Opinion Dynamics

Memorandum

To: Jonathon Jackson, Ameren Illinois Company; Jennifer Morris, ICC Staff
From: Opinion Dynamics Evaluation Team
Date: January 12, 2018
Re: Final Findings from Small Business General Population Survey

1. Introduction

Ameren Illinois Company (AIC) serves over 100,000 small business accounts, which are generally defined as those with the DS2[1] and/or GDS2[2] rates. Over the past several years, AIC has delivered a variety of energy efficiency programs to its small business customers. These programs include AIC's existing C&I portfolio of programs (Standard, Custom, and Retro-Commissioning), which are available to small business customers, as well as the stand-alone, small business-specific programs offered through the Illinois Power Agency (IPA).

Given the potential for more integrated small business program offerings in PY2018 and beyond, AIC expressed interest in gathering additional information that would help to understand and engage small business customers. As such, the evaluation team conducted a general population survey with DS-2 and GDS-2 customers. The goals of the survey were to understand small business characteristics, perspectives on energy costs and usage, drivers and barriers to reducing energy usage, and the level of awareness and interest in potential program offerings.

1.1 Methodology

The evaluation team developed and fielded a phone survey from September 21 to October 19, 2017. A random sample was drawn from the AIC commercial customer database provided by AIC, targeting DS-2 and GDS-2 rate class customers. The survey was designed to collect data from the person responsible for energy-using equipment that makes decisions regarding the company's energy use. Interviews with franchise owners or managers who reported that they were unable to make decisions regarding their facilities were terminated during the screening process.

The evaluation team completed 140 phone surveys with a response rate of 13%. Appendix A provides additional details on the survey dispositions. For some questions, we present findings for owners and renters separately, as they were asked questions worded in a slightly different format to best capture their specific

[1] DS-2 is Ameren's "Small General Delivery Service" rate class for electric service, and contains non-residential electric accounts with peak demand of less than 150 kW. IPA small business offerings are restricted to customers in this rate class.

[2] GDS-2 is Ameren's "Small General Gas Delivery Service" rate class for gas service, and contains non-residential gas accounts with maximum Average Daily Usage of less than 200 therms per day.

situations. However, we did not compare these groups, as the study did not aim to test differences between owners and renters but to describe the customer base as accurately as possible.

2. Summary of Findings

Overall, the study found considerable potential for AIC to serve small businesses. The majority of small business owners own their facilities and thus have the ability to make upgrades, and further, most respondents had already taken at least some actions to reduce their energy use. The evaluation team found that interest in AIC small business programming was high, and these types of programs could be very important, especially to small business customers who indicated they do not know how to reduce their energy use. The following are key findings from the study:

- **Small business customers are diverse in terms of business sectors, firm size, age, and revenue.** Retail and trade service segments comprised nearly half of survey respondents, but a wide range of segments were captured in the sample. The average age of small businesses surveyed was 31 years, and most businesses employed less than five people full time.

- **Most small business owners own the facility in which they operate and pay their own energy bills.** A majority of small business customers own their facility, with 68% occupying their facility and 8% renting it to someone else (Figure 3). Only 21% of small businesses reported renting their facility. Further, the vast majority of natural gas users (91%) pay their own energy bill, and it was assumed that electric customers paid their own bill, given their account in the AIC small business database. These findings suggest that, for the most part, small business owners themselves are responsible for both their facility and their energy bills.

- **Customers are concerned about their energy use and are taking actions to reduce it**. The majority of respondents reported having some level of concern about their energy costs, and an even higher fraction reported that they had taken at least some action to reduce their energy use. Overall 78% of respondents had taken some action to reduce their energy use. Importantly, customers who experienced an increase in energy costs in the past two years (34%, n=140) also took non-energy related actions to cope with those rising costs, such as increasing the price of goods and services (49%) and reducing the size of their workforce (21%). Taking these types of non-energy actions suggests that energy costs are a critical piece of financial stability for some businesses. It is also important to note that saving money was a motivating factor for 98% of people who had taken some action to reduce energy.

- **Customers are interested in AIC small business programming, but only 36% percent have seen direct advertising for such programs.** Sixty-eight percent of survey respondents expressed high levels of interest in learning more about AIC small business programs, which is almost double the amount of people that have seen advertisements for it in the past. Thirteen percent of all respondents did not know where they could go for information on ways to save energy, suggesting that there is a disconnect between interest in saving energy and knowledge and awareness regarding how to initiate participation in programs.

Taken together, the findings point to a need for small business energy efficiency programs and direct advertising for such programs. Bill inserts or canvassing in areas with a high density of small businesses may increase awareness of the programs. Importantly, advertising for such programs should focus on money savings from energy use reduction, as 98% of those who have made changes to save energy did so at least in part to save money.

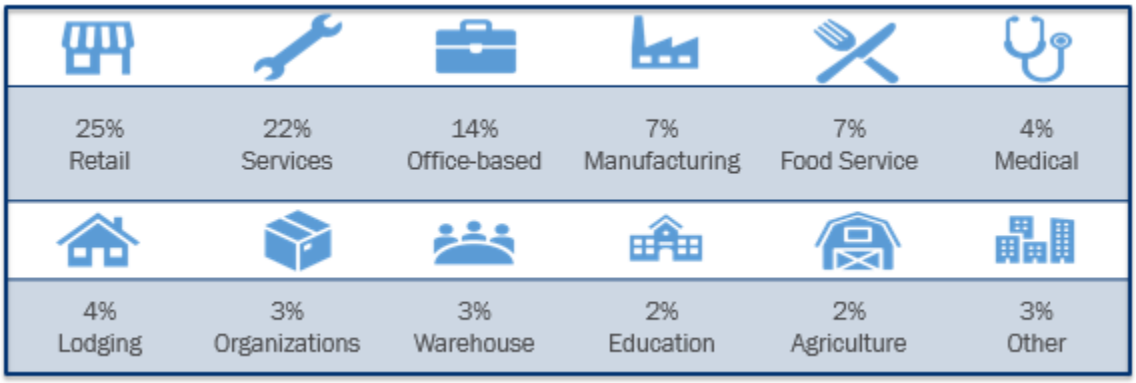
3. Detailed Findings

Sections 3.1 through 3.4 report the detailed findings from the survey of 140 AIC small business customers.

