

# IMPACT AND PROCESS EVALUATION OF 2010 (PY3) AMEREN ILLINOIS COMMERCIAL AND INDUSTRIAL ELECTRIC ENERGY EFFICIENCY PROGRAMS

# **Final**

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# 1. EXECUTIVE SUMMARY

This report presents results from the evaluation of the third program year of the Ameren Illinois Act On Energy Business Incentive Programs for electric energy efficiency. For Program Year (PY) 3 (June 2010 to May 2011), the portfolio of business programs included the Prescriptive and Custom, as well as the Retro-Commissioning and Demand Response programs. The Commercial and Industrial (C&I) portfolio energy goals ramped up in PY3, increasing by 38% over PY2. In response to the increase in goals, the program implementation team began targeted outreach to specific markets and expanded the number of measures available through the Prescriptive Program. In addition, the composition of the portfolio changed slightly over the course of PY3 with the Demand Response program operating briefly before being closed and the addition of the Direct Installation of Faucet Aerators initiative serving those customers with electric-only water heaters.

To support the evaluation, we conducted research including a review of program materials and program tracking data; interviews with program administrators, implementation staff, trade allies, and Ameren Illinois Key Account Executives; and site visits to assess Custom projects. Our quantitative research efforts included a survey of non-participating customers, as well as surveys with an attempted census of customers who participated in the Custom Program, and a random sample of those who participated in the Prescriptive Program. In addition, we conducted a quantitative survey with an attempted census of Retro-Commissioning Program participants.

# **Impact Results**

Similar to the PY1 and PY2 evaluation approach, the PY3 impact evaluation focused on those programs accounting for the top 85% of ex ante savings at the portfolio level. As a result, the team performed full impact assessment for the Prescriptive and Custom programs. The Retro-Commissioning Program, which we evaluated in PY2, did not account for more than 15% of ex ante energy savings in PY3 and, therefore, did not have a full impact assessment. However, the team did develop a net-to-gross (NTG) ratio for the Retro-Commissioning Program because one has not yet been developed.

Collectively, these C&I programs performed well in PY3 enabling Ameren Illinois to exceed its planned energy savings goal for the commercial and industrial portfolio. However, the portfolio fell short of its planned demand targets. As shown in Table 1, the portfolio's main programs – Custom, Prescriptive, and Retro-Commissioning – exceeded planned energy savings goals.

<sup>&</sup>lt;sup>1</sup> Ameren Illinois has kWh reductions to meet statutory requirements, but the statutory requirements for kW impacts are based on demand-response programs, not energy efficiency programs.

Table 1. Summary of C&I Portfolio Net Impacts

	2010 Planned Impacts <sup>a</sup>			Ante Net acts <sup>b</sup>	2010 Ex Post Net Impacts	
Program	kW	MWh	kW	MWh	kW	MWh
An	neren Illino	is Utilities Co	ontribution t	to C&I Portfol	lio	
C&I Prescriptive c	19,953	84,242	13,636	87,773	13,657	91,002
C&I Custom	3,171	24,395	4,921	34,522	4,479	30,341
C&I Retro- Commissioning	47	1,914	2,784	23,855	1,914	17,295
Commercial New Construction <sup>d</sup>	147	458	-	-	-	-
Commercial Demand Response/	2,328	137	564	2	564	2
Demand Credit <sup>e</sup>						
Street Light	0	4,249	-	-	-	-
Total	30,169	115,395	21,906	146,152	20,614	138,640

Note: The Ameren Illinois portfolio of ex post impacts are at the 90 percent certainty level with a 9.8% relative precision. There are no ex post impacts for the Street Light Program as it was inactive during Program Year 3. Impacts for the Small Business HVAC Program, Online Store, and aerator Initiative are included under the C&I Prescriptive Program.

In general, the Prescriptive Program continues to provide the largest share of portfolio savings, but has received increased support from other program initiatives such as the Small Business Online Store, which contributed 23% of Prescriptive Program savings in PY3, as well as the Direct Install of Faucet Aerators Pilot. The Custom and Retro-Commissioning programs also demonstrated performance above expectations compared to planned impacts and helped the portfolio achieve 119% of its PY3 goal.

The following table provides a summary of the 2010 C&I Portfolio ex ante and ex post gross impacts compared to ex post net impacts by program.

<sup>&</sup>lt;sup>a</sup> From Energy Efficiency and Demand-Response Plan (Ameren Illinois Utilities), November 15, 2007, Table 12. Values are rounded.

<sup>&</sup>lt;sup>b</sup> The evaluation team applied the ex ante NTRGs for 2010 while Retrospective values are the NTGRs estimated in our PY3 analysis.

 $<sup>^{\</sup>mbox{\tiny c}}$  Ex post net savings for this program include the Online Store and Aerator Initiative.

d Ex post net savings for this program are included within the C&I Custom Program.

e The Demand Credit and Demand Response programs are listed together given the replacement of the former with the Demand Response Program. Ameren Illinois called an event on August 10, 2010.

Program	Ex Ante Gross RR Savings		R	Ex Post Gross Savings		NTGR	Ex Post Net Savings		
	kW	MWh	kW	MWh	kW	MWh		kW	MWh
C&I Prescriptive <sup>a</sup>	19,182	116,693	0.94	1.07	17,935	124,326	0.77*	13,657	91,002
C&I Custom <sup>b</sup>	7,132	50,032	0.84	0.81	5,972	40,455	0.75	4,479	30,341
C&I Retro-Commissioning	3,480	29,819	1.00	1.00	3,480	29,819	0.58	1,914	17,295
Commercial Demand Response/Demand Credit	564	2	1.00	1.00	564	2	0.77	564	2
Total	30,358	196,546	0.92	0.99	27,951	194,602		20,614	138,640

Table 2. Summary of C&I Portfolio Savings

#### **Process Results**

#### **Prescriptive and Custom Programs**

The Ameren Illinois Prescriptive and Custom programs completed another successful year in terms of participant satisfaction, as well as program performance against goals. Throughout the year, the program revised its design and implementation processes to ensure an easier, faster, and more customer-friendly participation process. For example, the program eliminated pre-approval and post-inspection requirements for smaller projects, and revised its Prescriptive Program applications from end-use-specific to sector-specific. Program staff also continued to provide high-quality ongoing support to customers and trade allies through the Act On Energy Business Call Center, technical review staff, and marketing and outreach staff. Additionally, the online store is working well for customers that have used it.

Further, for the third consecutive year, the Act On Energy Business Portfolio Custom and Prescriptive programs have maintained high levels of participant satisfaction in nearly all program areas—from program paperwork to processing incentives, and addressing customer questions and concerns. Such consistency from one year to the next is needed to maintain interest in the suite of options provided through the portfolio. In addition, likely as a result of these high levels of satisfaction, potential for repeat participation remained high in PY3 and in some cases even increased over the previous program years.

Findings from our non-participant and trade ally research also indicate that there is room for increased program outreach and education. Program participants, when asked about potential barriers to participation among businesses like theirs, cite lack of awareness as a key reason for non-participation. However, once exposed, program marketing appears effective in informing customers about aspects of the program. For example, a very high percentage of customers recalls seeing or receiving marketing materials and found them useful.

Key recommendations for the programs include the following:

<sup>\*</sup>Note: This Net-to-Gross Ratio (NTGR) value applies to the C&I Prescriptive core program and faucet aerator initiative only. The online store uses a different value (0.64).

<sup>&</sup>lt;sup>a</sup> Savings for this program include savings associated with the online store and the faucet aerator initiative.

<sup>&</sup>lt;sup>b</sup> Savings for this program include savings associated with new construction projects.

- ➤ Continue to improve project documentation. While there has been a significant improvement in the level of documentation for Custom projects over the previous program years, it is not always possible to match the project documentation to savings calculations included in the AIB tracking database. Where assumptions are made to calculate estimated savings, those assumptions should be clearly documented along with the rationale for making those assumptions.
- ➤ Continue providing support to program allies while further building trade ally network. Year-over-year, research has shown that trade allies are the key force behind the decision-making process related to equipment selection and project specification. The program has made great strides in engaging trade allies with the program and promoting the program through this market actor segment. However, moving forward, the program should continue to maintain close contact with trade allies while further expanding the network, especially in areas lacking trade ally representation. With increased program staff and the creation of a position solely responsible for trade ally support, the program is well positioned for success in this area.
- ➤ Continue customer education about trade allies. Participant research suggests that contractor affiliation with the program, as well as the benefits of using registered program allies for energy efficient projects is not widely recognized. The program should consider taking additional steps to further educate program participants about and encourage them to use registered program allies for their energy efficient projects. Registered program allies tend to be familiar with the program and are capable of providing high-quality program assistance to customers, which has the potential to result in higher customer satisfaction and repeat participation.

## Retro-Commissioning Program

The Retro-Commissioning Program had a strong year, achieving twice the level of savings as in PY2. Likewise, the program succeeded in expanding participation in PY3 with 18 customers completing projects at 22 facilities, up from the 17 customers and 19 projects in PY2. Program staff is satisfied with the program's operation, as are Retro-Commissioning Service Providers (RSPs) and participants, who generally report satisfaction with the program and the overall participation process.

However, free-ridership appears to be a significant concern for the program at this time. Participant research indicates that a significant number of program participants would have performed at least some of the retro-commissioning actions identified through the Ameren Illinois sponsored retro-commissioning study on their own if the program had not been available. Given this issue and the program's performance in PY3, we make the following key recommendation for the program:

➤ Continue to encourage early completion. Program staff should continue to provide the early completion bonus to encourage the expedited completion of retro-commissioning projects, as well as the achievement of savings above the specified minimum. The participant response to this year's early completion bonus, which provided increased incentives of between \$0.005/kWh and \$0.02/kWh depending on the project's completion date and savings above minimum requirements, is a positive indication that monetary incentives can affect the timeline for project completion.

# 2. Introduction

This report presents results from the evaluation of the third program year of the Ameren Illinois Act On Energy Business Incentive Programs for electric energy efficiency. For Program Year (PY) 3 (June 2010 to May 2011), the portfolio of business programs included the Prescriptive and Custom, as well as the Retro-Commissioning programs. The C&I portfolio energy goals ramped up in PY3, increasing by 38% over PY2. In response to the increase in goals, the program implementation team began targeted outreach to specific markets and expanded the number of measures available through the Prescriptive Program.

Three programs included in the originally filed plan<sup>2</sup> are not included in this report. The C&I New Construction Program is implemented as part of the Custom Program instead of as a standalone program. The Commercial Demand Credit Program was replaced by the Commercial Demand Response Program in PY2 with new installations in this program subsequently discontinued in August 2010. In addition, implementation of the Street Lighting Program is no longer planned. As a result, the following sections of this report cover the PY3 process and impact results from the C&I Prescriptive, Custom, and Retro-Commissioning programs.

To support the evaluation, we conducted research including a review of program materials and program tracking data; interviews with program administrators, implementation staff, trade allies, and Ameren Illinois Key Account Executives; and site visits to assess Custom projects. Our quantitative research efforts included a survey of non-participating customers, as well as surveys with an attempted census of customers who participated in the Custom Program, and a random sample of those who participated in the Prescriptive Program. In addition, we conducted a quantitative survey with an attempted census of Retro-Commissioning Program participants.

# 2.1 Program Descriptions

The Ameren Illinois program implementation team has designed the Prescriptive and Custom Incentive Programs to overcome barriers related to cost, awareness/information, transaction cost, and resistance to the adoption of new, more energy-efficient technologies. The cost of energy efficiency improvements is addressed through the incentives offered by the program; awareness barrier is overcome by the recruitment of program allies and the establishment of a formal program ally network; and the development of program materials, including applications, that are easy to understand and complete. Those involved in program implementation use case studies, press releases, training sessions, and webinars as mechanisms to convince potential participants of the benefits associated with removing inefficient equipment even if it is still functional.

Ameren Illinois's Retro-Commissioning Program is designed to overcome barriers related to the identification of retro-commissioning opportunities and the internal approval process for completing this work. The discovery of retro-commissioning opportunities is addressed

<sup>&</sup>lt;sup>2</sup> Energy Efficiency and Demand Response Plan. Ameren Illinois Utilities. November 15, 2007

through the retro-commissioning survey performed at a customer's facility by the program's RSPs – a network of program allies involved specifically in the Retro-Commissioning Program – and the incentive provided for the study is intended to overcome the approval hurdle. In addition, covering less than 100% of the survey cost helps to ensure that customers are more likely to follow through with installing measures as they have already spent some funds to determine possible savings.

# 2.1.1 C&I Prescriptive Incentive Program

The C&I Prescriptive Incentive program offers Ameren Illinois commercial and industrial customers fixed incentives for the installation of specific energy efficiency measures. Similar to PY2, the program covers lighting, HVAC, refrigeration equipment, and motors. The online store remained fully operational in PY3 as well, offering its customers a variety of energy saving products, including Compact Fluorescent Lamps (CFLs), exit signs, and vending misers.

While the program continued to incent many of the same measures as in PY2, it added various new measures as part of the program offering. For example, the program added incentives for exterior canopy/parking garage lighting as well as agricultural circulation fans. Appendix C provides a full listing of new prescriptive measures in PY3. In addition, Ameren Illinois made several changes to the design and implementation of the Prescriptive Program in PY3. Major changes include the following:

- Introduction of three "market-specific" applications. The Prescriptive Program added Commercial Kitchens, Agriculture, and Lodging applications. These applications contain measures from the lighting and HVAC applications relevant for each respective market sector, as well as sector-specific measures (e.g., steamers and griddles for the commercial kitchen sector). The program made this change to ensure ease of program participation.
- ➤ General Application Modifications. In PY3, Prescriptive refrigeration measures were dispersed across market-specific applications, which eliminated the need for a standalone refrigeration application. As a result, the application was not posted on the Ameren Act On Energy website and was used on a limited basis. Additionally, to alleviate customer confusion, Prescriptive HVAC and Small Business HVAC measures were merged into one application in PY3.
- Preapproval Requirements. To reduce the burden on program participants and speed the program participation process, in PY3 pre-approval was waived for smaller projects that resulted in incentives of less than \$5,000 and later for projects that resulted in incentives of less than \$10,000. Instead, Ameren Illinois performed an administrative review and issued an acknowledgment letter.
- ➤ Post-Installation Inspection. In the second half of PY3, post-installation inspections were waived for projects with incentives less than \$100,000.
- ➤ Increase in the incentive cap. To induce participation among large industrial sector customers, Ameren Illinois increased the incentive cap for a single customer/premise to \$600,000 from \$200,000 with the incentives reduced by 50% after \$200,000

Similar to PY2, Ameren Illinois offered a number of special promotions during PY3 to increase program participation. The company offered special promotions to both customers and trade allies including, among other things, limited time increased incentives, mailers with free CFL offers, and bonuses for trade allies. The process section of this report describes these promotional efforts in greater detail.

# 2.1.2 C&I Custom Incentive Program

The C&I Custom Incentive Program allows Ameren Illinois commercial and industrial customers to complete energy efficiency projects that involve equipment not covered through the Prescriptive Program. The option to propose additional measures allows customers to tailor projects to their facility and equipment needs. Similar to the Prescriptive Program, Custom incentives are available for lighting, HVAC, refrigeration, and motors. In addition, participants can implement projects involving compressed air, drives, and industrial process measures. As in PY2, all customers must obtain pre-approval for their energy efficiency projects and provide documentation and calculations of estimated energy savings when submitting their final application for payment.

Similar to the Prescriptive Program, the changes to the Custom Program include a waiver of post-inspections for projects with incentives less than \$100,000 and an increase in the incentive cap to \$600,000 with a 50% reduction in incentives after \$200,000. In addition, the Custom Program featured an early completion bonus, where all customers who completed their projects before a certain date were offered increased incentive levels.

# 2.1.3 C&I Retro-Commissioning Program

Retro-commissioning is the process of inspecting and testing existing operating equipment to ensure that it delivers the services required by end-users, under the expected conditions and for the least cost. Typically, retro-commissioning examines the operations and maintenance of equipment and how it affects energy use; therefore, corrective actions are generally low cost to implement. When more costly measures are identified, they are frequently flagged for future consideration and analysis.

The design and delivery of the Retro-Commissioning Program has remained relatively consistent between PY2 and PY3. Under the Retro-Commissioning Program, Ameren Illinois continues to provide funding for customers to perform a retro-commissioning study at their facility to identify low- and no-cost retro-commissioning opportunities in the areas of compressed air and healthcare. The level of funding provided by Ameren Illinois for the retro-commissioning study ranges from 50-80% of the study cost depending on the cost-effectiveness of the potential follow-on project and the level of expected energy savings. Upon completion of the facility study and agreement on an implementation plan, the participating customer is responsible for implementing the agreed upon retro-commissioning measures or repairs.

In addition to providing funding (or sponsorship) for the retro-commissioning study in PY3, the program offered an early completion bonus consisting of a monetary incentive of between half of one cent and two cents per kWh for projects completed by specific dates and above the minimum savings outlined for a project. The goal of this initiative was to encourage completion of projects well in advance of the close of the program year, and

above required savings levels. Overall, the program saw increased participation in PY3, and saw completed compressed air and healthcare projects.

The program also made a significant effort to enhance data tracking, and quality assurance and quality control procedures in PY3. In particular, program staff began to track estimated and achieved savings in the AIB database and expanded post-installation inspections to all participants.

# 2.2 Evaluation Questions

As presented in the PY3 Evaluation Work Plan, the overall evaluation objectives are to:

- Consider and analyze demand-side management and energy efficiency measures and document the gross and net energy and demand savings associated with the Act On Energy Business portfolio.
- 2. Provide verification and due diligence of project savings as reported by the program implementer.
- 3. Suggest improvements to the design and implementation of existing and future programs through process evaluations.
- 4. Support Ameren Illinois in developing a best-of-class evaluation infrastructure for the Act On Energy Business portfolio.

All assessment activities tie directly to one or more of these objectives.

# 2.3 Report Structure

The remainder of the report is as follows:

- C&I Custom and Prescriptive programs
  - Methods
  - Findings
- Retro-Commissioning Program
  - Methods
  - Findings
- Other Program Effort Findings
  - Direct Installation of Faucet Aerators
  - Demand Response
- Appendix A Data Collection Instruments
- Appendix B Engineering Details
- Appendix C PY3 Measure Additions

# 3. C&I Prescriptive and Custom

# 3.1 Evaluation Methods

# 3.1.1 Data Sources and Analytical Methods

The assessment of the third program year of Ameren Illinois C&I programs included both process and impact analyses as well as a review of the PY3 technical reference manual.

# **Process Analysis**

The process analysis used data from four data collection methods: in-depth interviews, structured quantitative telephone surveys, a quantitative Internet survey, and review of secondary data. In-depth interviews provided the evaluation team with a comprehensive understanding of the program. Specifically, we performed in-depth interviews with one program manager, three implementation contractors, four Key Account Executives (KAEs), and eleven trade allies who had completed projects through the Ameren Illinois Act on Energy Program in PY3. We fielded three Computer Aided Telephone Interview (CATI) surveys, one to prescriptive participants, one to custom participants, and the third to non-participating nonresidential customers, as well as an Internet survey to Online Store participants. Secondary data received from the utility and in-depth interviews provided context for the report while the CATI and Internet surveys were analyzed using descriptive statistics.

#### **Technical Reference Manual Review**

We conducted a technical review of the Ameren Illinois Act On Energy Technical Reference Manual (TRM) that was updated from PY2³ to PY3.⁴ We focused our review on the measures that were newly added for PY3, but we also comment on the substantial revisions to other measures and sections. We assessed the reasonableness of underlying algorithms, technology assumptions, and calculated savings values. The types of issues we considered in our review include:

**Measure definition**. Whether the TRM provides a description of the efficient technology, the required technology performance specifications, and the applications where the technology is eligible. There must be consistency between the TRM and the participant application form (official program rules) to ensure the default savings occur.

Measure Savings Engineering Analysis. Whether the TRM provides the algorithms used to calculate non-coincident demand reduction, coincident demand reduction, and annual energy savings for each measure.

<sup>&</sup>lt;sup>3</sup> PY2 version: Act On Energy Business Program-Program Year 2, June 2009 through May 2010, Technical Reference Manual (TRM), No. 2009-1, dated December 15, 2009.

<sup>&</sup>lt;sup>4</sup> PY3 version: Act On Energy Business Program-Program Year 3, June 2010 through May 2011, Technical Reference Manual (TRM) Standard Measures, No. 2010-3, dated January 17, 2011.

Measure Savings Assumptions. Whether the TRM documents the wattages, efficiency ratings, and operating assumptions for baseline and efficient equipment to calculate non-coincident demand reduction, coincident demand reduction, and annual energy savings.

**Measure Savings Results**. Whether the TRM presents the default values that are derived from the algorithms and assumptions. Potential issues include:

- Has the calculation been correctly performed to generate the default values (are there math errors)?
- Is the weighting or averaging of data to derive a single default value reasonable?
- Do individual default values cover too broad of a range?
- Are the units for the savings correct and clearly presented?

# **Impact Analysis**

The impact analysis used data from the quantitative telephone and Internet surveys, project files, and on-site visits with metered measurement and verification (M&V). Telephone and Internet survey data supported both the gross and net impact analysis, while the project files and on-site visits were instrumental in the gross impact analysis.

#### **Gross Impacts**

#### **Engineering Review and Modeling**

The prescriptive component of the C&I program used engineering review and modeling to determine gross impacts. We reviewed written documentation around ex ante impacts and assessed whether the inputs were reasonable and in line with standard practice. More specifically, we performed an engineering review of the TRM for measures that have been newly added in PY3 through the program. Engineering modeling occurs when calculations of energy and/or demand impacts occur within a spreadsheet. These were straightforward calculations using data collected through the CATI survey. For the estimated energy impacts, engineers used the information from the telephone surveys and the program tracking database (AIB) to verify installation values and adjust project-specific information, if needed. This was a careful review that varied by each end use.

#### **On-Site Audits**

The custom component of the C&I program used engineering review, engineering modeling, database and hardcopy verification, and on-site efforts to determine gross impacts. Overall, we reviewed a total of 45 custom projects. For the sample of sites, the team performed a desk review to compare the inputs provided in the application to the assumptions used in the analysis, verify consistency in savings estimates throughout the project file, and provide insight into the validity of the ex ante energy savings. We accomplished this through the review of the submitted information and calculations for consistency, accuracy, and correct engineering principles.

Additionally, the team completed on-site visits and data logging at all 45 of the sites to provide increased certainty in the gross impact results (18 sites used data logging while the

remainder verified the operation of measures). There were a wide range of projects that fell into one of several categories: lighting projects, compressed air systems, EMS/controls, motors and drives, and miscellaneous.

The following sections provide additional detail about our methodology and assumptions by project category.

**Lighting:** The lighting projects we reviewed involved efficient lighting systems for commercial buildings, exterior spaces, and parking garages, as well as refrigeration case lighting retrofits. For retrofit projects, we compared the proposed system to the existing system to determine the ex post savings. We compared new construction projects to the ASHRAE 90.1 2004 standard lighting power densities for the appropriate building type using the whole building method or the space using the space-by-space method.

If the details about the fixture and bulb type were available, the team calculated the ex post savings using the wattages supplied by the customer, vendor, or typical fixture wattage values from Advanced Lighting Guidelines. We considered the energy consumption of the ballast, as well as the bulb. For lighting projects in refrigerated cases or refrigerated spaces, reducing the energy output of the lights also reduces the refrigeration load. We took this into account by dividing the lighting energy savings by the coefficient of performance (COP) of the refrigeration system to obtain the refrigeration savings. The COP provided in the documentation was used for this purpose, and if no COP was provided it was assumed to be 1.6 for freezers and 2.3 for refrigeration cases. The total savings are then the sum of the lighting savings and the refrigeration savings.

We verified the quantity of lights by inspection during the on-site visit, and we obtained the hours of operation from the customer during the visit as well. The team did not meter lighting systems that operated under fixed schedules, ran continuously all year, or were controlled via time clocks. If the lighting system operated under a sporadic schedule, or if the lights were controlled via occupancy sensors, we installed light level loggers for a minimum of one week to monitor the hours of operation of the lighting system. Lighting projects accounted for 16 of the 45 projects that we verified through on-site visits.

Compressed Air Systems: The compressed air systems involved replacing older air compressors with newer variable frequency drive controlled compressors; installing efficient compressed air drying equipment; installing storage and regulators; installing sequencers; or removing an inefficient use of compressed air. The ex post savings compared the original system to the proposed system for all of the projects evaluated. The team obtained the details of the original and proposed systems from the documentation available, as well as information collected during the on-site visits. When possible, we installed energy loggers on the air compressors to determine the typical and peak loading profiles. All of the Variable Frequency Drive (VFD) compressor projects utilized the VFD compressor as a lag/trim compressor. VFD lag/trim compressors allow the system to modulate with the adjusting compressed air demand at the facility in the most efficient manner. We used metered data from these installations to determine typical loading and peak load conditions. This information was compared to the baseline system as described by the customer and project documentation. Compressed air projects accounted for 14 of the 45 projects that we verified through on-site visits.

EMS/Controls: Projects in this category involved the installation of energy management systems (EMS) or control systems to control the operation of lighting and/or Heating, Ventilation and Air Conditioning (HVAC) equipment. Three of the projects verified had controls to manage lighting either based on time of day or ambient light level. Two of the projects included scheduling or temperature controls to HVAC equipment.

The team verified these projects through customer interviews and on-site visits. For lighting control projects, we interviewed the customer to verify the operation of the controls and inspected the controlled fixtures to determine quantity and type. For lighting controls based on time, we verified the setpoints through inspection of the control system and through customer interviews. For the daylighting systems, the team verified the savings though a combination of billed data analysis and calculations based on the observed and metered hours that the lights were turned off.

For HVAC control systems, we determined the operation of the system through inspection of the control system and customer interviews. The set points of the EMS system were collected, and if available, trended data was taken from the EMS system. The team compared the collected information to the information provided by the customer, as well as the information found in the project documentation describing the operation of the baseline system. We performed the savings calculations using a billed data regression analysis. EMS/controls projects accounted for 4 of the 45 projects that we verified through on-site visits.

**Motors/Drives:** Projects in this category involved the installation of efficient motors or variable frequency drives to control or minimize motor energy use, primarily on process equipment. All of the projects in this category involved installing VFDs on existing equipment. We conducted verification of these projects through customer interviews and on-site visits. During the on-site visit, we verified the installation of the efficient motor and/or drive and the metered the demand of the system with the efficient motor and/or drive. We compared this to the expected operation of the system with the control method installed prior to the installation of the Variable Speed Drive (VSD) (constant volume, throttled, dampers, cycling, etc.) The motor/drive projects accounted for 4 of the 45 projects that we verified.

**Miscellaneous:** The remaining projects were classified as miscellaneous or "other" projects. Many of these projects required project-specific calculations. Overall, the types of projects in this category are primarily industrial.

- Two of these projects were insulated doors for refrigerated warehouses.
- Two projects included upgrades to chilled water distribution systems.
- One project was a high-speed, low-velocity destratification fan.
- One project involved the installation of an efficient transformer.
- One project was the installation of an efficient laser cutting system.

Miscellaneous projects accounted for 7 of the 45 projects that we verified.

From the on-site sample, we calculated the gross impact for each site and extrapolated these findings to the participant population using the ratio adjustment method.<sup>5</sup> The team used the following algorithm to extrapolate to the population.

Figure 1. Ratio Adjustment Algorithm

$$I_{EP} = \frac{I_{EPS}}{I_{EAS}} * I_{EA}$$

Where

 $I_{EP}$  = the ex post<sup>6</sup> population impact

 $I_{EA}$  = the ex ante population impact

I<sub>EPS</sub> = the ex post impact from the sample

I<sub>EAS</sub> = the ex ante impact from the sample

#### **Net Impacts**

The goal of the net impact analysis is to determine each program's net effect on participating customers' electricity usage. After gross program impacts have been assessed, net program impacts are derived by estimating a Net-to-Gross Ratio (NTGR). This NTGR is based on self-reported information from the CATI and Internet surveys that quantifies the percentage of the gross program impacts that can reliably be attributed to the program. As in PY1 and PY2, NTGRs were calculated based on both the level of free-ridership and participant spillover for the Prescriptive Program and the Custom Program separately. In addition, as part of the PY3 evaluation, we assessed non-participant spillover.

#### Prescriptive and Custom Programs

We used the following method to calculate free-ridership for participants in the Prescriptive and Custom programs (except those who participated through the online store). We discuss the method used to assess free-ridership for the online store later in this section of the report.

#### Free-ridership

Free-riders are program participants who would have implemented the incented energy efficient measure(s) even without the program. These estimates are based on a series of questions that explore the influence of the program in making the energy efficient installations as well as likely actions had the incentive not been available. For the majority of both prescriptive and custom projects included in the surveys, we developed a net-to-gross factor that consists of three scores: overall influence, influence of program components, and influence of program timing.<sup>7</sup>

<sup>&</sup>lt;sup>5</sup> Judith T. Lessler and William D. Kalsbeek. Nonsampling Error in Surveys. 1992. p. 269.

<sup>&</sup>lt;sup>6</sup> Ex post refers to the estimated impact found by the evaluation team.

 $<sup>^7</sup>$  This algorithm is based on the basic rigor self-report method used in California and is the same method used for the ComEd C&I programs.

1. Overall influence. This score is based on two survey questions. The first question asked respondents to rate the importance of the program compared to the importance of other factors, in their decision to implement the energy efficient equipment. To do so, respondents were asked to divide 100 points between program and non-program factors. This score is equal to the number of points given to the program divided by 10. The second question asked if respondents had learned about the program before or after they decided to implement the energy efficient equipment rather than standard efficiency equipment. If respondents learned about the program after deciding to install energy efficient equipment, the value from the first question (the total points given divided by 10) is halved. As a result, greater importance of the program means lower level of free-ridership.

For example, if a respondent gave the program 70 points out of 100, the first component of the overall influence score would be 7 (70/10). If that same respondent said they learned about the program before they decided to implement the energy efficient equipment, their score would remain a 7. However, if they said they learned about the program *after* they decided to implement the energy efficient equipment, their score would be divided in half and equal 3.5 (7/2)

2. Influence of program components. This score is based on a series of five questions. These questions asked respondents to rate the importance of five program components, on a scale of 0 to 10 (where 0 is not at all important and 10 is very important): the incentive amount, program marketing materials, recommendation from program staff, recommendation from a utility account manager, and the opportunity assessment. This score is equal to the highest rating given to any one of these components. Greater importance of the program components means lower level of free-ridership.

In this case, if a respondent rated the program rebate 10 out of 10, the recommendation of program staff 8 out of 10, and the information from program materials 8 out of 10, the final Influence of Program Components score would be a 10 (the highest of all the scores given).

3. Influence of program timing. This score is developed based on three questions: 1) the likelihood that the exact same equipment would have been installed without the program (on a scale of 0 to 10); 2) if the installation would have been done at the same time without the program; and 3) if the installation would have been done later, how much later. This score takes the response to the likelihood question and adjusts this value by the responses to the timing questions. A greater likelihood of participating without the program means higher level of free-ridership. Later implementation without the program means lower level of free-ridership.

For example, if the participant says they would have installed the same equipment at the same time, they are considered a full free rider for this part of our net-to-gross index. If they likely would have installed the equipment (a rating between seven and ten) but would have done it later, they are considered a partial free rider and the influence of the program is higher. Information about how much later (determined by

question #3) helps us to assign a free-ridership value. If the customer would not have installed the same equipment until four years later, we do not consider them a free rider for this component of the net-to-gross index (i.e., the program is given full influence on the timing of the installation).

Each score can take on a value of 0 to 10, where a higher score means a lower level of free-ridership. The overall net-to-gross factor for a project is the average of the three scores, divided by 10. The net-to-gross factor for each project thus ranges from 0 (100% free-ridership) to 1 (no free-ridership).

For larger projects, this approach is supplemented with findings from interviews with trade allies where the participant indicates they played an important role in their decision to participate in the program.<sup>8</sup> There were 12 Standard Rigor NTG projects in PY3, and survey responses from five projects required interviews with trade allies or a Key Account Executive. Two different analysts assessed the data from these projects, including findings from indepth interviews, and arrived at independent NTG values. After a discussion of the values, the analysts reached an agreement for each project. Overall, the NTG score for three projects increased: one by 0.05, one by 0.03 and one by 0.07.

An NTGR, weighted by the ex post kWh of the surveyed projects, was applied to the population gross impact to obtain a net impact of the program before any spillover was included.

#### Participant Spillover

Participant spillover refers to energy efficiency installations that were influenced by the program but did not receive an incentive. An example of participant spillover is a customer, who installed incented equipment in one facility and, as a result of the positive experience, installs additional equipment at other facilities but does not request an incentive or perform additional efficiency-related actions in the same facility because of the program.

We examined spillover in projects of all end uses using participant responses to the phone survey. Based on this data, spillover was found among thirteen Prescriptive and four Custom Program participants in the Ameren Illinois service territory. We conducted an engineering assessment of participant responses to determine the savings associated with measures installed outside of the program. This spillover savings is incorporated into the NTGR of the Prescriptive Program using two steps. First, spillover savings are added to the ex post net savings for each program. The team then uses this total program savings to calculate an updated NTGR for the program by dividing the total program savings (including spillover) by the ex post gross program savings.

#### Non-Participant Spillover

As part of the PY3 evaluation effort, we assessed non-participant spillover. Non-participant spillover refers to energy efficiency installations that were influenced by a customer's knowledge of the Act On Energy Program, but did not receive an incentive. We examined

 $<sup>^{8}</sup>$  Projects with estimated ex ante kWh savings of 600,000 kWh or more were assessed under this Standard rigor approach.

spillover using responses to the non-participant telephone survey and found that 3.7% of the surveyed decision-makers took action and attributed it to the program. The most common type of equipment installed outside the program was efficient lighting followed by motors/VFDs and HVAC. Section 4.1.2 provides additional explanation of our findings in this area.

#### Online Store

The evaluation team had to use a different approach for the online store to determine what Ameren Illinois customers would have done absent the program intervention (i.e., the online store). We needed to update our algorithm for two reasons. First, free CFLs provided through the online store were a large component of the store's impacts, and the current free-ridership algorithm is inappropriate for this scenario. Secondly, participating customers could have chosen to purchase the same equipment at a store in their community, which is a different type of action requiring a different line of questioning to determine program attribution.

#### Free-ridership

Online store free riders are program participants who would have purchased energy efficient measures without the program incentives. Free-ridership estimates are based on a series of questions that explore the influence of the program in making energy efficient purchases, as well as likely alternative purchases had the incentives not been available. Given their contribution to overall online store savings, we asked participants specifically about spiral CFLs purchased or received via coupon through the online store. We also asked participants about specialty CFLs, LED exit signs and LED exit sign retrofits given that these measures had the next highest purchase levels.

We developed a free-ridership factor for all respondents who received free CFLs (spiral and specialty), LED exit signs, and LED exit sign retrofit kits which consists of three components: influence of the program on product efficiency, influence on quantity and an adjustment for the timing of purchase.

- 1. Program Influence on Efficiency. This component is based on a single survey question that asked respondents if they would have purchased the same or less efficient products if the opportunity to purchase the products online had not been available. Those respondents who would have purchased less efficient products (e.g., incandescent light bulbs instead of CFLs, incandescent exit signs instead of LED exit signs, etc.) exhibit no free-ridership, while those who would have purchased the same type of products exhibit a higher level of free-ridership (i.e., a lower level of attribution to the program) and are asked a follow-up question about product quantity.
- 2. Program Influence on Quantity. This component is based on a question asking those who would have purchased energy efficient products without the program whether they would have purchased the same number or fewer products (given product pricing) absent the program.<sup>9</sup> Those respondents who would have purchased fewer

<sup>&</sup>lt;sup>9</sup> Respondents, who received free CFLs as part of the online store promotion, were asked about the quantity of CFLs that would have been purchased if free CFLs were not offered.

products without the program are considered partial free riders, while respondents who would have purchased the same quantity of energy efficient products are considered full free riders. The level of free-ridership for partial free riders is calculated by determining the proportion of products that cannot be attributed to the program. This proportion equals the ratio of product quantity that the customer would have purchased outside of the program to the quantity of products that the customer purchased through the program.

- 3. Timing Adjustment Factor. This component provides an adjustment based on the timing of a customer's product purchase for respondents who also said they would have purchased energy efficient products absent the program. Respondents are asked whether, at the time they learned about the online store and its offerings, they needed products right away and/or intended to buy products at that time or not. The level of adjustment is then calculated based on other survey responses:
  - a. We applied an adjustment of 0.5 for those who did not need products right away or did not plan on purchasing products when they learned about the program, AND said that they would still have purchased the same quantity of energy efficient products absent the program.
  - b. For those who did not need products right away or did not plan on purchasing products when they learned about the program, AND would have purchased fewer products in the absence of the program, we calculated the level of free-ridership by determining the proportion of savings that cannot be attributed to the program. This proportion equals the ratio of product quantity that the customer would have purchased outside of the program to the quantity of products that the customer purchased through the program. <sup>10</sup> Figure 2 below provides a visual depiction of the computation behind the timing adjustment.

<sup>&</sup>lt;sup>10</sup> In our sample, there were some respondents who provided unclear answers to one or more questions in the free-ridership module. For those respondents, if present, partial data were used to arrive at the free-ridership factor. If all core data were missing, those respondents were excluded from the analysis.

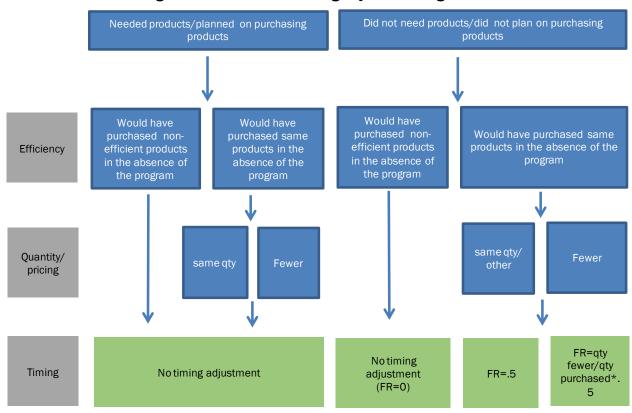


Figure 2. Online Store Timing Adjustment Algorithm

#### **Spillover**

In addition to assessing free-ridership, the evaluation team sought to assess the potential presence of participant spillover resulting from the online store. The goal of the online store survey effort was to understand if there is the potential for participant spillover, but not to quantify the spillover levels at this time. This decision was made to reduce respondent burden, as obtaining sufficient data to quantify spillover levels is a lengthy process and the participant survey was already lengthy.

This approach is similar to that taken for non-participant spillover associated with the C&I Prescriptive and Custom programs. In those evaluations, we first looked for the presence of spillover overall and, when found, the team determined that this justified the addition of more questions to any future survey.

For this survey, we asked if customers purchased and installed any other energy efficient equipment or products without discounts from Ameren Illinois. We asked those who did to rate the influence of the online store program on their decision to take those additional energy saving actions. We also asked respondents to explain in their own words what influence the online store had, as well as list the installations that they made. We found that nine of the surveyed decision-makers who purchased and installed energy efficient measures without an incentive from Ameren Illinois were influenced to do so by the program. However, the majority of those items purchased and installed were available

through the online store. Section 3.2.3 provides additional explanation of our findings in this area.

# 3.1.2 Sampling and Survey Completes

# **CATI Telephone Surveys**

The evaluation team implemented CATI telephone surveys with Prescriptive and Custom program participants, as well as Ameren Illinois non-participating business customers. We selected the sample of participant projects for the Prescriptive and Custom programs from data in the Ameren Illinois tracking system extract from July 11, 2011. The evaluation team drew the non-participant sample from customer account data provided by Ameren Illinois on June 6, 2011. The following sections outline the sampling approach used for each survey effort.

## **C&I Prescriptive Incentive Program**

Ameren Illinois characterizes completed projects in terms of application type (e.g., Standard Lighting or Standard Motor), as opposed to end-use. In PY1 and PY2, application type corresponded to end-use, but this was not the case in PY3. As described later in this report, the Prescriptive Program introduced market-specific applications in PY3, where market-specific measures (e.g., measures relevant to commercial kitchen or lodging facilities) were grouped on a distinct application form for ease of participation. This means that a single application type could correspond to multiple end-uses. For example, a grocery application may contain lighting, refrigeration, or both.

Since the participant survey contains measure-specific questions, we developed the Prescriptive survey sample based on the measure end-use as opposed to the application type. As a result, grocery projects, for example, were classified as either refrigeration or lighting, but not as grocery.<sup>11</sup>

We conducted the Prescriptive participant survey using a stratified random sampling approach with participants that completed lighting, HVAC, VFD motor, and refrigeration projects. <sup>12</sup> In addition, among participants that installed refrigeration measures, we focused on those measures installed by the greatest number of participants, specifically anti-sweat heaters, strip curtains, automatic door closers, and door gaskets. The evaluation team took this approach in order to cost-effectively reach the greatest number of Ameren Illinois customers and cover a large number of end-uses. The survey collected data to support the process evaluation and to estimate net program impacts. We fielded the survey during July and August 2011.

We constructed two sample frames—one for prescriptive participants and the other for custom participants. Given that there were significantly more projects in the Prescriptive Program compared to Custom, all customers in both frames were taken out of the

<sup>&</sup>lt;sup>11</sup> It should be noted that there were a handful of projects with multiple enduses (lighting and non-lighting). In all cases, those projects were assigned to non-lighting enduse.

