motion compresses the gas.
Reciprocating	Compressor that increases the pressure of a process gas by positive displacement, employing linear movement of the drive shaft
Rotary	The machine used to impart rotational power to the drill stem while permitting vertical movement of the pipe for rotary drilling
Scroll	Uses advanced engineering and flow dynamics to efficiently and smoothly compress gas refrigerant
Screw	A propeller with several angled blades that rotates to push against water or air
Absorption, hot water	Thermally driven chiller utilizing hot water
Absorption, steam	Indirect-fired chiller utilizing steam
Absorption, natural gas	Direct-fired chiller
Chiller, steam-driven turbine	Mechanical pump-driven refrigeration process powered by a steam turbine
Lighting	
Standard fluorescent tubes (T12)	Traditional fluorescent tube lights with standard efficiency (T12) tubes
Higher than standard efficiency fluorescent tubes (T10)	Fluorescent tube lights that provide more light output than a T12. The T10 lights have a 1 ¼ inch diameter while the T12 lights have a larger diameter of 1 ½ inches.
High-efficiency fluorescent tubes (T8)	Newer fluorescent tubes (T8s) that fit into traditional fixtures, but which represent a more efficient (lower wattage) tube
Super high-efficiency fluorescent tubes (T5)	Fluorescent, super high efficiency (T5) tube lights
Compact fluorescent (CFL)	A newer type of light bulb that screws into a light socket, but which is a fluorescent light rather than a traditional incandescent light bulb, and which also often has a non-traditional, “swirly” shape for a light bulb
Incandescent	Traditional screw in light bulbs that typically range from around 25 watts to around 120 watts
Neon	Tube shaped lights that contain neon or other inert gases at low pressure. Applying a high voltage makes the gas glow brightly.

	Typically used in commercial advertising or signage.
LED lamp	A “light emitting diode” lamp is an electronic form of lighting that does not use filaments like traditional incandescent bulbs, but instead, uses solid state electronics.
Induction	Electrodeless lamps that can last up to 20 years before burning out. Typically used in exterior lighting.
High/Low pressure sodium	A sodium vapor lamp is a gas discharge lamp which uses sodium in an excited state to produce light. They are used in generating yellow light for lighting streets and highways. The low-pressure sodium lamp has remarkably high luminous efficiency, or efficacy, producing as much as 200 lumens per watt of input power. High pressure sodium (HPS) lamps are smaller and contain additional elements such as mercury, and produce a dark pink glow when first struck, and a pinkish orange light when warmed.
Photocell	A light sensing device used to control luminaries and dimmers in response to detected light levels. Also known as photosensor lights. These are typically used in outdoor lighting so that lights are turned off during daylight.
Metal halide – standard	A discharge lamp in which metal halide salts are added to the contents of a discharge tube in which there is a high-pressure arc in mercury vapor; the added metals generate different wavelengths, to give substantially white light at an efficiency approximating that of high-pressure sodium lamps
Metal halide – pulse start	Pulse start metal halide lamps do not require a starting electrode, and instead use a special starting circuit referred to as an igniter to generate a high-voltage pulse to the operating electrodes. Pulse start metal halide offers better efficiency than standard.
Mercury vapor	Pressurized gas inside an arc tube ionized by current flowing between electrodes, resulting in light being emitted. Contains mercury and small amounts of argon, neon and krypton gas.
Induction	Electrodeless lamps that can last up to 20 years before burning out. Typically used in exterior lighting.
Quartz halogen	An incandescent light bulb in which the envelope is made of quartz instead of glass, and the filament is surrounded by an atmosphere of a halogen gas, usually iodine.
Occupancy sensors	An occupancy sensor is a motion detector that is integrated with a timing device. It senses when motion has stopped for a specified time period in order to trigger a light extinguishing signal.
Daylighting sensors	Electronic devices that are used to control lights in a room, so that when there is sufficient daylight / sunlight present, then room lights are turned off
Manual – single switch	One switch controls one or more light fixtures
Manual – dual switch	Sometimes referred to as a “three-way switch”; two or more switches control one or more light fixtures. It is commonly used in locations with two different entrances/exits, such as at the top and bottom of a stairwell or in a classroom with doors in opposite corners.
Water Heater	
Tankless (instantaneous)	A water heater that only heats water for delivery to your application when you ask for it by using hot water. These systems do not keep a tank of water hot at all times.
Heat pump water heater	A system that uses a refrigeration cycle in reverse to draw heat out of the surrounding air to provide hot water in a traditional water heater storage tank.
Heat recovery	A water heater that uses heat “recovered” from another application (for example, by recovering “waste heat” from a process that heats

	another material) to heat water for different purposes
Domestic - type	A tank water heater similar to what you would find in a residential home.
Thermostat	
Standard	A traditional thermostat that you have to manually adjust and that has only one setting for the internal temperature you want
Programmable	A thermostat that lets you program a schedule and set the temperature up or down at different times of the day and/or different days of the week
Energy management system	An electronic system that can be programmed to automatically turn on / off (or to otherwise operate) HVAC, lighting, and / or other building systems according to a schedule that a building operator has established ahead of time
Structural	
Glass curtain/spandrel	A non- load-bearing wall of glass, attached to a building's exterior structural frame.
Energy Efficiency Measures	
Delamping	Removing light bulbs (or fluorescent tubes) from a facility so that there is still sufficient light, but not more than is necessary
Economizers (air-side or water-side)	Heat exchanger used to pre-heat water before it enters boiler
Energy management / control system	An electronic system that can be programmed to automatically turn on / off (or to otherwise operate) HVAC, lighting, and / or other building systems according to a schedule that a building operator has established ahead of time

About EnerNOC

EnerNOC's Utility Solutions Consulting team is part of EnerNOC's Utility Solutions, which provides a comprehensive suite of demand-side management (DSM) services to utilities and grid operators worldwide. Hundreds of utilities have leveraged our technology, our people, and our proven processes to make their energy efficiency (EE) and demand response (DR) initiatives a success. Utilities trust EnerNOC to work with them at every stage of the DSM program lifecycle – assessing market potential, designing effective programs, implementing those programs, and measuring program results.

EnerNOC's Utility Solutions deliver value to our utility clients through two separate practice areas – Implementation and Consulting.

- Our Implementation team leverages EnerNOC's deep "behind-the-meter expertise" and world-class technology platform to help utilities create and manage DR and EE programs that deliver reliable and cost-effective energy savings. We focus exclusively on the commercial and industrial (C&I) customer segments, with a track record of successful partnerships that spans more than a decade. Through a focus on high quality, measurable savings, EnerNOC has successfully delivered hundreds of thousands of MWh of energy efficiency for our utility clients, and we have thousands of MW of demand response capacity under management.
- The Consulting team provides expertise and analysis to support a broad range of utility DSM activities, including: potential assessments; end-use forecasts; integrated resource planning; EE, DR, and smart grid pilot and program design and administration; load research; technology assessments and demonstrations; evaluation, measurement and verification; and regulatory support.

The team has decades of combined experience in the utility DSM industry. The staff is comprised of professional electrical, mechanical, chemical, civil, industrial, and environmental engineers as well as economists, business planners, project managers, market researchers, load research professionals, and statisticians. Utilities view EnerNOC's experts as trusted advisors, and we work together collaboratively to make any DSM initiative a success.

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