3.1 Small Business Customer Characteristics

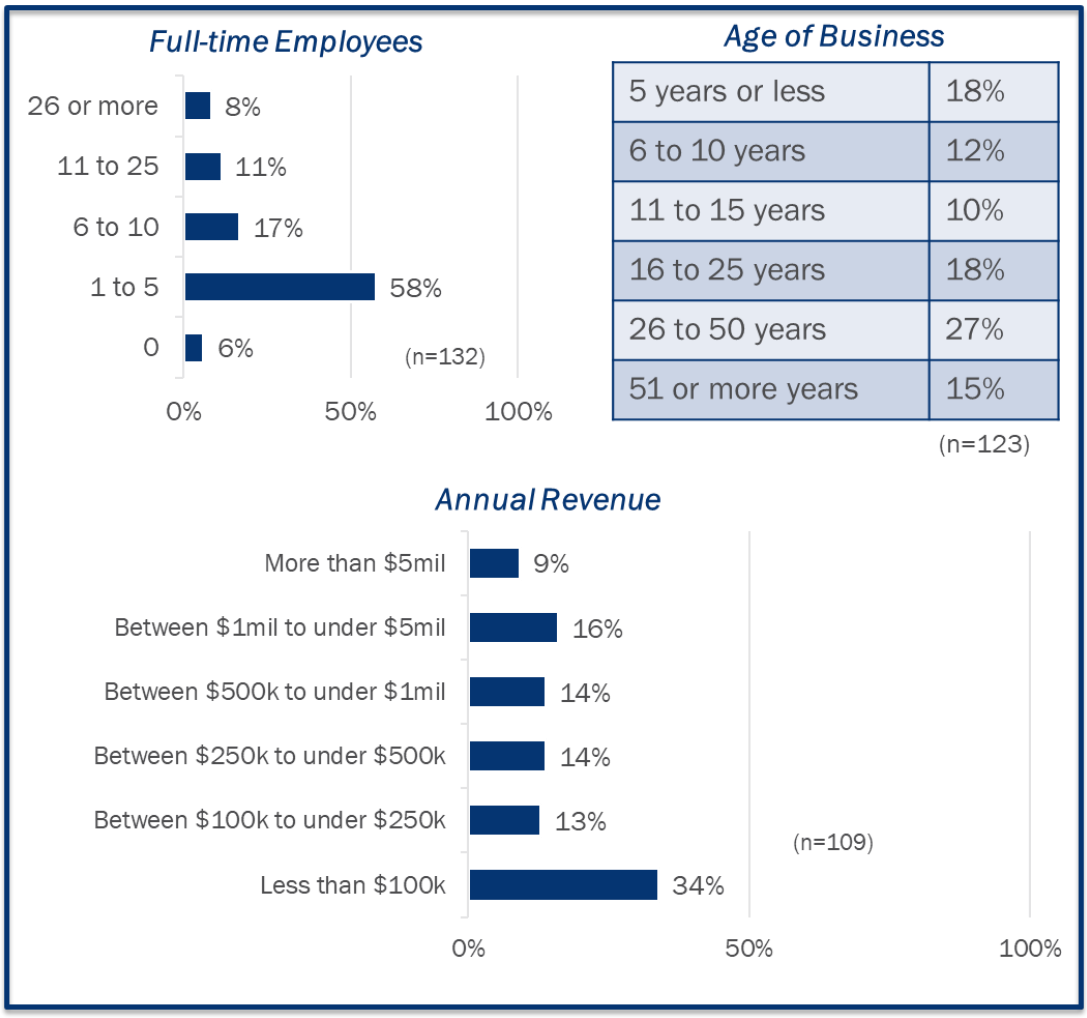
The evaluation team collected information on a variety of business characteristics to profile small business customers. As seen in Figure 1, small businesses operate across a wide range of sectors. Retail represents the largest sector (25%), followed by trade and construction services (22%), and office-based businesses such as real estate, accounting, and consulting (14%).

Figure 1: Small Business Sectors (n=140)



Small businesses are also diverse in firm size, age, and annual revenue (Figure 2); however, the businesses we spoke with were dominated by smaller companies (<5 employees) that had been in business for a relatively long time. A majority of small businesses had fewer than five full-time employees (64%), while only 8% had more than 26 full-time employees. The average business age was 31 years, and over a quarter of businesses were in the 26 to 50 years age group. Annual revenue also varied across small business customers with 34% of respondents reporting revenue less than $100,000 per year.

Figure 2: Key Business Characteristics



Note: Different sample sizes are due to respondents who were not able to provide an answer or refused to answer. Percentages reflect valid answers only.