 $<sup>^{12}</sup>$  Please note that projects involving refrigeration measures could have been submitted as standard grocery, agriculture, lodging, or other applications.

prescriptive frame and placed in the custom frame to enable the team to capture a sufficient number of customer projects.

Regardless of the sample frame, sampling for the participant survey was conducted at the level of the project contact, rather than the project. This was necessary because as in previous program years, many customers completed more than one project in PY3. These businesses generally submitted the same contact name for the different projects. As a result, to avoid respondent burden, each contact was only asked about one project. In sum, a total of 913 unique customer contacts were identified as qualifying for the prescriptive program participant survey, and the sample design was based on these 913 contacts.<sup>13</sup>

Since some of the questions in the survey were specific to projects (e.g., decision-making processes that led to the installation of the incented equipment), each contact with multiple projects was assigned a single project. If a contact had multiple projects of the same end use (e.g., lighting), we asked about the project with the largest savings. If a contact had projects that included different end uses, we asked about the largest non-lighting end use unless the non-lighting end use was one of those excluded from the sample frame as described above. This approach was intended to ensure that our sample would include a sufficient number of non-lighting projects, since lighting continued to be the predominant end use in PY3.

The resulting sample of contacts/projects was then divided into lighting and non-lighting projects. We obtained better precision on the lighting projects with fewer data points by stratifying according to expected energy savings. The sample of lighting projects was further stratified as follows: small savings—less than 25,000 kWh, medium savings—between 25,001 and 150,000 kWh and large savings—greater than 150,001 kWh. This stratification was done using the Dalenius-Hodges method to determine strata boundaries and the Neyman allocation to determine the optimal allocation of the available interviews to the strata. The following table outlines the stratification scheme implemented for this program.

Sampling Strata	KWh Savings Range	Number of Projects*	Target Interviews	Completed Surveys
Small Lighting	0 - 25,000	598	17	18
Medium Lighting	25,001 - 150,000	325	40	44
Large Lighting	150,001 - 1,700,000	48	Census Attempt	18
Total		971*		80

Table 3. Sample Design for C&I Prescriptive Survey—Lighting Only

The purpose of stratifying the sample of lighting projects was to ensure that the projects about which we asked the customers represented a sufficiently large proportion of lighting savings, so that savings-related survey results are representative of the population at a confidence of 90% and a precision level of 10%. To achieve this level of precision for lighting

<sup>\*</sup>Note: Project counts are based on the AIB extract provided by Ameren Illinois in July 2011. At that time a number of lighting projects had no savings associated with them and are not included here (n=5). As such, this number does not correspond to the final population of projects (n=975) presented in Table 4.

<sup>&</sup>lt;sup>13</sup> The team used telephone number as the primary identifier of unique project contacts.

projects, we conducted an attempted census of the large projects and a random sample of the smaller-size projects. For non-lighting projects, we also attempted a census. The following table presents the population values and completed survey information for the prescriptive program.

	AIB Population <sup>a</sup>		Sample	Frame	Completed Surveys	
Project Type	Projects	MWH Savings <sup>b</sup>	Contacts	Projects	Contacts	MWH Savings
Lighting	965	48,828	603	873	80	8,768
Motors/VFDs	86	24,102	48	69	21	5,902
HVAC	116	3,371	78	110	29	485
Refrigeration	346	6,874	184	287	48	1,266
Agriculture	2	26	0	0	0	0
Total	1,515	83,202	913	1,339	178	16,421

**Table 4. Completed Prescriptive Survey Points** 

Note: Project counts in the Sample Frame differ from those in the AIB population due to: (1) contacts with multiple projects, and (2) the decision to exclude measures installed by a small number of participants. We assigned each unique contact to the Sample Frame for either the Prescriptive or the Custom programs.

The survey was used to verify the installation of the program measures, gather data to support the estimation of the NTGR, and collect other information useful for the process evaluation. This sample design provides statistically valid impact results at the 90% confidence level +/- 4% error for the prescriptive lighting projects on a kWh basis. For all other project types, we attempted a census and, therefore, there is no sampling error. In terms of the process analysis, final results are representative of the population with a confidence of 90% and a precision level of at least 10%.

The evaluation team considered post stratification weighting, but concluded that an unweighted analysis for the Prescriptive Program provided the best representation for process results given that participants are unlikely to have different experiences with the program based on their project end use. As a result, we decided to give equal weight to each response.

#### **C&I Custom Incentive Program**

We attempted to complete a telephone survey with all decision makers in the Custom Program. Duplicate contact names were removed from the sample where a single person was involved in more than one project application. In addition, as in the prescriptive sample, we asked participants about only one project to reduce respondent burden and selected the project with the highest kWh savings. The following table presents the population values and completed survey information for the Custom Program.

<sup>&</sup>lt;sup>a</sup> The total number of projects listed reflects the population in AIB as of July 2011.

<sup>&</sup>lt;sup>b</sup> For consistency purposes, project-level savings were used. In a small number of cases (primarily with grocery projects), there is a discrepancy between the end-use and project level savings due to the fact that the project is comprised of multiple end-uses.

	AIB Pop	ulation <sup>a</sup>	Sample	Frame	Completed Surveys	
Project Type	Projects	MWh Savings <sup>b</sup>	Contacts	Projects	Contacts	MWh Savings
Lighting	152	11,045	65	152	22	3,534
HVAC	13	4,113	13	14	6	2,824
Compressed Air	38	21,268	34	38	12	6,920
Refrigeration	1	971	1	1	1	971
Motors	5	5,730	4	5	3	5,658
Industrial Process	3	678	2	3	0	0
Drives	2	439	2	2	1	405
Miscellaneous	17	5,009	4	16	2	798
Total	231	49,254	125	231	47	21,110

**Table 5. Completed Custom Survey Points** 

Note: A small number of projects with multiple end-uses (lighting, HVAC, and compressed air) were randomly classified as belonging to compressed air, HVAC, or the lighting end use.

The survey was used to gather data to support the estimation of the NTGR, and collect other information useful for the process evaluation. As we attempted to gather data from a census of program participants installing custom measures, the questions regarding the NTGR have no sampling error; therefore, no confidence intervals are applied to the NTGR (i.e., no precision values).

The evaluation team concluded that an un-weighted analysis for the Custom Program provided the best representation for process results given that no sampling took place. The analysis largely features the reporting of response frequencies, and we decided to give equal weight to each response.

# **C&I Non-Participants**

We conducted a CATI telephone survey with a random sample of 245 non-participants in all of Ameren Illinois's electric rate classes (DS2; DS3a and DS3b; DS4; and DS5). This survey focused on program awareness, perceived barriers to participation, and non-participant spillover (discussed below). The results of the survey are used to support our impact evaluation.

We conducted the non-participant survey using a stratified proportionate random sampling approach. The sample was based on customer files provided by Ameren Illinois, and the sample frame included all unique commercial and industrial customers with valid contact information. We drew a random sample using quotas for each rate code strata based on the proportion of electric customers within each rate code. The following table outlines the approach implemented for this survey.

<sup>&</sup>lt;sup>a</sup> The total number of projects listed reflects the population in AIB as of July 2011.

<sup>&</sup>lt;sup>b</sup> For consistency purposes, project-level savings were used. In a small number of, there is a discrepancy between the end-use and project level savings due to the fact that the project is comprised of multiple end-uses.

Table 6. Sample Design for the Non-Participant Survey

Sampling Strata	Rate Code	% of Electric Customers	Completed Surveys
1	DS2	82%	201
_	DS3 (a & b)	2%	4
2	DS4	<1%	5
	Other - DS5	16%	35
Total		100%	245

Note: DS5 is an add-on rate code for customers that request additional service at their facility such as dawn to dusk or outdoor lighting.

We employed this sampling strategy to assure that we would have sufficient sample sizes to find a company that had performed non-participant spillover if present. We also attempted a census of DS4 customers in an effort to reach a sufficient number of large customers. The table below presents the population values and completed survey information for the survey.

Table 7. Non-Participant Survey Summary

Rate Class	Population <sup>a</sup>	Sample Frame	Completed Surveys
DS2	44,256	6,417	201
DS3 (a & b)	1,082	264	4
DS4	122	110	5
Other - DS5	1,893	1,037	35
Total	47,623	7,828	245

<sup>&</sup>lt;sup>a</sup> The population is based on unique telephone numbers.

The evaluation team concluded that an un-weighted analysis for the non-participant results provided the best representation for process results. The analysis largely features the reporting of response frequencies, and we decided to give equal weight to each response.

#### Non-Participant Spillover

As described in the previous section, we examined spillover using responses to the non-participant telephone survey and found that 3.7% of the decision-makers took action and attributed it to the Act On Energy Business Program. The most common type of equipment installed outside the program was efficient lighting followed by motors/VFDs and HVAC. However, the evaluation team was only able to calculate spillover from 42% of the spillover measures (57% of lighting measures and 33% of HVAC measures) given that information provided about other measures was too vague to enable the quantification of savings.

We developed estimates of the savings associated with these measures based on an engineering analysis of participant survey responses, as well as follow-up interviews performed by engineering staff. Based on the information gathered, we were able to estimate the baseline and new equipment energy characteristics and operating hours. For lighting measures, the team took assumptions about fixture power from the extensive light fixture tables included in the New York Standard Approach for Estimating Energy Savings from Energy Efficiency Programs, October 2010. For HVAC measures, we based equipment

efficiency levels and full-load hours on assumptions within spreadsheet calculators developed by the US Environmental Protection Agency's ENERGY STAR® program.

We chose to apply spillover savings to the Prescriptive Program and did so by adding the spillover savings to ex post net savings from the Prescriptive Program. We then divided this total ex post savings by the ex post gross savings associated with the Prescriptive Program alone to develop an updated NTGR for the program.

# **Internet Survey**

The evaluation team implemented an Internet survey with online store participants. We selected the sample of participants from data received and downloaded on June 22, 2011. The survey collected data to estimate net impacts for select technologies and to support the process evaluation. The survey was fielded during July and August 2011.

We attempted to complete the survey with a census of Online Store participants for whom we had email addresses. No quotas were set for the number of completes within each product category. Table 8 below presents the distribution of respondents across various measure categories in the sample frame and in the sample of completed interviews. Note that a single respondent can appear more than once in the table, as he/she could have purchased more than one product. As can be seen in the table, the sample of completed interviews closely resembles the sample frame. As a result, developing survey weights for the process data was deemed unnecessary.

Completed **Population** Sample Frame Surveys # % # % # Product Type % Free CFLs (3-pack) 259 1% 259 29% 24 27% 17,216\* 62% 64% Free CFLs (6-packs) 98% 550 56 LED downlights <1% 0 0% 1 <1% 1 166 19% 16 LED exit signs 166 18% 1% 4% LED exit sign retrofit kits 32 <1% 32 4 5% 7 48 <1% 48 Motion sensors 5% 8% 8 Specialty CFLs 73 <1% 73 8% 9% Spiral CFLs 120 1% 120 14% 10 11% T8 ballasts 44 <1% 44 5% 5 6% 9 <1% 9 2 T8 lamps 1% 2% <1% Vending controls 17 17 2% 1 1% 2 <1% 2 1 1% LED lights 0% **Total Number of Unique** 17,596 886 88 Customers \*\*

Table 8. Completed Online Store Survey Points

<sup>\*</sup>Please note that due to a high share of missing email addresses for customers who received free CFLs as part of the mail coupon offer, it is impossible to accurately determine total number of unique customers (defined as having a unique email address) in the population. For sampling purposes for the free CFLs (6-packs) category, we assumed that each unique account number with a missing email address represented a unique customer. However, it is possible that a single customer could order products through the online store for multiple accounts.

\*\*For sampling purposes, unique customer is defined as a unique email address. Since a single customer could have purchased multiple products, the sum of customers in each product category is higher than the total number of unique customers.

Purchase and installation verification questions were asked for all measures that a respondent received through the online store. The survey also contained net-to-gross modules for free CFLs received through the online store, spiral and specialty CFLs purchased through the online store, and LED exit signs and retrofit kits purchased through the online store. Since a single respondent could have purchased multiple product types and therefore qualify for more than one net-to-gross module, the evaluation team developed selection rules to assign respondents into a single measure net-to-gross module to reduce respondent fatigue and improve survey completion rate. Priority was given to specialty CFLs, then LED exit sign retrofit kits, then spiral CFLs, then LED exit signs, and finally free CFLs. For example, respondents who purchased specialty CFLs and LED exit sign retrofit kits, were assigned to the specialty CFL net-to-gross module. These assignment rules were developed to ensure a sufficient number of completed interviews for each measure category specific net-to-gross module. As seen in Table 9, the distribution of completed interviews across various net-to-gross modules closely resembles that in the sample frame.

	Sample	Frame	Completed Surveys		
Net-to-Gross Module	#	%	#	%	
Free CFLs	646	70%	60	69%	
Spiral CFLs	67	7%	5	6%	
Specialty CFLs	73	8%	8	9%	
LED exit signs	109	12%	12	13%	
LED exit sign retrofit kits	23	3%	2	2%	
Total	918		87*		

Table 9. Net-to-Gross Module Assignment

## **On-Site Verification**

Energy and demand impacts associated with the Custom Program were determined based on on-site audits and metering M&V, as well as detailed engineering desk review of completed projects discussed below. The sample of participant projects for these activities was selected from data in the Ameren Illinois tracking system extract from July 11, 2011.

## **C&I Custom Incentive Program**

The evaluation team selected a sample of 46 projects for engineering review and metered site verification in two waves. We chose the sample using a stratified random sample design. For the stratification, we used the Dalenius-Hodges method to determine strata boundaries and the Neyman allocation to determine the optimal allocation of the available interviews to the strata. We also drew the sample in two waves to ensure a sufficient percentage of the savings from the program was assessed.

The following table shows the sample selected in both waves. Ultimately, the team was not able to complete visits with a small number of participants either due to non-response, a

<sup>\*</sup>One respondent that completed the survey did not purchase a measure selected for NTG analysis. As a result, we did not calculate a NTGR for them and they are not included in this table.

system shutdown, or requirements of visiting staff that the team could not meet. Overall, the 45 sites with on-site verification account for 58% of ex ante<sup>14</sup> savings.

Number of Site Visit **Site Visits** Sampling Strata **KWh Savings Range Projects** Sample Completed Wave 1 1 0 - 80,00092 6 6 2 80.001 - 400.000 26 9 9 3 400,001 - 1,200,000 8 11 9 Wave 2 1 0 - 100.000 2 2 59 2 100,001 - 1,000,000 13 35 13 3 1,100,001 - 4,500,000 8 8 7 **TOTAL** 47 45 231

Table 10. Two-Wave Custom Site Visit Sampling Approach

The final sample design provides statistically valid impact results at the 90% confidence level +/- 11% on a kWh basis for the Custom Program overall. The confidence interval (error) is larger than desired due to the variation in energy savings within the two waves, but is the best possible given the need to conduct a phased analysis.

# 3.2 Results and Findings

# 3.2.1 Prescriptive and Custom Results

Consistent with the two previous Program Years, research results and findings for the Prescriptive and Custom programs will be presented together for PY3. In addition to participant research, non-participant surveys were also a part of PY3 evaluation work. Although the primary focus of the non-participant research was an assessment of spillover among the non-participating population, survey respondents were also asked a range of questions aimed at gauging an overall state of the non-participant market. The results supplement the results of the participant surveys to more accurately depict market tendencies, program awareness, barriers, and motivators to program participation.

# **Program Challenges**

While a minor concern given the program's performance against goals in PY3, program staff reiterated the presence of a challenge faced in PY2, which is the relative shortage of marketing and outreach personnel. The main comment provided by staff is that this shortage may have prevented the program from taking advantage of more marketing and outreach opportunities. However, Ameren Illinois and its implementation contractor have already begun to address this issue in PY4 with the hiring of additional staff to support this area of the program.

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<sup>&</sup>lt;sup>14</sup> Ex ante savings are estimates of savings in the utility tracking system or what the utility believed they had saved prior to the evaluation.

# **Utility and Implementer Interaction**

Despite some personnel changes, successful collaboration between Ameren Illinois and the Act On Energy program implementation partners continued in PY3. Communication and information sharing tools and strategies appear to be effective in keeping all parties up-to-date on the program news and helping resolve any issues in a timely manner.

# **Program Participation**

## **Participating Customers**

The number of Prescriptive projects more than doubled between PY2 and PY3. The total number of Custom projects also increased over the course of the program year.

Table 11. Overview of Program Participation across Program Years

	PY1		P\	(2	PY3	
Program	Total Projects	Unique Contacts	Total Projects	Unique Contacts	Total Projects	Unique Contacts
Prescriptive Program Total <sup>a</sup>	246	148	721	469	1,557	1,024
Custom Program Total	68	35	204	119	227	130

PY3 Data Source: AIB extract as of August 23, 2011.

Similar to PY2, lighting remained the dominant end use for both Prescriptive and Custom program components, comprising two-thirds of all projects. Based on the interviews with the program staff, the program saw strong activity in the grocery sector in PY3, while lodging and commercial kitchens performed below expectations. There are many potential reasons for this lack of activity, such as lack of awareness, economic conditions, or profit margins in a given industry. If participation continues to lag in these areas, future evaluation efforts can examine the experience of these customers to try and understand the reasons behind non-participation.

a In PY1, the Prescriptive Program includes projects completed under the Standard Revised program.

Table 12. Overview of PY3 Prescriptive and Custom Program Participation

	PY3			
Program	Total Projects			
	Number	Percent		
Prescriptive Program Total	1,557	100%		
Lighting	961	62%		
Grocery	385	25%		
HVAC	115	7%		
Motor	87	6%		
Lodging	6	0%		
Agriculture	2	0%		
Commercial Kitchen	1	0%		
Custom Program Total	227	100%		
Lighting	150	66%		
Compressed air	37	16%		
HVAC	10	4%		
Motors	5	2%		
Industrial process	2	1%		
Drives	2	1%		
Refrigeration	1	0%		
Miscellaneous	20	9%		

PY3 Data Source: AIB extract as of August 23, 2011.

In terms of the participant mix, smaller customers (rate code DS2) represent the majority of both Custom (53%) and Prescriptive (83%) projects, but bring in less kWh savings per project. Participation of those customers in the program (both Custom and Prescriptive) largely resembles the distribution of these respondents in the population of Ameren customers.

Table 13. Program Participation by Rate Code

Rate		Projects		kWh Savings		
Code	Total	Prescriptive	Custom	Total	Prescriptive	Custom
DS2	79%	83%	53%	33%	46%	11%
DS3a	7%	5%	16%	10%	9%	13%
DS3b	5%	5%	7%	11%	12%	9%
DS4	9%	7%	23%	46%	33%	67%
DS5	<1%	<1%	1%	<1%	0%	1%
GS2	<1%	<1%	-	<1%	0%	0%

Based on the survey results, the majority of Prescriptive and Custom participants operate in the manufacturing and industrial (Prescriptive – 21%, Custom – 47%), retail and service (Prescriptive – 17%, Custom – 21%), and warehouse and distribution sectors (Prescriptive – 7%, Custom – 4%). Additionally, 6% of the Prescriptive Program participants and 9% of Custom Program participants operate in the medical sector, and 10% of the Prescriptive Program participants are nonprofit organizations. As compared to PY2, there has been a

significant increase in the number of Prescriptive Program participants classifying themselves as grocery (1% vs. 10%), possibly due to the targeted application in PY3. The facility type in which the equipment was installed is largely the same as the business sector in which the company operates.

As in two previous program years, the large majority of PY3 participants own and occupy their facility (Prescriptive – 81%, Custom – 94%) and all are responsible for handling their utility bills (Prescriptive – 99%, Custom – 100%). There is also a good mix of company sizes, with the Custom Program continuing to attract larger companies, with more locations and more personnel. Half of Prescriptive Program participants (50%) have less than 20 employees, while over half of Custom Program participants (55%) have 100 employees or more. At the same time, 51% of the Prescriptive Program participants are companies with one location, compared to 33% of the Custom Program participants who say the same.

## **Program Allies**

Throughout the program year, the Act On Energy Business program staff continued expanding its program ally base. Despite the exercise of removing inactive trade allies from the registered ally list, the number of registered program allies increased from 393 at the end of PY2 to 426 in PY3. As described in greater detail in the *Program Awareness* section of this report, reaching out to and engaging program allies remained one of the goals of the program marketing and outreach. Trade allies were supported through a variety of mechanisms in PY3, including bonus offers, training and development opportunities, marketing, and co-branding materials and initiatives. Program allies are generally pleased with these services and are particularly pleased with the training they receive. All five of the registered program allies with whom we spoke were satisfied with the training they received and all believed that the training sessions were extremely helpful at the start of their program participation.

While allies registered with the Act On Energy Business program continue to cater to a variety of market segments and provide a full breadth of services, similar to the previous program years, a small number of trade allies continue to be responsible for a large number of projects. More specifically, for Prescriptive and Custom programs, the database showed that two trade allies completed over a third (37%) of projects, and ten program allies completed over half (59%) of all Prescriptive and Custom projects.

Considering the role of program allies in projects, reaching out to the existing program allies as well as engaging new allies with the program should continue to be a part of program marketing and outreach. Ameren Illinois appears committed to this objective and continues to expand its efforts to engage the trade ally community in its service territory.

# **Non-Participant Profile**

Non-participant respondents are represented primarily by the retail/service (30%), non-profit (12%), and office (11%) sectors. The rest of the sample is more or less evenly split between a variety of sectors, including medical, education, hospitality, and warehouse and distribution. Three-quarters (76%) of non-participants own and occupy their facilities, while 17% rent their facilities. Nearly all (97%) pay their electric bills. Three-quarters of non-

participants (75%) report their company as being small and the average reported number of employees working at a non-participating facility is 23.

# **Program Awareness**

## Overview of Marketing and Outreach Activities

Given the significant increase in the kWh savings goal in PY3, the Act on Energy Business Program used a comprehensive and aggressive marketing effort to provide program outreach and encourage program participation. Similar to PY2, in PY3 Ameren Illinois and SAIC used a targeted approach to marketing and outreach that included a variety of marketing tactics. One of such tactic was the implementation of sector-specific approaches to marketing the program. In particular, early in PY3, SAIC hired an Industrial Energy Efficiency Outreach Manager to assist with the recruitment of larger customers within the Ameren Illinois service territory.

Below, we provide a more detailed overview and analysis of program marketing and outreach in PY3. As will be seen from the discussion below, program marketing and outreach strategies were diverse and well rounded. Some of the core areas where Ameren Illinois focused program marketing and outreach efforts in PY3 included:

- Program ally communication and outreach. This includes educational webinars and roundtables, periodic emails and newsletters, as well as co-branded marketing materials for use by program allies. In addition, the program focused on the recruitment of allies within geographic regions that typically do not have large representation.
- Outreach to past customers. This includes email blasts promoting special energy efficiency offerings or incentives, as well as a customer newsletter with tips and tools on how to leverage the Act On Energy program to meet customer business needs. Based on our review of program tracking data, roughly 10% of all program participants in one year participate again in the next year.
- ▶ Outreach to Key Account Executives. By having an established relationship with customers, Key Account Executives (KAEs) present an excellent marketing channel for the program. However, according to the program staff, after eliminating an "Exceptional Performance" bonus¹⁵ activity of Key Account Executives with the program has declined to some degree. Program staff, however, made various attempts to maintain relationships with Key Account Executives and encourage them to mention the program to their customers. As such, program staff attended over 90% of the KAE meetings, presented at all KAE quarterly meetings, assisted Key Account Executives with any customer questions or inquiries, and presented information on the new programs or offerings within existing programs. The Industrial Energy Efficiency Outreach Manager played a key role in the process of maintaining KAE relationships and keeping them abreast of the program-related news.

 $<sup>^{15}</sup>$  Exceptional Performance bonus provided monetary incentives to Key Account Executives for bringing customers into the program.

- ➤ Chamber of Commerce communications. The program staff has traditionally used this approach as a way to reach smaller (DS2 rate class) business customers. In PY3, program staff continued to work with and support the Chambers of Commerce. Outreach to Chambers of Commerce was very similar to PY2 and included in-person visits, presentations, and support through marketing materials and email blasts.
- ➤ Trade association outreach. In addition to outreach to the Chambers of Commerce, the program attempted to develop relationships with various trade associations in PY3. Some of the organizations that the program staff was successful at engaging include Illinois Grain and Feed Association, Illinois Food Manufacturer's Association, University of Illinois College of Agriculture, and the Illinois Hospital Association, among others. Program outreach to these organizations and associations included mailers, newsletters, and presentations.
- ➤ Targeted outreach to commercial customers. This includes targeted outreach to certain industries with a focus on large industrial, commercial kitchens and lodging sectors involving the use of postcards, bill inserts, in-person outreach, and mass emails.
- ➤ Technical reviewer outreach. The program utilized technical review staff to mine existing projects for additional opportunities. Program staff identified post-inspections as opportunities to meet with customers at their facility, look at the existing equipment, and identify additional program potential.

Our review of the program materials, as well as detailed information collected by the program staff, demonstrates that the program continues to perform a significant amount of outreach using varied strategies (Table 14).

A sharp increase in program energy goals (38% above PY2) was accompanied by a 39% increase in the program marketing and outreach budget. This increase was directed toward a more expansive brochure and bill insert development and distribution. Aside from that, budget allocations for various marketing and outreach activities remained similar.

Type of Outreach	PY2 Total	PY3 Total
Press Releases and Media Events/Coverage	58	99
Chamber of Commerce Communications/Presentations	64	20
Program Ally Communications/Training	74	81
Customer Newsletter, Bill Inserts, and Email Blasts	33	57
External Presentations	57	43
Brochures/Postcards/Flyers <sup>a</sup>	5	26
Internal Communications - KAE, etc	69	46
All Outreach Activities	390	362

Table 14. Summary of PY3 Marketing Materials

Note: This table represents the number of marketing activities performed, not the number of customers reached for each type of outreach.

Throughout PY3, the program launched a series of special promotional efforts to bring a greater number of customers into the program. The table below outlines all PY3 promotional efforts targeted toward customers. In addition, the program hosted five symposiums to

<sup>&</sup>lt;sup>a</sup> Postcards/Flyers were not accounted for in PY2.

educate Ameren Illinois customers about the Act On Energy business programs and enable them to meet participating program allies in PY3 – three in July 2010 and two in May 2011. As evident in the following table, the symposiums provided a valuable opportunity to encourage participation in the program by offering additional incentives to those who took part.

Table 15. PY3 Customer Promotional Efforts

Promotion	Duration	Description
T12 Phase-Out Bonus	Applications accepted through December 31, 2010 with a drop in incentives after that date.	15% bonus on T12 prescriptive measures, and T12 custom projects. Project applications must be in by 12/31, after the bonus drops to 10%. Projects must also be completed by the end of May with final paperwork in by June 30, 2011.
Elmwood Tornado Bonus	Applications must be submitted between June 22, 2010 and June 30, 2011	50% bonus on electric incentives for Elmwood, IL after hit by tornado on June 6, 2010
Early Completion Bonus for Custom Projects	Applications must be submitted on or after October 20, 2010	Custom Projects; \$0.02/kWh bonus for projects completed by 3/31/2011, and \$0.01/kWh bonus for projects completed by 4/30/2011
Early Completion Bonus for High- Bay Lighting	Applications must be submitted on or after October 20, 2010	High-Bay Lighting; \$0.055 bonus for projects completed by 3/31/2011 and \$0.045 bonus for projects completed by 4/30/2011
Sweet Deal Bonus	From February 14, 2011 through May 31, 2011	A 15% bonus applies to all electric measures except T12 retrofits; Applies to Program Year 3 applications submitted with electric measures from 2/14/2011 through 5/31/2011;
Symposium Coupon Bonus	Applications must be submitted between August 1, 2010 and December 31, 2010	15% bonus from attending the Symposium, coupon must be attached with the final paperwork.
Free CFL offer	A mailer was sent in January 2011 offering customers free CFLs and encouraging customers to make additional purchases through Ameren Illinois online store.	6 free CFLs were offered to customers of all rate classes.

## **Effectiveness of Program Outreach**

Similar to the previous program years, the major challenge for successful program marketing is the spread out nature of the Ameren Illinois service territory, which makes outreach resource-intensive. In addition, staffing for the implementation of program marketing remained largely constant from PY2 to PY3. Aside from the Large Commercial and Industrial Manager, there were 1.5 to 1.7 full time employees dedicated to developing and providing marketing and outreach for the program throughout the program year. However, the program has already hired additional staff to support program marketing in PY4.

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<sup>&</sup>lt;sup>16</sup> Ameren Illinois covers 43,700 square miles of service territory, or about ¾ of the state of Illinois.

Despite the challenges, the use, variety, and frequency of marketing and outreach mechanisms throughout the program year illustrates that the program continues to make great strides in increasing awareness and keeping core market stakeholders abreast of program changes and modifications. Similar to previous program years, research results suggest that the way that program participants and non-participants learn about the program corresponds to marketing and outreach activities conducted within the framework of the business program portfolio. Proactive marketing, outreach, education, and support on behalf of the program is likely a great contributing factor to the success of the program in reaching its electric savings goals. Despite a shortage of human resources, program marketing staff was able not only to maintain but exceed the number and diversity of marketing tactics, as well as come up with creative ways to reach customers. Program staff should be commended for that.

As noted above, according to the program staff, moving into PY4, the program is expanding its marketing and outreach force by adding positions that would be responsible for trade ally outreach, customer project and overall program support, as well as geographically targeted customer outreach and marketing. This staffing change will help relieve current staffing constraints caused by the need for all program staff including technical reviewers to support marketing and outreach efforts. In addition, moving forward a greater level of targeted marketing and outreach will likely assist the program in reaching harder-to-reach and harder-to-engage customers who have not previously participated in the program.

#### **Overall Program Awareness**

While increased program marketing increased program participation overall and the program's performance relative to goals, the level of non-participant awareness of the Act On Energy Program has remained consistent between PY2 (49%) and PY3 (52%). The percentage of customers aware of the program (52%) is calculated by adding the percentage of customers who identified the program without hearing its name or a description (i.e., unaided awareness of 41%) to the percentage of customers who recognized the program after being read a brief description of it (i.e., aided awareness of 11%).

While awareness of the Act On Energy Business program is relatively high among non-participants, they are (as expected) less familiar with the program details. While only two percent of non-participants indicate that they are very familiar with the program, close to half (47%) of non-participants say they are somewhat familiar with the program. Based on these findings, it is clear that there is still room for increased program outreach to this customer segment.

Trade allies also offer additional information about awareness among their customers. In particular, a majority of trade allies with whom we spoke (7 of 11) believed that their customers were aware of the program's existence, with two trade allies noting that customers are unaware of the details of the program, but know where to look for information. In addition, five of ten trade allies believed that larger customers were more aware of the program than smaller customers, while one trade ally thought the public sector was more aware than the private sector, and two trade allies did not notice variation in customer awareness by type or size.

#### **Customer Outreach**

Prescriptive and Custom Program participants along with non-participants learn about the program from a variety of sources. Consistent with the previous two program years, the key sources of program awareness are bill inserts, contractors, vendors, distributors, suppliers, Key Account Executives, word of mouth, and the Ameren Illinois website. In addition, equipment vendors appear to have taken notice of the program for custom projects, and non-participants indicate that bill inserts are the main way they hear about the program. Overall, these sources remain consistent with the Act On Energy program marketing strategies used in PY3.

Table 16. How Participants and Non-Participants First Hear about the Program

	P	/1	b,	PY2		/3	Non-
Information Source	Prescr.	Custom	Prescr.	Custom	Prescr.	Custom	Participants
	(n=17)	(n=54)	(n=80)	(n=51)	(n=169)	(n=47)	(n=127)
Contractor/program ally <sup>a</sup>	24%	22%	25%	10%	27%	9%	1%
Friend/colleague/ word of mouth		11%	11%	8%	9%	11%	6%
Vendor/Distributor/ Supplier	24%	4%	14%	20%	11%	34%	
Ameren Illinois website	12%	9%	5%		8%	2%	6%
Bill insert	6%	11%	11%	8%	6%	4%	50%
Ameren Illinois Key Account Executive	6%	15%	9%	14%	6%	13%	6%
TV/Radio/Print	0%	2%	6%	8%	4%		4%
Email	6%	2%	2%	16%	5%	2%	1%
Workshop	6%	6%	2%		2%	11%	

Note: This table does not include an exhaustive list of responses provided by respondents, but rather focuses on the response categories most frequently mentioned by program participants and non-participants.

In addition, Prescriptive Program participants are more likely than Custom Program participants to first learn about the program from contractors, while Custom Program participants are more likely to hear about the program for the first time from vendors, distributors, and suppliers, as well as workshops.<sup>17</sup> Bill inserts represent a dominant source of information among non-participants (50%).

Interviews with trade allies provide an additional perspective on their role in program outreach. For example, a majority of trade allies (8 of 11) always promote the program to their customers while one ally does not need to promote the program frequently because customers bring it up, and one promotes the program sometimes. Four of the five registered program allies that we spoke with employ co-branding as a sales tool.

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<sup>&</sup>lt;sup>a</sup> This category also includes electricians that were mentioned as a separate response.

<sup>&</sup>lt;sup>17</sup> Contractors are those firms performing the actual implementation of the project while vendors are firms that sell equipment needed for Act On Energy projects.

Frequency of exposure to marketing is an important metric of the overall success of any marketing and outreach approach. Customer encounters with program marketing on multiple occasions is likely to result in increased familiarity with the program and its offerings, potentially inducing interest, further inquiries, and ultimately a decision to participate in the program. The program staff dedicated to marketing was able to maintain a high frequency of customer exposure to program marketing in PY3. Unchanged from the previous year, three-quarters (74%) of Custom Program participants and six in ten Prescriptive Program participants (64%) heard about the Act On Energy Business program very or somewhat frequently throughout the year.

#### Recall and Usefulness of Marketing Materials

In general, Prescriptive Program participants recall marketing materials to the same degree as in PY2 while recall of marketing materials among Custom Program participants is comparable to PY1. As seen in Table 17, over half (61%) of Prescriptive Program participants and 72% of Custom Program participants recall seeing or receiving marketing materials for the Act On Energy Business program. In terms of the materials recalled, both participants and non-participants most frequently mention brochures, emails, bill inserts, and other mailings. Custom Program participants are more likely than Prescriptive Program participants to recall email communications (59% vs. 29%). Compared to PY2, Custom Program participants are also more likely to recall receiving mailings other than bill inserts (31% vs. 8%) in PY3 as compared to PY2.

% Recall seeing or receiving marketing materials about AOE **Survey Respondent Group** program PY1 PY2 PY3 50% 59% 61% Prescriptive Program participants (n=16)(n=77)(n=171)70% 49% 72% **Custom Program participants** (n=53)(n=49)(n=47)

Table 17. Recall of Marketing Materials

Overwhelmingly, program participants find the information presented in the marketing materials useful. Improvements suggested by the handful of respondents who did not find the materials useful include providing more detailed information.<sup>18</sup>

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<sup>&</sup>lt;sup>18</sup> While a very small number of customers (n=2) indicate this as an area for improvement, initial outreach to customers containing a large number of program details is not recommended by the evaluation team or Ameren Illinois' marketing staff.

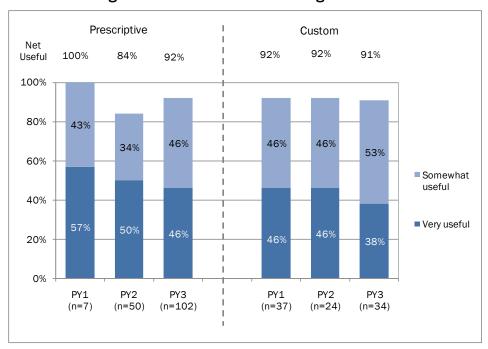


Figure 3. Usefulness of Marketing Materials

Similar to the previous program years, research findings show that the marketing and outreach strategies employed by the program staff match the preferred communication methods mentioned by program participants. When asked about the best way of reaching companies like theirs with information about energy efficiency opportunities, respondents in all groups mentioned direct mailings, email, bill inserts, and phone outreach most frequently. Custom Program participants also mention outreach through Key Account Executives (10%), which is consistent with program focus.

Table 18. Means of Outreach Preferred by Customers

	PY	PY1 PY2		2	P۱	/3
Information Source	Prescr. (n=17)	Custom (n=56)	Prescr. (n=79)	Custom (n=51)	Prescr. (n=171)	Custom (n=47)
Flyers/ads/mailings	41%	21%	24%	24%	38%	28%
Email	35%	43%	49%	51%	36%	53%
Bill inserts	12%	16%	21%	24%	15%	13%
Telephone		5%	21%	6%	11%	11%
Program allies/contractors	-	13%	12%	10%	6%	4%
Webinars/roundtables/ events	18%	5%	10%		3%	6%
Trade/professional associations	-	5%	9%	4%	2%	2%
Key Account Executives	6%	14%	6%	10%	1%	9%
Ameren Illinois representatives		4%	1%	2%	6%	2%
Luncheons	-			2%		
Other	6%	7%	3%	4%	10%	11%

We also asked trade allies whether they felt the current level of marketing and promotion was appropriate, and their responses varied with regards to the appropriate level of program marketing. Four of ten trade allies thought that the level of marketing and promotion was appropriate and reached customers, while two trade allies expressed discontent.<sup>19</sup>. Additionally, the remaining three trade allies believed the level of outreach was adequate, but that customers either did not pay attention or were unfamiliar with the program.

#### **Effectiveness of Promotions and Special Offers**

Based on in-depth interviews with the program staff, while many promotional offers were successful in encouraging program participation, their effectiveness varied. Among the most successful special promotions and bonus offers was the T12 Phase-Out Bonus, Symposium Coupon Bonus, Free CFL offer, and Early Completion bonus (all described in greater detail in Table 15). Figure 4 below illustrates a spike in program activity likely associated with the introduction of the T12 Phase-Out Bonus and Symposium Coupon Bonus. According to the program staff, the month of December 2010 was the busiest month the program saw in all three years of its existence.

<sup>&</sup>lt;sup>19</sup> One program ally that works with convenience stores in the Ameren Illinois service territory noted that customers for whom English is not a first language, and specifically those speaking Arabic, Chinese and Indian, had difficulty understanding program documents, including the application.

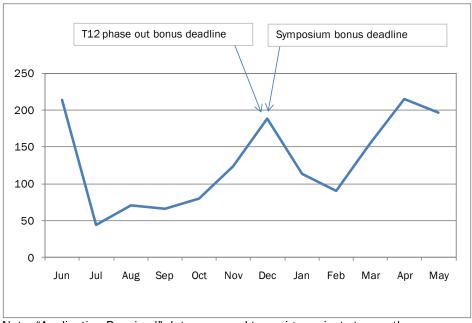


Figure 4. Prescriptive Applications Received by Month

Note: "Application Received" date was used to assign projects to months

The Custom participant survey also specifically explored the influence of the early completion bonus on customer decisions to speed equipment installation. According to the survey results, awareness of the bonus offer was overwhelming – 72% of the Custom Program participants report being aware of the promotion. Of those, over half (59%) intended to complete their projects early to receive the bonus, with nearly everyone reporting they ultimately received the bonus.

Program participants who knew about the early completion bonus, but chose not to pursue increased incentives explained that the construction schedule and other timing issues would have made early project completion impossible, or they faced issues with assigning capital quickly or were fearful of not meeting the deadline, among other reasons.

#### **Program Allies and Contractors**

As registered program allies and non-registered contractors continue to play a key role not only in promoting the program and its incentives to potential customers, but also in specifying equipment and influencing customer decisions to install it, outreach to this group remained an important area of focus for the Act On Energy program marketing staff in PY3. Throughout PY3, the program supported program allies through training sessions, round tables, webinars, periodic meetings, and co-branded materials. In addition, a specific goal of the trade ally outreach in PY3 was to develop a trade ally network in geographic areas with weak trade ally support. According to program staff, while they made every attempt to achieve this goal, staffing resources limited the success of the endeavor.

The website is one way for customers to find a contractor. To increase the value of being a registered trade ally, program staff removed inactive trade allies from the program ally list. The program also continued to utilize an algorithm that promotes the most active program allies by advancing them to the top of the registered program ally list during searches of the program ally database.

In addition, in PY3, the program offered promotions to participating trade allies. Beginning in November of 2010, Act On Energy announced the Program Ally Bonus which rewards trade allies that reach a minimum kWh savings amount. There are two categories for the trade ally bonuses:

- Tier 1 provides 15 bonuses, each \$2,500, for lighting, motors, and retrocommissioning projects that reach 1,000,000 kWh. Trade allies, who reach the savings threshold, qualify for a \$2,500 bonus.
- Tier 2 provides five bonus opportunities, each \$2,500 for refrigeration, HVAC (electric only), lodging, agriculture, grocery/convenience store or commercial kitchen projects that reach 250,000 kWh. Trade allies who reach the savings threshold qualify for a \$2,500 bonus.

Once an ally reaches the minimum savings (either through one project, or multiple), the bonus incentive is paid out. Additionally, trade allies who submitted applications that fell under the Energy-Efficient Heating Upgrades Bonus were awarded a \$50 gift card.

Moving forward into PY4, the program is retaining personnel to focus specifically on trade ally outreach and support. This will be beneficial from not only a marketing and outreach but also a customer satisfaction perspective, as program trade allies knowledgeable about the program that can receive the necessary program support in a prompt way are more likely to execute customer projects faster, more effectively, and could help lead to greater customer satisfaction.

### **Key Account Executives**

All KAEs with whom we spoke report that they discuss energy efficiency with their customers whenever they communicate with them. In addition, all KAEs are familiar with the Act On Energy Business program and note that most of their customers are unaware of the program before they mention it. Only two of the four KAEs we spoke with indicated that a small percentage (less than 5%) of their customers were aware of the program prior to their efforts

to introduce it. KAEs report varied levels of customer interest in participation ranging from just a few customers to 80% of those they serve.

Based on interviews with KAEs, the program appears to provide an adequate level of support to these Ameren Illinois staff members including both materials for distribution and cooperation from program staff members. For example, almost all the KAEs we spoke with (3/4) report that they work with Act On Energy program staff when seeking out the largest C&I customers. Most KAEs also feel that they have enough marketing materials to promote the program to their customers.

# **Program Processes**

## **Participation Process and Requirements**

For the third consecutive year, the Act On Energy Business Portfolio Custom and Prescriptive programs have maintained high levels of participant satisfaction in nearly all program areas – from program paperwork to processing incentives, and addressing customer questions and concerns. Such consistency from one year to the next is needed to maintain interest in the suite of options provided through the portfolio. High levels of customer satisfaction are indicators of a well-run program.

## Project Specification and Identification of Incentive

Contractors, along with participants themselves, continue to be the driving force behind developing Prescriptive project details. Thirty-one percent of Prescriptive Program participants name the contractor as most influential in determining the specifics of the project while 19% say that they themselves specified the project. In addition, contractors are central in identifying the opportunity for Prescriptive Program incentives (29%).<sup>20</sup> This finding is consistent with the program marketing strategy, which aims to engage contractors with the program to help market incentives. Additionally, Prescriptive Program participants named themselves (23%), suppliers (11%), Ameren Illinois representatives (5%), and engineers (2%) as parties responsible for identifying program incentive opportunities.

On the Custom side, participants interact with another set of market actors. Here equipment distributors (26%) are cited as providing the greatest project assistance while 11% of participants mention a contractor as providing the most assistance in the design and specification of their custom project. These results suggest that developing relationships and further promoting the program to equipment distributors could be beneficial to increasing awareness and ultimately Custom Program participation.

Program participants, especially on the Custom side, also communicate with the program regarding the upcoming projects – 35% of Prescriptive Program participants and 62% of Custom Program participants report discussing the program and program qualifying improvements with program staff prior to starting their projects.<sup>21</sup> Nearly all rate the

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<sup>&</sup>lt;sup>20</sup> The question asking about the actors responsible for identifying program incentives was not asked of the Custom program participants in PY3.

 $<sup>^{21}</sup>$  While pre-approval is required for all Custom projects that process does not require speaking with a program representative.

discussion helpful, and overwhelming majorities rate the discussion as very helpful (85% Prescriptive and 93% Custom) in helping them understand the program and its benefits. This not only serves as an indicator that the existing program staff is knowledgeable about the program and can successfully support customers with their program-related needs, but can also be indicative of the fact that the program is moving in the right direction by expanding its program staff to include customer project support representatives.

## **Application Process**

Two-thirds of Prescriptive Program participants (61%) submitted either the initial or final program rebate application by themselves, which is generally consistent across program years. In contrast, survey responses indicate that there has been an increase in the number of applications submitted by customers participating in the Custom Program as compared to the previous program year. In PY3, three-quarters of Custom Program participants submitted either the initial or final program rebate application by themselves. However, this level of self submission is comparable to PY1.

Customers who did not fill out program rebate applications by themselves, most frequently name contractors, suppliers, distributors, or vendors as responsible for filling out the application forms on the customer's behalf. Interviews with trade allies active in the program support the notion that they are frequently involved in this process. A majority of the trade allies we spoke with (8/11) assist their customers with the application process.

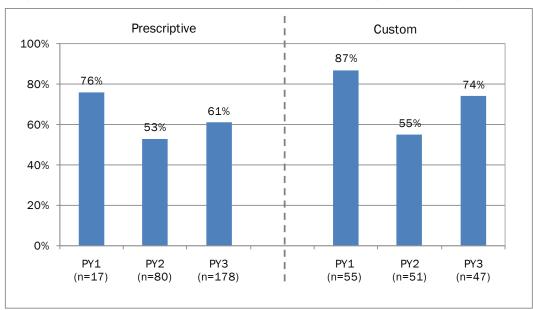


Figure 5. Applications Submitted by Customers by Program by Program Year

Those participants who did fill out the program application form themselves almost universally believe that the participation rules and program requirements are clearly outlined and explained. With no significant differences across the two programs, or across program years, customers rate the application process as easy overall. Interviews with trade allies also suggest they generally find the application process easy to complete.

Table 19. Program Participant Reactions to the Application Process

	PY2	PY3	PY2	PY3
	Prescriptive	Prescriptive	Custom	Custom
Agree that application clearly explained	87%	93%	89%	89%
program requirements	(n=47)	(n=108)	(n=28)	(n=35)
Mean rating of the application process*	7.5	7.7	6.8	7.0
Weath rating of the application process	(n=47)	(n=108)	(n=28)	(n=35)

<sup>\*</sup>On a scale from 0 to 10 where 0 means "very difficult" and 10 means "very easy."

Similar to the previous program years, the few Custom and Prescriptive program participants who were not satisfied with the application process commented on the difficulty of understanding the application and its technical nature, a need to conduct additional research, especially as it pertains to lighting measures, and a feeling that the overall application process was lengthy. In addition, one of the trade allies we spoke with, who completed a large number of projects and found the application form very difficult to complete, noted changes to the application process that were not communicated to program allies and resulted in return visits and application denials. However, program staff made repeated attempts to work with this customer on the application process including an offer to review an initial batch of applications at the outset of the program year so that this program ally could understand how the process worked and what was required.<sup>22</sup>

### Final Application and Incentive Processing

Ameren Illinois processes the majority of final application paperwork and incentives within the six to eight week time frame communicated to participating customers. For example, over two thirds (71%) of Prescriptive Program participants stated they received their incentives within two months of submitting their final application, with 49% reporting that they received their incentive check within six weeks of submitting the final application. As for the Custom Program participants, half (51%) received their incentive check within two months. However, this is likely due to the fact that Custom projects, given their complex nature, require more detailed review. In addition, the longer time frame for implementation means that many Custom applications are likely submitted toward the end of the program year and not all the participants with whom we spoke may have received their incentive at the time of the survey.

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 $<sup>^{22}</sup>$  In reviewing applications from this program ally, SAIC staff found errors in account numbers and company names that did not match Ameren Illinois' customer database.

Table 20. Incentive Check Timing

	Customer self-reported timing of	P\	/3
	reception of the incentive check	Prescr. (n=139)	Custom (n=34)
Planned timeline for	Less than 4 weeks	16%	15%
incentive checks	Between 4 and 6 weeks	40%	32%
Indentive oncors	Between 6 and 8 weeks	27%	21%
Longer than	Between 8 and 10 weeks	6%	18%
planned timeline for	Between 10 and 12 weeks	9%	9%
incentive checks	More than 12 weeks	1%	6%

Note: This question was not asked in PY1 and PY2. Responses do not include survey respondents who at the time of the survey said they did not receive/were awaiting payment.

Additionally, as illustrated in Table 20 above, 7% of Prescriptive Program participants (n=11) said they never received their incentive checks. The evaluation team looked at the database records for those respondents and found that all had received an email containing approval for payment between the end of June and the beginning of August 2011. Since the survey effort took place between July and August, it is possible that these respondents had not received their incentive checks at that time, but have subsequently received their incentive payment.

### **Program Responsiveness**

Based on in-depth interviews with program staff, the program made all possible efforts to provide sufficient levels of support to participants. In PY3, the program added a Manager of Industrial Energy Efficiency to the program staff, whose responsibilities include helping large industrial customers understand the specifics of the program and providing ongoing project support. Throughout the program year, the program staff also provided assistance to trade allies and Key Account Executives. Each of these activities contributed to smooth implementation of the program, as well as high levels of program performance as illustrated by participant satisfaction with the program.

The program's call center and technical review staff also assure that customers have access to help as needed and that their experience is a positive one. Among Prescriptive Program participants, use of the call center declined in comparison to the previous program year. This may be the result of repeated participation among some customers, as well as improved program applications or greater familiarity with the program overall. As might be expected, program participants who did not use a contractor for their project are significantly more likely to place calls to the call center than those who did.

In addition, the share of customers who asked questions of technical reviewers is largely the same across the three program years. The performance of the technical review staff also remains high – in the majority of cases, customer inquiries or questions are addressed within the same business day.

Table 21. Participant Utilization of Support Services

	PY1		PY2		PY3	
Action taken	Prescr.	Custom	Prescr.	Custom	Prescr.	Custom
Placed a call to the	41%	47%	36%	29%	18%	22%
call center	(n=17)	(n=55)	(n=79)	(n=49)	(n=171)	(n=45)
Asked questions of the	29%	50%	28%	43%	26%	43%
technical reviewer	(n=17)	(n=56)	(n=76)	(n=49)	(n=173)	(n=47)
Response time to questions by Technical Review Staff	Prescr. (n=5)	Custom (n=26)	Prescr. (n=28)	Custom (n=21)	Prescr. (n=43)	Custom (n=20)
Within the same business day	20%	73%	59%	67%	84%	65%
1-2 business days	40%	23%	36%	14%	9%	35%
3-5 business days		4%	2%	14%	2%	
1-2 weeks	40%		2%	5%	2%	
More than 2 weeks					2%	

We also asked participating trade allies about their interaction with the program, and a majority (5/8) found it easy or very easy to reach out to program staff, while two had no contact with program staff. While one ally felt program staff was unresponsive, discussions with program staff indicate that this firm frequently contacted different members of the implementation team such as the Call Center, technical reviewers, and marketing staff in an attempt to receive a different response to their inquiry.

## **Customer Satisfaction**

#### **Program Administration**

The Prescriptive and Custom programs have completed yet another strong year from a customer satisfaction standpoint. An overwhelming majority of participants report experiencing no problems with the program (96% and 87% for the Prescriptive and Custom programs, respectively), while satisfaction with various program components remains high overall.<sup>23</sup>

In addition, Prescriptive Program participants appear to be more satisfied with the incentive amounts than Custom Program participants. This might be due to the multiple promotions offering increased incentives on Prescriptive measures over the course of PY3. Table 22 below presents average satisfaction ratings by program and across the three program years.

<sup>&</sup>lt;sup>23</sup> Participants provided yes or no responses to a question about whether they experienced any problems during the participation process. Questions about satisfaction with program components are based on a 0 to 10 scale.

Table 22. Participant Mean Satisfaction Ratings for Various Program Elements

How would you rate your	PY1		PY2		PY3	
satisfaction with?	Prescr.	Custom	Prescr.	Custom	Prescr.	Custom
The incentive amount	8.0	8.5	8.3	8.3	8.9	7.9
The incentive amount	(n=16)	(n=54)	(n=80)	(n=50)	(n=172)	(n=46)
Act On Energy Business	8.8	8.7	9.0	8.7	8.8	8.5
Program overall	(n=16)	(n=55)	(n=80)	(n=51)	(n=176)	(n=47)
The measures offered	8.3	8.4	9.1	a	8.7	b
The measures offered	(n=15)	(n=40)	(n=78)		(n=175)	
Ameren Illinois Utilities	8.1	8.4	8.5	8.5	8.5	8.0
Ameren minois oundes	(n=17)	(n=55)	(n=78)	(n=51)	(n=178)	(n=47)
The program's technical	8.6	8.8	8.9	8.4	8.7	8.3
review staff	(n=13)	(n=48)	(n=58)	(n=42)	(n=142)	(n=44)
The call center's ability to	8.3	9.0	9.2	8.3	8.7	8.9
answer your questions	(n=7)	(n=26)	(n=31)	(n=14)	(n=30)	(n=10)
Incentive timing					8.4	7.7
incentive uning					(n=137)	(n=18)

Note: Scale is from 0 to 10 where 0 is "very dissatisfied" and 10 is "very satisfied."

Additionally, nine of eleven trade allies the team spoke with were satisfied with the program and five of these allies were "very satisfied." Among the registered program allies with whom we spoke, all were satisfied with the training they received through the program, and believed that the training sessions were extremely helpful at the advent of their program participation.

Overall, no more than 7% of participants in either the Prescriptive or Custom programs indicated they were dissatisfied with a program element<sup>24</sup>, and few mentioned experiencing problems during the participation process (4% and 13% for the Prescriptive and Custom programs, respectively). Among the issues these participants cite are a lengthy participation process, lack of responsiveness on behalf of program staff, issues with installed equipment, and problems with receiving program incentives and submitting application forms.

As expected, given high participant satisfaction, the potential for repeated participation remains fairly high. In fact, reported likelihood to participate in the program in the future has increased among the Prescriptive Program participants. Similar to PY2, in PY3, Custom Program participants are more likely than Prescriptive Program participants to say that they anticipate applying for program incentives in the future.

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<sup>&</sup>lt;sup>a</sup> This question was not asked of Custom Program participants in PY2.

<sup>&</sup>lt;sup>b</sup> This question was not asked of Custom Program participants in PY3.

 $<sup>^{24}</sup>$  Dissatisfied is a rating from 0 to 3 on a 0-10 point scale, where 0 means very dissatisfied and 10 means very satisfied.

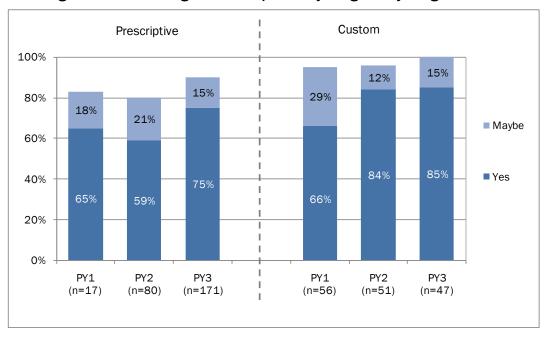


Figure 6. Future Program Participation by Program by Program Year

The majority of trade allies we spoke with (9/11) also plan to participate again, while one trade ally might participate again and another will not participate again.<sup>25</sup> The latter is a registered program ally that completed a significant number of projects in PY3 and cited issues with the application process, which the evaluation team understands program staff made a good faith effort to address with them. Given this company's level of participation in the program, Ameren Illinois should continue program ally recruitment efforts, as well as offer inducements such as program ally bonuses to encourage current program allies to complete a greater number of projects in PY4.

#### **Program Benefits and Barriers to Participation**

Program benefits cited most frequently by participants, as well as non-participants, include energy and bill savings, lower maintenance costs, and program incentives. Non-participants are less likely to cite monetary rewards for installing energy efficient equipment as a benefit. Compared to PY2, there has been a significant shift in perceived program benefits among program participants. More specifically, there has been a drop in environmental considerations and energy/bill savings as perceived program benefits. The decline in the influence of environmental concerns may be the result of economic conditions, where worrying about the environment may be perceived as costly or simply not on the minds of customers.

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<sup>&</sup>lt;sup>25</sup> Subsequent to this interview, the evaluation team was able to determine that this ally has in fact continued to participate in the program.

Table 23. Main Benefits to Participating in the Program (Multiple Response)

	P'	PY1		PY2		3	Non-
Program Benefits	Prescr. (n=17)	Custom (n=55)	Prescr. (n=80)	Custom (n=50)	Prescr. (n=177)	Custom (n=47)	Participants (n=63)
Energy/bill savings	65%	82%	78%	56%	56%	45%	81%
Rebate/incentive	53%	31%	43%	62%	42%	57%	25%
Lower maintenance costs	24%	22%	23%	32%	19%	21%	35%
Better quality/new equipment	12%	24%	22%	12%	15%	13%	14%
Good for the environment	6%	16%	26%	26%	3%	4%	30%
Other		2%	1%	8%	2%	13%	

Lack of program awareness continues to be cited by program participants as a central reason why companies like theirs might not participate in the program, followed by financial reasons. Half of Prescriptive Program participants (50%) and 41% of Custom Program participants name lack of awareness as a barrier to participation, while 32% of Prescriptive and Custom Program participants cite financial reasons.

As presented elsewhere in this report, roughly half of non-participants (48%) are unaware of the Act On Energy program suggesting that program awareness is in fact an issue. Non-participants' reasons for non-participation also include prohibitive costs (61%), as well as the fact that they do not need new equipment (10%). These results remain largely unchanged as compared to the previous program year, which indicates that the same barriers to program adoption continue to exist and need to be addressed by the program to enable increases in energy efficiency among business customers.

Additionally, KAEs and trade allies echo participant and non-participant comments about awareness levels and financial reasons for non-participation. Based on in-depth interviews with KAEs, the main barriers to customer participation are customer budget constraints, lack of upfront capital for projects, and lack of staff. Further, three of the trade allies we spoke with shared this view and mentioned financial viability and return on investment as challenges. As previously mentioned, three trade allies also expressed concern that customers are unaware of the program and the incentives available.<sup>26</sup> Each of the four KAEs we spoke with suggested different ways to overcome these barriers, including increasing incentive amounts, changing the customers' way of thinking about their budget by promoting

<sup>&</sup>lt;sup>26</sup> One of these allies also mentioned that this is an issue particularly among customers for whom English is not their first language. This program ally mentioned Arabic, Indian and Chinese as languages frequently spoken by his customers, which operate convenience stores.

the benefits of long-term energy savings, hiring additional staff, and revising budgets to include more spending for energy efficient equipment upgrades.

Less commonly cited contributors to customer non-participation by trade allies are the approval process, the time required to monitor or replace equipment, and low incentive levels.

#### Program Ally and Contractor Performance and Recognition

Similar to previous program years, 78% of Prescriptive and 79% of Custom Program participants report using a contractor for their project. Despite a slight decline among Prescriptive Program participants as compared to PY2, satisfaction with contractor performance remains high. Program participants give high ratings to their contractor's ability to meet their needs in terms of project implementation and are nearly unanimous in their likelihood to recommend their contractor to others. Reluctance to recommend contractors, not surprisingly, stems from issues with equipment installation.

PY2 PY3 Prescr. Custom Prescr. Custom Prescr. Custom Mean rating of 9.2 9.2 9.5 9.8 8.9 9.3 contractor (n=42)(n=51)(n=42)(n=138)(n=11)(n=37)performance Would recommend 100% 100% 100% 93% 95% 97% contractor to (n=11)(n=42)(n=51)(n=41)(n=138)(n=37)others

**Table 24. Contractor Performance** 

Note: Contractor performance is rated on a scale from 0 to 10 where 0 is "not at all able to meet needs" and 10 is "completely able to meet needs."

Despite marketing efforts, recognition of the term program ally is lacking among program participants. With no significant change from the previous year, 22% of the Prescriptive Program participants and 43% of the Custom Program participants claim they are familiar with the term. As illustrated in Table 25, participants continue to demonstrate a lack of knowledge about contractor affiliation with the program.

Table 25. Participant Perceptions of Contractor Affiliation with the Program in PY3\*

	Prescriptive (n=138)	Custom (n=37)
Used program ally and know about it	49%	30%
Used program ally but think their contractor was not affiliated with the program	20%	22%
Used program ally but do not know if the contractor was affiliated with the program or not	22%	24%
Did not use a program ally but say their contractor was affiliated with the program	1%	11%

<sup>\*</sup>Note: The base of the percentages presented is program participants who said they used a contractor for their projects. Not all possible options are displayed in the table. Therefore, percentages do not equal 100%.

Only half of the Prescriptive Program participants (57%) and 47% of the Custom Program participants believe it is important that their contractor is affiliated with the Act On Energy Business program.<sup>27</sup> Similar to PY2, in PY3 an average importance rating of their contractor's affiliation remained 6 among Prescriptive and Custom program participants. Since registered program allies are capable of providing greater program-related support and assistance, the program would benefit from further promoting and encouraging contractors to mention their affiliation and status with the program, as well as marketing the additional knowledge that program allies have about the program.

## Non-Participant Energy Efficiency Knowledge and Behavior

In PY3, the evaluation team asked non-participants a range of questions aimed at establishing a high-level picture of the state of the market. Research findings show that there is a good deal of knowledge about energy efficiency options and interest in the program among those not participating. Opportunities also exist to provide additional education.

Nearly three-quarters of non-participants (73%) queried in PY3 report that they are either very knowledgeable or somewhat knowledgeable of the available options that can help save energy costs through increased energy efficiency. However, there is still potential for increased education as only 11% of non-participants say they are very knowledgeable about such options and over a quarter (26%) say they are either not very knowledgeable or not at all knowledgeable.

When making decisions about which equipment to purchase for their facilities, equipment costs matter most to non-participants. As a result, program messaging highlighting benefits such as lower initial investment costs and a decrease in equipment maintenance is likely to resonate with customers and motivate them to further explore program opportunities.

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 $<sup>^{27}</sup>$  A rating of 7-10 on a scale from 0 to 10 where 0 means "not at all important" and 10 means "very important."

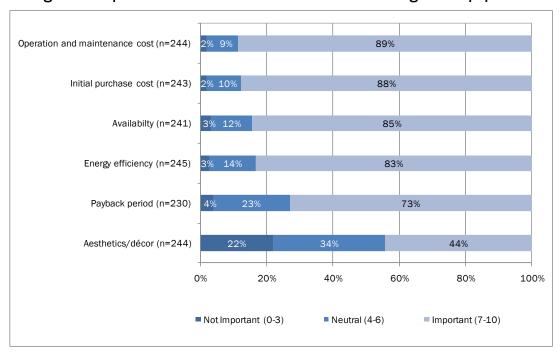


Figure 7. Importance of Various Factors when Purchasing New Equipment

Those familiar with the program express a likelihood of participating in the program in the future. Slightly less than two-thirds of non-participants (60%) who are familiar with the Act On Energy Business program say they are either somewhat or very likely to participate in the program in the future. However, the percentage of non-participants saying they are *very* likely to participate has declined markedly from the PY2 non-participant rate of 22% to 6% among PY3 non-participants. It is unclear why we found this precipitous drop in our research, but it is possible that businesses are less optimistic about their ability and willingness to participate given the current state of the economy.

In comparison to the percentage of non-participants who reported being somewhat or very likely to participate in the future in PY2, customer likelihood to participate has declined (78 vs. 58% in PY3). Those who say they would be unlikely to participate in the program in the future list high equipment costs, lack of program awareness, and low interest because of their business size (i.e., small business customers) as detrimental factors.

# Customer and Trade Ally-Indicated Areas for Improvement

We asked Prescriptive and Custom participants about improvements they would like to see made to the program. Similar to the previous program years, about a third of the Prescriptive (31%) and Custom Program participants (29%) have no recommendations for program improvements. Those who do, cite, among other things, an increase in incentives, greater measure variety, and greater program publicity. Interestingly, improvement of incentives was reduced in importance among Prescriptive Program participants in PY3 as compared to PY2. This might be explained by a variety of bonus offers and promotions offered to customers throughout the program year.

Table 26. Suggested Program Improvements by Program by Program Year (Multiple Response)

B	PY1		P\	<b>/2</b>	PY3	
Potential Improvement	Prescr. (n=16)	Custom (n=51)	Prescr. (n=77)	Custom (n=51)	Prescr. (n=140)	Custom (n=41)
No recommendations	38%	31%	31%	29%	31%	29%
KAEs provide more information	6%		3%	12%	12%	17%
Greater publicity	25%	18%	13%	18%	14%	10%
Higher incentives	25%	33%	34%	22%	11%	23%
More incentives		4%	21%	25%	11%	
More measures	19%	10%	12%	6%	7%	7%
Relax partner guidelines	6%		2%	2%	3%	5%
Advance payment		2%	11%	4%	3%	5%
Faster processing		2%		4%		7%
Simpler application process		4%	4%	4%		
Other		4%	6%	2%	16%	12%

In addition, when asked how Ameren Illinois could improve the program, four of the trade allies with whom we spoke offered suggestions including more direct contact with program staff, getting the word out to more customers, and making the program more user-friendly by reducing deadlines and easing participation requirements.

# 3.2.2 Online Store Results

# **Online Store Participants**

We conducted interviews with Ameren Illinois customers who purchased products through the Act On Energy Online Store, as well as those who responded to a promotional offer by mailing in a coupon for free CFL bulbs. In this section of the report, we refer to both as participants.

These participants represent a variety of sectors and industries. However, the majority of participants operate in the not-for-profit (21%), retail/service (20%), office (8%), and agriculture (6%) sectors. Three-quarters of the online store participants (76%) own and occupy their facility, and a quarter (23%) rent their facility. Almost everyone (95%) pays their electric bill. Not surprisingly, since the online store was open for the greater part of the year to smaller customers, 71% of the online store participants rate their company size as small, 17% as medium, and 12% as large.

In PY3, the majority of online store savings are a result of the free CFL coupon offer, where customers could fill out a coupon and receive up to six CFLs for free (Table 27). This free CFL offer, despite containing information about the online store and the energy efficient products available there does not appear to have encouraged additional purchases among

these customers. During PY3, only 2% of customers who received free CFLs through this offer also purchased products through the online store.<sup>28</sup>

Table 27. Online Store Purchases (in Units)

Product Type	Number of Units Sold
Spiral CFLs - Free	17,717
Spiral CFLs - Paid	6,018
Specialty CFLs	1,704
T8 ballasts	1,178
LED exit signs	942
Motion sensors	390
LED exit sign retrofit kits	170
Vending controls	110
LED lights	26
LED Downlights	20
T8 lamps	19
Smart strips	3

# **Program Awareness**

For online store purchasers, bill inserts and other mailings are the most frequently mentioned sources of program awareness (58%). In addition, 15% of purchasers first learned about Ameren Illinois online store via email, and 11% remember receiving marketing materials included with free CFLs.<sup>29</sup> These findings indicate that the marketing tactics used to promote the online store are fairly successful at reaching the intended target audiences.

Among the online store purchasers, core marketing mechanisms also match customer desired marketing channels – 58% would prefer to be reached via email, 44% through bill inserts, and 35% through direct mail sources.

# **Program Processes**

# Online Store Use and Experience

The online store serves as a source of new information for Ameren Illinois customers and allows them to access data on available energy efficient products. Most survey respondents felt that the store provided relevant information regarding energy savings, energy saving products, researching and purchasing energy efficient products, and obtaining these products. The following table presents customer ratings for the online store.

OPINION DYNAMICS

<sup>&</sup>lt;sup>28</sup> A customer is defined by a unique account number.

 $<sup>^{29}</sup>$  The question asking online store purchasers/free CFL recipients about the sources of program information was an unaided open-ended question.

Table 28. Benefits Provided by the Online Store

Agreement with the following statements a	Mean Score
Made it easy to obtain energy saving products (n=53)	8.8
Is a valuable tool for researching and purchasing energy saving products (n=54)	8.2
Exposed me to energy saving products (n=53)	7.7
Provided me with information I didn't know before (n=53)	7.6

Note: Scale is from 0 to 10 where 0 is "strongly disagree" and 10 is "strongly agree."

Overall, online store shoppers are also happy with the amount of information provided on the website. Ninety-three percent of respondents report that the Ameren Illinois Act On Energy online store contained "just the right amount" of information, while only 7% reported it displayed too little. Those who stated that there was too little information would have preferred to see more detail about products, potential savings, and a greater variety of products for sale.

The existing website features and functionalities also meet with customer approval -91% do not think that any features are missing. The few who do, expressed a desire for more detailed product specifications and pictures, and improved shipping tracking system. In addition, as illustrated in Table 29, participating customers generally find the online store website easy to use.

Table 29: Participant Ease of Use Ratings

Found the following part of the website difficult or easy	Mean Score
Getting to the online store landing page (n=57)	8.2
Navigating the online store website (n=57)	8.2
Creating an online store account (n=39)	8.1
Finding the products that interested you (n=57)	8.0
Getting the information that you were looking for (n=57)	7.9
Making payments for the purchased products (n=39)	7.9

Note: Scale is from 0 to 10 where 0 is "very difficult" and 10 is "very easy."

Fewer online store users accessed certain other features available to shoppers on the website. For example, 51% of customers did not use the package tracking feature and 54% did not use the live chat feature available through the online store website. Among those that know about the existence of the feature and used the features, these options were considered somewhat helpful (a mean score of 6 on a scale from 0 to 10 where 0 is not at all helpful and 10 is very helpful). Respondents were slightly more supportive of the search function and detailed product descriptions found on the online store, giving both those features an average rating of 8 in terms of their helpfulness. Shoppers were also more likely to report using these two features.

<sup>&</sup>lt;sup>a</sup> Average ratings presented in this table only include the valid responses of qualified customers. Therefore, we did not include customers who could not provide a rating for a specific online store component or customers who never visited the online store.

#### **CFL Coupon Experience**

Ameren Illinois customers who took advantage of the coupon offer also found the experience easy. For example, customers who participated in the special CFL offer sponsored by the online store overwhelmingly found submitting the coupon for free CFLs easy. In fact, 84% of respondents rate the process a 10 on a scale from 0 to 10 where 0 is very difficult and 10 is very easy.

## **Customer Satisfaction**

Online store shoppers are very satisfied with their overall online store experience and give their satisfaction an average rating of 9. In addition, participants are satisfied with the support provided by the website, as well as the processing and shipping times.

- ➤ Support Services. In general, customers require minimal assistance while using the online store. When shopping online, only 5% of users report asking for email assistance with the website, and only 7% report needing support over the phone. Among those who needed assistance, the majority (3/5) provided a satisfaction rating of 8 or above on a 0 to 10 point satisfaction scale, where 0 is very dissatisfied and 10 is very satisfied. As a result, the website interface appears to work well for participating customers.
- ➤ Shipping Time. Overwhelming majorities of customers who either received free CFLs or purchased energy efficient products through the online store received their products in the mail within a month of submitting an order or mailing in their free CFL coupon. Participating customers are satisfied with this amount of time and provided an average satisfaction rating of 9 (among customers who received free CFLs) or 8 among customers who purchased products through the online store.<sup>30</sup>

PY3 Free Other Duration **CFLs Products** (n=56)(n=28)1 week 32% 6% 2 weeks 40% 43% 3 weeks 17% 14% 4 weeks 23% 4% 10% More than 5 weeks 7% Have not received them yet 4% \_\_

Table 30. Online Store Product Shipping

➤ Product Selection and Return. In addition to satisfaction with the speed of product delivery, online store shoppers are very satisfied with the selection of products offered through the online store (average rating of 8).<sup>31</sup> The fact that nearly no one returned

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<sup>&</sup>lt;sup>30</sup> On a scale from 0 to 10, where 0 is very dissatisfied and 10 is very satisfied.

<sup>31</sup> Ibid

products purchased through the online store is another indicator of satisfaction with the store's offerings.

## **Future Participation**

Online store shoppers also report a fairly high likelihood of repeat online store purchases. Nearly a third (30%) said they definitely plan to use the online store for energy efficient product purchases within the next year, and another 68% said they may do so. Customers are also likely to recommend the online store to other businesses (mean rating of 8 on a scale from 0 to 10 where 0 is very unlikely and 10 is very likely), with over a third (37%) saying they would be very likely to recommend the online store (a rating of 10 on the same scale).

Customers who shopped the online store more than once were asked to provide a reason for repeat purchases. Of the nine people who were asked this multiple response question, seven said that the online store promotional offering motivated repeat purchases; four said that their experience with already purchased products or need for additional products were the motivating factors.

## Importance of Free Shipping

Among other questions, respondents were also asked about the importance of the free shipping offer in their decision to purchase energy efficient products through the online store. Over half (52%) say that free shipping was an extremely important factor in their decision to purchase products through the online store.<sup>32</sup>

While the free shipping offer appears to be an important factor that motivates customers to purchase products through the online store, there does not appear to be a correlation between the importance of the free shipping offer and respondents' free-ridership scores. This may mean that free shipping motivates customers to purchase products through the online store that that they might have otherwise purchased through a different venue. The exploration of the impact of the free shipping offer (which essentially can be referred to as indirect program incentive) was limited this program year considering the limited contribution of the online store savings to the overall portfolio savings. However, it may be appropriate to explore this program component further in future program years.

# **Online Store Channeling**

More than half of the online store users (57%) are aware that Ameren Illinois offers other incentives for energy efficient equipment upgrades and improvements. Further, among those who are aware, 22% applied for additional incentives during the past year. These incentives included lighting upgrades, HVAC tune-ups, and other equipment replacement.

Despite participation in other Ameren Illinois programs, 91% of respondents who received additional incentives state that the online store did not influence their decision to take advantage of these incentives. This could indicate that the online store is serving as a

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<sup>32</sup> A rating of 10 on a scale from 0 to 10, where 0 is not at all important and 10 is extremely important.

reminder (and not an initial source of information) to customers about the incentives available and not as the first push towards selecting energy efficient equipment.

# 3.2.3 Impact Results

# **C&I Prescriptive Program**

## **Core Program**

Our impact analysis activities for the Prescriptive Program (excluding the online store) yielded ex post gross kWh that are slightly higher than ex ante estimates and peak kW impact estimates that are slightly lower than the ex ante estimates.

Gross Impacts									
		E	x Ante	E	x Post	Realization Rate			
End Use	Measures	kW	kWh	kW	kWh	kW	kWh		
Lighting	2,556	10,971	49,648,069	10,997	55,238,371	1.00	1.11		
HVAC	163	1,038	3,486,279	547	1,828,462	0.53	0.52		
Refrigeration	592	265	6,732,064	265	6,705,710	1.00	1.00		
Motor	224	6,902	24,177,521	6,120	27,904,902	0.89	1.15		
Lodging (GREM)	-	-	-	-	-	-	-		
Agriculture	2	6	17,856	6	17,856	1.00	1.00		
Commercial Kitchen	-	-	-	-	-	-	-		
Total	3,537	19,182	84,061,788	17,935	91,695,300	0.93	1.09		

Table 31. Prescriptive Program Gross Impacts

Note: Realization Rate = Ex Post Value / Ex Ante Value

These ex post gross impact estimates for the Prescriptive Program are the result of specific adjustments as outlined below.

- Multiple adjustments were made to the lighting ex ante values, some that increased the ex post savings and others that decreased ex post savings. The overall realization rate for lighting peak demand is very close to 1, reflecting improvements to the TRM that led to minimal ex post reductions, while hours of use adjustments in PY3 resulted in ex post energy savings that were approximately 10% greater than ex ante values.
  - Many PY3 projects had ex post hours that were greater than TRM defaults. Of 75 responses, 28 had annual full load lighting hours greater that the default value, including nine sites with greater than 7,000 hours. In PY3, the simple average hours for the 75 responses were 4,132 hours.
  - One project received an 802 kWh reduction in impacts for installing additional fixtures to increase light levels in the space after the retrofit was completed.
  - Savings for one instance of four LED exit signs was adjusted downward for claiming a CFL baseline. A second instance of four LED exit signs was adjusted downward for claiming to have installed LED retrofit bulbs rather than new signs, and the bulbs were not confirmed as program-qualifying.

- The savings claimed for most of the non-HVAC variable speed drive measures in the impact sample matched the TRM methodology and were not adjusted. However, there were nine exceptions in the impact sample where the baseline usage and maximum savings was not provided, resulting in evaluation adjustment. For these nine projects, the evaluation team calculated a baseline and maximum energy savings following the TRM methodology, and three of the nine projects received downward adjustments of approximately 34% to energy savings and peak demand.
- ➤ The savings for two small motor projects received substantial adjustments. One project received an hours of use adjustment from 2,080 hours to 440 hours while the second project received an increase from 2,080 hours to 8,760 hours. Both projects had impacts calculated using standard algorithms, project data, and baseline assumptions.
- ➤ The team adjusted savings for unitary HVAC projects in the impact sample downward based on findings from the Ameren Illinois PY3 TRM review, which concluded TRM impacts were overstated. The evaluation and implementation teams discussed the use of standard savings values for common HVAC measures (e.g., unitary HVAC) in November 2010, and the implementer indicated<sup>33</sup> that further discussions between Ameren Illinois and ComEd would take place in January 2011.

HVAC equipment capacity, efficiency level, and building type were used to match per unit impacts from ComEd's PY3 default values. The ComEd savings calculations draw upon DOE-2 models generated with eQUEST software. The models are specific to ComEd service territory and use Chicago climate zone data. The baseline efficiencies are in accordance with ASHRAE 90.1-2007, which has been the basis for Illinois commercial energy code effective January 29, 2010. As agreed in earlier conversations with Ameren, the default savings from ComEd were used for Ameren Illinois without adjustment for cooling degree days.

No adjustments were made to HVAC VSDs or other HVAC measures.

One refrigeration project involving anti-sweat heaters received a minor ex post energy reduction because the respondent claimed the previous system to reduce condensation operated for 15 hours per day. There were no other adjustments to refrigeration projects.

Table 32 below presents the estimated NTGR by measure, and program level net energy and demand impacts attributable to the Prescriptive Program. We found no spillover among Prescriptive Program participants.

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<sup>33</sup> Rich Hackner, November 18, 2010 email attachment EMV and Program Followup 11\_18\_2010 update.xlsx.

Table 32. Prescriptive Core Program Net Impacts

	Gross Impact	ts			
End Use	Ex An	te	Ex Post		
	kW	kWh	kW	kWh	
Lighting	10,971	49,648,069	10,997	55,238,371	
HVAC	1,038	3,486,279	547	1,828,462	
Refrigeration	265	6,732,064	265	6,705,710	
Motor	6,902	24,177,521	6,120	27,904,902	
Agriculture	6	17,856	6	17,856	
Total	19,182	84,061,788	17,935	91,695,300	
Gross Realization Rate			0.94	1.09	
	NTGR				
End Use	Ex An	Ex Ante Ex Post		ost	
Lighting		0.78	0.		
HVAC		0.47		0.78	
Refrigeration		0.90		0.82	
Motor		0.63		0.76	
Agriculture		0.76		0.76	
	Net Impacts	s			
Lighting	8,557	38,725,494	8,357	41,981,162	
HVAC	488	1,638,551	427	1,426,200	
Refrigeration	238	6,058,858	217	5,498,682	
Motor	4,348	15,231,838	4,651	21,207,726	
Agriculture	5	13,570	5	13,570	
Total	13,636	61,668,311	13,657	70,127,340	
Net Realization Rate			1.00	1.14	

As illustrated in the table above, with the exception of HVAC and Motor projects, there are relatively small differences between ex ante and ex post NTGRs. In contrast to PY2 when we saw a number of participants in these areas report that they would have completed the same projects at the same time without the program, PY3 program participants generally do not exhibit the same low overall influence and timing scores.

Table 33 below illustrates the change from initial ex ante gross impact values to final ex post net impacts.

Table 33: C&I Prescriptive Core Program Impacts

	Gros	s Impacts	NTGR	Net Impacts		
	kW kWh			kW	kWh	
Ex Ante	19,182	84,061,788	0.76	13,636	61,668,311	
Ex Post	17,935	91,695,300	0.77	13,657	70,127,340	
Realization Rate	0.93	1.09		1.0	1.14	

Note: Realization Rate = Ex Post Value / Ex Ante Value

#### Online Store

The evaluation team did not conduct a full impact evaluation of the Prescriptive Program's Small Business Online Store component given its relatively small contribution to the overall portfolio. As a result, ex ante impacts are equal to ex post as illustrated in Table 34, which contains the energy impacts for this program component.

	Gross Impacts	NTGR	Net Impacts
Ex Ante	32,620,463	0.80	26,096,371
Ex Post	32,620,463	0.64	20,866,278
Realization Rate	1.0		0.80

Table 34. Online Store Impacts\*

Note: Realization Rate = Ex Post Value/Ex Ante Value

Because we expected the NTGR to vary based on the type of product purchased versus the receipt of free CFLS, we performed research with participating customers to determine specific NTGRs. As Table 35 presents, we found different levels of free-ridership among those who purchased products through the online store and those who simply responded to a free CFL coupon offer in the mail or requested free CFLs through the online store website.

As outlined in the Methodology Section of this report, we asked questions about a number of products available through the online store including spiral and specialty CFLs, and LED exit signs. However, the base sizes for spiral and specialty CFLs, as well as for LED exit signs and retrofit kits, were insufficient to develop independent net-to-gross ratios for those product categories. Therefore, we weighted the free-ridership scores for each of those product categories by the energy savings that each product category contributes to the online store total to arrive at the aggregated free-ridership score shown in Table 34. The two free-ridership scores that the team calculated are:

- Free CFL products obtained either through filling out and mailing a coupon or online
- CFL and LED exit sign products purchased through the online store

The evaluation team then ran statistical tests of those two scores to determine if statistically significant differences exist across the two values. The exercise identified statistically significant differences between the two scores<sup>34</sup> and, as a result, the evaluation team decided to present the two scores separately.<sup>35</sup> For those product categories offered through the online store, but not included in our survey effort, the team assigned the Ameren Illinois planning value, which is a NTGR of 0.8.

<sup>\*</sup> Due to rounding, manually calculated net impacts will not match the values presented in this table.

 $<sup>^{34}</sup>$  Due to small base sizes, the evaluation team chose to use Wilcoxon rank-sum non-parametric test. The results of the Wilcoxon rank-sum test indicate that there is a significant difference in free-ridership scores between the two categories of purchases (z = -2.318, p=0.0204).

 $<sup>^{35}</sup>$  It is also important to note that these results suggest Ameren Illinois should monitor the continued viability of free product offerings going forward.