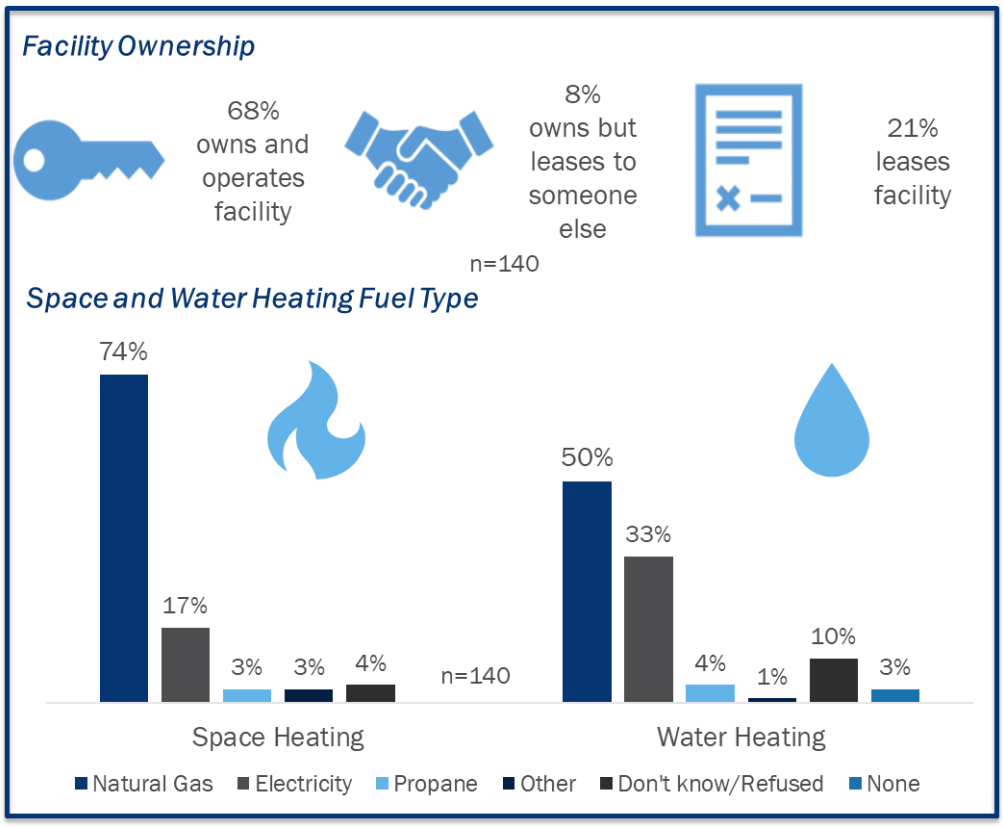
3.2 Energy Use and Costs at Small Business Facilities

Split incentive issues can arise for tenants and building owners if one party is responsible for the cost of upgrades (e.g., the building owner) and another party (e.g., the tenant) pays the utility bills and therefore would benefit financially from upgrades. Given this challenge, we determined how many business owners also own their own facilities. We found that a majority of small business customers own their facility (76%), with 68% owning and occupying their facility and 8% leasing the facility to someone else (Figure 3). Only 21% of small businesses said they rent their facility, which suggests that most business owners are in a position where they could take action to reduce energy use, and also realize the benefits.

Additionally, we were interested in understanding how many Ameren customers pay their own utility bill and thus would benefit financially from energy savings. Of the 106 of customers who reported using natural gas, 91% pay their own utility bill. Nearly three-fourths of small businesses use natural gas for space heating, and

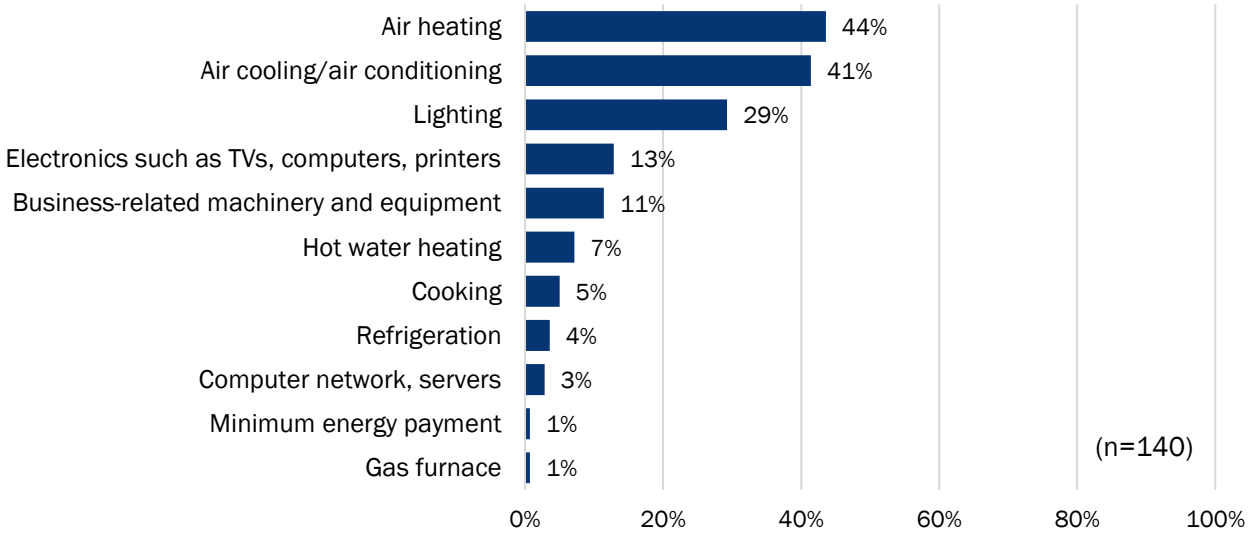
half use natural gas for water heating. Only 17% of customers use electricity for space heating while nearly twice as many (33%) use electricity for water heating (Figure 3).

Figure 3: Facility Characteristics and Ownership



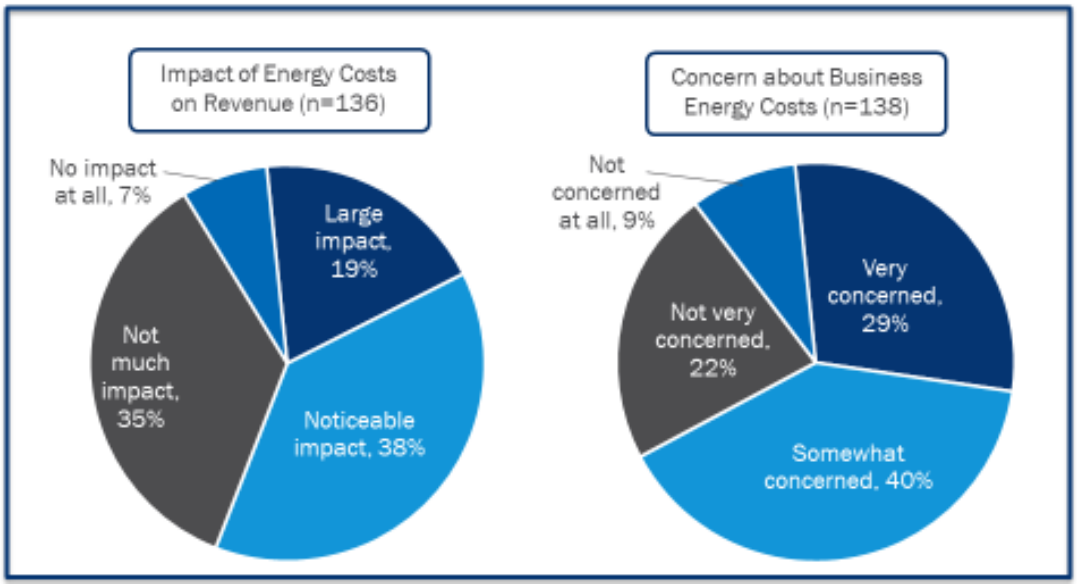
Small businesses use energy for a variety of purposes (Figure 4), but the top energy-consuming end-uses reported by small business customers are heating (44%), air cooling (41%), and lighting (29%).