Table 35. Small Business Online Store Energy Impacts

Product Category	Ex Post Gross kWh	NTGR	Ex Post Net
Free CFLs	30,047,178	0.62	18,715,827
Non-free CFLs, LED exit signs and LED exit sign retrofit kits	2,106,504	0.84	1,777,026
Other products	466,781	0.80	373,425
Total	32,620,463	0.64	20,866,278

In addition, the evaluation team sought to assess the potential presence of participant spillover resulting from the online store. Thirty percent of online store participants (n=9) purchased and installed other energy efficient measures without any incentives from Ameren Illinois after their online store purchases. Of those, three respondents said that their experience with the online store was an influential factor in their decision to take additional energy efficient actions on their own.<sup>36</sup> Measures purchased and installed by these respondents include, among other things, dishwasher nozzles, additional lighting products (T8s, CFLs, etc.), vending misers, automatic door closers for refrigeration equipment, and programmable thermostats, many of which are available through the online store.

Overall, these respondents demonstrate that there is the potential for around 10% of all online store participants to take similar action outside of the program. However, we did not capture sufficient information to calculate a spillover value this year. Given these results, we believe this is an important area of research to continue in future program years.

# **Overall Prescriptive Program Results**

Table 36 below presents impact results from the full Prescriptive Program, including core and online store components.

Table 36. C&I Prescriptive Program Impacts

	Gros	ss Impacts	Net Impacts		
	kW	kWh	kW	kWh	
Ex Ante	19,182	116,682,251	13,636	87,764,682	
Ex Post	17,935	124,315,763	13,657	90,993,618	
Realization Rate	0.93	1.07	1.00	1.04	

# **C&I Custom Program**

## Site Specific Results

The table below presents the results of the gross savings analysis for the 45 Custom sites in our sample. It is important to note that while individual projects had realization rates ranging

 $<sup>^{36}</sup>$  These customers rated the influence of the online store as 8, 9, or 10 on a scale from 0 to 10, where 0 is no influence at all and 10 is a great deal of influence.

from zero to approximately 200%, all of the technology categories show realization rates of less than 100%.

Technology	Qty	kW Savings			kWh Savings		
recillology		Ex Ante	Ex Post	RR	Ex Ante	Ex Post	RR
Lighting	16	629	570	91%	4,984,464	4,560,180	91%
Compressed Air	14	2,021	1,857	92%	15,881,534	13,307,136	84%
Controls	4	118	104	88%	705,185	527,340	75%
Motors	4	308	158	51%	2,131,110	1,026,266	48%
Miscellaneous	7	498	372	75%	4,880,143	3,152,396	65%

Table 37. Custom Site Visit Results

Within the lighting category, the primary reduction in savings is due to the removal from one project of approximately 400,000 kWh as a result of ineligibility due to the fact that the customer did not receive an incentive. Aside from this one project, the lighting category has a realization rate of 99%. A second project had the savings reduced significantly due to the use of an "alternative" baseline condition for a new construction project. The resulting watts per square foot from this alternative baseline did not meet the code maximum lighting power density.

Compressed air projects had the largest average savings values. The individual projects had realization rates ranging from 47% to 123%. The adjustments to savings had many causes including changes to compressed air usage, different hours of operation, and other factors. It is important to note that the documentation for these projects was often very difficult to follow and, in many cases, the baseline and proposed kW for a system did not match the values presented in the compressed air studies. There was no apparent explanation for the discrepancies or source of the new values, and we were unable to fully understand why our values were different.

The relatively lower realization rate for the miscellaneous category is based mainly on three projects. Two projects were for insulated doors. The insulated doors allowed heat lamps used to prevent frost buildup to be removed. The original analysis only accounted for the direct savings while the addition of the interactive effects (refrigeration system savings) increased the savings for these measures by approximately 22%. Another project included the improvement of a chilled water distribution system. However, the majority of the savings for this measure are from the "avoided" energy of a new chiller that was not installed due to the improved chilled water system being able to provide chilled water to a new building on the campus. However, no baseline cost was included for the project. If the cost of the chiller and installation were added to the baseline condition, the project had negative incremental cost, and therefore, was ineligible for a program incentive.

# **Overall Program Impacts**

Our impact analysis activities yielded ex post gross kWh and peak kW impact estimates that are lower than ex ante estimates. In addition, compared to PY2, we found slightly lower levels of free-ridership and identified participant spillover, which resulted in a NTGR of 0.74 for the program overall. The additional savings increased the program level NTGR from 0.74 to 0.75.

Table 38. Custom Program Impacts

	Gros	ss Impacts	NTGR	Ne	t Impacts	
	kW kWh			kW	kWh	
Ex Ante	7,132	50,031,718	0.69	4,921	34,521,886	
Ex Post	5,972	40,454,655	0.75	4,479	30,340,991	
Realization Rate	0.84	0.81		0.91	0.88	

Note: Realization Rate = Ex Post Value/Ex Ante Value

# 3.2.4 Technical Reference Manual Review Results

# **Overall Findings**

Below we summarize our findings and recommendations from the PY3 TRM review. The evaluation team recognizes that Ameren Illinois has already made a number of changes to the next version of the TRM that address many of the issues highlighted here.

- Ameren Illinois included a write-up for VFDs applied in non-HVAC applications, which accurately reflects our past discussions.
- ➤ We recognized Ameren Illinois addressed the issue of including T8s in the baseline weighting for the high performance T8, and also included T12 electronic ballasts in the baseline weighting for fluorescent measures. These changes showed a significant improvement in the default savings estimations in the TRM.
- Ameren Illinois uses mostly DEER 2005 for the default savings estimates associated with indoor lighting measures. We recommend upgrading to DEER 2008 for these measures.<sup>37</sup>
- ➤ We recommend that the HVAC impacts reflect the current Illinois commercial energy code which is based on IECC 2009 (ASHRAE 90.1-2007) standards.

# **Lighting Review**

We noticed that some of the measure options, including lamp types and wattages, did not match the reference (source documents), and there are minor inconsistencies in assumptions across measures that have no explained basis. We found that there are minor calculation differences in the demand and energy saving estimates for most of the lighting measures (when rechecked in Excel). We found that some of the lighting measures did not provide a per unit estimate of the peak demand and energy savings of the qualified retrofit types, and also some measures have building types with inconsistent annual operating hours compared with values of other measures. Below we provide some specific measure comments:

➤ We see in T12 to T8 relamp/replacement Measure 9.1.3, a base lamp type F40T12/ES is used with a 3-lamp base fixture wattage 103W (with a retrofit lamp type F32T8/ES

<sup>&</sup>lt;sup>37</sup> The team also recommends upgrading to DEER 2008 for refrigeration, motors and HVAC measures.

which we think should have a 32W fixture lamp wattage instead of 28W). However, in Measures 9.1.4 or 9.1.5, for the same base lamp type, base fixture wattage of 113W is applied. This inconsistency should be corrected and the savings values recalculated.

- ➤ We found from Measure 9.1.9 to 9.1.12, and a few others, the energy factor assumptions are provided, but no per unit estimates for the measure peak demand and energy savings of the qualified retrofit types are provided. We think Ameren Illinois should include in the working paper per unit demand and energy savings values for the various building types if it is the per unit values that are programmed into the database. If the energy factor assumptions are programmed into the database along with the algorithm provided, this should be noted in the TRM.
- Ameren Illinois should clarify the retrofit options for base case wattage categories for several measures (see 9.1.22 through 9.1.30).
- ➤ We found throughout the lighting section that the annual operating hours for medical, warehouse, and retail building types are inconsistent for several measures. For medical, 8,736 hours is used for some measures and is on the high side, while other measures use an average value of 6,474 hours for medical. We believe 6,474 hours is a more broadly representative default value for the medical building type. For warehouse, both 3,597 hours and 4,160 hours are used for lighting measures in the TRM. We believe 4,160 hours is a reasonable value, and is close to the results of the ex post weighted PY2 phone survey responses (4,161 hours based on 11 warehouse responses). For retail, 4,210 and 4,306 hours are shown. Either value is reasonable, but 4,210 hours is more consistent with DEER 2005 and DEER 2008. There should be consistency in these values, and because they are averaged across the "other" building type (i.e., for miscellaneous), consistency for the average as well.
- ➤ For control measures like 9.1.13 or occupancy sensor measures (ex., 9.1.14), it is not clear if time off rates were applied in the savings algorithm. There is the need to ensure that the number of controls being installed is not redundant with the value tracked for watts controlled. The algorithm shown requires watts controlled per controller rather than project total watts controlled. In addition, for occupancy sensors, we would expect to see savings split for on/off and day-lighting as opposed to using the same value for both. Ameren Illinois should clarify how much savings is attributable to each.

#### **HVAC** Review

We found that Ameren Illinois based unitary HVAC savings on climate-adjusted values from DEER 2005. The kW and kWh savings estimates from DEER are higher than we expect for Illinois (see Measures 9.2.4 through 9.2.14 on unitary and split air conditioning systems and air source heat pumps). The current Illinois commercial energy code (based on IECC 2009 ASHRAE 90.1-2007) is more efficient than DEER 2005 and should form the basis of baseline equipment efficiencies. The savings values for unitary HVAC should be updated to reflect the current code baseline.

While this is a lower priority issue given that unitary HVAC savings are a small portion of portfolio savings, the savings for unitary HVAC measures in the PY3 impact evaluation were adjusted to reflect a replace-on-failure scenario of program-qualifying equipment versus new code-compliant standard-efficiency equipment

We also found that for all AC/Heat Pump measures, only one value of kWh savings is given, while A/C systems and heat pumps should have different savings values since the heat pump operates year-round. As a result, any additional information that Ameren Illinois can provide about the rationale for this would be helpful.

## **Lodging Review**

For both PTAC and PTHP<sup>38</sup> measures for guest room energy management, we found inconsistency in the measure savings values. The retrofit wattage needs to be justified for the demand and energy savings estimates.

## Refrigeration Review

Ameren Illinois's reference to the refrigeration standard measuresv1.xls is reasonable, but estimated values differ from similar estimates provided by Focus on Energy Evaluation report in March, 2010. ComEd has recently updated from the older California sources that Ameren Illinois uses to newer sources driven with Illinois weather data for strip curtains, anti-sweat heater controls, and automatic door closers on walk-in and reach-in coolers and freezers. Ameren Illinois should update their estimates in the TRM to match current trends of modified and new measures. We observed the following specific issues:

- There is generally a lack of information on how savings estimates were calculated for several measures and whether kW savings are peak or non-coincident.
- ➤ For the Measures 9.4.15 through 9.4.24 (discussing vending machines, snack machine controls, and ice makers), comparison should be made with other existing programs and measures, and current reference documents to determine whether the default savings values are appropriate. Similarly, for EC motor for walk-in and reach-in freezers, consider updating savings values with newer references and analyzing for the Illinois climate.
- ➤ Ameren Illinois should also review the baseline assumptions for EC motor measures and document how the savings value listed accounts for the two possible baseline motors, SP and PSC.

#### **Motors Review**

Ameren Illinois based PY3 motor savings on DEER 2005 values, but discontinued the program in December 2010. If Ameren creates a new, targeted program offering for motors in the future, savings should be updated to reflect the specific scenario targeted by the program.

## Water Heaters Review

The write-up on measures should justify the base and retrofit wattages used for savings calculations and the weighting percentages applied. It should also discuss how savings were estimated, as we were not able to reproduce the impact calculations.

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<sup>&</sup>lt;sup>38</sup> Packaged Terminal Air Conditioner (PTAC) and Packaged Terminal Heat Pump (PTHP).

Ameren Illinois should revisit the algorithm for water heaters, specifically related to assumptions around water use, standby losses, and inlet water temperature. We would recommend the future use of more complex water heater models for commercial applications where there is significant water use, and whenever the water heater is over 75,000 Btuh.

# Commercial Kitchen Equipment Review

We recognize the measures for the commercial kitchen program are new and the savings estimates are acceptable values. However, we suggest that additional reference or reference to original sources is needed to justify savings estimates and operating parameters.

## Agriculture Equipment Review

We recognize the measures for the agriculture equipment are new, but there is the need for some clarifications on measure options especially on choices of base and retrofits wattages, and operating periods. There are instances of claiming peak demand savings on heating measures. We also suggest measure assumptions should consider estimating savings separately for each agricultural building type or describe if weighting was applied.

# 3.3 Conclusions and Recommendations

## **Conclusions**

The Ameren Illinois Prescriptive and Custom programs completed another successful year in terms of participant satisfaction, as well as program performance against goals. Throughout the year, the program revised its design and implementation processes to ensure an easier, faster, and more customer-friendly participation process. For example, the program eliminated pre-approval and post-inspection requirement for smaller projects, and revised its Prescriptive Program applications from end-use-specific to sector-specific. Program staff also continued to provide high-quality ongoing support to customers and trade allies through the Act On Energy Business Call Center, technical review staff, and marketing and outreach staff.

Program participants express high levels of satisfaction with nearly all aspects of the participation process, from application submittal to incentive processing timelines. Trade allies, for the most part, are also highly satisfied with program processes. Likely as a result of these high levels of satisfaction, potential for repeat participation remained high in PY3 and in some cases even increased over the previous program years.

Relative to past years, despite a lack of human resources, program staff not only maintained, but exceeded, the variety of marketing and outreach strategies used to promote the program. Similar to the previous years, the program continued to successfully provide training and support to customers, trade allies, and Key Account Executives, as well as work with Chambers of Commerce to promote the program and its offerings. Further, program staff succeeded in establishing relationships with trade associations, as well as developing creative ways to engage customers with the program such as identifying additional program opportunities during post-inspections.

However, not all marketing and outreach endeavors have been successful. For example, staffing constraints have played a role in limiting the program's ability to expand its trade ally base, especially in areas lacking trade ally resources. Participant recognition of the term program ally also remains fairly low. Findings from our non-participant and trade ally research indicate that there is room for increased program outreach and education, especially among the non-English speaking customer segment. Program participants, when asked about potential barriers to participation among businesses like theirs, cite lack of awareness as a key reason for non-participation.

# **Impact Recommendations**

In addition to our recommendations for updates to the TRM, we make the following impact recommendation:

➤ Continue to improve project documentation. While there has been a significant improvement in the level of documentation for Custom projects over the previous program years, it is not always possible to match the project documentation to savings calculations included in the AIB tracking database. Where assumptions are made to calculate estimated savings, those assumptions should be clearly documented along with the rationale for making those assumptions.

# **Process Recommendations**

Our key recommendations related to the program process are:

- ➤ Continue providing support to program allies while further building trade ally network. Year-over-year, research has shown that trade allies are the key force behind the decision-making process related to equipment selection and project specification. The program has made great strides in engaging trade allies with the program and promoting the program through this market actor segment. However, moving forward, the program should continue to maintain close contact with trade allies while further expanding the network, especially in areas lacking trade ally representation. With increased program staff and the creation of a position solely responsible for trade ally support, the program is well positioned for success in this area.
- ➤ Continued customer education about trade allies. Participant research suggests that contractor affiliation with the program, as well as the benefits of using registered program allies for energy efficient projects is not widely recognized. The program should consider taking additional steps to further educate program participants about, and encourage them to use, registered program allies for their energy efficient projects. Registered program allies tend to be familiar with the program and are capable of providing high-quality program assistance to customers, which has the potential to result in higher customer satisfaction and repeat participation.
- Continue providing program updates and support to Key Account Executives. Key Account Executives are a gateway to, and a trusted source of information among, large commercial customers. Providing Key Account Executives with timely program updates and program support can keep the program top-of-mind and motivate them to mention the program to the accounts they manage. Traditionally, the program has done a good

job in this area and should continue to maintain and possibly expand the level of outreach and support provided to Key Account Executives in the future.

# 4. C&I Retro-Commissioning

# 4.1 Evaluation Methods

# 4.1.1 Data Sources and Analytical Methods

The assessment of the third program year of the Ameren Illinois Retro-Commissioning Program included both process and impact analyses.

# **Process Analysis**

For the process analysis, we used data from three data sources: review of secondary data, in-depth interviews, and phone surveys. Secondary data included program materials received from Ameren Illinois. The evaluation team conducted in-depth interviews with one program manager, as well as 4 of the 9 Retro-Commissioning Service Providers (RSPs) that completed projects through the Retro-Commissioning Program in PY3. In total, we conducted phone surveys with 17 of the 18 participating customers.

# **Impact Analysis**

### **Gross Impacts**

The ex ante savings for this program consisted of 13% of the portfolio savings. Following the agreed approach of expending impact resources on programs representing the top 85% of portfolio impacts, the evaluation team did not conduct a full impact evaluation of the program in PY3. As a result, in PY3 ex ante gross savings equal ex post gross savings for the Retro-Commissioning Program.

# **Net Impacts**

Given that a NTGR has not yet been developed for this program, the PY3 evaluation of the Retro-Commissioning Program includes the development of a NTGR based on free-ridership and participant spillover (see Spillover section below). Our assessment is based on a series of questions that explore the influence of the program in making the retro-commissioning upgrades, as well as the likelihood those actions would have been taken without the Ameren Illinois-sponsored retro-commissioning study. The evaluation team attempted to assess net impacts in PY2, but was unable to reach a sufficient number of program participants to extrapolate findings to the participant population.

### Free-ridership

Free riders are program participants who would have implemented the retro-commissioning actions identified as a result of the Ameren Illinois sponsored study even without the program. These estimates are based on a series of questions that explore the influence of the program in taking the retro-commissioning actions. For those projects included in the survey, we developed a net-to-gross factor that consists of two scores: influence of program

components and influence of program timing.

1. Influence of program components. This score is based on a series of four questions. These questions asked respondents to rate the importance of four program components, on a scale of 0 to 10 (where 0 is not at all important and 10 is very important): the availability of funding for the retro-commissioning study, the recommendation of the RSP, program marketing materials, and the recommendation from program staff. This score is equal to the highest rating given to any one of these components. Greater importance of the program components means lower level of free-ridership.

For example, if a respondent rated the availability of funding for the retrocommissioning study 8 out of 10, the recommendation of the RSP 7 out of 10, the information from the Retro-Commissioning Program or Ameren Illinois marketing materials 5 out of 10, and the recommendation from an Ameren Illinois program staff person 9 out of 10, the final Influence of Program Components score would be a 9 (the highest of all the scores given).

2. Influence of program timing. This score is developed based on three questions: 1) the level of action that the participant would have taken without the program (all, most, some, or none); 2) if they would have done the retro-commissioning at the same time without the program; and 3) if they would have done the retro-commissioning later, how much later. This score takes the response to the level of action question and adjusts this value by the responses to the timing questions. A greater likelihood of participating without the program means higher level of free-ridership. Later implementation without the program means lower level of free-ridership.

There are a number of possible scenarios when determining this score:

- A respondent reports they would have taken <u>all</u> of the actions implemented as a result of the Ameren Illinois-sponsored study if the program was not available. This respondent is a free rider and receives a timing score of 0.
- A respondent reports they would have taken <u>none</u> of the actions implemented as a result of the Ameren Illinois-sponsored study if the program was not available. This respondent is strongly influenced by the program and receives a timing score of 1.
- ➤ A respondent reports they would have taken <u>most or some</u> of the actions implemented as a result of the Ameren Illinois-sponsored study if the program was not available. The score for these respondents is based on when they would have taken these actions:
  - At the same time or less than a year later receives a score of 0.
  - Four or more years later (or not at all) receives a score of 1.
  - Between one and three years receives a range of scores from 0.25 to 0.75 with more credit (and a higher score) given the later the participant would have done taken the specified actions.

Each score can take on a value of 0 to 1, where a higher score means a lower level of free-ridership. The overall net-to-gross factor for a project is the average of the two scores. The net-to-gross factor for each project thus ranges from 0 (100% free-ridership) to 1 (no free-ridership).

An NTGR, weighted by the ex post kWh of the surveyed projects, was applied to the population gross impact to obtain a net impact of the program before any spillover was included.

### **Spillover**

Participant spillover refers to energy efficiency installations or tune-ups that were influenced by the program, but did not receive an incentive. An example of participant spillover is a customer who performed retro-commissioning at one facility and, as a result of the experience, performs additional retro-commissioning or installs other energy efficient equipment at other facilities, but does not request an incentive because of the program.

The evaluation team assessed spillover based on participant responses to the telephone survey. Based on this data, spillover was not found among Retro-Commissioning Program participants. While two participants indicated that they had installed additional energy efficiency measures at their facility for which they did not receive any financial support, the decision to do so was not influenced by their participation in the Retro-Commissioning Program.

# 4.1.2 Sampling and Survey Completes

# **CATI Telephone Survey**

We attempted to complete a telephone survey with all decision makers in the Retro-Commissioning Program. Opinion Dynamics fielded the survey between July 20, 2011 and July 29, 2011.<sup>39</sup> Table 39 presents the population values and completed survey information for the Retro-Commissioning Program. All data points were called at least seven times or when a hard refusal was given by the respondent before concluding the sample point to be non-responsive.

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<sup>&</sup>lt;sup>39</sup> The team completed one additional interview in October 2011.

	AIB Popu	ulation <sup>a</sup>	Sample Popul		Completed	Surveys b
Project Type	Projects	MWh	Contacts	Projects	Contacts	MWh
Compressed Air	19	21,778	15	19	15	21,328
Healthcare	3	3,026	3	3	2	3,026
Total	22	24,804	18	22	17	24,355

Table 39. Retro-Commissioning Completed Survey Points

The survey was used to gather data to support the estimation of the NTGR, and collect other information useful for the process evaluation. As we attempted to gather data from a census of program participants, the questions regarding the NTGR have no sampling error; therefore, no confidence intervals are applied to the NTGR (i.e., no precision values).

The evaluation team concluded that an un-weighted analysis for the Retro-Commissioning Program provided the best representation for process results given that no sampling took place. The analysis largely features the reporting of response frequencies, and we decided to give equal weight to each response.

# 4.2 Results and Findings

# 4.2.1 Process Results

# **Program Changes**

Ameren Illinois made a number of changes to the Retro-Commissioning Program in PY3 to enhance program delivery and make participation easier for their customers. The following are key program modifications seen in PY3:

- ➤ Early Completion Bonus: Program staff implemented a special promotion in PY3 to incentivize participating customers to complete their project within a specified timeline, and to exceed the minimum energy savings required for the project. This Early Completion Bonus provided between 1 and 2 cents per kWh for savings achieved in excess of a project's minimum energy savings requirement if completed by March or April 2011.
- ➤ Technical Review and Inspection Phase: During PY3, the program implemented post-installation inspections for all compressed air and healthcare retro-commissioning projects. In addition, the program updated a number of data collection forms, including the site inspection form and the verification form, which now includes a project

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<sup>&</sup>lt;sup>a</sup> The total number of projects listed reflects the population in AIB as of July 2011.<sup>40</sup> The final population of projects changed after the date of this extract and is reflected elsewhere in the report.

 $<sup>^{\</sup>rm b}$  Two of the 16 survey respondents terminated mid-interview. As a result, full data was not collected from those two respondents.

<sup>&</sup>lt;sup>40</sup> Given the window of time allowed for submitting project paperwork, AIB was not finalized for the program year until August 2011.

performance summary table. Program staff made these changes to better tailor documentation to each component of the Retro-Commissioning Program (i.e., healthcare or compressed air).

- ➤ Application Phase and Data Tracking: As part of the initial application, participants provide a pro-forma estimate of energy savings associated with their project. While this estimate is not new to the program, Ameren Illinois has updated the data tracking process so that this estimate is clearly identified in AIB as an estimate. In addition, the database contains information on minimum savings required and the actual savings achieved. These changes helped the evaluation team to determine final values when using AIB.
- ▶ Implementation Phase: Ameren Illinois now formally allows participating customers to perform the retro-commissioning work themselves, hire an area contractor, or use the RSP that performed the retro-commissioning study. At the time of in-depth interviews with program staff, the program had seen a mix of approaches to project implementation. For example, on the compressed air side, many customers chose to conduct leak repair on their own while hiring other contractors to perform any additional work.

Overall, program staff believes these changes have had a positive impact on the program, and the evaluation team found changes to data tracking in AIB particularly helpful. These program modifications demonstrate the program's flexibility and in a number of cases respond directly to findings from the PY2 evaluation effort.

# **Program Participation**

### **Participating Customers**

Program participation increased slightly in PY3 and compressed air projects continued to dominate. Overall, the program completed 21 retro-commissioning projects in PY3; 18 compressed air projects and 3 healthcare projects. Almost all Retro-Commissioning Program participants classify their business as industrial – more than half (8/14) as "heavy industrial" and 4 of 14 as "light industrial" – while 2 of 14 surveyed participants have medical facilities.

Most participating customers completed only one project through the program. However, two customers had more than one retro-commissioning project in PY3. One customer completed retro-commissioning at two facilities and another completed retro-commissioning at four facilities. Each project was at a different address and associated with a different account number.

# **Retro-Commissioning Service Providers**

The number of RSPs affiliated with the program increased in PY3. At present, there are nine RSPs specializing in healthcare and nine delivering compressed air services. This represents an increase of one RSP in the healthcare sector and three RSPs on the compressed air side of the program over PY2. In addition, the program succeeded in garnering greater participation across a number of RSPs in PY3. In comparison to PY2, where one RSP

completed 81% of all retro-commissioning projects, in PY3, retro-commissioning projects were more evenly distributed among the nine participating RSPs (Table 40).

Table 40. RSP Participation

Sector	Participating Company	Number of Projects
	HTE Compressed Air Solutions	5
	Airometrix MFG, Inc.	4
Compressed Air	Power Supply of Illinois	4
Compressed Air	John Henry Foster	3
	Jim McAuley, LLC	2
	Model Air Systems	1
	Energy Solutions, Inc.	1
Healthcare	Grumman/Butkus Associates	1
	Murphy Company	1

# **Marketing and Outreach**

The Retro-Commissioning Program continues to use a variety of channels for marketing and outreach. However, marketing to eligible customers is done mainly through RSPs, who can use Act On Energy program brochures to co-brand their services with Ameren Illinois. In addition, the program communicates with customers via email and bill inserts, as well as through events, such as regional trade association conferences and one-on-one meetings with customers. Key Account Executives also play a role in educating customers about the program.

In an effort to encourage participation, Ameren Illinois offered a special promotional effort in conjunction with the Custom Program, the Early Completion Bonus (described earlier in this report). Program staff implemented this promotion to encourage participating customers to complete their projects within a specified timeline, and to exceed the minimum energy savings required for the project. The Early Completion Bonus provided 1-2 cents per kWh for savings implemented in excess of the project's minimum energy savings requirement if the project was completed by March 31, 2011. As shown in Table 43, the offer continued into April, but incentives declined in each savings category.

Table 41. Early Completion Bonus Design

		Early Bonus Incentive	Bonus Incentive	Base Incentive
Project Completion	Date	By March 31, 2011	By April 30, 2011	By May 31, 2011
kWh Savings (above project	Up to 2 million	\$0.02/kWh	\$0.01/kWh	No Bonus – Study
minimum)	Over 2 million	\$0.01/kWh	\$0.005/kWh	Incentive Only

### **Program Outreach**

As illustrated in Table 42, the main method of outreach, RSP marketing, is effective in raising customer awareness of the program. Key Account Executives and the Act On Energy website also play a role in educating customers about the program.

Table 42. How Participants First Hear about the Program

Information Source	Participants (n=15)
RSP	4
Equipment vendor or sales representative	3
Ameren Illinois website	3
Friend/colleague/word of mouth	2
Bill insert	1
Ameren Illinois program representative	1
Another Act On Energy program	1

Existing relationships between Ameren Illinois customers and participating RSPs also help the program to recruit participants. Almost half of surveyed PY3 program participants (7/15) had a prior working relationship with their RSP. According to in-depth interviews with RSPs, the ability to leverage customer relationships is particularly helpful in making the case for program participation. RSP interviews also indicate that the clientele of some companies have no prior awareness of the program, demonstrating the RSP role as a first point of contact.

### Recall and Usefulness of Program Outreach

Two-thirds of participants (10/15) recall seeing marketing materials or receiving other information about the Retro-Commissioning Program and, among those who remember seeing or receiving information, 50% note receiving email. As shown in Table 43, direct mail, brochures, and in-person meetings and presentations also provide participants with program information.

Table 43. Recalled Marketing Materials among those Exposed

Marketing Materials	Participants (n=11)
Emails	6
Brochures	2
Presentation	1
Direct Mail	1
Application Form	1

Further, program participants find the materials developed and distributed by Ameren Illinois and the RSPs useful. For example, 9 out of 11 participants who recall receiving information about the Retro-Commissioning Program found the information at least somewhat useful in providing information about the program.

When asked about the best way to reach companies like theirs with information about energy efficiency opportunities, more than half of participants (8/15) note that email is the best way to reach their company. Other channels listed by participants for future marketing and outreach efforts include: flyers/brochures (2/15), one-on-one Key Account Executive meetings (1/15), webinars (1/15), trade publications (1/15), and trade allies (1/15). One respondent indicated that they would simply like to be contacted directly by the program.

### Awareness and Influence of the Early Completion Bonus

Ameren Illinois was effective in educating program participants about the early completion bonus and successful in encouraging program participants to accelerate the timeline for project completion whether or not they ultimately received the bonus. Overall, most participants (12/15) were aware of the bonus offer and among those with knowledge of the promotion, the majority (10/12) intended to complete their project as required to receive the bonus.

As shown in Table 44, while a small percentage of participants ultimately received the bonus payment, most of those aware of it (9/12) agreed that the bonus motivated their companies to complete their retro-commissioning projects in a shorter time period than if the bonus were not available.

Table 44. Bonus Utilization

Bonus Type	Number of Participants (n=14)		
	Eligible	Applied	
Bonus Level 1 - Early Bonus	5	4	
Bonus Level 2 - Bonus	3	2	
Total	8	6	

Source: AIB Extract (August 23, 2011)

For the two companies that did not intend to take advantage of the offer, the two most frequently cited reasons were resource constraints and paperwork.

# **Program Processes**

# **Participation Process**

### **Application Process**

In general, both program participants and RSPs report playing some role in filling out the program application, and each group provided positive feedback on this experience. Overall, more than three quarters of participants recall filling out at least some of the program application and those who filled out the application did not report that the process was difficult. On a scale from 0 to 10 where 0 means extremely difficult and 10 means extremely easy, more than half of program participants (7/13) report a score of 7 or higher.

This sentiment is shared by the program RSPs who also report that they typically fill out at least some of the application and find both the application easy to complete and the overall

process reasonable. In addition, the RSPs are also generally satisfied with the final application and payment process.

### **Program Responsiveness**

In PY3, the program is reaching a large proportion of participants through one-on-one meetings and communication, and this interaction is well received by program participants. Nearly two-thirds (10/15) of participants recall speaking to or meeting with a program representative to learn more about the Retro-Commissioning Program prior to participation. Further, participants find their communication with program staff very helpful in understanding the program requirements and incentives. Participants provided a mean score of 9.1 on a scale of 0 to 10, where 0 is "not at all helpful" and 10 is "very helpful."

Communication between program staff and participants continues as companies implement their projects to ensure that the work is moving along according to the program timeline and that the program handles any issues that may arise. Key Account Executives, program staff, and the Act On Energy Business Call Center also serve as resources to participants, and customers are taking advantage of these resources to some degree (Table 45).

Action Taken	Number of Participants (n=15)
Spoke with program staff	11
Ask questions of the technical reviewer *	6
Placed a call to the call center	3

Table 45. Utilization of Customer Support Services

Overall, Retro-Commissioning Program participants did not report encountering any problems during their participation. Only one participant reported that it took more than two days to receive a response from the technical reviewer working on their project. While an isolated case, the participant reported that they waited two weeks for a response.

### **Customer and RSP Satisfaction**

### **Program Administration**

Overall, participant satisfaction is high for the Ameren Illinois Retro-Commissioning Program. Retro-Commissioning participants were asked to rate their satisfaction with a number of program components, as well as Ameren Illinois. As shown in Table 43, participant satisfaction is high across all of the components. In addition, almost all participants (14/15) indicate that they would participate in the program again.

<sup>\*</sup>Note: This question was asked only of those who said they had contact with a program staff member.

Table 46. Participant Mean Satisfaction Ratings for Various Program Elements

How would you rate your satisfaction with?	Mean Rating (n=15)
Ameren Illinois	8.7
Incentive Level	8.6
Technical Review Staff	8.7
RCx Program overall	8.1
The Call Center's ability to answer your questions	7.7 (n=3)

Note: Satisfaction ratings are based on a scale of 0 to 10, where 0 is "very dissatisfied" and 10 is "very satisfied".

Similar to participating Ameren Illinois customers, RSPs report that they are generally satisfied with the Retro-Commissioning Program. However, one RSP reported that questions regarding program offerings were not answered promptly by the program staff causing initial difficulties for the RSP during a project's survey and implementation phases. This appears to be an isolated incident and one that did not have a negative impact on the participating customer.

### **Program Benefits**

Almost half of the program participants (8/15) note that the main benefit of program participation is the added financial incentive to complete the project work. Participants also listed energy conservation (4/15) and reduced energy bills (3/15) as main benefits that companies receive as a result of their participation in the Retro-Commissioning Program.

RSPs were also asked to describe benefits to their participation in the program. All RSPs report that it helps them to market their business and services to potential customers, who may not otherwise be able to afford to perform the retro-commissioning work without the program's incentive.

# Potential Barriers to Participation

Based on PY2 evaluation findings, the evaluation team also explored customer perceptions of Ameren Illinois' use of an incentive range in marketing the program. More specifically, Ameren Illinois informs customers that through the Retro-Commissioning Program, they will cover between 50% and 80% of the cost of the retro-commissioning study performed by the RSP. To assess whether this is a barrier to participation in the program, we asked participants if not knowing the exact incentive amount posed a challenge to their company's decision to participate. Two thirds of participants (10/15) report that this aspect of the program did not pose any decision-making challenges. For the one third who did identify this as an issue for their company, customers noted that not knowing the payback amount and a lack of awareness surrounding the achievable energy savings were issues that affected their decision making.

We also asked participants about potential drawbacks to participating in the program and almost half (6/15) noted that there are no drawbacks. Among those who identified drawbacks, the most frequently cited related to project timelines (4/9), specifically time limits for completing the projects, as well as the fact that projects often take longer to complete than planned. In general, retro-commissioning projects are complex in nature and

often take a significant amount of time to complete. As a result, staying within the 18-month program timeline is a challenge for many program participants.

In addition, three of nine participants who mentioned drawbacks noted that it takes a long time for projects to be approved (1/9) or for Ameren Illinois to respond to customer issues (2/9). Other drawbacks mentioned by individual participants include that the incentive is not high enough (1/9) and that participation requires the use of a third party to initiate the project..

When we asked participants why they thought that eligible C&I customers would decide not to participate in the program, the most common responses were a lack of program awareness (4/13) and a lack of resources (money and staff) (4/13). Other possible reasons given by participants as to why Ameren Illinois customers may not participate in the Retro-Commissioning Program include: the lengthy paperwork/application process (2/13), a lack of awareness about the benefits of energy savings (1/13), and a lack of time to complete the retro-commissioning study and recommended work (1/13).

### Customer and RSP-Indicated Areas for Improvement

When asked how the Retro-Commissioning Program could be improved in the future, three participants noted that they would appreciate more information and communication from Key Account Executives, as well as through other program materials. Individual respondents also mentioned shortening the incentive processing time and streamlining the application process as areas of program improvement.

In general, the RSPs with whom we spoke did not identify any areas in need of improvement. However, one RSP felt that the program should improve their response time for questions coming from the RSPs about specific projects.

# 4.2.2 Impact Results

# **Gross Impact Results**

The PY3 evaluation of the Retro-Commissioning Program did not include a full impact assessment of gross impacts given that the program accounted for less than 15% of the total portfolio ex ante savings. As a result, ex ante gross impacts are equal to ex post gross as illustrated in the following table containing the energy and demand impacts for the program.

Table 47. Gross Impacts - Retro-Commissioning Program

	Gross Savings	
	kW	kWh
Ex Ante	3,480	29,819,186
Ex Post	3,480	29,819,186
Gross Realization Rate	1	1

### **Net Impact Results**

Although the Retro-Commissioning Program did not meet the savings threshold for full impact evaluation, the evaluation team and Ameren Illinois felt it was important to develop an NTGR for the program in PY3 given that a NTGR had not been established for this program through the evaluation process to date.

We provide the net savings estimates from the Retro-Commissioning Program below. Participant responses to questions about what they would have done in the absence of the program contribute greatly to the NTGR for this program. In particular, two of fourteen participants would have taken all of the same actions they did as a result of the program, and four of fourteen would have taken most of the same actions. Notably, only one of the participants said they would have taken none of the actions implemented as a result of the program if it had not been available. Further, based on participant responses, the evaluation team found no participant spillover in PY3.

Gross Net NTGR kW kWh kW kWh Ex Ante 3,480 29,819,186 0.80 2,784 23,885,349 Ex Post 3,480 29,819,186 0.58 1,914 17,295,128

Table 48. Net Impacts - Retro-Commissioning Program

Table 49 illustrates the change from initial ex ante gross impact values to final ex post net impacts.

Table 49: C&I Retro-Commissioning Savings Overview

	kW	MWh
Ex Ante Gross Impacts	3,480	29,819
Ex Post Net Impacts	1,914	17,295
Realization Rate	55%	58%

Note: Realization Rate = Ex Post Value / Ex Ante Value

# 4.3 Conclusions and Recommendations

### **Conclusions**

Overall, the Retro-Commissioning Program implemented projects totaling 29,819 MWh in ex ante gross energy savings, which is more than double the program's PY2 savings of 12,639 MWh. However, free-ridership appears to be a significant concern for the program at this time. As described in the impact action of the report, a significant number of program participants indicate that they would have performed at least some of the retro-commissioning work on their own if the program had not been available.

Despite this challenge, the program succeeded in expanding participation in PY3 with 18 customers completing projects at 22 facilities, up from the 17 customers and 19 projects in PY2. Further, program staff are satisfied with the program's operation and there has been good implementation fidelity (i.e., the program is being implemented as planned). RSPs and

participants also generally report satisfaction with the program and the overall participation process.

### Recommendations

We make the following recommendations related to program processes:

- ➤ Given the impact of free-ridership on the program in PY3, program staff should discuss this issue with participating RSPs and develop a way to screen potential participants during the initial application phase to ensure that the program is ultimately motivating the customer to implement a project they would not have completed otherwise.
- ➤ To the extent possible, the program should continue to draw upon the Ameren Illinois Key Account Executives when working with large customers on retro-commissioning projects. While this is already taking place, customer suggestions for improvement indicate that some KAEs may be more active in this area than others.
- ➤ Program staff should continue to offer the early completion bonus to encourage the early completion of retro-commissioning projects, as well as the achievement of savings above the specified minimum. The participant response to this year's early completion bonus is a positive indication that monetary incentives can affect the timeline for project completion.

# 5. OTHER PROGRAMS EFFORTS

The following sections provide an overview and summary of impacts for two additional Ameren Illinois program efforts: The Direct Installation of Faucet Aerators and the Commercial Demand Control Thermostat Program. The team did not perform full impact evaluation work for either program given the small contribution of both the overall C&I portfolio. Further, we did not perform a process evaluation for the Commercial Demand Control Thermostat Program given its cancellation. For the Direct Installation of Faucet Aerators Pilot we reviewed program plans, as well as spoke with program staff, and describe the program below.

# 5.1 Direct Installation of Faucet Aerators

In PY3, Ameren Illinois implemented a pilot initiative to install faucet aerators in facilities that previously received a green nozzle as part of the Green Nozzles Program, as well as hotels, motels, or restaurant facilities that belong to the GDS2 rate class. Through this pilot effort, eligible Ameren Illinois customers received faucet aerators and low-flow showerheads. The pilot sent targeted mailings in two waves. The first aimed at customers located near Peoria, Quincy, Galesburg, Champaign/Urbana, and Metro East while the second went to customers in Decatur, Springfield, Marion/Carbondale, Mattoon, and Effingham. The intent of the pilot is to achieve both gas and electric savings. However, we present only electric impacts in this report.

The evaluation team did not conduct a full impact analysis of the Direct Installation of Faucet Aerators Pilot given its small contribution to the overall C&I portfolio. As a result, ex ante impacts are equal to ex post as is illustrated in the following table containing the energy impacts for the pilot.

	Gross Savings		Net Savings
	kWh	NTGR	kWh
Ex Ante	10,432	0.76	7,928
Ex Post	10,432	0.76	7,928

Table 50. Net Energy Impacts - Direct Install Faucet Aerators

# 5.2 Demand Response

The Commercial Demand Control Thermostat Program operated for a brief period in PY3 before Ameren Illinois decided to discontinue the offering in August 2010. Through this program, eligible small business customers received a Comverge SuperStat Programmable Thermostat that cycles the customer AC unit upon receipt of an Ameren Illinois signal during peak demand periods. The program is available only to customers in rate classes BGS-2, BGS-3A, RTP-2, or RTP-3A.

Before closing the program, Ameren Illinois installed six thermostats at participating customer facilities in PY3 (638 were installed in PY2). For the purpose of our analysis, the

evaluation team assumes that the program replaced non-programmable thermostats with programmable thermostats, as we would not expect energy savings to result in the event of a switch of one programmable unit for another. Further, given the limited activity of this program in PY3, the evaluation team did not conduct a full impact analysis of the program. As a result, ex ante impacts are equal to ex post as illustrated in the table below.

Table 51. Net Energy Impacts – Demand Control Thermostat Program

	Gross Savings		Net Savings
	kWh	NTGR	kWh
Ex Ante	2,361	0.77	1,818
Ex Post	2,361	0.77	1,818

Given the mix of demand response and energy efficiency components within the program, we present a separate discussion of demand impacts. In PY3, Ameren Illinois called one event in August 2011. The event was two hours in length and all business customers with eligible thermostats participated. Based on installations in PY2 and PY3, the total number of thermostats and therefore customers involved was 644.