Figure 4: Small Business Facility Energy Uses (Multiple Response)



Existing literature describes a lack of financial resources as a primary barrier preventing small business customers from participating in energy efficiency programs. As such, we asked small businesses how much energy costs impact their profits and the level of concern they have over their energy costs (Figure 5). Interestingly, a higher percentage of individuals expressed concern over their energy costs (69%) than the percentage of people who said energy costs have some impact on their business profits (57%). This suggests that even if energy costs do not impact profits, owners still have concern over those costs. Of the 95 customers who reported being very concerned or somewhat concerned about their energy costs (69% of small businesses), 88% said that they were equally or more concerned about energy costs in comparison to other business expenses.

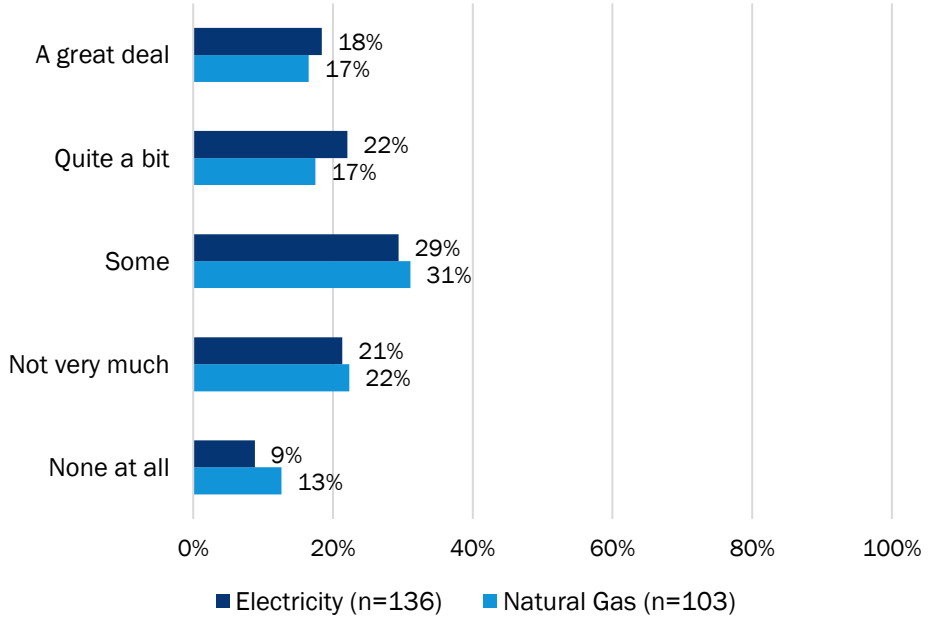
Figure 5: Impact of and Concern about Energy Costs



Note: Different sample sizes are due to respondents who were not able to provide an answer or refused to answer. Percentages reflect valid answers only.

We also asked small business customers about the degree of control they have over their energy use (Figure 6). Customers for the most part feel that they have at least some control over their electricity and gas usage (69% and 65%, respectively).

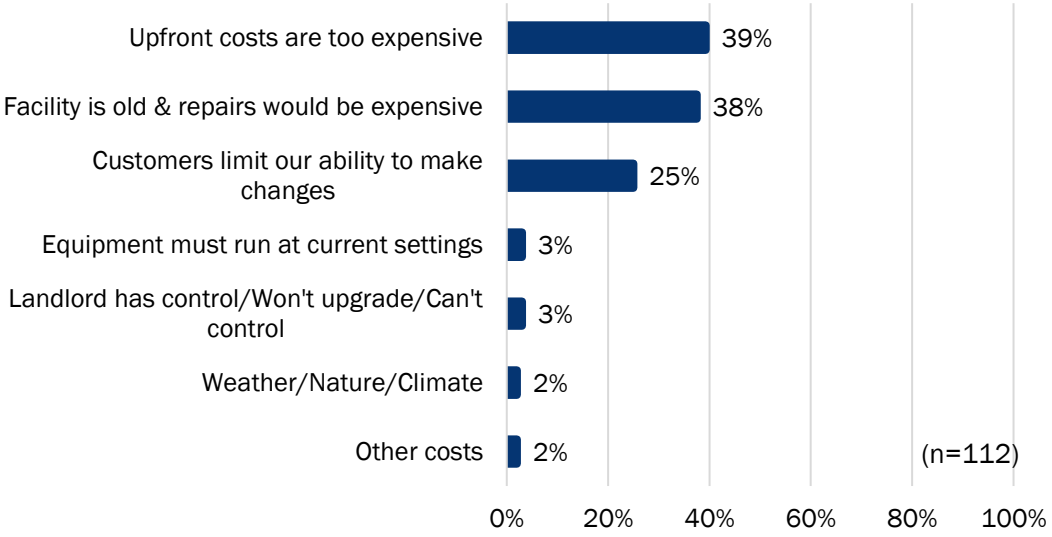
Figure 6: Degree of Control Customers Feel They Have over Electricity and Natural Gas Usage



Note: Different sample sizes are due to respondents who were not able to provide an answer or refused to answer.

Customers who said they had either some, not very much, or no control over their facility's electricity or gas usage were asked about why they are unable to control their energy use. Small business customers identified upfront costs, extensive repairs, and customer comfort as the top factors preventing them from taking action to reduce their energy consumption (Figure 7).

Figure 7: Reasons Customers Cannot Control Energy Use Among those who have only Some to No Control Over Energy Use (Multiple Response)

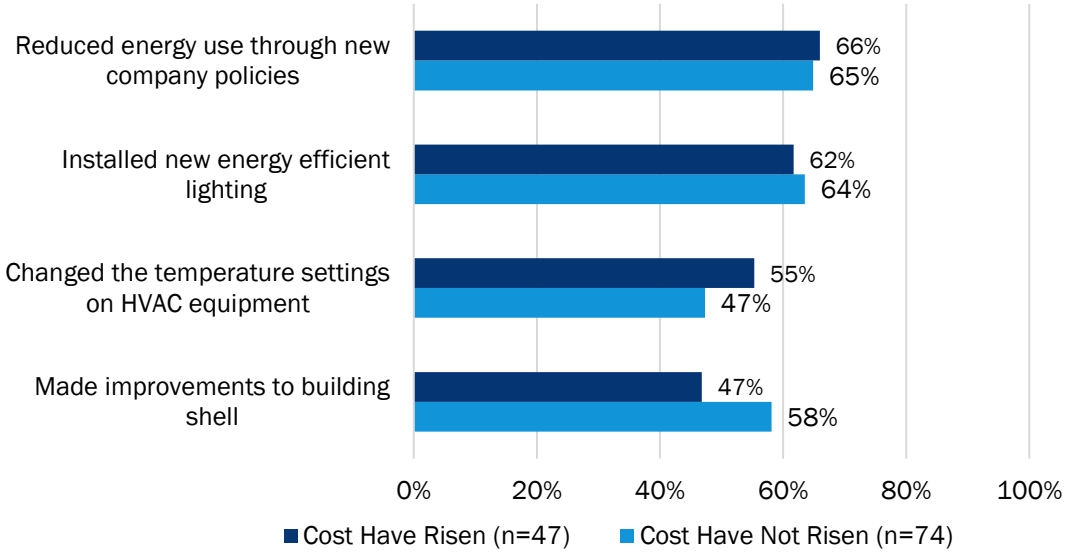


3.3 Energy Management Mindset

Changes in energy costs may influence the way businesses think about their energy use and can lead to energy management decisions aimed at coping with the impacts of these costs. We asked small business customers about their perceptions of energy costs over the past two years, and the majority reported that their costs had either stayed the same (46%) or increased (34%). Only 6% of individuals reported that their costs had decreased, and 14% said they didn't know.

Customers who experienced an increase in energy costs were asked about actions they have taken to cope with rising costs, while customers who reported costs had stayed the same or decreased were asked about actions they've taken to reduce energy use in general. Most survey respondents had taken some type of action to reduce energy use at their businesses (78%), and those actions were similar for individuals who reported that their energy costs were rising and those that were not experiencing increasing energy costs (Figure 8). Overall, the majority of respondents reduced energy use through company policies (such as turning off lights or equipment when not in use) and the installation of new energy efficient lighting or other equipment. Importantly, customers who experienced an increase in energy costs in the past two years (34% of all respondents) also took non-energy related actions to cope with rising costs, such as increasing the price of goods and services (49%) and reducing the size of their workforce (21%). Taking these types of actions suggests that energy costs are a critical piece of a financial stability for some businesses.

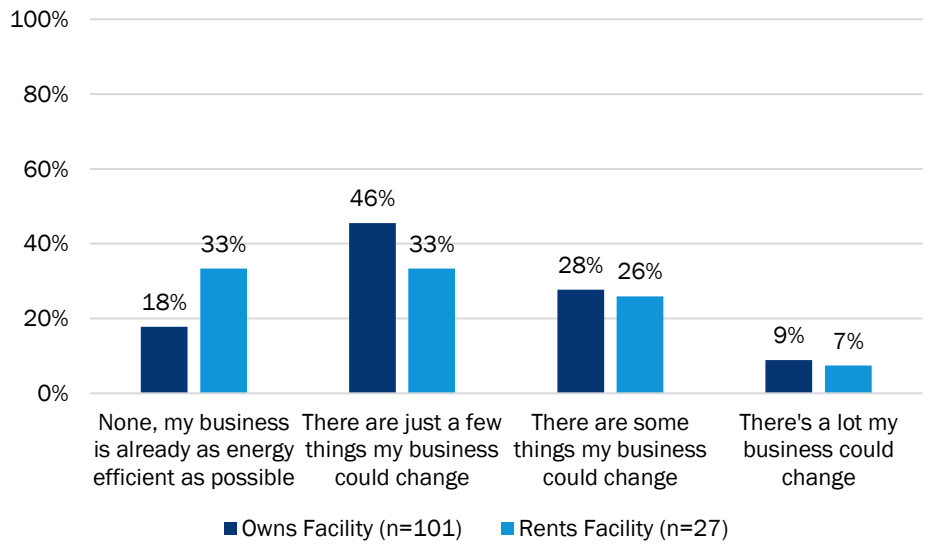
Figure 8: Actions Taken to Address Increase in Energy Costs



Of the small business customers who have taken action to reduce energy use (n=109), approximately half (52%) were motivated to save money, 2% said they were motivated by impact on the environment, and 46% said they were motivated by both factors. A majority of customers (55%) saw a reduction of energy usage or bill as a result of their actions, while 29% did not. However, a fairly significant percentage (16%) did not know the impact of their energy savings action on their energy bill, indicating lack of customer awareness in realized savings.