To determine the demand impacts from this event, the team referenced the spreadsheet developed by The Cadmus Group, which documents the expected demand impact per thermostat per event. Based on this analysis, Ameren Illinois achieves impacts of 0.875 kW per event. As illustrated in Table 52 below, when applied to the total population of thermostats, the result is a demand impact of 564 kW in PY3.

Table 52. Demand Impacts - Demand Control Thermostat Program

Total Thermostats Installed	644
Net kW per Thermostat	0.875
Total Controllable Load	564

# A. APPENDIX: DATA COLLECTION INSTRUMENTS

Provided as a separate file.

# **B. APPENDIX: ENGINEERING DETAILS**

The engineering algorithms are presented in this appendix.

The estimated lighting end use impacts began by applying the set of algorithms shown below.

### Appendix Figure 1. Ex Post Algorithms for Lighting End Use

 $\textit{Ex Post kW Non-Coincident Impact}_p = \textit{Ex Ante kW}_p * \textit{Ex Post Adj1}_p * \textit{Ex Post Adj2}_p$ 

 $Ex Post kWh Impact_p$ 

 $= Ex Post \ kW \ Non - Coincident \ Impact_p * Ex Post \ Hours \ of \ Operation_p * Interactive \ Effects_p$ 

Where p=project

The realization rate is calculated using only those surveyed projects as shown next

Prescriptive Program Gross Realization Rate = 
$$\frac{\sum_{p=1}^{57} Ex\ Post\ kWh_p}{\sum_{p=1}^{57} Ex\ Ante\ kWh_p}$$

And then applied back to the population of projects using the algorithm below.

Prescriptive Program Ex Post Population kWh Impact

$$= \sum_{p=1}^{667} Ex Ante \, kWh_p * Prescriptive \, Program \, Gross \, Realization \, Rate$$

The custom program applied the same algorithms, except with different numbers.

Custom Program Gross Realization Rate = 
$$\frac{\sum_{p=1}^{p=} Ex \ Post \ kWh_p}{\sum_{p=1}^{p=} Ex \ Ante \ kWh_p}$$

Custom Program Lighting Gross Popluation kWh Impact

$$= \sum_{p=1}^{p=} Ex Ante \ kWh_p * Custom \ Program \ Gross \ Realization \ Rate$$

The ex post demand impact is for a coincident demand and is calculated as:

$$Ex \ Post \ kW_p = Ex \ Post \ kWh \ Impact_p * Coincident \ Factor_p$$

A gross realization rate is calculated as shown for energy and applied identically.

The engineering estimate for the motors end use is shown below.

### Appendix Figure 1. Ex Post Algorithms for Motors End Use

$$Ex \ Post \ kW \ per \ Motor_{m}$$

$$= Horsepower_{m} * Load \ Factor_{m} * 0.746 * (\frac{1}{Base \ Efficiency_{m}})$$

$$-\frac{1}{Post \ Efficiency_{m}})$$

$$Ex\ Post\ kW\ Impact = \sum_{m=1}^{n} Ex\ Post\ kWh_m * Coincident\ Factor_m$$

Ex Post kWh Impact

$$= \sum_{m=1}^{n} Ex \ Post \ kW \ per \ Motor_m * Number \ of \ Motors_m * Operating \ Hours_m$$

Where m=motor, and Load Factor =0.75

We used the following algorithm for the ex post savings associated with unitary HVAC.

### Appendix Figure 2. Ex Post Algorithms for HVAC End Use

$$Ex post kWh per unit = \frac{\text{ComEd PY3 TRM kWh per unit}}{\text{Ameren PY3 TRM kWh per unit}}$$

$$Ex \ post \ kW \ per \ unit = \frac{\text{ComEd PY3 TRM kW per unit}}{\text{Ameren PY3 TRM kW per unit}}$$

Where per unit values were matched between utilities based on equipment size category, qualifying efficiency tier, and building type.

The NTGR for the Prescriptive and Custom programs was calculated as shown in the algorithm below. This was identical to how the basic NTGR was calculated for ComEd.

# Appendix Figure 3. Basic Net to Gross Algorithm for Standard and Standard Revised Projects

NTGR = Average of Influence (Program components, no - program timining, and direct influence)

*Influence of program components* 

= Max value from 5 components (1. available of the rebate, 2. information provided by audit or other technical assistance, 3. information from utilty or program marketing materials, 4. program staff recommendation, 5. recommendation by utility account representative)

Influence of Program Timing
= prorated value based on indication of when measures may have been
installed without the program

Direct Influence

= Value from respondent that is cut in half if they indicate that they learned about the rebate after installing the measures

We calculated the NTGR for the Retro-Commissioning Program using the following algorithm.

### Appendix Figure 4. Net to Gross Algorithm for Retro-Commissioning Projects

$$NTGR = Average \ (NTG1, NTG2)$$

$$NTG1 = Max \ (N4a, N4b, N4c, N4d)/10$$

$$NTG2 = Average \ (NTG2a, NTG2b)$$

$$If N6=1 \rightarrow NTG2a = 0 \qquad If N7=1, 2 \ or N8=1 \rightarrow NTG2b = 0$$

$$If N6=2, 3 \rightarrow NTG2a = 0.5 \qquad If N8=2 \rightarrow NTG2b = 0.25$$

$$If N8=3 \rightarrow NTG2b = 0.5$$

$$If N8=4 \rightarrow NTG2b = 0.75$$

$$If N8=5 \ or N7=4 \rightarrow NTG2b = 1$$

# C. APPENDIX: PY3 MEASURE ADDITIONS

### Appendix Table 1. New PY3 Prescriptive Measures

Category	Measure ID	Measure Description
Agriculture	BPA2	High efficiency high speed exhaust ventilation fans (36-47 inch diameter fan)
Agriculture	BPA3	High efficiency high speed exhaust ventilation fans (48-71 inch diameter fan)
Agriculture	BPA4	High efficiency circulation fans (24-35 inch diameter fan)
Agriculture	BPA5	High efficiency circulation fans (36-47 inch diameter fan)
Agriculture	BPA8	Equipment heater timers
Agriculture	BPA9	Live stock waterer
Agriculture	BPA10	Live stock waterer
Agriculture	BPA7	High volume low speed (HVLS) fans
Agriculture	BPA6	High efficiency circulation fans (48-71 inch diameter fan)
Agriculture	BPA1	High efficiency high speed exhaust ventilation fans (24-35 inch diameter fan)
Commercial Kitchen	BPCK1	Electric steamers (3 pan)
Commercial Kitchen	BPCK2	Electric steamers (4 pan)
Commercial Kitchen	BPCK4	Electric steamers (6 pan)
Commercial Kitchen	BPCK5	Hot holding cabinet (half size)
Commercial Kitchen	BPCK6	Hot holding cabinet (three-quarter cabinet)
Commercial Kitchen	BPCK7	Hot holding cabinet (full size)
Commercial Kitchen	BPCK8	Electric griddle
Commercial Kitchen	N/A	Electric fryer
Commercial Kitchen	N/A	Electric ovens
Commercial Kitchen	N/A	Kitchen vent hood controls
Commercial Kitchen	BPCK13	High temperature dishwasher
Commercial Kitchen	BPCK14	Low temperature dishwasher
Commercial Kitchen	BPCK3	Electric steamers (5 pan)
HVAC	BPC21	Air conditioner tune-up
Lighting	BPL41	T12 to T8 (32 watt) relamp and reballast
Lighting	BPL43	T12 to T5 new fluorescent fixture
Lighting	BPL51	Canopy lighting with electronic ballasts

Category	Measure ID	Measure Description
Lighting	BPL42	T12 to T8 (ultra low wattage - 25 watt) relamp and reballast
Lighting	BPL40	Fluorescent U-bend relamp and reballast
Lighting	BPL50	Garage type fixtures with electronic ballast
Lighting	BPL45	Single lamp T5 fluorescent fixture with reflector
Lighting	BPL44	T8 to T5 relamp and reballast
Lodging	BPLD1	Guest room energy management (GREM) controls (PTAC)
Refrigeration	BPR27	Solid door freezer (up to 15 cubic feet)
Refrigeration	BPR28	Solid door freezer (15-30 cubic feet)
Refrigeration	BPR30	Solid door freezer (51+ cubic feet)
Refrigeration	BPR31	Glass door freezer (31-50 cubic feet)
Refrigeration	BPR32	Glass door freezer (51+ cubic feet)
Refrigeration	BPR29	Solid door freezer (31-50 cubic feet)

# D. APPENDIX: SUMMARY OF IMPACT METHODS

### Appendix Table 2. Gross and Net Impact Methods

Program Element	Gross Impact Method	Net Impact Method	NTG Ratio Source
C&I Prescriptive	Engineering Desk Review	Customer Self Report	C&I Standard Participant Survey
Small Business Online Store	None Performed	Customer Self Report	Online Store Participant Survey
C&I Custom	On-site Visits, Metering (where applicable) and Engineering Desk Review	Customer Self Report	C&I Custom Participant Survey
C&I Retro-Commissioning	None Performed	Customer Self Report	C&I Retro-Commissioning Participant Survey
Commercial Demand Response E-Thermostat	None Performed	None Performed	Ameren Illinois

# APPENDIX A: DATA COLLECTION INSTRUMENTS

#### AMEREN ILLINOIS ACT ON ENERGY BUSINESS PROGRAM

### **PARTICIPANT SURVEY – CUSTOM PROJECTS**

Final

### 07/20/11

#### **INTRODUCTION**

[KEAD IF CONTACT	-T]	
Hello, this is	from Opinion Dynamics calling on behalf of Ameren Illinois.	This is not a sales call.
May I please speak	with <program contact="">?</program>	

Our records show that <COMPANY> purchased <ENDUSE>, which was/were <installed in "INSTALL DATE" OR recently installed> and received an incentive of \$<INCENTIVE AMOUNT> from Ameren Illinois. We are calling to do a follow-up study about your firm's participation in this program, which is called the Act On Energy Business Program. I was told you're the person most knowledgeable about this project. Is this correct? [IF NOT, ASK TO BE TRANSFERRED TO MOST KNOWLEDGABLE PERSON OR RECORD NAME & NUMBER.]

This survey will take about 15 minutes. Is now a good time? [If no, schedule call-back]

### [READ IF CONTACT=0]

Hello, this is \_\_\_\_\_ from Opinion Dynamics calling on behalf of Ameren Illinois. I would like to speak with the person most knowledgeable about recent changes in cooling, lighting, or other energy-related equipment for your firm at this location.

[IF NEEDED] Our records show that <COMPANY> purchased <ENDUSE>, which was <installed in "INSTALL DATE" OR recently installed> and received an incentive of \$<INCENTIVE AMOUNT> from Ameren Illinois. We are calling to do a follow-up study about your firm's participation in this program, which is called the Act On Energy Business Program. I was told you're the person most knowledgeable about this project. Is that correct? [IF NOT, ASK TO BE TRANSFERRED TO MOST KNOWLEDGABLE PERSON OR RECORD NAME & NUMBER.]

This survey will take about 15 minutes. Is now a good time? [If no, schedule call-back]

### **SCREENING QUESTIONS**

- A1. Just to confirm, in 2010-2011 did <COMPANY> participate in Ameren Illinois Act on Energy Business Program at <ADDRESS>? (IF NEEDED: This is a program where your business received an incentive for installing one or more energy-efficient products covered under the program.)
  - 1 (Yes, participated as described)
  - 2 (Yes, participated but at another location)
  - 3 (NO, did NOT participate in program)

- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

### [SKIP A2 IF A1=1,2]

- A2. Is it possible that someone else dealt with the energy-efficient product installation?
  - 1 (Yes, someone else dealt with it)
  - 2 (No)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

[IF A2=1, ask to be transferred to that person. If not available, thank and terminate. If available, go back to A1]

[IF A1=2,3,00,98,99: Thank and terminate. Record dispo as "Could not confirm participation".]

Before we begin, I want to emphasize that this survey will only be about the <ENDUSE> you installed through the Act On Energy Business Program at <ADDRESS>.

### **NET-TO-GROSS MODULE**

Variables for the net-to-gross module:

<NTG> (B=Basic rigor level, S= Standard rigor level. All questions here are asked if the standard rigor level is designated. Basic rigor level is designated through skip patterns.

<UTILITY> (ComEd or Ameren Illinois)

<PROGRAM> (Name of energy efficiency program)

<ENDUSE> (Type of measure installed; from program tracking dataset)

<VEND1> (Contractor who installed new equipment, from program tracking dataset)

<aCCT\_REP> (Name of account representative, from program tracking database or program files if present)

<OTHERPTS> (Variable to be calculated based on responses. Equals 1- minus response to N3p.)

<FINCRIT1> (Variable to be calculated based on responses. Equals 1 if payback period WITHOUT incentive is shorter than company requirement. See instructions below.)

<FINCRIT2> (Variable to be calculated based on responses. Equals 1 if payback period WITH incentive is shorter than company requirement. See instructions below.)

<MSAME> (Equals 1 if same customer had more than one project of the same measure type; from program tracking database)

<NSAME> (Number of additional projects of the same measure type implemented by the same customer; from program tracking database)

<FSAME> (Equals 1 if the same customer had more than one project (of different types) at the same facility; from program tracking database)

<FDESC> (Additional project type completed by the customer at the same facility; from the tracking database)

### **VENDOR INFORMATION**

[SKIP TO V4 IF NTG=B]

I would like to get some information on the VENDORS that may have helped you with the implementation of this equipment.

- V1 Did you work with a contractor or vendor that helped you with the choice of this equipment?
  - 1 Yes
  - 2 No
  - 8 (Don't Know)
  - 9 (Refused)

[SKIP TO V4 IF V1=2, 8, or 9]

V2 BLANK

- V3 Did you also use a DESIGN or CONSULTING Engineer?
  - 1 Yes

- 2 No
- 8 (Don't know)
- 9 (Refused)

### [SKIP TO N1 IF KAE=0]

- V4 Did your key account executive assist you with the project that you implemented through the <PROGRAM>?
  - 1 Yes
  - 2 No, don't have a key account executive
  - 3 No, have a key account executive but they weren't involved
  - 8 (Don't know)
  - 9 (Refused)

### [SKIP V5 IF V4=2,3 OR <ACCT REP> NOT BLANK]

V5 We do not have the name of your key account executive at <UTILITY>. Can you give me his or her name? [OPEN END; 98=Don't know; 99=Refused]

### **NET-TO-GROSS BATTERY**

I'd now like to ask a few questions about the <ENDUSE> you installed through the program.

- N1 When did you first learn about <UTILITY>'s Program? Was it BEFORE or AFTER you first began to THINK about implementing this measure? (NOTE TO INTERVIEWER: "this measure" refers to the specific energy efficient equipment installed through the program.)
  - 1 Before
  - 2 After
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF N1=2, 8, 9, ELSE SKIP TO N3]

- N2 Did you learn about <UTILITY>' Program BEFORE or AFTER you DECIDED to implement the measure that was installed? (NOTE TO INTERVIEWER: "the measure" refers to the specific energy efficient equipment installed through the program.)
  - 1 Before
  - 2 After
  - 8 (Don't know)
  - 9 (Refused)
- N3 Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this measure. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important. Now using this scale please rate the

importance of each of the following in your decision to implement the measure at this time. [FOR N3a-n, RECORD 0 to 10; 96=Not Applicable; 98=Don't Know; 99=Refused]

(If needed: How important in your DECISION to implement the project was...)
[SKIP N3a IF NTG=B]

N3a. The age or condition of the old equipment

N3b. Availability of the PROGRAM incentive
N3bb. [ASK IF N3b=8,9,10] Why do you give it this rating? [OPEN END; 98=Don't know;
99=Refused]

[SKIP TO N3f IF NTG=B]

[ASK N3d IF V1=1]

N3d. Recommendation from an equipment vendor or contractor that helped you with the choice of the equipment.

N3e. Previous experience with this type of equipment?

N3f. Recommendation from an <PROGRAM> staff person? [IF NECESSARY: This would be someone from Ameren Illinois that is affiliated specifically with the Act On Energy Business program and not someone from the utility that might ordinarily contact you about your account.]

[SKIP N3ff IF NTG=B]

ff. [ASK IF N3f=8,9,10] Why do you give it this rating?

N3h. Information from <PROGRAM> or <UTILITY> marketing materials? [SKIP N3hh IF NTG=B]

N3hh. [ASK IF N3h=8,9,10] Why do you give it this rating?

[SKIP TO N3k IF NTG=B] [ASK N3i IF V3=1]

N3i. A recommendation from a design or consulting engineer.

N3j. Standard practice in your business/industry

[SKIP N3k IF KAE=0 OR V4>1]

N3k. Endorsement or recommendation by a key account executive of <UTILITY> [SKIP N3kk IF NTG=B]

N3kk. [ASK IF N3k=8,9,10] Why do you say that?

[SKIP TO N3n IF NTG=B]

- N3I. Corporate policy or guidelines
- N3m. Payback on the investment
- N3n. Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?
  - 96 (Nothing else influential)
  - 00 [Record verbatim]
  - 98 (Don't Know)
  - 99 (Refused)

### [ASK N3nn IF N3n=00]

N3nn. Using the same zero to 10 scale, how would you rate the influence of this factor? [RECORD 0 to 10; 98=Don't Know; 99=Refused]

Thinking about this differently, I would like you to compare the importance of the PROGRAM with the importance of other factors in implementing the <ENDUSE> project.

### [SKIP TO N3p IF NTG=B]

[READ IF (N3A, N3D, N3E, N3I, N3J, N3L, N3M, OR N3N)=8,9,10; ELSE SKIP TO N3p]

You just told me that the following other factors were important:

[READ IN ONLY ITEMS WHERE THEY GAVE A RATING OF 8 or higher]

- (N3A) Age or condition of old equipment,
- (N3D) Equipment Vendor recommendation
- (N3E) Previous experience with this measure
- (N3I) Recommendation from a design or consulting engineer
- (N3J) Standard practice in your business/industry
- (N3L) Corporate policy or guidelines
- (N3M) Payback on investment
- (N3N) Other factor (READ VERBATIM)
- N3p If you were given a TOTAL of 100 points that reflect the importance in your decision to implement the <ENDUSE> program, and you had to divide those 100 points between: 1) the program and 2) other factors, how many points would you give to the importance of the PROGRAM?

Points given to program: [RECORD 0 to 100; 998=Don't Know; 999=Refused]

[CALCULATE VARIABLE "OTHERPTS" AS: 100 MINUS N3p RESPONSE; IF N3p=998,999, SET OTHERPTS=BLANK]

N3o And how many points would you give to other factors? [RECORD 0 to 100; 998=Don't Know; 999=Refused]

[The response should be <OTHERPTS> because both numbers should equal 100. If response is not <OTHERPTS> ask INC1]

INC1 The last question asked you to divide a TOTAL of 100 points between the program and other factors. You just noted that you would give <N3p RESPONSE> points to the program. Does that mean you would give <OTHERPTS> points to other factors?

- 1 Yes
- 2 No
- 98 (Don't know)
- 99 (Refused)

[IF INC1=2, go back to N3p]

#### **CONSISTENCY CHECK ON PROGRAM IMPORTANCE SCORE**

### [SKIP TO N5 IF N3p=998,999 OR IF N3p<80 OR IF (N3p>=80 AND N3b>3)]

N4a You just gave <N3p RESPONSE> points to the importance of the program, I would interpret that to mean that the program was quite important to your decision to install this equipment.

Earlier, when I asked about the importance of the program incentive, you gave a rating of ...<N3B RESPONSE> ... out of ten, indicating that the program incentive was not that important to you. Can you tell me why the program overall was important, but the incentive was not?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

### ASK IF N3p<21 AND N3b=8,9,10, ELSE SKIP TO N5]

N4aa You just gave <N3p RESPONSE> points to the importance of the program. I would interpret that to mean that the program was not very important to your decision to install this equipment.

Earlier, when I asked about the importance of the program incentive, you gave a rating of ...<N3B RESPONSE> ... out of ten, indicating that the program incentive was quite important to you. Can you explain why the incentive was important, but the program overall was not?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the utility program had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the utility program had not been available, what is the likelihood that you would have installed exactly the same equipment? [RECORD 0 to 10; 98=Don't know; 99=Refused]

#### **CONSISTENCY CHECKS**

### [ASK IF N3b>7 AND N5>7, ELSE SKIP TO N6]

N5a When you answered ...<N3B RESPONSE> ... for the question about the influence of the incentive, I would interpret that to mean that the incentive was quite important to your decision to install the <ENDUSE> equipment. Then, when you answered <N5 RESPONSE> for how likely you would have been to install the same equipment without the incentive, it sounds like the incentive was not very important in your installation decision.

I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain the role the incentive played in your decision to install this efficient equipment?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

N5b Would you like for me to change your score on the importance of the incentive which you gave a rating of <N3B RESPONSE> or change your rating on the likelihood you would install the same equipment without the incentive which you gave a rating of <N5 RESPONSE> and/or we can change both if you wish?

- 1 Change importance of incentive rating
- 2 Change likelihood to install the same equipment rating
- 3 Change both
- 4 (No, don't change)
- 8 (Don't know)
- 9 (Refused)

### [ASK IF N5b=1,3]

N5c How important was... availability of the PROGRAM incentive? (IF NEEDED: in your DECISION to implement the project) [Scale of 0 to 10, where 0 means not at all important and 10 means extremely important; 98=Don't know, 99=Refused]

### [ASK IF N5b=2,3]

N5d If the utility program had not been available, what is the likelihood that you would have installed exactly the same equipment? [Scale of 0 to 10, where 0 means "Not at all likely" and 10 means "Extremely likely"; 98=Don't know, 99=Refused]

### [ASK IF N3j>7, ELSE SKIP TO N7]

In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this measure. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?

- 1 Much more important
- 2 Somewhat more important
- 3 Equally important
- 4 Somewhat less important
- 5 Much less important
- 8 (Don't know)
- 9 (Refused)

### [CREATE VERIFIED N5 VARIABLE USING N5 OR N5E] [ASK IF N5>0, ELSE SKIP TO N8]

- N7 You indicated earlier that there was a <N5 RESPONSE> in 10 likelihood that you would have installed the same equipment if the program had not been available. Without the program, when do you think you would have installed this equipment? Would you say...
  - 1 At the same time
  - 2 Earlier
  - 3 Later
  - 4 (Never)
  - 8 (Don't know)
  - 9 (Refused)

### [ASK N7a IF N7=3]

N7a. How much later would you have installed this equipment? Would you say...

- 1 Within 6 months
- 2 6 months to 1 year later
- 3 1 2 years later
- 4 2 3 years later
- 5 3 4 years later
- 6 4 or more years later
- 8 (Don't know)
- 9 (Refused)

### [ASK N7b IF N7a=6, ELSE SKIP TO N8]

N7b. Why do you think it would have been 4 or more years later?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

### PAYBACK BATTERY [ASK IF N3m>5 ELSE SKIP TO N11]

I'd like to find out more about the payback criteria your company uses for its investments.

- N8 What financial calculations does your company make before proceeding with installation of a MEASURE like this one?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N9 What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment? Would you say...
  - 1 0 to 6 months
  - 2 7 months to 1 year
  - 3 more than 1 year up to 2 years
  - 4 more than 2 years up to 3 years
  - 5 more than 3 years up to 5 years
  - 6 Over 5 years
  - 8 (Don't know)
  - 9 (Refused)
- N10a What was the estimated payback period for the new <ENDUSE>, in months, WITH the incentive from the <PROGRAM>?
  - 00 [NUMERIC OPEN END, UP TO 240]
  - 998 (Don't know)
  - 999 (Refused)
- N10b And what was the estimated payback period for the <ENDUSE>, in months, WITHOUT the incentive from <PROGRAM>?
  - 00 [NUMERIC OPEN END, UP TO 240]
  - 998 (Don't know)
  - 999 (Refused)

[CREATE VARIABLE FINCRIT1. SET FINCRIT1 = BLANK IF: N9=8,9 OR N10b=998,999. SET FINCRIT1 = 1 IF: (N9=1 AND N10b<7) OR (N9=2 AND N10b<13) OR (N9=3 AND N10b<25) OR (N9=4 AND N10b<37) OR (N9=5 AND N10b<61) OR (N9=6). ELSE, SET FINCRIT1 = 0.]

### [ASK IF FINCRIT1=1, ELSE SKIP TO N10d]

- N10c Even without the incentive, the <ENDUSE> project met your company's financial criteria. Would you have gone ahead with it even without the incentive?
  - 1 Yes
  - 2 No
  - 3 (Maybe)
  - 8 (Don't know)
  - 9 (Refused)

[CREATE VARIABLE FINCRIT2. SET FINCRIT2 = BLANK IF: N9=8,9 OR N10a=998,999. SET FINCRIT2 = 1 IF: (N9=1 AND N10a<7) OR (N9=2 AND N10a<13) OR (N9=3 AND N10a<25) OR (N9=4 AND N10a<37) OR (N9=5 AND N10a<61) OR (N9=6). ELSE, SET FINCRIT2 = 0.

### [ASK IF FINCRIT2=1 AND FINCRIT1=0 AND N3b<5, ELSE SKIP TO N10e]

N10d The incentive seemed to make the difference between meeting your financial criteria and not meeting them, but you are saying that the incentive didn't have much effect on your decision, why is that?

00 [Record VERBATIM]

98 (Don't know)

99 (Refused)

### [ASK IF FINCRIT2=0 AND N3b>7, ELSE SKIP TO N11]

N10e. The incentive didn't cause this <ENDUSE> project to meet your company's financial criteria, but you said that the incentive had an impact on the decision to install the <ENDUSE>. Why did it have an impact?

00 [Record VERBATIM]

98 (Don't know)

99 (Refused)

### **CORPORATE POLICY BATTERY [**ASK IF N3L>5, ELSE SKIP TO N18]

N11 Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be to "buy green" or use sustainable approaches to business investments.

1 Yes

2 No

8 (Don't know)

9 (Refused)

### [ASK IF N11=1, ELSE SKIP TO N18]

N12 What specific corporate policy influenced your decision to adopt or install the <ENDUSE> through the <PROGRAM>?

00 [RECORD VERBATIM]

98 (Don't know)

99 (Refused)

N13 Had that policy caused you to adopt energy efficient <ENDUSE> at this facility before participating in the <PROGRAM>?

1 Yes

2 No

8 (Don't know)

- 9 (Refused)
- N14 Had that policy caused you to adopt energy efficient <ENDUSE> at other facilities before participating in the <PROGRAM>?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF N13=1 OR N14=1, ELSE SKIP TO N17]

- N15 Did you receive an incentive for a previous installation of <ENDUSE>?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF N15=1, ELSE SKIP TO N17]

- N16 To the best of your ability, please describe.... [Record VERBATIM; 98=Don't know; 99=Refused]
  - a. the amount of incentive received
  - b. the approximate timing
  - c. the name of the program that provided the incentive

### [ASK IF N13=1 OR N14=1, ELSE SKIP TO N18]

- N17 If I understand you correctly, you said that your company's corporate policy has caused you to install energy efficient <ENDUSE> previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the <PROGRAM>.

  Can you please clarify that?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)

### **STANDARD PRACTICE BATTERY** [ASK IF N3j>5, ELSE SKIP TO N23]

- N18 Approximately, how long has use of energy efficient <ENDUSE> been standard practice in your industry?
  - M [00 Record Number of Months; 98=Don't know, 99=Refused]
  - Y [00 Record Number of Years; 98=Don't know, 99=Refused]
- N19 Does your company ever deviate from the standard practice?
  - 1 Yes
  - 2 No
  - 8 (Don't know)

9 (Refused)

### [ASK IF N19=1]

- N19a Please describe the conditions under which your company deviates from this standard practice.
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N20 How did this standard practice influence your decision to install the <ENDUSE> through the <PROGRAM>?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N20a Could you please rate the importance of the <PROGRAM>, versus this standard industry practice in influencing your decision to install the <ENDUSE>. Would you say the <PROGRAM> was...
  - 1 Much more important
  - 2 Somewhat more important
  - 3 Equally important
  - 4 Somewhat less important
  - 5 Much less important
  - 8 (Don't know)
  - 9 (Refused)
- N21 What industry group or trade organization do you look to to establish standard practice for your industry?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N22 How do you and other firms in your industry receive information on updates in standard practice?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)

### **OTHER INFLUENCES BATTERY**

- N23 Who provided the most assistance in the design or specification of the <ENDUSE> you installed through the <PROGRAM>? (If necessary, probe from the list below.)
  - 1 (Designer)
  - 2 (Consultant)

- 3 (Equipment distributor)
- 4 (Installer)
- 5 (<UTILITY> Key Account Executive)
- 6 (<PROGRAM> staff)
- 7 (Retailer)
- 8 (Controller)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

### [SKIP N24 IF N23=98,99]

N24 Please describe the type of assistance that they provided.

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

### [ASK IF MSAME=1, ELSE SKIP TO N27]

Our records show that your company also received an incentive from <UTILITY> for <NSAME> other <ENDUSE> project(s).

N26 Was it a single decision to complete all of those <ENDUSE> projects for which you received an incentive from <UTILITY> or did each project go through its own decision process?

- 1 Single Decision
- 2 Each project went through its own decision process
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

### [ASK IF FSAME=1 ELSE SKIP TO SPILLOVER MODULE]

Our records show that your company also received an incentive from <UTILITY> for a <FDESC> project at < ADDRESS >.

N27 Was the decision making process for the <FDESC> project the same as for the <ENDUSE> project we have been talking about?

- 1 Same decision making process
- 2 Different decision making process
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

## **SPILLOVER MODULE**

Thank you for discussing the new <ENDUSE > that you installed through the <PROGRAM>. Next, I would like to discuss any energy efficient equipment you might have installed OUTSIDE of the <PROGRAM>.

- SP1 Since your participation in the <PROGRAM>, have you implemented any ADDITIONAL energy efficiency measures at this facility that did NOT receive incentives through any utility or government program?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF SP1=1, ELSE SKIP TO PROCESS MODULE S0]

SP1a. How significant was your experience with the <PROGRAM> in your decision to implement these additional measures, using a scale of 0 to 10, where 0 is not at all significant and 10 is extremely significant? [SCALE 0-10; 98=Don't Know; 99=Refused]

### [ASK IF SP1A=8,9,10, ELSE SKIP TO S0]

- What was the first measure that you implemented? (IF RESPONSE IS GENERAL, E.G., "LIGHTING EQUIPMENT", PROBE FOR SPECIFIC MEASURE. PROBE FROM LIST, IF NECESSARY.)
  - 1 (Lighting: T8 lamps)
  - 2 (Lighting: T5 lamps)
  - 3 (Lighting: Highbay Fixture Replacement)
  - 4 (Lighting: CFLs)
  - 5 (Lighting: Controls / Occupancy sensors)
  - 6 (Lighting: LED lamps)
  - 7 (Cooling: Unitary/Split Air Conditioning System)
  - 8 (Cooling: Room air conditioners)
  - 9 (Cooling: Variable Frequency Drives (VFD/VSD) on HVAC Motors)
  - 10 (Motors: Efficient motors)
  - 11 (Refrigeration: Strip curtains)
  - 12 (Refrigeration: Anti-sweat controls)
  - 13 (Refrigeration: EC motor for WALK-IN cooler/freezer)
  - 14 (Refrigeration: EC motor for REACH-IN cooler/freezer)
  - 00 (Other, specify)
  - 96 (Didn't implement any measures)
  - 98 (Don't know)
  - 99 (Refused)

### [IF SP2=96,98,99, SKIP TO S0]

SP3 What was the second measure? (IF RESPONSE IS GENERAL, E.G., "LIGHTING EQUIPMENT", PROBE FOR SPECIFIC MEASURE. PROBE FROM LIST, IF NECESSARY.)

- 1 (Lighting: T8 lamps)
- 2 (Lighting: T5 lamps)
- 3 (Lighting: Highbay Fixture Replacement)
- 4 (Lighting: CFLs)
- 5 (Lighting: Controls / Occupancy sensors)
- 6 (Lighting: LED lamps)
- 7 (Cooling: Unitary/Split Air Conditioning System)
- 8 (Cooling: Room air conditioners)
- 9 (Cooling: Variable Frequency Drives (VFD/VSD) on HVAC Motors)
- 10 (Motors: Efficient motors)
- 11 (Refrigeration: Strip curtains)
- 12 (Refrigeration: Anti-sweat controls)
- 13 (Refrigeration: EC motor for WALK-IN cooler/freezer)
- 14 (Refrigeration: EC motor for REACH-IN cooler/freezer)
- 00 (Other, specify)
- 96 (There was no second measure)
- 98 (Don't know)
- 99 (Refused)

#### [IF SP3=96,98,99, SKIP TO SP5A]

What was the third measure? (IF RESPONSE IS GENERAL, E.G., "LIGHTING EQUIPMENT", PROBE FOR SPECIFIC MEASURE. PROBE FROM LIST, IF NECESSARY.)

- 1 (Lighting: T8 lamps)
- 2 (Lighting: T5 lamps)
- 3 (Lighting: Highbay Fixture Replacement)
- 4 (Lighting: CFLs)
- 5 (Lighting: Controls / Occupancy sensors)
- 6 (Lighting: LED lamps)
- 7 (Cooling: Unitary/Split Air Conditioning System)
- 8 (Cooling: Room air conditioners)
- 9 (Cooling: Variable Frequency Drives (VFD/VSD) on HVAC Motors)
- 10 (Motors: Efficient motors)
- 11 (Refrigeration: Strip curtains)
- 12 (Refrigeration: Anti-sweat controls)
- 13 (Refrigeration: EC motor for WALK-IN cooler/freezer)
- 14 (Refrigeration: EC motor for REACH-IN cooler/freezer)
- 00 (Other, specify)
- 96 (There was no third measure)
- 98 (Don't know)

- 99 (Refused)
- REF1. Can one of our engineers give you a quick call back to ask you a few additional questions about the measure installations influenced by <PROGRAM>?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK IF REF1=1]

REF2. Is [PHONE] the best number to reach you at?

- 1. Yes
- 2. No [RECORD A DIFFERENT PHONE NUMBER]
- 8. (Don't know)
- 9. (Refused)

# **PROCESS MODULE**

I'd now like to ask you a few general questions about your participation in the Act On Energy Business program.

### **Program Processes and Satisfaction**

- SO How did you first hear about the Act On Energy Business program?
  - 1. (Ameren Key Account Executive)
  - 2. (Ameren Website)
  - 3. (Workshop)
  - 4. (BLANK)
  - 7. (Newspaper)
  - 8. (Email)
  - 10. (Friend/colleague/word of mouth)
  - 11. (Bill insert)
  - 13. (Vendor)
  - 14. (Distributor)
  - 16. (Supplier)
  - 17. (Engineer)
  - 19. (Sales representative)
  - 20. (Electrician)

- 26. (Contractor)
- 27. (Program ally)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)
- Soa. Prior to starting your [PROJECT/ANY OF YOUR PROJECTS], did you discuss the Act on Energy program and energy efficient improvements that could qualify for program incentives with a program staff member? [IF NECESSARY: This would be someone from Ameren Illinois that is affiliated specifically with the Act On Energy Business program and not someone from the utility that might ordinarily contact you about your account.]
  - 1. Yes
  - 2. No
  - 98. Don't know
  - 99. Refused

### [ASK IF SOa=1]

S0aa. How helpful was the discussion in helping you to understand the program and its benefits?

- 1. Very helpful
- 2. Somewhat helpful
- 3. Not very helpful
- 4. Not at all helpful
- 98. Don't know
- 99. Refused
- S1a Did YOU fill out the program application for the project?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK S1b IF S1a=1 ELSE SKIP TO S1e]

- S1b Did the application form clearly explain the program requirements and how to participate?
  - 1. Yes
  - 2. No
  - 3. (Somewhat)
  - 8. (Don't know)
  - 9. (Refused)
- How would you rate the application process? Please use a scale of 0 to 10 where 0 is "very difficult" and 10 is "very easy". [SCALE 0-10; 98=Don't know, 99=Refused]

### [ASK S1d IF S1c<4]

S1d Why did you rate it that way? [MULTIPLE RESPONSE, UP TO 3]

- 1. (Required me to research on lighting)
- 2. (Harder compared to other state's programs)
- 3. (Difficult to understand)
- 4. (Long process)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

### [ASK S1e IF S1a=2]

- S1e Who filled out the application for the project?
  - 1. (Someone else at the facility)
  - 2. (Someone else at the company)
  - 3. (Program ally)
  - 4. (Contractor)
  - 5. (Consultant)
  - 6. (Engineer)
  - 7. (Supplier/distributors/vendor)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

### [SKIP S3 IF S1e=3 OR QS0=27]

- S3 Are you familiar with the term Act On Energy Business program ALLY?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

## [SKIP IF S1e=3 or 4]

- S4a Did you use a contractor for your <ENDUSE> project?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK S4b IF S4a=1 or S1e=3 or 4]

- S4b Was the contractor you used affiliated with the Act On Energy Business program? (If needed:
  - Was the contractor REGISTERED with the Act On Energy Business program?)
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

## [ASK S5 IF S4a=1 OR S1e=3 or 4 ELSE SKIP TO S7]

- How would you rate the contractor's ability to meet your needs in terms of implementing your project? Please use a scale from 0 to 10, where 0 is "not at all able to meet needs" and 10 is "completely able to meet needs"? [SCALE 0-10; 98=Don't know, 99=Refused]
- S6a Would you recommend the contractor you worked with to other people or companies?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK S6b IF S6a=2]

- S6b Why not?
  - 00. [Record VERBATIM]
  - 98. (Don't know)
  - 99. (Refused)
- When implementing an energy efficiency project, how important is it to you that the contractor is affiliated with the Act On Energy Business program? Please use a scale from 0 to 10, where 0 is "not at all important" and 10 is "very important"? [SCALE 0-10; 98=Don't know, 99=Refused]
- S8 During the course of your participation in the program, did you place any calls to the Act On Energy Business Call Center?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

#### [ASK S8a IF S8=1]

On a scale of 0 to 10, where 0 is "very dissatisfied" and 10 is "very satisfied", how would you rate your satisfaction with the Call Center's ability to answer your questions? [SCALE 0-10; 96=not applicable, 98=Don't know, 99= Refused]

### [ASK S8b IF S8a<4]

- S8b Why did you rate it that way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Provided inconsistent information)
  - 2. (Didn't understand the question)
  - 3. (Hard to reach the right person/person with the answer)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- S9a Did you ask any questions of your Act On Energy technical reviewer while participating in the program? (If needed: This is a program staff person you would have spoken or e-mailed with to

clarify any issues that came up during the review of your application. Technical reviewers are SAIC or GDS employees, who are Act On Energy Business program partners.)

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

#### [ASK S9b IF S9a=1]

- S9b Approximately how long did it take for your questions to be answered?
  - 1. (Within the same day)
  - 2. (1-2 business days)
  - 3. (3-5 business days)
  - 4. (1 -2 weeks)
  - 5. (More than 2 week)
  - 8. (Don't know)
  - 9. (Refused)
- S16. After you submitted the final application, how long did it take for you to receive your incentive from Ameren Illinois? Was it..? [IF RESPONDENT SAYS THAT IT VARIED ACROSS MULTIPLE PROJECTS THAT HE OR SHE PARTICIPATED IN, PROBE FOR AN AVERAGE ESTIMATE ACROSS ALL OF THE APPLICATIONS]
  - 1 Less than 4 weeks
  - 2 Between 4 and 6 weeks
  - 3 Between 6 and 8 weeks
  - 4 Between 8 and 10 weeks,
  - 5 Between 10 and 12 weeks, OR
  - 6 More than 12 weeks
  - 96 (Never received payment)
  - 97 (Still awaiting payment)
  - 98 (Don't know)
  - 99 (Refused)
- On a scale of 0 to 10, where 0 is very dissatisfied and 10 is very satisfied, how would you rate your satisfaction with... [SCALE 0-10; 96=not applicable, 98=Don't know, 99=Refused]
  - a. the incentive amount
  - b. the program's technical review staff
  - c. BLANK
  - d. the Act On Energy Business program overall
  - e. Ameren Illinois

#### [ASK S12b IF S11b<4]

- S12b. You indicated some dissatisfaction with the program's technical review staff, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Provided inconsistent information)
  - 2. (Didn't understand the question)
  - 3. (Hard to reach the right person/person with the answer)

- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

#### S12c. BLANK

#### [ASK S12d IF S11d<4]

S12d. You indicated some dissatisfaction with the Act On Energy Business program overall, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

## [ASK S12e IF S11e<4]

- S12e. You indicated some dissatisfaction with Ameren Illinois, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Rates are too high)
  - 2. (Took too long to get rebate)
  - 3. (Poor customer service)
  - 4. (Poor power supply/service)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- S10a Did you experience any problems during the participation process? (IF NEEDED: (Other than what we have already talked about)
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK S10b IF QS10a=1]

- S10b What problems did you experience? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Phone calls not returned)
  - 2. (Process takes too long)
  - 3. (Low incentives/rebates)
  - 00. (Other specify)
  - 8. (Don't know)
  - 9. (Refused)

### **Marketing and Outreach**

- MK1 Do you recall seeing or receiving any marketing materials or other information for the Act On Energy Business program?
  - 1. Yes
  - 2. No
  - 8. (Don't know)

9 (Refused)

## [ASK MK1a IF MK1=1, ELSE SKIP TO MK2]

MK1a What types of materials do you remember? [MULTIPLE RESPONSE, UP TO 5]

- 1. (Television)
- 2. (Newspaper)
- 3. (Email)
- 4. (Billboards)
- 5. (Radio advertising)
- 6. (Chamber of Commerce publication)
- 7. (Presentation/workshop)
- 8. (Bill insert)
- 9. (Brochure)
- 10. (ActOnEnergy website)
- 11. (Other mailing)
- 00. (Other, please specify)
- 98. (Don't know)
- 99. (Refused)

MK1b How useful were these materials in providing information about the program? Would you say they were...

- 1. Very useful
- 2. Somewhat useful
- 3. Not very useful
- 4. Not at all useful
- 8. (Don't know)
- 9. (Refused)

### [ASK MK1c IF M1b=3,4]

MK1c What would have made the materials more useful to you? [MULTIPLE RESPONSE, UP TO 3]

- 1. (More detailed information)
- 2. (Where to get additional information)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

MK1d Next, I'd like to ask you about how frequently you've heard about this program. Thinking about the past year, how often would you say you've seen, read or heard about the Act On Energy Business program?

- 1 Very frequently
- 2 Somewhat frequently
- 3 Only Occasionally

- 4 Rarely, or
- 5 Never
- 8. (Don't know)
- 9. (Refused)
- MK2 What is the best way of reaching companies like yours to provide information about energy efficiency opportunities? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Bill inserts)
  - 2. (Flyers/ads/mailings)
  - 3. (e-mail)
  - 4. (Telephone)
  - 5. (Key Account Executive)
  - 6. (Webinars/roundtables/events)
  - 7. (Through trade or professional associations)
  - 8. (Program allies/contractors)
  - 9. (Luncheons)
  - 10. (Ameren reps)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

### **Benefits and Barriers**

- What do you see as the main benefits to participating in the Act On Energy Business Program? [MULTIPME RESPONSE, UP TO 3]
  - 1. (Energy Savings)
  - 2. (Good for the Environment)
  - 3. (Lower Maintenance Costs)
  - 4. (Better Quality/New Equipment)
  - 5. (Rebate/Incentive)
  - 00. (Other, Specify)
  - 98. (Don't know)
  - 99. (Refused)
- What do you think are the reasons companies like yours do not participate in this program? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Lack of awareness of the program)
  - 2. (Financial reasons)
  - 3. (None)
  - 4. (Not aware of savings/don't realize the savings)
  - 5. (Time consuming application process)
  - 6. (No time)

- 7. (Cumbersome paperwork)
- 8. (No need to replace equipment)
- 9. (Amount of payback)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)
- B3 Was the scope of your project limited by the program's incentive cap?
  - 1. Yes
  - 2. No
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

### **Early Completion Bonus**

- EB1 Starting in October 2010, Ameren Illinois offered an early completion bonus incentive for custom projects completed either by the end of March or the end of April. Were you aware of this bonus offer?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK IF EB1=1, ELSE SKIP TO R1]

- EB2. Did you intend to complete your project early in order to receive the early completion bonus incentive for your project?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK IF EB2=2, ELSE SKIP TO EB4]

- EB3. Why didn't your company intend to take advantage of the early completion bonus incentive? [OPEN END]
- EB4. Did your company ultimately receive an early completion bonus incentive?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

- EB5. Please tell me how strongly you agree or disagree with the following statement: The early completion bonus incentive motivated my company to complete our project in a shorter amount of time than we otherwise would have. Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with this statement?
  - 1. Strongly disagree
  - 2. Somewhat disagree
  - 3. Somewhat agree
  - 4. Strongly agree
  - 8. (Don't know)
  - 9. (Refused)

#### **Feedback and Recommendations**

- R1 Do you plan to participate in the program again in the future?
  - 1. Yes
  - 2. No
  - 3. (Maybe)
  - 8. (Don't know)
  - 9. (Refused)
- R2 How could the Act On Energy Business Program be improved? [MULTIPLE RESPONSE, UP TO 4]
  - 1. (Higher incentives)
  - 2. (More measures)
  - 3. (Greater publicity)
  - 4. (Advance payment)
  - 5. (Key Account Executives provide more information)
  - 6. (Relax partner guidelines)
  - 7. (Add commercial cooking measures)
  - 8. (More incentives)
  - 96. (No recommendations)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

### **Firmographics**

I only have a few general questions left.

- F1a What is your company's business type? (PROBE, IF NECESSARY)
  - 1. (BLANK)
  - 2. (Grocery)
  - 3. (Medical)

- 4. (Hotel/Motel)
- 5. (BLANK)
- 6. (Office)
- 7. (Restaurant)
- 8. (Retail/Service)
- 9. (Warehouse/Distribution)
- 10. (Community/recreational center)
- 11. (Non-profit organization)
- 12. (Agriculture)
- 13. (Gas station/convenience store)
- 14. (Light industry)
- 15. (Heavy industry)
- 16. (K-12 School)
- 17. (College/university)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)
- F1b And is the business type of the facility in which the <ENDUSE> was installed in the same sector?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

### [ASK F1c IF F1b=2]

- F1c What is the business type of the facility? (PROBE, IF NECESSARY)
  - 1. (BLANK)
  - 2. (Grocery)
  - 3. (Medical)
  - 4. (Hotel/Motel)
  - 5. (BLANK)
  - 6. (Office)
  - 7. (Restaurant)
  - 8. (Retail/Service)
  - 9. (Warehouse/Distribution)
  - 10. (Community/recreational center)
  - 11. (Non-profit organization)
  - 12. (Agriculture)
  - 13. (Gas station/convenience store)
  - 14. (Light industry)
  - 15. (Heavy industry)
  - 16. (K-12 School)
  - 17. (College/university)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

- F2 Which of the following best describes the ownership of this facility?
  - 1. My company owns and occupies this facility
  - 2. My company owns this facility but it is rented to someone else
  - 3. My company rents this facility
  - 8. (Don't know)
  - 9. (Refused)
- F3 Does your company pay the electric bill?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)
- F4a How old is this facility? [NUMERIC OPEN END, 0 TO 150; 998=Don't know, 999=Refused]

#### [ASK F4b IF F4a=998]

- F4b Do you know the approximate age? Would you say it is...
  - 1. Less than 2 years
  - 2. 2-4 years
  - 3. 5-9 years
  - 4. 10-19 years
  - 5. 20-29 years
  - 6. 30 years or more years
  - 8. (Don't know)
  - 9. (Refused)
- How many employees, full plus part-time, are employed at this facility? [NUMERIC OPEN END, 0 TO 2000; 9998=Don't know, 9999=Refused]

#### [ASK F5b IF F5a=9998]

- F5b Do you know the approximate number of employees? Would you say it is...
  - 1. Less than 10
  - 2. 10-49
  - 3. 50-99
  - 4. 100-249
  - 5. 250-499
  - 6. 500 or more
  - 8. (Don't know)
  - 9. (Refused)
- F6 Which of the following best describes your facility? This facility is...
  - 1. my company's only location
  - 2. one of several locations owned by my company
  - 3. the headquarters location of a company with several locations

- 8. (Don't know)
- 9. (Refused)

# [SKIP F7 IF F2=2]

- F7 In comparison to other companies in your industry, would you describe your company as...
  - 1. A small company
  - 2. A medium-sized company
  - 3. A large company
  - 4. (Not applicable)
  - 8. (Don't know)
  - 9. (Refused)



### AMEREN ILLINOIS C&I STANDARD AND CUSTOM PROGRAMS

#### NON-PARTICIPANT SURVEY

### Final 07/20/2011

Purpose of the survey: These interviews will focus on the assessment of non-participant spillover within electric efficiency measures. Additionally, the survey will provide insights into issues such as program awareness and barriers to participation. We will complete 280 interviews with randomly chosen Ameren Illinois customers in rate codes DS2, DS3A, DS3B, DS4 and DS5.

#### INTRODUCTION

### [READ IF CONTACT=1]

Hello, this is \_\_\_\_\_ from Opinion Dynamics calling on behalf of Ameren Illinois. This is not a sales call. May I please speak with <PROGRAM CONTACT>?

We are conducting research on behalf of Ameren Illinois to help them develop programs to better serve their business customers. I'm looking to speak with the person responsible for making decisions about the purchase of energy using equipment for the company. (IF NEEDED: I am looking to speak with someone who might be involved in any decisions to improve the efficiency of the energy consuming systems your business uses, such as lighting or air conditioning) Are you the appropriate person?

- 1. Yes
- 2. No [RECORD NAME AND CONTACT INFO FOR APPROPRIATE CONTACT.]

This survey will take about 10 minutes. Is now a good time? [IF NO, SCHEDULE CALL-BACK]

### [READ IF CONTACT=0]

Hello, this is \_\_\_\_\_ from Opinion Dynamics calling on behalf of Ameren Illinois. This is not a sales call. May I please speak with the person responsible for making decisions about the purchase of energy using equipment such as lighting, heating or cooling equipment for the company? (IF NEEDED: I am looking to speak with someone who might be involved in any decisions to improve the efficiency of the energy consuming systems your business uses, such as lighting or air conditioning).

We are conducting research on behalf of Ameren Illinois to help them develop programs to better serve their business customers.

This survey will take about 10 minutes. Is now a good time? [IF NO, SCHEDULE CALL-BACK]

# **FIRMOGRAPHICS**

I'd like to start with some general questions about your company, the facility you operate in and your role within the company. For this effort, I would like for you to think about your facility at <a href="#"><ADDRESS></a>.

- F9b. When it comes to making decisions about purchasing energy consuming equipment for your facility, such as lighting, heating or cooling equipment, which of the following best describes the decision-making processes?
  - 1 You are responsible for some or all of these decisions
  - 2 You help make some or all of the decisions
  - 4 Your company does not make these types of decisions [THANK AND TERMINATE]
  - 8 (Don't know) [THANK AND TERMINATE]
  - 9 (Refused) [THANK AND TERMINATE]
- F1a I am going to read you a list of business types that this facility may belong to. Please tell me which of these categories best describes your facility. You can stop me when you hear the type that best applies.
  - 01 Retail/Service
  - 02 Office
  - 03 Restaurant
  - 04 Warehouse/Distribution
  - 05 Grocery
  - 06 Medical
  - 07 Hotel/Motel
  - 08 Light industry
  - 09 Heavy industry
  - 10 Private K-12 School
  - 11 Private College/University
  - 12 Non-profit organization
  - 13 Agriculture
  - OO Or some other facility (specify)
  - 98 (Don't know)
  - 99 (Refused)
- F2 Which of the following best describes the ownership of this facility?
  - 1 My company owns and occupies this facility
  - 2 My company owns this facility but it is rented to someone else
  - 3 My company rents this facility
  - 8 (Don't know)
  - 9 (Refused)
- F3 Does your company pay the electric bill at this facility?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)
- How many employees, full plus part-time, are employed at this facility? [NUMERIC OPEN END, 0 TO 2000; 9998=Don't know, 9999=Refused]

[ASK	F5b I	F F5a=	<b>:</b> 9998
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- F5b Do you know the approximate number of employees? Would you say it is...?
  - 1 Less than 10
  - 2 10-49
  - 3 50-99
  - 4 100-249
  - 5 250-499
  - 6 500 or more
  - 8 (Don't know)
  - 9 (Refused)
- F6 Which of the following best describes your facility? This facility is...
  - 1 my company's only location
  - 2 one of several locations owned by my company
  - 3 the headquarters location of a company with several locations
  - 8 (Don't know)
  - 9 (Refused)
- F7 In comparison to other companies in your industry, would you describe your company as...?
  - 1 A small company
  - 2 A medium-sized company
  - 3 A large company
  - 4 (Not applicable)
  - 8 (Don't know)
  - 9 (Refused)
- F8 Does your company have an Ameren Illinois Key Account Executive? (IF NEEDED: This is an Ameren employee dedicated to your account)
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### **ENERGY EFFICIENCY KNOWLEDGE AND ATTITUDES**

- How would you rate your knowledge of the options available to you to help your company save on energy costs through increased energy efficiency? Would you say that you are...?
  - 1 Very knowledgeable
  - 2 Somewhat knowledgeable
  - 3 (Neither knowledgeable nor unknowledgeable)
  - 4 Not very knowledgeable
  - 5 Not at all knowledgeable
  - 8 (Don't know)
  - 9 (Refused)
- On a scale of 0 to 10, where 0 is not at all important and 10 is very important, how important, would you say, is saving energy to your company? [SCALE 0-10; 98=DON'T KNOW, 99=REFUSED]

- And on the same scale of 0 to 10 where 0 is "not at all important" and 10 is "very important," how important are the following factors when purchasing new energy using equipment for your facility? How important is...? [SCALE 0-10; 98=DON'T KNOW, 99=REFUSED] [RANDOMIZE]
  - a. initial purchase cost
  - b. operation and maintenance cost
  - c. energy efficiency
  - d. aesthetics/décor
  - e. availability
  - f. payback period

#### PROGRAM AWARENESS AND PARTICIPATION

- PAO Are you aware that Ameren Illinois offers programs to help their business customers save energy?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)
- PA1 Have you heard of the Ameren Illinois Act on Energy program?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### [SKIP IF PA1 = 1]

- PA2 The Act on Energy program offers incentives for energy efficient equipment upgrades and improvements including lighting, cooling, refrigeration, and motors. Have you heard of this program?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### [IF PA2 = 2, 8, 9 SKIP TO E4]

- PA7 Have you ever participated in the Act on Energy program?
  - 1 Yes [THANK AND TERMINATE]
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

- SO How did you first hear about the Act on Energy program?
  - 01. (Ameren Key Account Executive)
  - 02. (Ameren Website)
  - 03. (Workshop)
  - 04. (Contractor/program ally)
  - 05. (Billboards)
  - 06. (Radio advertising)
  - 07. (Newspaper)
  - 08. (Email)
  - 09. (Television)
  - 10. (Friend/colleague/word of mouth)
  - 11. (Bill insert)
  - 12. (Chamber of Commerce Publication)
  - 13. (Trade Show)
  - 14. (ActOnEnergy website)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- PA3 How would you rate your familiarity with the Act on Energy program? Would you say you are..?
  - 1 Very familiar
  - 2 Somewhat familiar
  - 3 Not very familiar
  - 4 Not at all familiar
  - 8 (Don't know)
  - 9 (Refused)

### [IF PA3=3, 4, 8, 9 SKIP TO B4]

- PA5 How likely are you to participate in the Act on Energy program within the next year? Would you say you are...?
  - 1 Very likely
  - 2 Somewhat likely
  - 3 Not very likely
  - 4 Not at all likely
  - 8 (Don't know)
  - 9 (Refused)

### [IF PA5 = 1, 2, 8, 9 SKIP TO B1a]

- PA5a Why are you not likely to participate in the program within the next year? [MULTIPLE RESPONSE, UP TO 3]
  - 01 (Incentives not high enough/not worth the effort)
  - 02 (Need more information/lack of awareness of the program)
  - 03 (Budget constraints)
  - 04 (Paperwork is too burdensome)
  - 05 (Program is too complicated/confusing)
  - 06 (Cost of equipment)
  - 07 (Need financing)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

### **BENEFITS AND BARRIERS**

- What do you see as the main benefits to participating in an energy efficiency program like the Act on Energy program? [MULTIPLE RESPONSE, UP TO 3]
  - 01 (Energy Savings)
  - 02 (Good for the Environment)
  - 03 (Lower Maintenance Costs)
  - 04 (Better Quality/New Equipment)
  - 05 (Rebate/Incentive)
  - 00 (Other, Specify)
  - 98 (Don't know)
  - 99 (Refused)
- What do you see as the main barriers to installing energy efficient equipment at your facility? [MULTIPLE RESPONSE, UP TO 3]
  - 01 (Costs more/too much)
  - 02 (Isn't always available/not available)
  - 03 (Awareness/knowledge of options)
  - 04 (Can purchase used equipment)
  - 05 (Not always recommended by contractor/distributor)
  - 06 (Corporate approval)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

### **EQUIPMENT MODULE**

Now I want to talk to you about the energy using equipment at this facility.

- E4 Does your company have any case or reach in coolers or freezers at this location?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)
- Does your company have any equipment with an electric motor such as a pump or fan for ventilation at this location?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

### NONPARTICIPANT SPILLOVER

- SP1 Has your company purchased or made upgrades to any of the following equipment types since June 2010 at this facility? [READ LIST. WAIT FOR A RESPONSE BEFORE PROCEEDING WITH THE NEXT ITEM]
  - A. Lighting equipment [PROMPT IF NECESSARY: THIS COULD INCLUDE LAMPS, FIXTURES, MOTION SENSORS AND OTHER TYPES OF LIGHTING EQUIPMENT]
  - B. Heating or cooling equipment [PROMPT IF NECESSARY: THIS COULD INCLUDE AIR CONDITIONING SYSTEMS, CHILLERS, ROOM AIR CONDITIONERS AND OTHER TYPES OF EQUIPMENT]
  - C. [ASK IF E4=1] Refrigeration equipment [PROMPT IF NECESSARY: THIS COULD INCLUDE SUCH EQUIPMENT TYPES SUCH AS COOLERS OR FREEZERS]
  - D. [ASK IF E5=1] Motors or Variable Frequency Drives, also known as VFDs

### [SKIP TO END IF ALL SP1<>1]

### [ASK IF PA3=1, 2, 3, ELSE SKIP TO END]

- SP3 Earlier in our interview, you mentioned that you were familiar with the Ameren Illinois' Act on Energy program. Now, thinking about the equipment you purchased within the LAST YEAR, did you learn about the Ameren Illinois Act on Energy program before or after you made the improvements, or at about the same time as you were making the improvements?
  - 1 Learned about the program before I made the improvements
  - 2 Learned about the program at about the same time as I was making the improvements
  - 3 Learned about the program after I made the improvements
  - 4 (Learned about the program before some but after other improvements)
  - 8 (Don't know)
  - 9 (Refused)

### [SKIP TO END IF SP3=3, 9]

- SP4 Did your knowledge of the Ameren Illinois Act on Energy program influence in any way the [READ IN YES RESPONSES FROM QSP1] improvements that you made at this facility within the past year?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF SP4=1, ELSE SKIP TO END]

- SP5 Please tell me in your own words how the Ameren Illinois Act on Energy program influenced the decisions you made in terms of the [READ IN YES RESPONSES FROM QSP1] improvements at your facility. [OPEN END]
  - 96 (The program did not influence any decisions) [SKIP TO END]
  - 98 (Don't know)
  - 99 (Refused)

### [ASK IF SP1A=1]

SP6A Thinking about this a bit differently, on a scale of 0 to 10 where 0 is "not at all influential" and 10 is "very influential", how much influence did your knowledge of the Ameren Illinois Act on Energy program have on your selection of the lighting equipment that you installed on your own in the past year? [SCALE FROM 0-10, 98=DON'T KNOW, 99=REFUSED]

### [ASK IF SP1B=1]

SP6B Thinking about this a bit differently, on a scale of 0 to 10 where 0 is "not at all influential" and 10 is "very influential", how much influence did your knowledge of the Ameren Illinois Act on Energy program have on the EFFICIENCY level of the heating or cooling equipment that you installed on your own in the past year? [SCALE FROM 0-10, 98=DON'T KNOW, 99=REFUSED]

### [ASK IF SP1C=1]

SP6C Thinking about this a bit differently, on a scale of 0 to 10 where 0 is "not at all influential" and 10 is "very influential" how much influence did your knowledge of the Ameren Illinois Act on Energy program have on your decision to INSTALL the refrigeration equipment on your own in the past year? [SCALE FROM 0-10, 98=DON'T KNOW, 99=REFUSED]

### [ASK IF SP1D=1]

SP6D Thinking about this a bit differently, on a scale of 0 to 10 where 0 is "not at all influential" and 10 is "very influential", how much influence did your knowledge of the Ameren Illinois Act on Energy programs have on your decision to INSTALL the motors or variable frequency drives on your own in the past year? [SCALE FROM 0-10, 98=DON'T KNOW, 99=REFUSED]

#### [SKIP TO END IF SP6A<6 AND SP6B<6 AND SP6C<6 AND SP6D<6]

I would now like to talk to you about the specifics of the equipment you installed since June 2010 at this facility that was influenced by the Act on Energy program. Please try to answer the following questions to the best of your ability. Just let me know if you were not involved in the decision-making process for any of the improvements or if you do not know the details that we will be asking you about.

[INTERVIEWER NOTE: IF RESPONDENT SAYS RIGHT AWAY THAT HE/SHE DOES NOT KNOW THE DETAILS ASK IF THERE IS ANOTHER PERSON AT THE FACILITY/COMPANY THAT OUR ENGINEERS CAN SPEAK WITH. RECORD THE CONTACT NAME AND PHONE NUMBER OF THAT PERSON AND SKIP TO THE END OF THE SURVEY]

[PROGRAMMER NOTE: HERE AND AFTER EVERY QUESTION FROM HEREON ADD A SEPARATE BOX THAT WOULD ALLOW INTERVIEWERS PROBE FOR AND ENTER THE CONTACT INFORMATION OF A PERSON KNOWLEDGEABLE ABOUT THE TECHNICAL DETAILS OF THE INSTALLED EQUIPMENT THAT OUR ENGINEERS CAN FOLLOW UP WITH.]

#### [ASK IF UNAWARE OF DETAILS]

REF1 Is there another person at your company that can help us get a better understanding of the details of the project? [RECORD THE NAME AND CONTACT INFORMATION FOR THAT PERSON]
No [SKIP TO THE END]
Contractor did all the work and has all of the technical knowledge [SKIP TO THE END]

### **LIGHTING**

[ASK IF SP6a>5 AND SP1A=1, ELSE SKIP TO THE NEXT MODULE]

- SPL1 You mentioned that you installed lighting equipment at this facility that was at least partially influenced by the Ameren Illinois Act on Energy program. Did you replace 4-foot linear fluorescent fixtures as part of this upgrade?
  - 1 Yes
  - 2 No
  - 3 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

## [ASK IF SPL1=1, ELSE SKIP TO SPL2]

- SPL3 Which of the following describes the ORIGINAL 4-foot linear fluorescent fixtures that you replaced? Was it...? [IF RESPONDENT INSTALLED MULTIPLE EQUIPMENT TYPES, PROBE FOR THE MOST COMMON ONE]
  - 1 T12 lamps
  - 2 T8 lamps
  - 3 Super T8 lamps
  - 4 T5 lamps
  - 5 T5 High Output lamps
  - 00 (Other, specify)
  - 96 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 98 (Don't know)
  - 99 (Refused)
- SPL3a How many 4-foot linear fluorescent lighting fixtures did you remove in total? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 0-995 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 DK/REF 998, 999]
- SPL3b How many tubes on average were in each removed fixture? [NUMERIC OPEN END 0-995 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 DK/REF 998, 999] [PROBE FOR THE BEST ESTIMATE]

SPL3c What was the average wattage of each removed tube? [NUMERIC OPEN END 0-995 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 DK/REF 998, 999] [PROBE FOR THE BEST ESTIMATE]

Now, thinking about the fixtures that you installed as part of this lighting project...

- SPL4 Which of the following describes the NEW linear fluorescent fixtures that you installed? Were they? [IF RESPONDENT REPLACED MULTIPLE FIXTURE TYPES, PROBE FOR THE MOST COMMON ONE]
  - 1 T8 lamps
  - 2 Super T8 lamps
  - 3 T5 lamps
  - 4 T5 High Output lamps
  - 00 (Other, specify)
  - 96 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)
- SPL4aa. Did you put in the same number of fixtures as you took out?
  - 1 Yes
  - 2 No
  - 3. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF SPL4aa=2, else skip to SPL4d]

- SPL4a How many lighting fixtures did you install? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 0-995 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 DK/REF 998, 999]
- SPL4b How many tubes on average were in each new fixture? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 0-995 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 DK/REF 998, 999]
- SPL4c What was the average wattage of each new tube? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 0-995 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 DK/REF 998, 999]
- SPL4d Did you install any lighting controls on fixtures <u>that did not</u> have controls before as part of this 4-foot linear fluorescent fixture upgrade?
  - 1 Yes
  - 2 No
  - 3. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

## [ASK IF SP4d=1]

SPL4e. Did you install...? [1=YES, 2=NO, 8=DK, 9=REF 3 (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION ]

- a. Occupancy sensors
- b. Daylighting controls

### [ASK IF SPL4ea=1]

SPL4f Approximately, what percentage of the newly installed 4-foot fluorescent fixtures that did not have controls before is now controlled by occupancy sensors? [1% - 100%; (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 998 – DON'T KNOW; 999 – REFUSED] [PROBE FOR BEST ESTIMATE]

## [ASK IF SPL4eb=1]

SPL4g Approximately, what percentage of the newly installed 4-foot fluorescent fixtures that did not have controls before is now controlled by daylighting controls? [1% - 100%; (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 996 998 – DON'T KNOW; 999 – REFUSED] [PROBE FOR BEST ESTIMATE]

Now we'd like to talk about the hours that the newly installed lighting equipment we just discussed is in use.

LH1a Is your facility typically open every day, Monday through Friday?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

#### [ASK LH1b IF LH1a=2]

LH1b How many days are you CLOSED Monday through Friday?

- 1 One
- 2 Two
- 3 Three
- 4 Four
- 5 Five
- 6. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION8 (Don't know)
- 9 (Refused)

#### [IF LH1b=5, SKIP TO LH4]

LH2 At what time do your indoor lights currently turn on during weekdays (Monday - Friday)? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH2a Enter hours and minutes, e.g., 0530 for 5:30

#### [SKIP OF LH2A=0]

- LH2b 1. AM
  - 2. PM

#### [SKIP LH3 IF LH2=24hr or never]

LH3 At what time do your indoor lights currently turn off during weekdays (Monday - Friday)? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH3a Enter hours and minutes, e.g., 0530 for 5:30

## [SKIP OF LH3A=0]

- LH3b 1. AM
  - 2. PM
- LH4 Does the lighting equipment operate on a different schedule on weekends (Saturday and Sunday)?
  - 1 Yes
  - 2 No
  - 3. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF LH4=1, ELSE SKIP TO LH9b]

LH5 On Saturdays, at what time does the indoor lighting equipment turn on? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH5a Enter hours and minutes, e.g., 0530 for 5:30

### [SKIP OF LH5A=0]

- LH5b 1. AM
  - 2. PM

### [SKIP LH6 IF LH5=24hr or never]

LH6 And when does the indoor lighting equipment turn off on Saturdays? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH6a Enter hours and minutes, e.g., 0530 for 5:30

### [SKIP OF LH6A=0]

- LH6b 1. AM
  - 2. PM
- LH7 And on Sundays, at what time does the indoor lighting equipment turn on? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH7a Enter hours and minutes, e.g., 0530 for 5:30

### [SKIP OF LH7A=0]

- LH7b 1. AM
  - 2. PM

#### [SKIP LH8 IF LH7=24hr or never]

LH8 And when does the indoor lighting equipment turn off on Sundays? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH8a Enter hours and minutes, e.g., 0530 for 5:30

## [SKIP OF LH8A=0]

- LH8b 1. AM
  - 2. PM

### [SKIP LH9b IF LH1a=1 AND LH2a = 2400 AND LH4 = 2]

LH9b During hours when your business is CLOSED, approximately what percentage of the indoor lights are kept on? [NUMERIC OPEN END, 0 to 100; 998=Don't know, 999=Refused (Respondent is not knowledgeable about techical lighting questions) -SKIP TO NEXT SECTION 996]

- LH10a Are there any months during the year when the operating schedule for the indoor lighting differs significantly from what you just described?
  - 1 Yes
  - 2 No
  - 3. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

### [ASK LH10b-e IF LH10a=1; ELSE SKIP TO SPL2]

LH10b How many hours per day does the indoor lighting typically operate during the periods with different operating schedules?

[NUMERIC OPEN END, 0 TO 24; 98=DON'T KNOW, 99=REFUSED (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 96]

LH10c And how many days per week?

[NUMERIC OPEN END, 0 TO 7; 98=DON'T KNOW, 99=REFUSED (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 96]

- LH10d How many months per year does the equipment run on the alternative schedule? [NUMERIC OPEN END, 0 TO 12; 98=DON'T KNOW, 99=REFUSED (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION 96]
- LH10e During hours when your business is OPEN\_on the alternative schedule, approximately what percentage of the indoor lighting is kept on? [NUMERIC OPEN END, 0 TO 100; 998=DON'T KNOW, 999=REFUSED (Respondent is not knowledgeable about techical lighting questions) -SKIP TO NEXT SECTION 996]

#### [SKIP LH10f IF LH10b = 24]

- LH10f During hours when your business is CLOSED on the alternative schedule, approximately what percentage of the indoor lights are kept on? [NUMERIC OPEN END, 0 to 100; 998=Don't know, 999=Refused (Respondent is not knowledgeable about techical lighting questions) SKIP TO NEXT SECTION 996]
- SPL2 Did you make any other lighting upgrades at this facility within the past year that were influenced by Ameren Illinois Act on Energy program? [

OPEN END. PROBE FOR AND RECORD QUANTITIES ALONG WITH THE TYPE OF EQUIPMENT BY ASKING QUESTIONS LIKE:

WHAT TYPES OF LIGHTING EQUIPMENT DID YOU INSTALL?

HOW MANY LIGHTING FIXTURES DID YOU REPLACE?]

[PROGRAMMER NOTE: SET RESPONSE CATEGORIES TO CAPTURE QUANTITIES AND EQUIPMENT TYPES]

- 96. (Nothing)
- OO [OPEN END TEXT]
- 95. (Respondent is not knowledgeable about techical lighting questions) –SKIP TO NEXT SECTION
- 98 (Don't Know)
- 99 Refused

REF1a. Can we have the contact infomration for the person most knowledgable about the lighting at your faciltiy?

- OO Yes record contact information
- 96 No
- 98 (Don't Know)
- 99 Refused

#### **HVAC MODULE**

### [ASK IF SP6B>5 AND SPL1B=1, ELSE SKIP TO THE NEXT MODULE]

- SPC1 You mentioned earlier that you made cooling upgrades at this facility in the past year that were at least partially influenced by the Ameren Illinois Act on Energy program. As part of this upgrade, did you remove and replace your old packaged air conditioning system with a new system?
  - 1 Yes
  - 2 No
  - 3. (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

## [ASK IF SPC1=1, ELSE SKIP TO SP8]

- SPC3 In total, how many packaged units did you remove? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPC3a In total, how many new packaged units did you install? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPC4 I know that these units come in different sizes. Did you remove any units less than 5 tons in size?
  - 1 Yes
  - 2 No
  - 3. (Respondent is not knowledgeable about techical HVACquestions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF SPC4=1, ELSE SKIP TO SPC4D]

- SPC4a. How many units less than 5 tons in size did you remove? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPC4b. What was the average efficiency in SEER of these units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

[ASK IF SPC4b=98]

SPC4c. About how old were the units less than 5 tons in size that you took out? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

SPC4d Were any of the new units that you installed less than 5 tons in size?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) -SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

### [ASK IF SPC4D=1, ELSE SKIP TO SPC5]

SPC4e. How many new units less than 5 tons in size did you install? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

SPC4f. What was the average efficiency in SEER of these units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

#### [SKIP TO SPC5d IF SPC3=SPC4a]

SPC5. Did you remove any units from 5 to 10 tons in size?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) –SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

#### [ASK IF SPC5=1, ELSE SKIP TO SPC5d]

SPC5a. How many units with sizes ranging from 5 to 10 tons did you remove? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

SPC5b. What was the average efficiency in EER of these units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

#### [ASK IF SPC5b=98]

SPC5c. About how old were the units with sizes ranging from 5 to 10 tons that you took out?

[NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

### [SKIP TO SPC6 IF SPC3a=SPC4e]

SPC5d Did you install any new units with sizes ranging from 5 to 10 tons?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) -SKIP TO NEXT SECTION
- 8 (Don't know)

9 (Refused)

#### [ASK IF SPC5D=1, ELSE SKIP TO SPC6]

SPC5e. How many new units with sizes ranging from 5 to 10 tons did you install? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

SPC5f. What was the average efficiency in EER of these new units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

### [SKIP TO SPC6d IF SPC3=SPC4a+SPC5a]

SPC6. Did you remove any units from 12 to 20 tons in size?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) –SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

### [ASK IF SPC6=1, ELSE SKIP TO SPC7]

SPC6a. How many units with sizes ranging from 11 to 20 tons did you remove? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

SPC6b. What was the average efficiency in EER of these units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

### [ASK IF SPC6b=98]

SPC6c. About how old were the units with sizes ranging from 11 to 20 tons that you took out? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]]

#### [SKIP TO SPC7 IF SPC3a=SPC4e+SPC5e]

SPC6d Did you install any new units with sizes ranging from 11 to 20 tons?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) –SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

#### [ASK IF SPC6D=1, ELSE SKIP TO SPC8]

SPC6e How many new units with sizes ranging from 11 to 20 tons did you install? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

SPC6f What was the average efficiency in EER of these new units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]]

### [SKIP TO SPC7d IF SPC3=SPC4a+SPC5a+SPC6a]

SPC7. Did you remove any units from 21 to 63 tons in size?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) -SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

## [ASK IF SPC7=1, ELSE SKIP TO SPC8]

- SPC7a. How many units with sizes ranging from 21 to 63 tons did you remove? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPC7b. What was the average efficiency in EER of these units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]]

#### [ASK IF SPC7b=98]

SPC7c. About how old were the units with sizes ranging from 21 to 63 tons that you took out? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]]

# [SKIP TO SPC8 IF SPC3a=SPC4e+SPC5e+SPC6e]

SPC7d Did you install any new units with sizes ranging from 21 to 63 tons?

- 1 Yes
- 2 No
- 3. (Respondent is not knowledgeable about techical HVACquestions) -SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

## [ASK IF SPC7D=1, ELSE SKIP TO SPC8]

- SPC7e. How many new units with sizes ranging from 21 to 63 tons did you install? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPC7f. What was the average efficiency in EER of these new units? [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical HVAC questions) –SKIP TO NEXT SECTION 98 DK 99 REF]]
- SPC8. What, if any, other HVAC related upgrades did you make in your facility in the past year that were influenced by the Ameren Act on Energy program? OPEN END. PROBE FOR AND RECORD QUANTITIES ALONG WITH THE TYPE OF EQUIPMENT BY ASKING QUESTIONS LIKE:

WHAT TYPES OF REFRIGERATION EQUIPMENT DID YOU INSTALL?

HOW MANY UNITS DID YOU REPLACE?

[PROGRAMMER NOTE: SET RESPONSE CATEGORIES TO CAPTURE QUANTITIES AND EQUIPMENT TYPES]

96. (Nothing)

00 [OPEN END TEXT]

95(Respondent is not knowledgeable about techical HVACquestions) -SKIP TO NEXT SECTION

98 (Don't Know)

99 Refused

### [IF PERSON IS NOT KNOWELDGABLE ON ANY OF THE HVAC OUESTIONS ASK REF1B]

[REF1b. Can we have the contact information for the person most knowledgable about the HVAC system at your faciltiy?

OO Yes – record contact information

96 No

98 (Don't Know)

99 Refused

#### **REFRIGERATION MODULE**

[ASK IF SPz16C>5 AND SP1C=1, ELSE SKIP TO THE NEXT MODULE]

- SPR1. You mentioned earlier that you made refrigeration upgrades at this facility in the past year that were at least partially influenced by the Ameren Illinois Act on Energy program. As part of this upgrade, did you install anti-sweat heater controls?
  - 1 Yes
  - 2 No
- (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF SPR1=1, ELSE SKIP TO SPR5]

- SPR2. What type of anti-sweat heater controls were installed? [IF INSTALLED BOTH, PROBE FOR THE MOST COMMON ONE]
  - 1 Conductivity based
  - 2 Humidity based
  - 3. (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)
- SPR3 How many COOLER doors do the anti-sweat heater controls serve? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical refrigeration questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPR4 How many FREEZER doors do the anti-sweat heater controls serve? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical refrigeration questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPR5. Did you install EC motors in either coolers or freezers as part of this upgrade?
  - 1 Yes
  - 2 No.
- (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF SPR5=1, ELSE SKIP TO SPR10]

SPR6 Were your old motors..?

- 1 Shaded pole motors, which is the standard type of motor or
- 2 PSC motors, or permanent split capacitor motors
- 3 Some of both
- 4. (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO NEXT SECTION
- 8 (Don't know)
- 9 (Refused)

## [ASK IF SPR6=3, ELSE SKIP TO SPR7]

SPR6b What percentage of the old motors were shaded pole motors? [NUMERIC OPEN END 0-100%]

- SPR7 How many old motors did you remove and replace? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical refrigeration questions) –SKIP TO NEXT SECTION 998 DK 999 REF] [PROBE FOR THE BEST ESTIMATE]
- SPR8 We know that the different motors that you removed and replaced might have had different horsepower. What was the average horsepower of the motors you took out? [PROBE FOR THE BEST ESTIMATE, expect values less than 1, like 1/10, 1/5, 1/3, ½, 3/4 or 1 hp] [NUMERIC OPEN END 0-50]
- SPR9 Were the new EC motors installed in...? [MULTIPLE RESPONSE]
  - 1 Walk-in cooler
  - 2 Walk-in freezer
  - 3 Reach-in or case cooler
  - 4 Reach-in or case freezer
  - 5 Other
- 6. (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)
- SPR10. What, if any, other refrigeration related upgrades did you make in your facility that were influenced by the Ameren Illinois Act On Energy program? OPEN END. PROBE FOR AND RECORD QUANTITIES ALONG WITH THE TYPE OF EQUIPMENT BY ASKING QUESTIONS LIKE: WHAT TYPES OF REFRIGERATION EQUIPMENT DID YOU INSTALL? HOW MANY UNITS DID YOU REPLACE?
  - 96. (Nothing)
  - 00 [OPEN END TEXT]
- 95. (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO NEXT SECTION
  - 98 (Don't Know)
  - 99 Refused

[IF PERSON IS NOT KNOWELDGABLE ON ANY OF THE refrigeration QUESTIONS ASK REF1c]

REF1c .Can we have the contact information for the person most knowledgable about refrigeration system at your facility?

- 00 Yes record contact information
- 96 No
- 98 (Don't Know)
- 99 Refused

### **MOTORS MODULE**

### [ASK IF SP6D>5, ELSE SKIP TO THE END]

- SPM1. You mentioned earlier that you made motor or VFD upgrades at this facility in the past year that were at least partially influenced by Ameren Illinois Act on Energy business programs. As part of this upgrade, did you install variable frequency drives?
  - 1 Yes
  - 2 No
- 3. (Respondent is not knowledgeable about techical motor questions) –SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)

### [ASK IF SPM1=1, ELSE SKIP TO SPM10]

SPM2 On how many motors were variable frequency drives installed? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical motor questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

SPM2a Were there VFDs on the motors before you installed the new VFDs?

- 1 Yes
- 2 No
- 3 (Were on some but not all)
- 4. (Respondent is not knowledgeable about techical motor questions ) -SKIP TO NEXT SECTION
  - 8 (Don't know)
  - 9 (Refused)
- SPM3 What was the average horsepower of the motors on which variable frequency drives were installed? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical motor questions) –SKIP TO NEXT SECTION 998 DK 999 REF]
- SPM4 What was the average efficiency of the motors on which variable frequency drives were installed? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 0%-100%, 998=DON'T KNOW, 999=REFUSED 996 (Respondent is not knowledgeable about technical v questions) –SKIP TO NEXT SECTION]
- SPM5 How many of the motors with new variable frequency drives were NEMA Premium motors? [NUMERIC OPEN END 1-995 996 (Respondent is not knowledgeable about technical motor questions) –SKIP TO NEXT SECTION 998 DK 999 REF]

#### [ASK IF SPM4=998]

SPM6 What was the average age of the motors on which variable frequency drives were installed? [PROBE FOR THE BEST ESTIMATE] [NUMERIC OPEN END 1-95 96 (Respondent is not knowledgeable about technical motor questions) –SKIP TO NEXT SECTION 98 DK 99 REF]

SPM7	In which of the following applications were variable frequency drives installed? Were they Installed on? [READ LIST; IF INSTALLED IN MORE THAN ONE PROBE FOR MOST COMMON]  01 HVAC system pump  02 HVAC system fan  03 Process pump  04 Process fan  00 Or on a different type of application (Specify)  96. (Respondent is not knowledgeable about techical motor questions) –SKIP TO NEXT  SECTION  98 (Don't Know)  99 (Refused)
SPM8	What are the approximate hours of operation for the motors on which variable frequency drives were installed? An estimate is fine. [IF RESPONDENT IS HAVING A HARD TIME PROVIDING AN ANSWER, PROBE FOR AVERAGE OPERATING HOURS OF THE EQUIPMENT IN THE PASTWEEK] a. Hrs per day
	b. Days per week
	c. Weeks per year
SPM10	D.What, if any, other motor related upgrades did you make in your facility that were influenced by the Ameren Illinois Act On Energy program? OPEN END. PROBE FOR AND RECORD QUANTITIES ALONG WITH THE TYPE OF EQUIPMENT BY ASKING QUESTIONS LIKE:  WHAT TYPES OF MOTOR RELATED EQUIPMENT DID YOU INSTALL?  HOW MANY UNITS DID YOU REPLACE?  96. (Nothing)  00 [OPEN END TEXT]  95. (Respondent is not knowledgeable about techical refrigeration questions) –SKIP TO END  98 (Don't Know)  99 Refused
[REF1c	RSON IS NOT KNOWELDGABLE ON ANY OF THE MOTOR QUESTIONS ASK REF1D] d. Can we have the contact information for the person most knowledgable about system at your facility? Yes – record contact information No (Don't Know) Refused
[END]	This concludes our survey. Thank you very much for your participation!