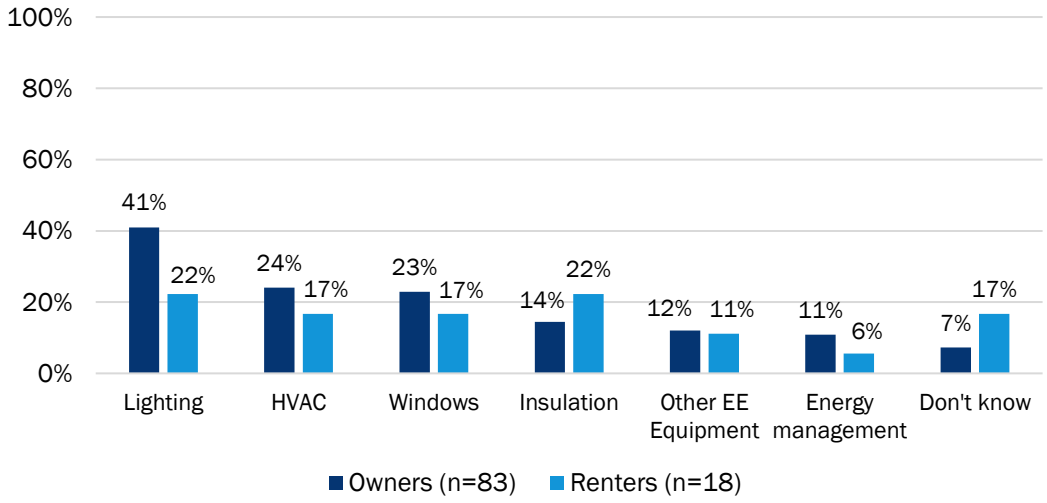
Opportunities for energy efficiency upgrades differed between small businesses customers who own their facility compared to those who rent their facility (Figure 9). Renters were more likely to feel that their facility was already as efficient as possible—nearly double the percentage of renters felt that their business was already as efficient as possible compared to building owners (Figure 9). Overall, however, most respondents—whether renters or owners—fell somewhere on the spectrum of recognizing that there were a few, some, or many things they could do to improve their energy efficiency.

Figure 9: Amount of Changes that could be made to Improve Energy Efficiency



Of those small business owners that thought they could make at least a few changes to use less energy, they identified a variety of energy efficiency upgrades they could make to their facility to reduce energy use (Figure 10). The most frequently mentioned upgrades are improvements to lighting (41% of owners and 22% of renters reporting that changes could be made), followed by HVAC, windows, and insulation upgrades. Importantly, some respondents were not aware of any energy savings upgrades they could make (7% owners and 17% renters reporting that changes could be made).

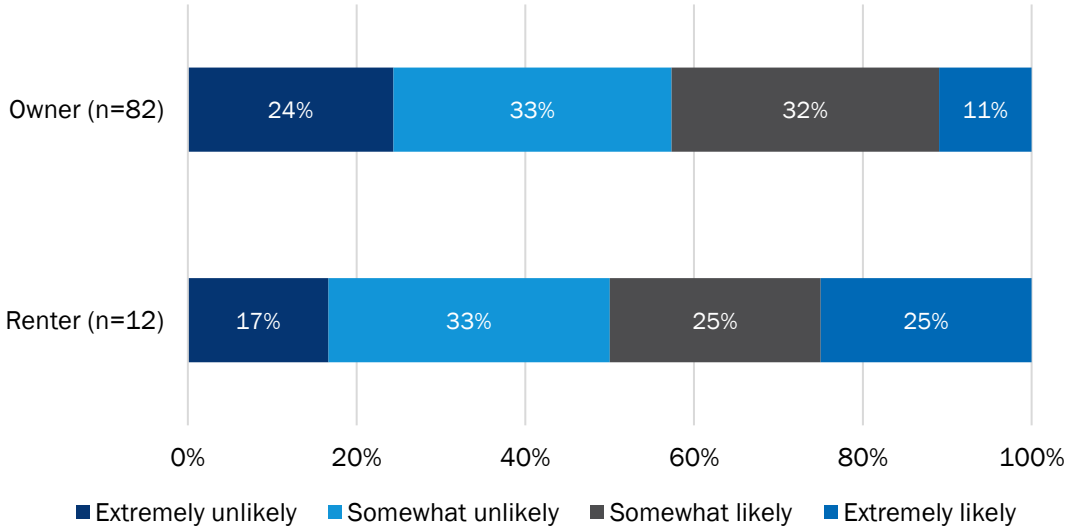
Figure 10: Changes that could be made to Reduce Energy Use



Of those who felt they could make changes to their facilities, approximately half thought it was extremely or somewhat likely that they would make changes in the next twelve months. To put this in perspective of all respondents, 20% of renters and 33% of owners thought that they could make changes in the next year. For respondents who are likely to make changes, most (57% of owners and 67% of renters) said they would have

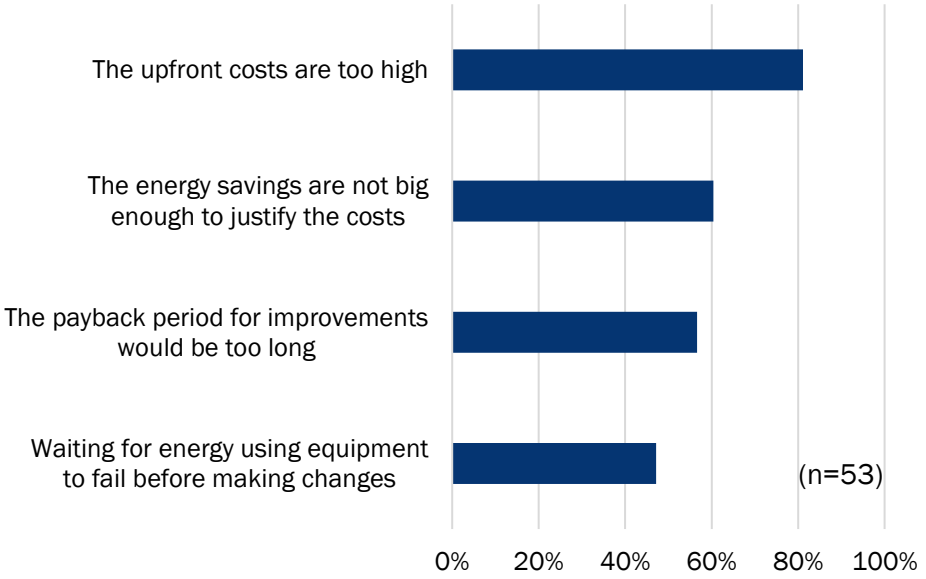
to realize their return on investment in one to three years. It should also be noted that of the renters who reported changes could be made (n=18), only 50% reported that they could make those upgrades themselves—others had to rely on their landlords either solely or in part to make changes to their facilities. Among those who the building owner would be at least partially responsible for making the changes, three out of nine said that the upgrades that could be made were likely to be made in the next year.

Figure 11: Likelihood of Making Changes within the Next Year, Among Businesses Responsible for Upgrade Decisions



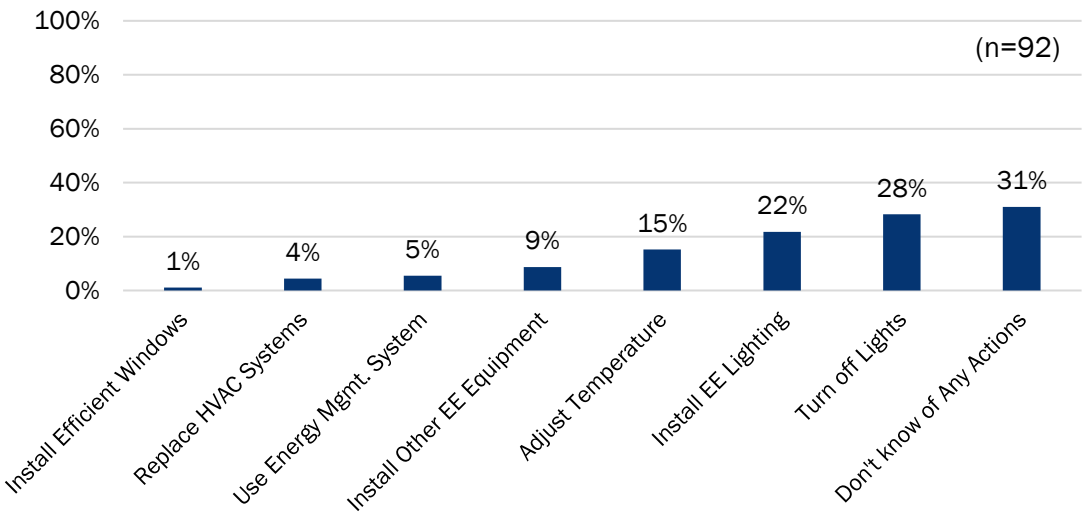
For those who were somewhat and extremely unlikely to make upgrades in the next 12 months, the most common barriers were cost related. The majority reported high upfront costs as the primary barrier followed by insufficient energy savings to justify costs, and long payback periods all of which are cost-related (Figure 12).

Figure 12: Reasons Small Businesses Are Unlikely to Make Upgrades



We also asked small business customers about how they could change their day-to-day actions to save energy in the workplace. A majority of respondents (68%) said there are some changes they can make, while 32% said nothing can be done because they've already done all they can to save energy. As seen in Figure 13, some respondents provided behavior-related changes such as turning off lights and adjusting indoor air temperature. Thirty-one percent of respondents said they didn't know of any changes in their day-to-day actions that could save energy. Of those who did identify possible changes, 55% were likely to make those changes in the next 12 months. Respondents who said they were not likely to make changes identified lack of control over how energy is used as the primary reason.

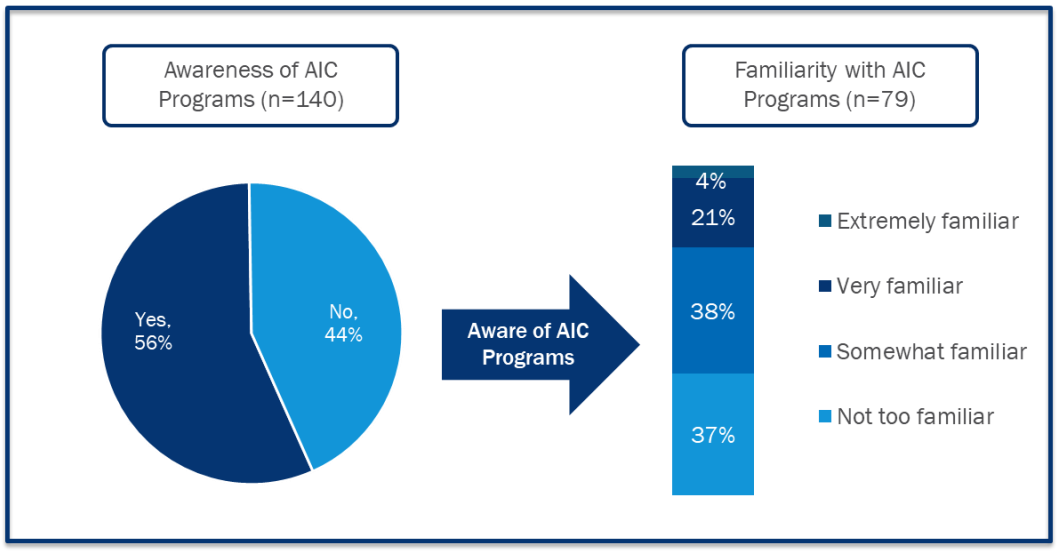
Figure 13: Changes to Day-to-Day Actions to Save Energy Among those who Could Make at Least a Few Changes



3.4 Awareness of and Interest in AIC Programs

Overall, 56% of respondents are aware of AIC's energy efficiency offerings[3] for small business customers (Figure 14). However, the majority of those aware of the offerings were either not too familiar or somewhat familiar with them (37% and 38% respectively) indicating an opportunity for AIC to educate this customer group.