#### AMEREN ILLINOIS ACT ON ENERGY BUSINESS PROGRAM

#### **PARTICIPANT SURVEY – STANDARD PROJECTS**

Final

#### 07/12/11

#### **INTRODUCTION**

[READ IF CONTACT	=1]
Hello, this is	from Opinion Dynamics calling on behalf of Ameren Illinois. This is not a sales ca
May I please speak	with <program contact="">?</program>

Our records show that <COMPANY> purchased <ENDUSE>, which was/were <installed in "INSTALL DATE" OR recently installed> and received an incentive of <INCENTIVE AMOUNT> from Ameren Illinois. We are calling to do a follow-up study about your firm's participation in this program, which is called the Act On Energy Business Program. I was told you're the person most knowledgeable about this project. Is this correct? [IF NOT, ASK TO BE TRANSFERRED TO MOST KNOWLEDGABLE PERSON OR RECORD NAME & NUMBER.]

This survey will take about 25 minutes. Is now a good time? [If no, schedule call-back]

#### [READ IF CONTACT=0]

Hello, this is \_\_\_\_\_ from Opinion Dynamics calling on behalf of Ameren Illinois. I would like to speak with the person most knowledgeable about recent changes in cooling, lighting, or other energy-related equipment for your firm at this location.

[IF NEEDED] Our records show that <COMPANY> purchased <ENDUSE>, which was <installed in "INSTALL DATE" OR recently installed> and received an incentive of <INCENTIVE AMOUNT> dollars from Ameren Illinois. We are calling to do a follow-up study about your firm's participation in this program, which is called the Act On Energy Business Program. I was told you're the person most knowledgeable about this project. Is that correct? [IF NOT, ASK TO BE TRANSFERRED TO MOST KNOWLEDGEABLE PERSON OR RECORD NAME & NUMBER.]

This survey will take about 25 minutes. Is now a good time? [If no, schedule call-back]

#### **SCREENING QUESTIONS**

A1. Just to confirm, between June 1, 2010 and May 31, 2011 did <COMPANY> participate in Ameren Illinois' Act On Energy Business Program at <ADDRESS>? (IF NEEDED: This is a program where your business received an incentive for installing one or more energy-efficient products covered under the program.)

- 1 (Yes, participated as described)
- 2 (Yes, participated but at another location)
- 3 (NO, did NOT participate in program)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

## [SKIP A2 IF A1=1,2]

- A2. Is it possible that someone else dealt with the energy-efficient product installation?
  - 1 (Yes, someone else dealt with it)
  - 2 (No)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

[IF A2=1, ask to be transferred to that person. If not available, thank and terminate. If available, go back to A1]

[IF A1=3,98,99 or A2=2,00,98,99: Thank and terminate. Record dispo as "Could not confirm participation".]

Before we begin, I want to emphasize that this survey will only be about the <END USE> you installed through the Act On Energy Business Program at <ADDRESS>.

A3. I'd like to confirm some information in Ameren Illinois' database. Our records show that you implemented the following <ENDUSE> projects through the Act On Energy Business Program. Is this correct?

#### [ASK A3a IF MEASD1 <> BLANK]

- a <MEASD1>
  - 1 (Yes)
  - 2 (No, did not install)
  - 8 (Don't know)
  - 9 (Refused)

# [ASK A3b IF MEASD2 <> BLANK]

- b <MEASD2>
  - 1 (Yes)
  - 2 (No, did not install)
  - 8 (Don't know)
  - 9 (Refused)

# [ASK A3c IF MEASD3 <> BLANK]

- c <MEASD3>
  - 1 (Yes)
  - 2 (No, did not install)
  - 8 (Don't know)
  - 9 (Refused)

CREATE VARIABLES MEAS1, MEAS2, MEAS3.

SET MEAS1=1 IF (A3a = 1 OR 2; ELSE SET MEAS1=0)

SET MEAS2=1 IF (A3b = 1 OR 2; ELSE SET MEAS2=0)

SET MEAS3=1 IF (A3c =1 OR 2; ELSE SET MEAS3=0)

[IF MEAS1=0 AND MEAS2=0 AND MEAS3=0 then thank and terminate. Record dispo as "Could not confirm measures".]

# **LIGHTING MODULE** [ASK IF LIGHT=1, ELSE SKIP TO COOLING MODULE]

- PL1 Who was the most influential in specifying the details of the <ENDUSE> project you completed through the Act On Energy Business program?
  - 1. (me/respondent)
  - 2. (contractor)
  - 3. (engineer)
  - 4. (architect)
  - 5. (manufacturer)
  - 6. (distributor)
  - 7. (Owner)
  - 8. (Electrician)
  - 9. (Supplier)
  - 10. (Ameren Illinois representative/program staff)
  - 11. (Program Ally)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- PL2 And who identified the opportunity for the Ameren Illinois incentive?
  - 1. (me/respondent)
  - 2. (contractor)
  - (engineer)
  - 4. (architect)
  - 5. (manufacturer)
  - 6. (distributor)
  - 7. (Ameren Key Account Executive)
  - 8. (owner/developer)
  - 9. (project manager)
  - 10. (Supplier)
  - 11. (Ameren Illinois representative/program staff)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## **Measure Loop**

```
[Loop 1: ASK IF MEAS1=1. Loop 2: ASK IF MEAS2=1. Loop 3: ASK IF MEAS3=1.] [For Loop 2, replace "1" at the end of read-ins with "2"; for Loop 3, replace "1" with "3".]
```

The following questions are about the <a href="https://www.emoved-or.">lamps you removed OR "MEASD" you installed> through the Act On Energy Business Program.</a>

- Uhen did you <remove the lamps OR install the MEASD1> (IF NECESSARY, PROBE FOR BEST GUESS)
  - a Month [Precodes for Jan through Dec., DK, REF]
  - b Year [Precodes for 2010 and 2011, DK, REF]

#### **DELAMPING** [ASK IF MEASURE1 = LINEAR, ELSO SKIP TO L6]

- L1 Did any of your new fixtures have fewer bulbs per fixture than your old fixtures (i.e., did you delamp)? (If needed: delamping occurs when you replace your T12 fixtures with T8s and reduce the number of lamps per fixture.)
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

## [ASK IF L1=1, ELSE GO TO L6]

- L2 How many lamps per fixture were installed prior to delamping?
  - 1 (1 lamp)
  - 2 (2 lamps)
  - 3 (3 lamps)
  - 4 (4 lamps)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)
- L3 How many lamps per fixture are installed now?
  - 1 (1 lamp)
  - 2 (2 lamps)
  - 3 (3 lamps)
  - 4 (4 lamps)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)
- L4 After you delamped, did you install additional lighting fixtures in that same space at a later time to increase the amount of lighting?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

## [ASK IF L4=1, ELSE GO TO L6a]

L5 How many of these additional fixtures did you install? [NUMERIC OPEN END, 1 TO 3000; 98=Don't know, 99=Refused]

## **BULBS INTO STORAGE** [ASK IF <MEASURE1>=CFL, ELSE SKIP TO L7]

Was any of the lighting equipment for which you received an incentive placed into storage or installed at another facility?

- 1. (Yes)
- 2. (No)
- 8. (Don't know)
- 9. (Refused)

## [SKIP L6a L6b AND L6c IF L6<>1]

- What percentage of the CFLs for which you received an incentive were placed in storage? [NUMERIC OPEN END, 0 TO 100; 998=Don't know, 999=Refused]
- And what percentage were installed at another facility? [NUMERIC OPEN END, 0 TO 100; 998=Don't know, 999=Refused]
- L6c When do you anticipate having all of the CFLs you placed in storage installed? [OPEN END]

## **REMOVED EQUIPMENT**

```
[IF MEASURE1 = Occupancy Sensor, SKIP TO OS1]
[IF MEASURE1 = EXIT SIGNS, SKIP TO EX1]
```

[READ IF MEASD1<>"lamps removed"] I'd like to ask you a few questions about the equipment that was removed and replaced when you installed the <MEASD1>...

- L7 What type of lighting was removed [READ IF MEASD1<>"lamps removed": and replaced when you installed <MEASD1>] through the Act On Energy Business program? (READ LIST) [MULTIPLE RESPONSE, UP TO 3]
  - 1 Linear fluorescent lights
  - 2 High-Intensity Discharge (HID) Fixtures
  - 3 Compact fluorescent lights
  - 4 Incandescent bulbs
  - 5 Halogen lights
  - 6 (Did not replace anything new equipment)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

#### [ASK L7a IF L7=1]

- L7a What type of linear fluorescent lights were removed? (READ LIST) [MULTIPLE RESPONSE, UP TO 3]
  - 1 High performance T8 (1" diameter bulbs)
  - 2 T8 fluorescent fixtures (1" diameter bulbs)
  - 3 T10 fluorescent fixtures
  - 4 T12 Fixtures (1.5" diameter bulbs)
  - 5 T5 Fixtures (5/8" diameter)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

#### [ASK L7b IF L7a=4]

- L7b What types of ballasts were in use on the linear fluorescent fixtures you removed? [MULTIPLE RESPONSE. ACCEPT UP TO TWO RESPONSES]
  - 1 Electronic Ballast
  - 2 Magnetic Ballast
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

## [ASK L9 IF L7a=4]

- L9. If you had not participated in the program, when would you have replaced your T-12 fixtures?
  - 1 (Within 6 months)
  - 2 (Between 6 months and a year)
  - 3 (Within 2 years)
  - 4 2 or more years later
    - 8 (Don't know)
  - 9 (Refused)

## **OCCUPANCY SENSORS** [ASK IF MEASURE1 = Occupancy Sensor; ELSE GO TO EX1]

- OS1 Roughly what percentage of your lights now have occupancy controls on them? [NUMERIC OPEN END; 0 TO 100; 998=Don't know, 999=Refused]
- OS2 Before Occupancy Sensors were installed, about how many hours per day were the lights in operation? [NUMERIC OPEN END; 0 TO 24; 98=Don't know, 99=Refused]
- OS3 After controls were installed, about how many hours per day were the lights in operation? [NUMERIC OPEN END; 0 TO 24; 98=Don't know, 99=Refused]

#### **EXIT SIGNS** [ASK IF MEASURE1 = Exit Signs; ELSE GO TO NEXT LIGHTING LOOP]

- EX1 What type of exit signs were removed? (READ LIST) [MULTIPLE RESPONSE, UP TO 3]
  - 1 Incandescent exit signs
  - 2 Compact fluorescent exit signs
  - 3 LED exit signs
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

[End of Measure Loop; GO TO NEXT LIGHTING MEASURE]

[ASK NET-TO-GROSS MODULE, THEN RETURN]

#### SPILLOVER - LIGHTING

Thank you for discussing the new lighting equipment that you installed through the Act On Energy Business program. Next, I would like to discuss any lighting equipment you might have installed OUTSIDE of the program ...

- LS1 Since June 2010 have you purchased and installed any energy efficient lighting equipment WITHOUT an incentive from the Act On Energy Business program or another utility program... [1=Yes, 2=No, 8=Don't know, 9=Refused]
  - a. at this facility
  - b. at another facility owned by your company

## [IF LS1a=2,8,9 AND LS1b=2,8,9, THEN SKIP TO HOURS OF USE – LIGHTING MODULE]

#### [ASK LS1c IF LS1b=1]

- LS1c You said you installed equipment at another facility owned by your company. Can you please give me the address? (If more than one, record "multiple") [OPEN END]
- Use On a scale of 0 to 10, where 0 means "no influence" and 10 means "greatly influenced," how much did your experience with the Act On Energy Business program influence your decision to install high efficiency lighting equipment on your own? [SCALE 0-10; 98=Don't know, 99=Refused]
- LS3 Why did you purchase this lighting equipment without the incentive available through the Act On Energy Business program? [MULTIPLE RESPONSE, UP TO 3]
  - 1 (Takes too long to get approval)
  - 2 (No time to participate, needed equipment immediately)
  - 3 (The equipment did not qualify)
  - 4 (The amount of the incentive wasn't large enough)
  - 5 (Did not know the program was available)
  - 6 (There was no program available)
  - 7 (Had reached the maximum incentive amount)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

#### [ASK LS3a IF LS3=3, ELSE SKIP TO LS4]

LS3a Why didn't the equipment qualify? [OPEN END]

#### [ASK IF LS2=8,9,10 and LS3 <> 3, ELSE GO TO LH1A]

- LS4 What type of lighting equipment was installed without an incentive? Did you install... [MULTIPLE RESPONSE, UP TO 5]
  - 1 Linear fluorescent lights
  - 2 High-Intensity Discharge (HID) Fixtures
  - 3 Compact fluorescent lights (CFLs)
  - 4 Exit signs
  - 5 Lighting controls

- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

#### **HOURS OF USE - LIGHTING**

Now we'd like to talk about the hours that your lighting equipment is in operation.

- LH1a Are you typically open every day, Monday through Friday?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

## [ASK LH1b IF LH1a=2]

LH1b How many days are you CLOSED Monday through Friday?

- 1 One
- 2 Two
- 3 Three
- 4 Four
- 5 Five
- 8 (Don't know)
- 9 (Refused)

## [IF LH1b=5, SKIP TO LH4]

LH2 At what time do your indoor lights currently turn on during weekdays (Monday - Friday)? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH2a Enter hours and minutes, e.g., 0530 for 5:30

- LH2b 1. AM
  - 2. PM

#### [SKIP LH3 IF LH2=24hr or never]

LH3 At what time do your indoor lights currently turn off during weekdays (Monday - Friday)? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH3a Enter hours and minutes, e.g., 0530 for 5:30

- LH3b 1. AM
  - 2. PM

LH4 Does the lighting equipment operate on a different schedule on weekends (Saturday and Sunday)?

- 1 Yes
- 2 No
- 8 (Don't know)
- 9 (Refused)

## [ASK IF LH4=1, ELSE SKIP TO LH9]

LH5 On Saturdays, at what time does the indoor lighting equipment turn on? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH5a Enter hours and minutes, e.g., 0530 for 5:30

LH5b 1. AM

2. PM

## [SKIP LH6 IF LH5=24hr or never]

LH6 And when does the indoor lighting equipment turn off on Saturdays? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH6a Enter hours and minutes, e.g., 0530 for 5:30

LH6b 1. AM

2. PM

LH7 And on Sundays, at what time does the indoor lighting equipment turn on? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH7a Enter hours and minutes, e.g., 0530 for 5:30

LH7b 1. AM

2. PM

## [SKIP LH8 IF LH7=24hr or never]

LH8 And when does the indoor lighting equipment turn off on Sundays? (Enter 2400 for 24-hour operation, enter 0 for never on)

LH8a Enter hours and minutes, e.g., 0530 for 5:30

LH8b 1. AM

2. PM

# [ASK LH9aa and LH9bb if <MEASD> <> "Dimming system controls" or "Occupancy sensors"]

LH9aa Roughly what percentage of your lights have occupancy controls on them? [NUMERIC OPEN END; 0 TO 100; 998=Don't know, 999=Refused]

#### [SKIP LH9bb if LH9aa=0]

LH9bb I know it is hard to know for certain, but about how many hours a day do you think the occupancy sensors turn off lights that otherwise would be on? [NUMERIC OPEN END; 0.0 TO 24.0; 998=Don't know, 999=Refused]

#### [ASK LH9a IF LH9aa=0]

LH9a During hours when your business is OPEN, approximately what percentage of the indoor lights are kept on? [NUMERIC OPEN END, 0 TO 100; 998=DON'T KNOW, 999=REFUSED]

## [ASK LH9c IF LH9aa>0]

LH9c Now, disregard the occupancy sensors at your facility, which can turn off some of your lights.

During hours when your business is OPEN, approximately what percentage of the indoor lights are kept on? [NUMERIC OPEN END, 0 TO 100; 998=DON'T KNOW, 999=REFUSED]

#### [SKIP LH9b IF LH1a=1 AND LH2a = 2400 AND LH4 = 2]

LH9b During hours when your business is CLOSED, approximately what percentage of the indoor lights are kept on? [NUMERIC OPEN END, 0 to 100; 998=Don't know, 999=Refused]

- LH10a Are there any months during the year when the operating schedule for the indoor lighting differs significantly from what you just described?
  - 1 (Yes)
  - 2 (No)
  - 8 (Don't know)
  - 9 (Refused)

## [ASK LH10b-e IF LH10a=1; ELSE SKIP TO PROCESS MODULE]

LH10b How many hours per day does the indoor lighting typically operate during the periods with different operating schedules?

[NUMERIC OPEN END, 0 TO 24; 98=DON'T KNOW, 99=REFUSED]

LH10c And how many days per week?
[NUMERIC OPEN END, 0 TO 7; 8=DON'T KNOW, 9=REFUSED]

LH10d How many months per year does the equipment run on the alternative schedule? [NUMERIC OPEN END, 0 TO 12; 98=DON'T KNOW, 99=REFUSED]

LH10e During hours when your business is OPEN\_on the alternative schedule, approximately what percentage of the indoor lighting is kept on? [NUMERIC OPEN END, 0 TO 100; 998=DON'T KNOW, 999=REFUSED]

## [SKIP LH10f IF LH10b = 24]

LH10f During hours when your business is CLOSED on the alternative schedule, approximately what percentage of the indoor lights are kept on? [NUMERIC OPEN END, 0 to 100; 998=Don't know, 999=Refused]

# **COOLING MODULE** [ASK IF COOLING=1, ELSE SKIP TO REFRIGERATION MODULE]

- PC1 Who was the most influential in specifying the <ENDUSE> you installed through the Act On Energy Business program?
  - 1. (me/respondent)
  - 2. (contractor)
  - 3. (engineer)
  - 4. (architect)
  - 5. (manufacturer)
  - 6. (distributor)
  - 7. (Owner)
  - 8. (Ameren Illinois representative/program staff)
  - 9. (Program Ally)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- PC2 And who identified the opportunity for the Ameren Illinois incentive?
  - 1. (me/respondent)
  - 2. (contractor)
  - 3. (engineer)
  - 4. (architect)
  - 5. (manufacturer)
  - 6. (distributor)
  - (Ameren Key Account Executive)
  - 8. (owner/developer)
  - 9. (project manager)
  - 10. (Ameren Illinois representative/program staff)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## **Measure Loop**

```
[Loop 1: ASK IF MEAS1=1. Loop 2: ASK IF MEAS2=1. Loop 3: ASK IF MEAS3=1.] [For Loop 2, replace "1" at the end of read-ins with "2"; for Loop 3, replace "1" with "3".]
```

The following questions are about the <MEASD1> you installed through the Act On Energy Business Program.

- CO When did you install the <MEASD1> (IF NECESSARY, PROBE FOR BEST GUESS)
  - a Month [Precodes for Jan through Dec.; DK, REF]
  - b Year [Precodes for 2010 and 2011; DK, REF]

## **REMOVED EQUIPMENT**

- C2 How would you describe the condition of the equipment that was removed? Was it...
  - 1 Inoperable/broken

- 2 Poor condition
- 3 Fair condition
- 4 Good condition
- 96 (Not applicable; equipment added not replaced)
- 8 (Don't know)
- 9 (Refused)

#### [SKIP IF C2=96]

- C3 How old was the equipment that was removed? Was it...
  - 1 Less than 5 years old
  - 2 Between 5 and 10 years old
  - 3 11 to 20 years old
  - 4 More than 20 years old
  - 8 (Don't know)
  - 9 (Refused)

[End of Measure Loop; GO TO NEXT COOLING MEASURE]

[ASK NET-TO-GROSS MODULE, THEN RETURN]

#### SPILLOVER - COOLING

Thank you for discussing the new cooling equipment that you installed through the Act On Energy Business Program. Next, I would like to discuss any cooling equipment you might have installed OUTSIDE the Act On Energy Business Program ...

- CS1 Since June 2010 have you purchased and installed any energy efficient cooling equipment WITHOUT an incentive from the Act On Energy Business program or another utility program... [1=Yes, 2=No, 8=Don't know, 9=Refused]
  - a. at this facility
  - b. at another facility owned by your company

# [IF CS1a=2,8,9 AND CS1b=2,8,9, THEN SKIP TO HOURS OF USE – COOLING MODULE]

#### [ASK IF CS1b=1]

- CS1c You said you installed equipment at another facility owned by your company. Can you please give me the address? (If more than one, record "multiple") [OPEN END]
- CS2 On a scale of 0 to 10, where 0 means "no influence" and 10 means "greatly influenced," how much did your experience with the Act On Energy Business program influence your decision to install different types of high efficiency cooling equipment on your own? [SCALE 0-10; 98=Don't know, 99=Refused]
- CS3 Why did you purchase this cooling equipment without the incentives available through the Act On Energy Business program? [MULTIPLE RESPONSE, UP TO 3]
  - 1 (Takes too long to get approval)
  - 2 (No time to participate, needed equipment immediately)

- 3 (The equipment did not qualify)
- 4 (The amount of the incentive wasn't large enough)
- 5 (Did not know the program was available)
- 6 (There was no program available)
- 7 (Had reached the maximum incentive amount)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

#### [ASK CS3a IF CS3=3, ELSE SKIP TO CS4]

CS3a Why didn't the equipment qualify for the program? [OPEN END]

#### [ASK IF CS2=8, 9,10 AND CS3 <>3, ELSE SKIP TO CH1A]

- CS4 What types of equipment were installed as part of the cooling retrofit? (DO NOT READ LIST.

  After each response, prompt with: "Did you install any other energy efficient cooling equipment at your facility since June 2010?") [MULTIPLE RESPONSE, UP TO 5]
  - (Split system air conditioners (two components: compressor is separate from the supply air fan))
  - 2 (Packaged air conditioning systems (one component, for example rooftop units or unitary equipment))
  - 3 (Package Terminal A/C (e.g., Hotel/Motel units))
  - 4 (Window/Wall Air-Conditioning Units)
  - 5 (Remote Condensing Unit)
  - 6 (Evaporative coolers/swamp coolers)
  - 7 (Water Chillers)
  - 8 (Evaporative Condenser)
  - 9 (Adjustable Speed Drives)
  - 10 (Energy Management System)
  - 11 (HVAC Controls: Bypass Timer)
  - 12 (HVAC Controls: Time Clock)
  - 13 (HVAC Controls: Set-Back Programmable Thermostat)
  - 14 (Heat Pump Units)
  - 15 (Air Source Heat Pump Units)
  - 16 (Air Cooled Chiller)
  - 00 (Other, specify) (RECORD MULTIPLE "OTHER" RESPONSES HERE, IF NECESSARY)
  - 98 (Don't know)
  - 99 (Refused)

#### **HOURS OF USE - COOLING**

Now we'd like to talk about the hours that your cooling system is in operation.

CH1a Are you typically open every day, Monday through Friday?

- 1 Yes
- 2 No
- 8 (Don't know)
- 9 (Refused)

## [ASK CH1b IF CH1a=2]

CH1b How many days are you CLOSED Monday through Friday?

- 1 One
- 2 Two
- 3 Three
- 4 Four
- 5 Five
- 8 (Don't know)
- 9 (Refused)

## [IF CH1b=5, SKIP TO CH4]

CH2 At what time does your cooling system currently turn on during weekdays (Monday - Friday)? (Enter 2400 for 24-hour operation, enter 0 for never on)

CH2a Enter hours and minutes, e.g., 0530 for 5:30

CH2b 1. AM

2. PM

#### [SKIP CH3 IF CH2=24hr or never]

CH3 At what time does your cooling system currently turn off during weekdays (Monday - Friday)? (Enter 2400 for 24-hour operation, enter 0 for never on)

CH3a Enter hours and minutes, e.g., 0530 for 5:30

CH3b 1. AM

2. PM

CH4 Does the cooling system operate on a different schedule on weekends (Saturday and Sunday)?

- 1 Yes
- 2 No
- 8 (Don't know)
- 9 (Refused)

## [ASK IF CH4=1, ELSE SKIP TO PROCESS MODULE]

CH5 On Saturdays, at what time does the cooling system turn on? (Enter 2400 for 24-hour operation, enter 0 for never on)

CH5a Enter hours and minutes, e.g., 0530 for 5:30

CH5b 1. AM

2. PM

## [SKIP CH6 IF CH5=24hr or never]

CH6 And when does the cooling system turn off on Saturdays? (Enter 2400 for 24-hour operation, enter 0 for never on)

CH6a Enter hours and minutes, e.g., 0530 for 5:30

CH6b 1. AM

2. PM

CH7 And on Sundays, at what time does the cooling system turn on? (Enter 2400 for 24-hour operation, enter 0 for never on)

CH7a Enter hours and minutes, e.g., 0530 for 5:30

CH7b 1. AM

2. PM

# [SKIP CH8 IF CH7=24hr or never]

CH8 And when does the cooling system turn off on Sundays? (Enter 2400 for 24-hour operation, enter 0 for never on)

CH8a Enter hours and minutes, e.g., 0530 for 5:30

CH8b 1. AM

2. PM

# **REFRIGERATION MODULE** [ASK IF REFRIG=1, ELSE TO GO MOTORS MODULE]

- PR1 Who was the most influential in specifying the <ENDUSE> you installed through the Act On Energy Business program?
  - 1. (me/respondent)
  - 2. (contractor)
  - 3. (engineer)
  - 4. (architect)
  - 5. (manufacturer)
  - 6. (distributor)
  - 7. (Owner)
  - 8. (Ameren Illinois Utilities representative/program staff)
  - 9. (Program Ally)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- PR2 And who identified the opportunity for the Ameren Illinois Utilities incentive?
  - 1. (me/respondent)
  - 2. (contractor)
  - 3. (engineer)
  - 4. (architect)
  - 5. (manufacturer)
  - 6. (distributor)
  - 7. (Ameren Key Account Executive)
  - 8. (owner/developer)
  - 9. (project manager)
  - 10. (Ameren Illinois Utilities representative/program staff)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## **Measure Loop**

```
[Loop 1: ASK IF MEAS1=1. Loop 2: ASK IF MEAS2=1. Loop 3: ASK IF MEAS3=1.] [For Loop 2, replace "1" at the end of read-ins with "2"; for Loop 3, replace "1" with "3".]
```

The following questions are about the <MEASD1> you installed through the Act On Energy Business Program.

- RO When did you install the <MEASD1> (IF NECESSARY, PROBE FOR BEST GUESS)
  - a Month [Precodes for Jan through Dec.]
  - b Year [Precodes for 2010 and 2011]

## **REMOVED EQUIPMENT**

[ASK R4a and R4b IF MEASD1="Anti-Sweat Heater Controls"]

- R4a Thinking about the previous system you had in place to reduce condensation on your refrigeration doors, was it on all the time or did you control the number of hours that it operated?
  - 1 On all the time
  - 2 Controlled the hours of operation
  - 00 (Other, specify)
  - 96 (Didn't have a previous system)
  - 98 (Don't Know)
  - 99 (Refused)

#### [ASK R4b IF R4a=2]

R4b How many hours per day was the previous system on? [NUMERIC OPEN END, 0 TO 24; 98=Don't know, 99=Refused]

[ASK R6a, b, c, d, e IF MEASD1="Strip Curtains"]

R6a On what equipment did you install strip curtains? (Prompt if necessary) [MULTIPLE RESPONSE]

- 1 (Walk-in Refrigerator/Cooler)
- 2 (Walk-in Freezer)
- 3 (Both Cooler and Freezer)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)
- R6b What is the temperature setting of the equipment on which you installed the new strip curtains? An approximation would be fine. [NUMERIC OPEN END, 0 to 60 (DEGREES F); 98=Don't know, 99=Refused]

## [ASK R6c IF R6b=98]

R6c Would you say the temperature is...

- 1 Low (0 10 degrees F)
- 2 Medium (30 40 degrees F)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)
- R6d What is the height, in feet, of your new strip curtain? An approximation would be fine. [NUMERIC OPEN END, 0 to 90; 98=Don't know, 99=Refused]
- R6e What is the width in feet of your Strip Curtain? An approximation would be fine. [NUMERIC OPEN END, 0 to 90; 98=Don't know, 99=Refused]

## [ASK R8a, b IF MEASD1="Door Closer"]

R8a Thinking back to before you had an automatic door closer on your walk-in freezer, how often would you say the freezer door was left at least partially open?

- 1. Never
- 2. Under 1 hour a day
- 3. Between 2 and 4 hours a day

- 4. Over 4 hours a day
- 8. (Don't Know)
- 9. (Refused)

R8b. Did you have strip curtains on the freezer door area before you installed the automatic door closer?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

[End of Measure Loop; GO TO NEXT REFRIGERATION MEASURE]

[ASK NET-TO-GROSS MODULE, THEN RETURN]

#### **SPILLOVER - REFRIGERATION**

Thank you for discussing the new refrigeration equipment that you installed through the Act On Energy Business Program. Next, I would like to discuss any refrigeration equipment you might have installed OUTSIDE the Act On Energy Business Program. This would include not only any other refrigeration equipment but also night covers, condensers, or evaporative fan coolers.

- RS1 Since June 2010, have you purchased and installed any energy efficient refrigeration equipment WITHOUT an incentive from the Act On Energy Business program or another utility program... [1=Yes, 2=No, 8=Don't know, 9=Refused]
  - a. at this facility
  - b. at another facility owned by your company

#### [IF RS1a=2,8,9 AND RS1b=2,8,9, THEN SKIP TO PROCESS MODULE]

#### [ASK RS1c IF RS1b=1]

- RS1c You said you installed energy efficient refrigeration equipment at another facility owned by your company. Can you please give me the address? (If more than one, record "multiple") [OPEN END]
- RS2 On a scale of 0 to 10, where 0 means "no influence" and 10 means "greatly influenced," how much did your experience with the Act On Energy Business program influence your decision to install different types of high efficiency equipment on your own? [SCALE 0-10; 98=Don't know, 99=Refused]
- RS3 Why did you purchase this refrigeration equipment without the incentives available through the Act On Energy Business Program? [MULTIPLE RESPONSE; UP TO 3]]
  - 1 (Takes too long to get approval)
  - 2 (No time to participate, needed equipment immediately)
  - 3 (The equipment did not qualify)
  - 4 (The amount of the incentive wasn't important enough)
  - 5 (Did not know the program was available)

- 6 (There was no program available)
- 7 (Had reached the maximum incentive amount)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

## [ASK RS3a IF RS3=3, ELSE SKIP TO RS4]

RS3a Why didn't the equipment qualify? [OPEN END]

#### [ASK IF RS2=8,9,10 and RS3 <> 3, ELSE GO TO PROCESS MODULE]

- RS4 What types of refrigeration measures were installed without incentives from the program? (DO NOT READ LIST. After each response, prompt with: "Did you install any other energy efficient refrigeration equipment at your facility since June 2010?") [MULTIPLE RESPONSE, UP TO 5]
- 1 (Night covers for display cases)
- 2 (Strip curtains)
- 3 (Glass doors on vertical open display cases)
- 4 (Reach in display cases, with doors)
- 5 (Main door cooler/freezer door gaskets)
- 6 (Auto closers for coolers/freezers)
- 7 (Anti-sweat heat controllers)
- 8 (Insulate bare suction pipes)
- 9 (Multiplex compressor systems)
- 10 (Condensers)
- 11 (Floating head pressure controllers)
- 12 (Evaporative fan coolers)
- 13 (Vending machine controllers)
- 14 (EC motor for WALK-IN cooler/freezer)
- 15 (EC motor for REACH-IN cooler/freezer)
- 16 (ENERGY STAR vending machine)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

# **MOTORS MODULE** [ASK IF MOTORS=1]

PM1 Who was the most influential in specifying the <ENDUSE> you installed through the Act On Energy Business program?

- 1. (me/respondent)
- 2. (contractor)
- 3. (engineer)
- 4. (architect)
- 5. (manufacturer)
- 6. (distributor)
- 7. (Owner)
- 8. (Ameren Illinois representative/program staff)
- 9. (Program Ally)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

PM2 And who identified the opportunity for the Ameren Illinois incentive?

- 1. (me/respondent)
- 2. (contractor)
- 3. (engineer)
- 4. (architect)
- 5. (manufacturer)
- 6. (distributor)
- 7. (Ameren Key Account Executive)
- 8. (owner/developer)
- 9. (project manager)
- 10. (Ameren Illinois representative/program staff)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

## **Measure Loop**

[Note to programmer: The Act On Energy sample has no participant with more than one measure. Only need one loop.]

The following questions are about the <MEASD1> you installed through the Act On Energy Business Program.

MO When did you install the <MEASD1> (IF NECESSARY, PROBE FOR BEST GUESS)

- a Month [Precodes for Jan through Dec.]
- b Year [Precodes for 2010 and 2011]

M1 Is the variable frequency drive on a... (READ LIST) [MULTIPLE RESPONSE; ACCEPT UP TO THREE]

- 1 HVAC pump
- 2 HVAC fan
- 3 Process pump

- 4 Process fan
- Or on a different type of application (Specify)
- 98 (Don't Know)
- 99 (Refused)
- M2a In the past month, how many hours per day did the equipment where the VFD is used typically operate? [NUMERIC OPEN END, 0 to 24; 98=Don't know, 99=Refused]
- M2b And how many days per week? [NUMERIC OPEN END, 0 to 7; 8=Don't know, 9=Refused]
- M2c Are there any months during the year when the operating schedule for this equipment differs significantly from what you just described?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF M2c=1; ELSE SKIP TO M3]

- M2d How many hours per day does the equipment typically operate during the periods with different operating schedules? [NUMERIC OPEN END, 0 to 24; 98=Don't know, 99=Refused]
- M2e And how many days per week? [NUMERIC OPEN END, 0 to 7; 8=Don't know, 9=Refused]
- M2f How many months per year does the equipment run on the alternative schedule? [NUMERIC OPEN END, 0 to 12; 98=Don't know, 99=Refused]

[End of Measure Loop; GO TO NEXT MOTORS MEASURE]

[ASK NET-TO-GROSS MODULE, THEN RETURN]

## **SPILLOVER - MOTORS**

Thank you for discussing the new motors that you installed through the Act On Energy Business Program. Next, I would like to discuss any motors you might have installed OUTSIDE the Act On Energy Business Program...

- MS1 Since June 2010, have you purchased and installed any energy efficient motors WITHOUT an incentive from the Act On Energy Business program or another utility program... [1=Yes, 2=No, 8=Don't know, 9=Refused]
  - a. at this facility
  - b. at another facility owned by your company

#### [IF MS1a=2,8,9 AND MS1b=2,8,9, THEN SKIP TO PROCESS MODULE]

#### [ASK MS1c IF MS1b=1]

MS1c You said you installed energy efficient motors at another facility owned by your company. Can you please give me the address? (If more than one, record "multiple") [OPEN END]

#### [ASK MS2 IF MS1a=1 OR MS1b=1]

- MS2 On a scale of 0 to 10, where 0 means "no influence" and 10 means "greatly influenced," how much did your experience with the Act On Energy Business program influence your decision to install these high efficiency motors on your own? [SCALE 0-10; 98=Don't know, 99=Refused]
- MS3 Why did you purchase this equipment without the incentives available through the Act On Energy Business Program? [MULTIPLE RESPONSE; UP TO 3]
  - 1 (Takes too long to get approval)
  - 2 (No time to participate, needed equipment immediately)
  - 3 (The equipment did not qualify)
  - 4 (The amount of the incentive wasn't important enough)
  - 5 (Did not know the program was available)
  - 6 (There was no program available)
  - 7 (Had reached the maximum incentive amount)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

## [ASK MS3a IF MS3=3, ELSE SKIP TO MS4]

MS3a Why didn't the equipment qualify? [OPEN END]

## [ASK IF MS2=8,9,10 and MS3 <> 3, ELSE GO TO PROCESS MODULE]

- MS4 What types of applications were these motors installed in? (DO NOT READ LIST. After each response, prompt with: "Did you install any other energy efficient motors at this facility since June 2010?") [MULTIPLE RESPONSE, UP TO 5]
  - 1 Pumping
  - 2 Fans/Blowers
  - 3 Compressed Air
  - 4 Materials handling (conveyor belts)
  - 5 Ventilation/HVAC
  - 6 Boiler fans
  - 7 Production process machinery
  - 8 Variable Frequency Drives (VFDs)
  - 00 Other, specify
  - 98 (Don't know)
  - 99 (Refused)

# **PROCESS MODULE**

I'd now like to ask you a few general questions about your participation in the Act On Energy Business program.

## **Program Processes and Satisfaction**

- SO How did you first hear about the Act On Energy Business program?
  - 1. (Ameren Key Account Executive)
  - 2. (Ameren Website)
  - 3. (Workshop)
  - 7. (Newspaper)
  - 8. (Email)
  - 10. (Friend/colleague/word of mouth)
  - 11. (Bill insert)
  - 13. (Vendor)
  - 14. (Distributor)
  - 16. (Supplier)
  - 17. (Engineer)
  - 19. (Sales representative)
  - 20. (Electrician)
  - 26. (Contractor)
  - 27. (Program Ally)00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- Soa. Prior to starting your [PROJECT/ANY OF YOUR PROJECTS], did you discuss the Act on Energy program and energy efficient improvements that could qualify for program incentives with a program staff member? [IF NECESSARY: This would be someone from Ameren Illinois that is affiliated specifically with the Act On Energy Business program and not someone from the utility that might ordinarily contact you about your account.]
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

# [ASK IF S0a=1]

S0aa. How helpful was the discussion in helping you to understand the program and its benefits?

- 1. Very helpful
- 2. Somewhat helpful
- 3. Not very helpful
- 4. Not at all helpful

- 8. (Don't know)
- 9. (Refused)
- S1a Did YOU fill out the application forms for the project? (either the initial or the final program application).
  - 1. (Yes)
  - 2. (No)
  - 8. (Don't know)
  - 9. (Refused)

## [ASK S1b IF S1a=1 ELSE SKIP TO S1e]

- S1b Did the application forms clearly explain the program requirements and how to participate?
  - 1. (Yes)
  - 2. (No)
  - 3. (Somewhat)
  - 8. (Don't know)
  - 9. (Refused)
- How would you rate the application process? Please use a scale of 0 to 10 where 0 is "very difficult" and 10 is "very easy". [SCALE 0-10; 98=Don't know, 99=Refused]

# [ASK S1d IF S1c<4]

- S1d Why did you rate it that way? [OPEN END]
  - 1. (Required me to research on lighting)
  - 2. (Harder compared to other state's programs)
  - 3. (Difficult to understand)
  - 4. (Long process)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## [ASK S1e IF S1a=2]

- S1e Who filled out the application forms for the project?
  - 1. (Someone else at the facility)
  - 2. (Someone else at the company)
  - 3. (Program ally)
  - 4. (Contractor)
  - 5. (Consultant)
  - 6. (Engineer)
  - 7. (Supplier/distributors/vendor)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)]

#### [SKIP S3 IF S1e=3 OR S0=27]

S3 Are you familiar with the term Act On Energy Business program ALLY?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

#### [SKIP IF S1e=3 or 4]

S4a Did you use a contractor for your <ENDUSE> project?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

## [ASK S4b IF S4a=1 or S1e=3 or 4]

Was the contractor you used affiliated with the Act On Energy Business program? (If needed: Was the contractor REGISTERED with the Act On Energy Business program?)

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

## [ASK S5 IF S4a=1 OR S1e=3 or 4 ELSE SKIP TO S7]

- How would you rate the contractor's ability to meet your needs in terms of implementing your project? Please use a scale from 0 to 10, where 0 is "not at all able to meet needs" and 10 is "completely able to meet needs"? [SCALE 0-10; 98=Don't know, 99=Refused]
- S6a Would you recommend the contractor you worked with to other people or companies?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

## [ASK S6b IF S6a=2]

- S6b Why not? [OPEN END]
  - 00. [Record VERBATIM]
  - 98. (Don't know)
  - 99. (Refused)
- When implementing an energy efficiency project, how important is it to you that the contractor is affiliated with the Act On Energy Business program? Please use a scale from 0 to 10, where 0 is "not at all important" and 10 is "very important"? [SCALE 0-10; 98=Don't know, 99=Refused]
- S8 During the course of your participation in the program, did you place any calls to the Act On Energy Business Call Center?
  - 1. Yes

- 2. No
- 8. (Don't know)
- 9. (Refused)

## [ASK S8a IF S8=1]

On a scale of 0 to 10, where 0 is "very dissatisfied" and 10 is "very satisfied", how would you rate your satisfaction with the Call Center's ability to answer your questions? [SCALE 0-10; 96=not applicable, 98=Don't know, 99= Refused]

## [ASK S8b IF S8a<4]

S8b Why did you rate it that way?

- 1. (Provided inconsistent information)
- 2. (Didn't understand the question)
- 3. (Hard to reach the right person/person with the answer)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)
- S9a Did you ask any questions of your Act On Energy technical reviewer while participating in the program? (If needed: This is a program staff person you would have spoken or e-mailed with to clarify any issues that came up during the review of your application. Technical reviewers are SAIC or GDS employees, who are Act On Energy Business program partners.)
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

## [ASK S9b IF S9a=1]

S9b Approximately how long did it take for your questions to be answered?