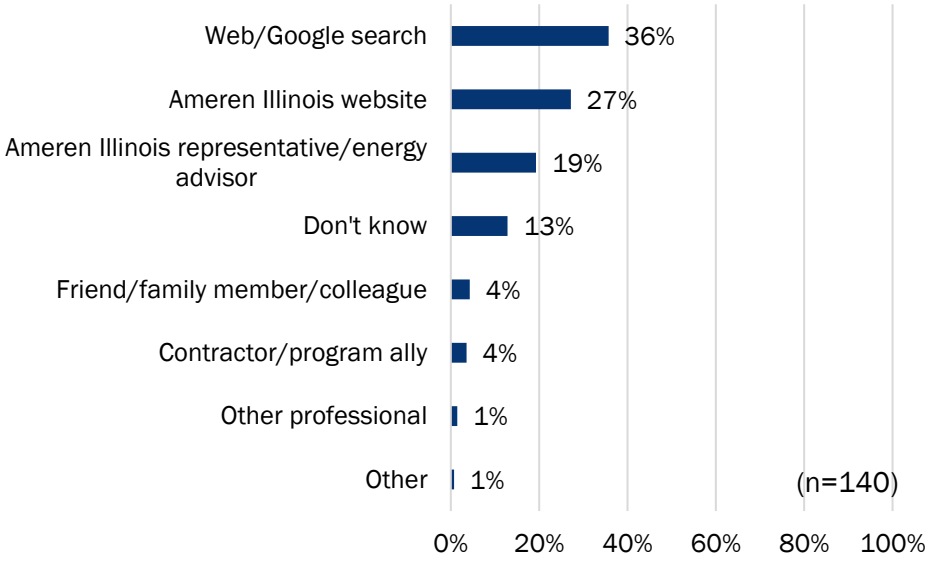
Figure 14: Awareness and Familiarity of AIC Programs



Exposure to AIC's program marketing information is relatively low—only 36% of respondents had reported seeing marketing or information that promotes Ameren Illinois' energy efficiency programs for small business. When asked where small business customers would go to look for information on ways to save energy at their facility, 36% said the web or google search, 27% said the AIC website, and 19% said an AIC representative or energy advisor (Figure 15). Interestingly, 13% of respondents did not know where to look for information, which suggests that some small businesses owners would not know how to start the process of engaging with AIC programming.

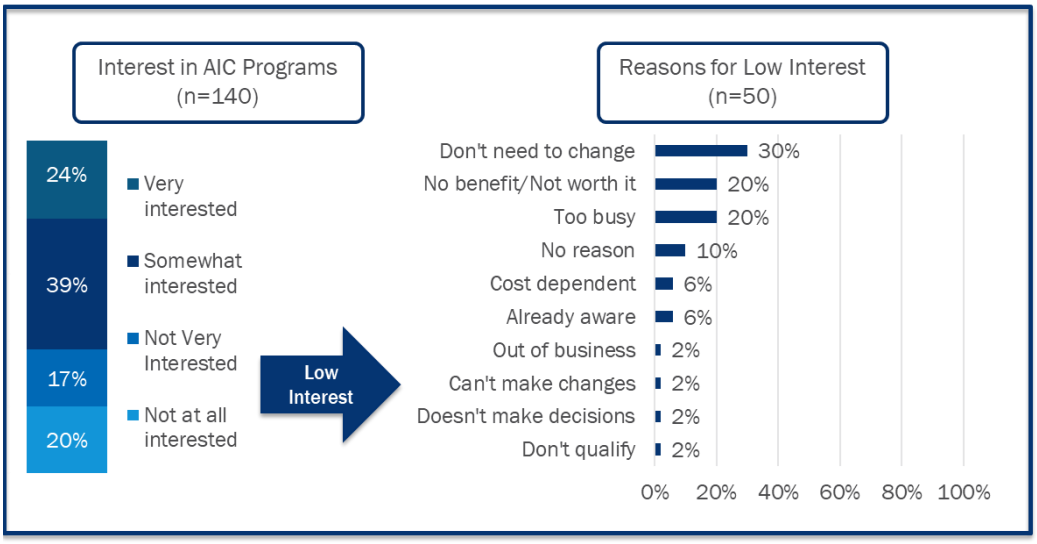
[3] Verbatim description from survey instrument: "Ameren Illinois offers small businesses incentives on a range of energy efficiency upgrades, such as lighting, heating and cooling, kitchen equipment, and motors. The programs are designed to help small businesses save energy and money."

Figure 15: Where Would You Seek Information on Ways to Save Energy?



A majority of small business customers (63%) expressed high levels of interest in learning more about the energy efficiency programs that AIC offers (Figure 16). Of the 50 customers who were not very interested or not at all interested, 30% stated that they've already done all they can to make their facilities energy efficient. Additionally, 20% of customers attributed the low interest to lack of benefit in learning about AIC programs and lack of time.

Figure 16: Level of Interest in AIC Programs and Reasons for Low Interest



Appendix A. Survey Response Rate Methodology

The survey response rate (RR) is the number of completed interviews divided by the total number of potentially eligible respondents. We calculated RR3 using the standards and formulas set forth by the AAPOR.[4] The formulas used to calculate RR3 are presented below. The definitions of the letters used in the formulas are displayed in the survey disposition table (Table 1) presented on the following page.

Equation 1. Formula for Response Rate 3

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

Where:

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

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

[4] *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*, AAPOR, 2011. http://www.aapor.org/AM/Template.cfm?Section=Standard_Definitions2&Template=/CM/ContentDisplay.cfm&ContentID=3156.

Table 1. Participant Survey Dispositions and Response Rates

Disposition Category	Disposition Code	Number of Customers
I	Complete - phone	140
N	Callback to complete - Partial Interview	29
N	Mid-interview terminate - Partial Interview	21
U1	Callback to complete - Break off (Before screeners)	36
U1	Mid-interview terminate - Break off (Before screeners)	2
U1	Answering machine	261
U1	Not available	264
U1	Language problems	7
U1	Respondent scheduled appointment	22
U1	Non-specific callback/secretary/NTG	14
U1	Cell Phone callback	4
U1	Initial refusal	201
U1	Hard refusal	54
U1	Cell Phone refusal	11
U1	Gatekeeper Refusal	106
U1	Gatekeeper Callback	15
U1	Added to DNC list	15
U2	No answer	22
U2	Busy	9
U2	Privacy line/Number blocked	5
U2	Sample opened but not used	0
X1	Respondent is not the decision maker	25
X1	Decisions are not made at this location	7
X2	Disconnected phone	440
X2	Business/Residential phone	160
X2	Computer tone	37
X2	Customer indicated called already	7
X2	Customer said wrong number	90
	Total Calls Made	**2,004**
	Total Project Sample	**5,000**
	Response Rate (RR3)	**13%**