- 1. (Within the same day)
- 2. (1-2 business days)
- 3. (3-5 business days)
- 4. (1 -2 weeks)
- 5. (More than 2 week)
- 8. (Don't know)
- 9. (Refused)

- S16. After you submitted the final application, how long did it take for you to receive your incentive from Ameren Illinois? Was it..? [IF RESPONDENT SAYS THAT IT VARIED ACROSS MULTIPLE PROJECTS THAT HE OR SHE PARTICIPATED IN, PROBE FOR AN AVERAGE ESTIMATE ACROSS ALL OF THE APPLICATIONS]
  - 1 Less than 4 weeks
  - 2 Between 4 and 6 weeks
  - 3 Between 6 and 8 weeks
  - 4 Between 8 and 10 weeks,
  - 5 Between 10 and 12 weeks, OR
  - 6 More than 12 weeks
  - 96 (Never received payment)
  - 97 (Still awaiting payment)
  - 98 (Don't know)
  - 99 (Refused)
- On a scale of 0 to 10, where 0 is very dissatisfied and 10 is very satisfied, how would you rate your satisfaction with... [SCALE 0-10; 96=not applicable, 98=Don't know, 99=Refused]
  - a. the incentive amount
  - b. the program's technical review staff
  - c. the measures offered by the program (If needed: this is the equipment that is eligible for an incentive under the program)
  - f. [SKIP IF S16=96 or 97]The amount of time it took for you to receive your incentive from Ameren Illinois
  - d. the Act On Energy Business program overall
  - e. Ameren Illinois

## [ASK S12b IF S11b<4]

- S12b. You indicated some dissatisfaction with the program's technical review staff, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Provided inconsistent information)
  - 2. (Didn't understand the question)
  - 3. (Hard to reach the right person/person with the answer)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

#### [ASK S12c IF S11c<4]

S12c. You indicated some dissatisfaction with the measures offered by the program, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

## [ASK S12d IF S11d<4]

S12d. You indicated some dissatisfaction with the Act On Energy Business program overall, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

#### [ASK S12e IF S11e<4]

- S12e. You indicated some dissatisfaction with Ameren Illinois, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Rates are too high)
  - 2. (Took too long to get Incentive)
  - 3. (Poor customer service)
  - 4. (Poor power supply/service)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- S10a Did you experience any problems during the participation process? (IF NEEDED: (Other than what we have already talked about)
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

## [ASK S10b IF QS10a=1]

- S10b What problems did you experience? [MULTIPLE RESPONSE, UP TO 3]
  - (Phone calls not returned)
  - 2. (Process takes too long)
  - 3. (Low incentives/rebates)
  - 00. (Other-specify)
  - 8. (Don't know)
  - 9. (Refused)

## **Marketing and Outreach**

- MK1 Do you recall seeing or receiving any marketing materials or other information for the Act On Energy Business program?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9 (Refused)

## [ASK MK1a IF MK1=1, ELSE SKIP TO MK2]

- MK1a What types of materials do you remember? [MULTIPLE RESPONSE, UP TO 5]
  - 1. (Television)
  - 2. (Newspaper)
  - 3. (Email)
  - 4. (Billboards)
  - 5. (Radio advertising)
  - 6. (Chamber of Commerce publication)
  - 7. (Presentation/workshop)

- 8. (Bill insert)
- 9. (Brochure)
- 10. (ActOnEnergy website)
- 11. (Other mailing)
- 00. (Other, please specify)
- 98. (Don't know)
- 99. (Refused)

MK1b How useful were these materials in providing information about the program? Would you say they were...

- 1. Very useful
- 2. Somewhat useful
- 3. Not very useful
- 4. Not at all useful
- 8. (Don't know)
- 9. (Refused)

## [ASK MK1c IF MK1b=3,4]

MK1c What would have made the materials more useful to you? [MULTIPLE RESPONSE, UP TO 3]

- 1. (More detailed information)
- 2. (Where to get additional information)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

MK1d Next, I'd like to ask you about how frequently you've heard about this program. Thinking about the past year, how often would you say you've seen, read or heard about the Act On Energy Business program?

- 1 Very frequently
- 2 Somewhat frequently
- 3 Only Occasionally
- 4 Rarely
- 5 Never
- 8. (Don't know)
- 9. (Refused)

MK2 What is the best way of reaching companies like yours to provide information about energy efficiency opportunities? [MULTIPLE RESPONSE, UP TO 3]

- 1. (Bill inserts)
- 2. (Flyers/ads/mailings)
- 3. (e-mail)
- 4. (Telephone)

- 5. (Key Account Executive)
- 6. (Webinars/roundtables/events)
- 7. (Through trade or professional associations)
- 8. (Program allies/contractors)
- 9. (Luncheons)
- 10. (Ameren reps)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

#### **Benefits and Barriers**

- What do you see as the main benefits to participating in the Act On Energy Business Program? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Energy Savings)
  - 2. (Good for the Environment)
  - 3. (Lower Maintenance Costs)
  - 4. (Better Quality/New Equipment)
  - 5. (Rebate/Incentive)
  - 00. (Other, Specify)
  - 98. (Don't know)
  - 99. (Refused)
- What do you think are the reasons companies like yours do not participate in this program? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Lack of awareness of the program)
  - 2. (Financial reasons)
  - 3. (None)
  - 4. (Not aware of savings/don't realize the savings)
  - 5. (Time consuming application process)
  - 6. (No time)
  - 7. (Cumbersome paperwork)
  - 8. (No need to replace equipment)
  - 9. (Amount of payback)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- B3 Was the scope of your project limited by the program's incentive cap?
  - 1. Yes
  - 2. No
  - 00. (Other, specify)

- 98. (Don't know)
- 99. (Refused)

## **Feedback and Recommendations**

- R1 Do you plan to participate in the program again in the future?
  - 1. Yes
  - 2. No
  - 3. (Maybe)
  - 8. (Don't know)
  - 9. (Refused)
- R2 How could the Act On Energy Business Program be improved? [MULTIPLE RESPONSE, UP TO 4]
  - 1. (Higher incentives)
  - 2. (More measures)
  - 3. (Greater publicity)
  - 4. (Advance payment)
  - 5. (Key Account Executives provide more information)
  - 6. (Relax partner guidelines)
  - 7. (Add commercial cooking measures)
  - 8. (More incentives)
  - 96. (No recommendations)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## **Firmographics**

I only have a few general questions left.

F1a What is your company's business type? (PROBE, IF NECESSARY; IF MANUFACTURING, PROBE IF IT IS LIGHT INDUSTRY OR HEAVY INDUSTRY)

- 1. (BLANK)
- 2. (Grocery)
- 3. (Medical)
- 4. (Hotel/Motel)
- 5. (BLANK)
- 6. (Office)
- 7. (Restaurant)
- 8. (Retail/Service)
- 9. (Warehouse/Distribution)
- 10. (Community/recreational center)
- 11. (Non-profit organization)
- 12. (Agriculture)
- 13. (Gas station/convenience store)
- 14. (Light industry)
- 15. (Heavy industry)
- 16. (K-12 School)
- 17. (College/university)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

F1b And is the business type of the facility in which the <ENDUSE> was installed in the same sector?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

## [ASK F1c IF F1b=2]

F1c What is the business type of the facility? (PROBE, IF NECESSARY – CLASS MANUFACTURING AS EITHER LIGHT OR HEAVY INDUSTRY)

- 1. (BLANK)
- 2. (Grocery)
- (Medical)
- 4. (Hotel/Motel)
- 5. (BLANK)
- 6. (Office)
- 7. (Restaurant)
- 8. (Retail/Service)
- 9. (Warehouse/Distribution)
- 10. (Community/recreational center)
- 11. (Non-profit organization)
- 12. (Agriculture)
- 13. (Gas station/convenience store)
- 14. (Light industry)
- 15. (Heavy industry)
- 16. (K-12 School)
- 17. (College/university)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)
- F2 Which of the following best describes the ownership of this facility?
  - 1. My company owns and occupies this facility
  - 2. My company owns this facility but it is rented to someone else
  - 3. My company rents this facility
  - 8. (Don't know)
  - 9. (Refused)
- F3 Does your company pay the electric bill?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)
- F4a How old is this facility? [NUMERIC OPEN END, 0 TO 150; 998=Don't know, 999=Refused]

## [ASK F4b IF F4a=998]

- F4b Do you know the approximate age? Would you say it is...
  - 1. Less than 2 years
  - 2. 2-4 years
  - 3. 5-9 years
  - 4. 10-19 years
  - 5. 20-29 years
  - 6. 30 years or more years
  - 8. (Don't know)
  - 9. (Refused)

How many employees, full plus part-time, are employed at this facility? [NUMERIC OPEN END, 0 TO 2000; 9998=Don't know, 9999=Refused]

#### [ASK F5b IF F5a=9998]

F5b Do you know the approximate number of employees? Would you say it is...

- 1. Less than 10
- 2. 10-49
- 3. 50-99
- 4. 100-249
- 5. 250-499
- 6. 500 or more
- 8. (Don't know)
- 9. (Refused)

F6 Which of the following best describes your facility? This facility is...

- 1. my company's only location
- 2. one of several locations owned by my company
- 3. the headquarters location of a company with several locations
- 8. (Don't know)
- 9. (Refused)

## [SKIP F7 IF F2=2]

F7 In comparison to other companies in your industry, would you describe your company as...

- 1. A small company
- 2. A medium-sized company
- 3. A large company
- 4. (Not applicable)
- 8. (Don't know)
- 9. (Refused)

## **PY2 NET-TO-GROSS MODULE**

*Variables for the net-to-gross module:* 

<NTG> (B=Basic rigor level, S= Standard rigor level. All questions here are asked if the standard rigor level is designated. Basic rigor level is designated through skip patterns.

<uTILITY> (ComEd or Ameren Illinois)

<PROGRAM> (Name of energy efficiency program)

<ENDUSE> (Type of measure installed, at the end use level; from program tracking dataset; values: lighting equipment, cooling equipment, refrigeration equipment, motors)

<VEND1> (Contractor who installed new equipment, from program tracking dataset)

<TECH\_ASSIST> (If participant conducted Feasibility Study, Audit, or received Technical Assistance

through the program; from program tracking database)

<aCCT\_REP> (Name of account representative, from program tracking database or program files if present)

<OTHERPTS> (Variable to be calculated based on responses. Equals 1- minus response to N3p.)

<FINCRIT1> (Variable to be calculated based on responses. Equals 1 if payback period WITHOUT incentive is shorter than company requirement. See instructions below.)

<FINCRIT2> (Variable to be calculated based on responses. Equals 1 if payback period WITH incentive is shorter than company requirement. See instructions below.)

<MSAME> (For prescriptive/standard survey only: Equals 1 if same customer had more than one project of the same measure type; from program tracking database)

<NSAME> (For prescriptive/standard survey only: Number of additional projects of the same measure type implemented by the same customer; from program tracking database)

<FSAME> (Equals 1 if the same customer had more than one project (of different types) at the same facility; from program tracking database)

<FDESC> (Additional project type completed by the customer at the same facility; from the tracking database)

#### VENDOR INFORMATION [ASK IF NTG=S, ELSE SKIP TO V4]

I would like to get some information on the VENDORS that may have helped you with the implementation of this equipment.

V1 Did you work with a contractor or vendor that helped you with the choice of this equipment?

- 1 Yes
- 2 No
- 8 (Don't Know)
- 9 (Refused)

#### [SKIP IF V1=2,8,9]

V3 Did you also use a DESIGN or CONSULTING Engineer?

- 1 Yes
- 2 No
- 8 (Don't know)
- 9 (Refused)

#### [SKIP TO N1 IF KAE=0]

V4 Did your key account executive assist you with the project that you implemented through the <PROGRAM>?

- 1 (Yes)
- 2 (No, don't have a key account executive)
- 3 (No, have a key account executive but they weren't involved)
- 8 (Don't know)
- 9 (Refused)

#### **NET-TO-GROSS BATTERY**

[ASK IF <ENDUSE>=LIGHTING, REFRIGERATION, HVAC OR MOTORS, ELSE SKIP TO PROCESS SECTION] I'd now like to ask a few questions about the <ENDUSE> you installed through the program.

- N1 When did you first learn about <UTILITY>'s Program? Was it BEFORE or AFTER you first began to THINK about implementing this measure? (NOTE TO INTERVIEWER: "this measure" refers to the specific energy efficient equipment installed through the program.)
  - 1 Before
  - 2 After
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF N1=2, 8, 9, ELSE SKIP TO N3]

- N2 Did you learn about <UTILITY>'s Program BEFORE or AFTER you DECIDED to implement the measure that was installed? (NOTE TO INTERVIEWER: "the measure" refers to the specific energy efficient equipment installed through the program.)
  - 1 Before
  - 2 After
  - 8 (Don't know)
  - 9 (Refused)
- Name Next, I'm going to ask you to rate the importance of the program as well as other factors that might have influenced your decision to implement this measure. Think of the degree of importance as being shown on a scale with equally spaced units from 0 to 10, where 0 means not at all important and 10 means extremely important. Now using this scale please rate the importance of each of the following in your decision to implement the measure at this time. [FOR N3a-n, RECORD 0 to 10; 96=Not Applicable; 98=Don't Know; 99=Refused]

(If needed: How important in your DECISION to implement the project was...) [SKIP N3a IF NTG=B]

- N3a. The age or condition of the old equipment
- N3b. Availability of the PROGRAM incentive
  N3bb. [ASK IF N3b=8,9,10] Why do you give it this rating? [OPEN END; 98=Don't know;
  99=Refused]

[SKIP TO N3f IF NTG=B]

[ASK IF <TECH\_ASSIST>=1, ELSE SKIP TO N3d]

N3c. "Information provided through the Feasibility study/Audit/Technical assistance you received from <UTILITY>?

#### [SKIP N3cc IF NTG=B]

N3cc. [ASK IF N3c=8,9,10] Why do you give it this rating? [OPEN END; 98=Don't know; 99=Refused]

#### [ASK N3d IF V1=1]

N3d. Recommendation from an equipment vendor or contractor that helped you with the choice of the equipment.

N3e. Previous experience with this type of equipment?

N3f. Recommendation from an <UTILITY> program staff person? [IF NECESSARY: This would be someone from Ameren Illinois that is affiliated specifically with the Act On Energy Business program and not someone from the utility that might ordinarily contact you about your account.]

[SKIP N3ff IF NTG=B]

ff. [ASK IF N3f=8,9,10] Why do you give it this rating?

N3h. Information from <PROGRAM> or <UTILITY> marketing materials? [SKIP N3hh IF NTG=B]

N3hh. [ASK IF N3h=8,9,10] Why do you give it this rating?

### [SKIP TO N3k IF NTG=B] [ASK N3i IF V3=1]

N3i. A recommendation from a design or consulting engineer.

N3j. Standard practice in your business/industry

#### [SKIP N3k IF KAE=0 OR V4>1]

N3k. Endorsement or recommendation by a key account executive of <UTILITY> [SKIP N3kk IF NTG=B]

N3kk. [ASK IF N3k=8,9,10] Why do you say that?

#### [SKIP TO N3n IF NTG=B]

N3I. Corporate policy or guidelines

N3m. Payback on the investment

N3n. Were there any other factors we haven't discussed that were influential in your decision to install this MEASURE?

1 (Nothing else influential)

00 [Record verbatim]

98 (Don't Know)

#### 99 (Refused)

#### [ASK N3nn IF N3n=00]

N3nn. Using the same zero to 10 scale, how would you rate the influence of this factor? [RECORD 0 to 10; 98=Don't Know; 99=Refused]

Thinking about this differently, I would like you to compare the importance of the PROGRAM with the importance of other factors in implementing the <ENDUSE> project.

#### [SKIP TO N3p IF NTG=B]

[READ IF (N3A, N3D, N3E, N3I, N3J, N3L, N3M, OR N3NN)=8,9,10; ELSE SKIP TO N3p]

You just told me that the following other factors were important:

[READ IN ONLY ITEMS WHERE THEY GAVE A RATING OF 8 or higher]

- (N3A) Age or condition of old equipment,
- (N3D) Equipment Vendor recommendation
- (N3E) Previous experience with this measure
- (N3I) Recommendation from a design or consulting engineer
- (N3J) Standard practice in your business/industry
- (N3L) Corporate policy or guidelines
- (N3M) Payback on investment
- (N3N) Other factor

N3p If you were given a TOTAL of 100 points that reflect the importance in your decision to implement the <ENDUSE> project, and you had to divide those 100 points between: 1) the program and 2) other factors, how many points would you give to the importance of the PROGRAM?

Points given to program: [RECORD 0 to 100; 998=Don't Know; 999=Refused]

[CALCULATE VARIABLE "OTHERPTS" AS: 100 MINUS N3p RESPONSE; IF N3p=998,999, SET OTHERPTS=BLANK]

N3o And how many points would you give to other factors? [RECORD 0 to 100; 998=Don't Know; 999=Refused]

[The response should be <OTHERPTS> because both numbers should equal 100. If response is not <OTHERPTS> ask INC1]

- INC1 "The last question asked you to divide a TOTAL of 100 points between the program and other factors. You just noted that you would give <N4 RESPONSE> points to the program. Does that mean you would give <OTHERPTS> points to other factors?
  - 1 Yes
  - 2 No
  - 98 (Don't know)

99 (Refused)

[IF INC1=2, go back to N3p]

#### **CONSISTENCY CHECK ON PROGRAM IMPORTANCE SCORE**

#### [SKIP TO N4aa IF N3p=998,999 OR IF N3p<80 OR IF (N3p>=80 AND N3b>3)]

N4 You just gave <N3p RESPONSE> points to the importance of the program. I would interpret that to mean that the program was quite important to your decision to install this equipment. Earlier, when I asked about the importance of the program incentive, you gave a rating of ...<N3B RESPONSE> ... out of ten, indicating that the program incentive was not that important to you. Can you tell me why the program overall was important, but the incentive was not?

00 [Record VERBATIM]

98 (Don't know)

99 (Refused)

#### [ASK IF N3p<21 AND N3b=8,9,10 ELSE SKIP TO N5]

N4aa You just gave <N3p RESPONSE> points to the importance of the program. I would interpret that to mean that the program was not very important to your decision to install this equipment.

Earlier, when I asked about the importance of the program incentive, you gave a rating of ...<N3B RESPONSE> ... out of ten, indicating that the program incentive was quite important to you. Can you explain why the incentive was important, but the program overall was not?

00 [Record VERBATIM]

98 (Don't know)

99 (Refused)

Now I would like you to think about the action you would have taken with regard to the installation of this equipment if the utility program had not been available.

Using a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely", if the utility program had not been available, what is the likelihood that you would have installed exactly the same equipment? [RECORD 0 to 10; 98=Don't know; 99=Refused]

#### **CONSISTENCY CHECKS**

#### [ASK IF N3b>7 AND N5>7, ELSE SKIP TO N6]

N5a When you answered ...<N3B RESPONSE> ... for the question about the influence of the incentive, I would interpret that to mean that the incentive was quite important to your decision to install the <ENDUSE> equipment. Then, when you answered <N5 RESPONSE> for how likely you would have been to install the same equipment without the incentive, it sounds like the incentive was not very important in your installation decision.

I want to check to see if I am misunderstanding your answers or if the questions may have been unclear. Will you explain the role the incentive played in your decision to install this efficient equipment?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

N5b Would you like for me to change your score on the importance of the incentive which you gave a rating of <N3B RESPONSE> or change your rating on the likelihood you would install the same equipment without the incentive which you gave a rating of <N5 RESPONSE> and/or we can change both if you wish?

- 1 (Change importance of incentive rating)
- 2 (Change likelihood to install the same equipment rating)
- 3 (Change both)
- 4 (No, don't change)
- 8 (Don't know)
- 9 (Refused)

#### [ASK IF N5b=1,3]

N5c How important was... availability of the PROGRAM incentive? (IF NEEDED: in your DECISION to implement the project) [Scale of 0 to 10, where 0 means not at all important and 10 means extremely important; 98=Don't know, 99=Refused]

#### [ASK IF N5b=2,3]

N5d If the utility program had not been available, what is the likelihood that you would have installed exactly the same equipment? [Scale of 0 to 10, where 0 means "Not at all likely" and 10 means "Extremely likely"; 98=Don't know, 99=Refused]

#### [ASK IF N3j>7, ELSE SKIP TO N7]

N6 In an earlier question, you rated the importance of STANDARD PRACTICE in your industry very highly in your decision making. Could you please rate the importance of the PROGRAM, relative to this standard industry practice, in influencing your decision to install this measure. Would you say the program was much more important, somewhat more important, equally important, somewhat less important, or much less important than the standard practice or policy?

- 1 Much more important
- 2 Somewhat more important
- 3 Equally important
- 4 Somewhat less important
- 5 Much less important
- 8 (Don't know)
- 9 (Refused)

#### [ASK IF N5>0, ELSE SKIP TO N8]

- N7 You indicated earlier that there was a <N5 RESPONSE> in 10 likelihood that you would have installed the same equipment if the program had not been available. Without the program, when do you think you would have installed this equipment? Would you say...
  - 1 At the same time
  - 2 Earlier
  - 3 Later
  - 4 (Never)
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK N7a IF N7=3]

N7a. How much later would you have installed this equipment? Would you say...

- 1 Within 6 months?
- 2 6 months to 1 year later
- 3 1 2 years later
- 4 2 3 years later?
- 5 3 4 years later?
- 6 4 or more years later
- 8 (Don't know)
- 9 (Refused)

#### [ASK N7b IF N7a=6, ELSE SKIP TO N8]

N7b. Why do you think it would have been 4 or more years later?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

#### PAYBACK BATTERY [ASK IF N3m>5 ELSE SKIP TO N11]

I'd like to find out more about the payback criteria your company uses for its investments.

- N8 What financial calculations does your company make before proceeding with installation of a MEASURE like this one?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N9 What is the payback cut-off point your company uses (in months) before deciding to proceed with an investment? Would you say...
  - 1 0 to 6 months
  - 2 7 months to 1 year

- 3 more than 1 year up to 2 years
- 4 more than 2 years up to 3 years
- 5 more than 3 years up to 5 years
- 6 Over 5 years
- 8 (Don't know)
- 9 (Refused)
- N10a What was the estimated payback period for the new <ENDUSE>, in months, WITH the incentive from the <PROGRAM>?
  - 00 [NUMERIC OPEN END, UP TO 240]
  - 998 (Don't know)
  - 999 (Refused)
- N10b And what was the estimated payback period for the <ENDUSE>, in months, WITHOUT the incentive from <PROGRAM>?
  - 00 [NUMERIC OPEN END, UP TO 240]
  - 998 (Don't know)
  - 999 (Refused)

[CREATE VARIABLE FINCRIT1. SET FINCRIT1 = BLANK IF: N9=8,9 OR N10b=998,999. SET FINCRIT1 = 1 IF: (N9=1 AND N10b<7) OR (N9=2 AND N10b<13) OR (N9=3 AND N10b<25) OR (N9=4 AND N10b<37) OR (N9=5 AND N10b<61) OR (N9=6). ELSE, SET FINCRIT1 = 0.]

#### [ASK IF FINCRIT1=1, ELSE SKIP TO N10d]

- N10c Even without the incentive, the <ENDUSE> project met your company's financial criteria. Would you have gone ahead with it even without the incentive?
  - 1 Yes
  - 2 No
  - 3 (Maybe)
  - 8 (Don't know)
  - 9 (Refused)

[CREATE VARIABLE FINCRIT2. SET FINCRIT2 = BLANK IF: N9=8,9 OR N10a=998,999. SET FINCRIT2 = 1 IF: (N9=1 AND N10a<7) OR (N9=2 AND N10a<13) OR (N9=3 AND N10a<25) OR (N9=4 AND N10a<37) OR (N9=5 AND N10a<61) OR (N9=6). ELSE, SET FINCRIT2 = 0.

#### [ASK IF FINCRIT2=1 AND FINCRIT1=0 AND N3b<5, ELSE SKIP TO N10e]

- N10d The incentive seemed to make the difference between meeting your financial criteria and not meeting them, but you are saying that the incentive didn't have much effect on your decision, why is that?
  - 00 [Record VERBATIM]
  - 98 (Don't know)

#### 99 (Refused)

#### [ASK IF FINCRIT2=0 AND N3b>7, ELSE SKIP TO N11]

N10e. The incentive didn't cause this <ENDUSE> project to meet your company's financial criteria, but you said that the incentive had an impact on the decision to install the <ENDUSE>. Why did it have an impact?

00 [Record VERBATIM]

98 (Don't know)

99 (Refused)

#### **CORPORATE POLICY BATTERY [**ASK IF N3I>5, ELSE SKIP TO N18]

- N11 Does your organization have a corporate environmental policy to reduce environmental emissions or energy use? Some examples would be to "buy green" or use sustainable approaches to business investments.
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF N11=1, ELSE SKIP TO N18]

- N12 What specific corporate policy influenced your decision to adopt or install the <ENDUSE> through the <PROGRAM>?
  - 00 [RECORD VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N13 Had that policy caused you to adopt energy efficient <ENDUSE> at this facility before participating in the <PROGRAM>?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)
- N14 Had that policy caused you to adopt energy efficient <ENDUSE> at other facilities before participating in the <PROGRAM>?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF N13=1 OR N14=1, ELSE SKIP TO N17]

- N15 Did you receive an incentive for a previous installation of <ENDUSE>?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF N15=1, ELSE SKIP TO N17]

N16 To the best of your ability, please describe.... [Record VERBATIM; 98=Don't know; 99=Refused]

- a. the amount of incentive received
- b. the approximate timing
- c. the name of the program that provided the incentive

#### [ASK IF N13=1 OR N14=1, ELSE SKIP TO N18]

N17 If I understand you correctly, you said that your company's corporate policy has caused you to install energy efficient <ENDUSE> previously at this and/or other facilities. I want to make sure I fully understand how this corporate policy influenced your decision versus the <PROGRAM>.

Can you please clarify that?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

#### STANDARD PRACTICE BATTERY [ASK IF N3j>5, ELSE SKIP TO N23]

- N18 Approximately, how long has use of energy efficient <ENDUSE> been standard practice in your industry?
  - M [00 Record Number of Months; 98=Don't know, 99=Refused]
  - Y [00 Record Number of Years; 98=Don't know, 99=Refused]
- N19 Does your company ever deviate from the standard practice?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

#### [ASK IF N19=1]

N19a Please describe the conditions under which your company deviates from this standard practice.

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)
- N20 How did this standard practice influence your decision to install the <ENDUSE> through the <PROGRAM>?

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)
- N20a Could you please rate the importance of the <PROGRAM>, versus this standard industry practice in influencing your decision to install the <ENDUSE>. Would you say the <PROGRAM> was...
  - 1 Much more important
  - 2 Somewhat more important
  - 3 Equally important
  - 4 Somewhat less important
  - 5 Much less important
  - 8 (Don't know)
  - 9 (Refused)
- N21 What industry group or trade organization do you look to to establish standard practice for your industry?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)
- N22 How do you and other firms in your industry receive information on updates in standard practice?
  - 00 [Record VERBATIM]
  - 98 (Don't know)
  - 99 (Refused)

#### OTHER INFLUENCES BATTERY [ASK IF N3nn>5, ELSE SKIP TO N26]

- N23 Who provided the most assistance in the design or specification of the <ENDUSE> you installed through the <PROGRAM>? (If necessary, probe from the list below.)
  - 1 (Designer)
  - 2 (Consultant)
  - 3 (Equipment distributor)
  - 4 (Installer)
  - 5 (<UTILITY> Key Account Executive)
  - 6 (<PROGRAM> staff)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)

#### [SKIP N24 IF N23=98,99]

N24 Please describe the type of assistance that they provided.

- 00 [Record VERBATIM]
- 98 (Don't know)
- 99 (Refused)

#### [ASK N26 IF MSAME=1]

Our records show that your company also received an incentive from <UTILITY> for <NSAME> other <ENDUSE> project(s).

N26 Was it a single decision to complete all of those <ENDUSE> projects for which you received an incentive from <UTILITY> or did each project go through its own decision process?

- 1 (Single Decision)
- 2 (Each project went through its own decision process)
- 00 (Other, specify)
- 98 (Don't know)
- 99 (Refused)

#### [ASK N27 IF FSAME=1 ELSE SKIP TO SPILLOVER MODULE]

Our records show that <COMPANY> also received an incentive from <UTILITY> for a <FDESC> project at < ADDRESS >.

- N27 Was the decision making process for the <FDESC> project the same as for the <ENDUSE> project we have been talking about?
  - 1 (Same decision making process)
  - 2 (Different decision making process)
  - 00 (Other, specify)
  - 98 (Don't know)
  - 99 (Refused)



## Ameren Illinois ONLINE STORE SURVEY

## FINAL July 2011

Purpose of the Survey: This survey will focus on program processes and satisfaction, as well as measure installation and free ridership. We will conduct the survey with a census of participating customers drawn from Ameren Illinois' program database.

#### INTRODUCTION

Thank you for agreeing to participate in this online survey. Ameren Illinois values your time and feedback on the ActOnEnergy® online store, which allows customers to purchase energy efficient products, ranging from lighting to vending machine controls, online.

Please click NEXT to start the survey.

#### **VERIFICATION**

We first want to make sure that our records match your purchases. We will only be asking about the products that you received between June 1, 2010 and May 31, 2011.

[PROGRAMMER INSTRUCTION – PROGRAM A BIG MATRIX SIMILAR TO THE TABLE BELOW WHERE RESPONDENTS WOULD ONLY SEE THE PRODUCTS THAT APPLY TO THEM]

[PROGRAMMER INSTRUCTION – PLEASE PASTE THE FOLLOWING PICTURES IN V1 TO V4 RIGHT NEXT TO RELEVANT PRODUCTS]



B. LED downlights	
C. LED Exit signs	<exit></exit>
D. LED Exit sign light bulbs	
E. Motion sensors	. 1911
F. Smart strips	
G. Specialty application CFLs	
H. Spiral (or twisted) CFLs	Bhdar Is Salaha Is a salaha
I. T8 ballasts	



V1. Our records show that you received the following products from the Ameren Illinois Online Store between June 1, 2010 and May 31, 2011. Please mark whether or not this is correct.

	I received this and the quantity is correct 1	I received this, but a different quantity [ALLOW RESPONSES 0=997] 2	I do not remember receiving this
A. Received 6 CFLs for free By this quantity we mean the actual number of light bulbs as opposed to the number of packages		INSERT NEW QUANTITY	
M. Received [QUANTITY] CFLs for free By this quantity we mean the actual number of light bulbs as opposed to the number of packages		INSERT NEW QUANTITY	
B. Purchased [QUANTITY] LED downlights		INSERT NEW QUANTITY	
C. Purchased [QUANTITY] LED Exit signs		INSERT NEW QUANTITY	
D. Purchased [QUANTITY] LED Exit sign light bulb kits By this quantity we mean the number of the two-bulb kits as opposed to the total number of bulbs across all kits you have purchased		INSERT NEW QUANTITY	
E. Purchased [QUANTITY] motion sensors		INSERT NEW QUANTITY	

F. Purchased [QUANTITY] smart strips	INSERT NEW QUANTITY	
G. Purchased [QUANTITY] specialty application CFLs (such as A-lamps or flood lights)  By this quantity we mean the actual number of light bulbs as opposed to the number of packages	INSERT NEW QUANTITY	
H. Purchased [QUANTITY] spiral (or twisted) CFLs By this quantity we mean the actual number of light bulbs as opposed to the number of packages	INSERT NEW QUANTITY	
I. Purchased [QUANTITY] T8 ballasts	INSERT NEW QUANTITY	
J. Purchased [QUANTITY] T8 lamps	INSERT NEW QUANTITY	
K. Purchased [QUANTITY] vending machine controls	INSERT NEW QUANTITY	
L. Purchased [QUANTITY] LED light bulbs	INSERT NEW QUANTITY	

[TERMINATE IF RESPONDENT SAID NO TO ALL MEASURES THAT THEY PURCHASED]

V2. Now that we have confirmed the number of products you received, please tell us how many of them are currently installed.

[PROGRAMMER NOTE - VERIFIED QUANTITY READ IN IS PRODUCT QUANTITY BASED ON V1]

	Number currently installed
A. [VERIFIED QUANTITY] free CFLs	
M. [VERIFIED QUANTITY] free CFLs	
B. [VERIFIED QUANTITY] LED downlights	
C. [VERIFIED QUANTITY] LED Exit signs	
D. [VERIFIED QUANTITY] LED Exit sign light bulbs	
E. [VERIFIED QUANTITY] motion sensors	
F. [VERIFIED QUANTITY] smart strips	
G. [VERIFIED QUANTITY] specialty application CFLs (such as Alamps or flood lights)	
H. [VERIFIED QUANTITY] spiral (or twisted) CFLs	
I. [VERIFIED QUANTITY] T8 ballasts	
J. [VERIFIED QUANTITY] T8 lamps	
K. [VERIFIED QUANTITY] vending machine controls	
L. [VERIFIED QUANTITY] LED light bulbs	

[COMPUTE QUANTITY NOT INSTALLED=VERIFIED QUANTITY-NUMBER CURRENTLY INSTALLED]

# [ONLY SHOW THE FOLLOWING MATRIX FOR ANY WHERE QUANTITY NOT INSTALLED>0] V3. Please describe briefly why you have not installed these products.

	Reason the products have not been installed
A. [QUANTITY NOT INSTALLED] CFLs you received for free	OPEN END RESPONSE WINDOW
M. [QUANTITY NOT INSTALLED] CFLs you received for free	OPEN END RESPONSE WINDOW
B. [QUANTITY NOT INSTALLED] LED downlights	OPEN END RESPONSE WINDOW
C. [QUANTITY NOT INSTALLED] LED Exit signs	OPEN END RESPONSE WINDOW
D. [QUANTITY NOT INSTALLED] LED Exit sign light bulbs	OPEN END RESPONSE WINDOW
E. [QUANTITY NOT INSTALLED] motion sensors	OPEN END RESPONSE WINDOW
F. [QUANTITY NOT INSTALLED] smart strips	OPEN END RESPONSE WINDOW
G. [QUANTITY NOT INSTALLED] specialty application CFLs (such as A-lamps or flood lights)	OPEN END RESPONSE WINDOW
H. [QUANTITY NOT INSTALLED] spiral (or twisted) CFLs	OPEN END RESPONSE WINDOW
I. [QUANTITY NOT INSTALLED] T8 ballasts	OPEN END RESPONSE WINDOW
J. [QUANTITY NOT INSTALLED] T8 lamps	OPEN END RESPONSE WINDOW
K. [QUANTITY NOT INSTALLED] vending machine controls	OPEN END RESPONSE WINDOW
L. [QUANTITY NOT INSTALLED] LED light bulbs	OPEN END RESPONSE WINDOW

V4. And, of the products that are currently installed, please tell us how many are installed at your business, and how many are installed in other places, such as your home.

	Installed at my business	Installed in other places
A. [VERIFIED INSTALLED QUANTITY] free CFLs		
M. [VERIFIED INSTALLED QUANTITY] free CFLs		
B. [VERIFIED INSTALLED QUANTITY] LED downlights		
C. [VERIFIED INSTALLED QUANTITY] LED Exit signs		
D. [VERIFIED INSTALLED QUANTITY] LED Exit sign light bulbs		
E. [VERIFIED INSTALLED QUANTITY] motion sensors		
F. [VERIFIED INSTALLED QUANTITY] smart strips		
G. [VERIFIED INSTALLED QUANTITY] specialty application CFLs (such as A-lamps or flood lights)		
H. [VERIFIED INSTALLED QUANTITY] spiral (or twisted) CFLs		
I. [VERIFIED INSTALLED QUANTITY] T8 ballasts		
J. [VERIFIED INSTALLED QUANTITY] T8 lamps		
K. [VERIFIED INSTALLED QUANTITY] vending machine controls		
L. [VERIFIED INSTALLED QUANTITY] LED light bulbs		

[ONLY SHOW THE FOLLOWING MATRIX FOR ANY WHERE QUANTITY NOT INSTALLED>0] V5. Do you plan on installing any of the following products that are not currently installed within the next year?

	Yes 1	No 2
A. [QUANTITY NOT INSTALLED] free CFLs		
M. [QUANTITY NOT INSTALLED] free CFLs		
B. [QUANTITY NOT INSTALLED] LED downlights		
C. [QUANTITY NOT INSTALLED] LED Exit signs		
D. [QUANTITY NOT INSTALLED] LED Exit sign light bulbs		
E. [QUANTITY NOT INSTALLED] motion sensors		
F. [QUANTITY NOT INSTALLED] smart strips		
G. [QUANTITY NOT INSTALLED] specialty application CFLs (such as A-lamps or flood lights)		
H. [QUANTITY NOT INSTALLED] spiral (or twisted) CFLs		
I. [QUANTITY NOT INSTALLED] T8 ballasts		
J. [QUANTITY NOT INSTALLED] T8 lamps		
K. [QUANTITY NOT INSTALLED] vending machine controls		
L. [QUANTITY NOT INSTALLED] LED light bulbs		

[ONLY SHOW RESPONSES FOR WHICH V5=1 AND QUANTITY NOT INSTALLED>1] V6. How many of each of the following do you plan to install within the next year?

	# of Measures to be Installed
A. [QUANTITY NOT INSTALLED] free CFLs	
A. [QUANTITY NOT INSTALLED] free CFLs	
B. [QUANTITY NOT INSTALLED] LED downlights	
C. [QUANTITY NOT INSTALLED] LED Exit signs	
D. [QUANTITY NOT INSTALLED] LED Exit sign light bulbs	
E. [QUANTITY NOT INSTALLED] motion sensors	
F. [QUANTITY NOT INSTALLED] smart strips	
G. [QUANTITY NOT INSTALLED] specialty application CFLs (such as A-lamps or flood lights)	
H. [QUANTITY NOT INSTALLED] spiral (or twisted) CFLs	
I. [QUANTITY NOT INSTALLED] T8 ballasts	
J. [QUANTITY NOT INSTALLED] T8 lamps	
K. [QUANTITY NOT INSTALLED] vending machine controls	
L. [QUANTITY NOT INSTALLED] LED light bulbs	

#### FREE-RIDERSHIP

#### Free CFL Offering

#### [ASK IF FR=1 AND (V1A<>3 OR V1M<>3)]

I would now like to focus on the FREE spiral CFLs that you received as part of the Ameren Illinois ActOnEnergy® online store program offering (shown below).



- FRA1. Thinking about the time when you ordered your free CFLs, which of the following best describes your situation:
  - 1. I did not need light bulbs right away
  - 2. I needed light bulbs right away
  - 3. Other situation (specify\_\_\_\_)

#### [ASK IF FRA1=2]

- FRA2. If free CFLs had not been available, what would you have purchased for your facility on your own?
  - 1. CFL bulbs
  - 2. Incandescent bulbs
  - 3. Other type of light bulbs (specify\_\_\_\_\_)

#### [ASK IF FRA2 = 1]

FRA3. Do you believe you would have purchased...?

- 1. The same number of CFLs
- 2. Fewer CFLs

#### [ASK IF FRA3=2]

FRA4. How many CFLs would you have purchased? [NUMERIC OPEN END]

#### [ASK IF FRA1=1 OR 3]

FRA5. If free CFLs had not been available, the next time you were to shop for light bulbs, what would you have purchased for your facility on your own?

- 1. CFL bulbs
- 2. Incandescent bulbs
- 3. Other type of light bulbs (specify\_\_\_\_)

#### [ASK IF FRA5 = 1]

FRA6. Do you believe you would have purchased...?

- 1. The same number of CFLs
- 2. Fewer CFLs
- 3. More CFLs

#### [ASK IF FRA6=2, 3]

FRA7. How many CFLs would you have purchased? [NUMERIC OPEN END]

## Online Store Spiral CFL Purchases [ASK IF FR=2 AND V1H<>3]

I would now like to focus on the spiral CFLs that you purchased through Ameren Illinois ActOnEnergy® online store. These are regular twisted CFLs, similar to those shown below.



- FRB1. Thinking about the time when you purchased your spiral CFLs through Ameren Illinois ActOnEnergy® online store, which of the following best describes your situation:
  - 1. I did not need light bulbs right away
  - 2. I needed light bulbs right away
  - 3. Other situation (specify\_\_\_\_\_)

#### [ASK IF FRB1=2]

- FRB2. If the option to purchase spiral CFLs through the online store had not been available, what would you have purchased for your facility elsewhere?
  - 1. CFL bulbs
  - 2. Incandescent bulbs
  - 3. Other type of light bulbs (specify\_\_\_\_\_)

#### [ASK IF FRB1=1 OR 3]

- FRB3. If the option to purchase spiral CFLs through the online store had not been available, the next time you were to shop for light bulbs for your facility elsewhere, what would you have purchased?
  - 1. CFL bulbs
  - 2. Incandescent bulbs
  - 3. Other type of light bulbs (specify\_\_\_\_\_)

#### [ASK IF FRB2=1 OR FRB3=1]

- FRB4. You paid somewhere between \$0.50 to a \$1.00 per bulb for your spiral CFLs for a total purchase cost of approximately \$[TOTAL \$]. Now, imagine that the spiral CFLs that you purchased cost you on average \$3 more per bulb, making your total purchase cost about \$[TOTAL \$ NO DISCOUNT]. In this situation, would you have...?
  - 01. Purchased the same quantity of spiral CFL bulbs
  - 02. Purchased fewer spiral CFL bulbs
  - 00. Done something else (please specify):

#### [ASK IF FRB4=2]

FRB5. How many spiral CFLs would you have purchased if the option to purchase them through the online store at the discounted price had not been available?

[NUMERIC OPEN END]

FRB6. How important was a free shipping offer in your decision to purchase spiral CFLs through the online store?

Not at all										Very
important										important
0	1	2	3	4	5	6	7	8	9	10

### Online Store Specialty CFL Purchases

[ASK IF FR=3 AND V1G<>3]

I would now like to focus on specialty CFLs that you purchased through Ameren Illinois ActOnEnergy® online store. These can be globe or flood CFL bulbs that you purchased through the online store, similar to those shown below.



- FRC1. Thinking about the time when you purchased your specialty CFLs through Ameren Illinois ActOnEnergy® online store, which of the following best describes your situation:
  - 1. I did not need light bulbs right away
  - 2. I needed light bulbs right away
  - 3. Other situation (specify\_\_\_\_\_)

#### [ASK IF FRC1=2]

- FRC2. If the option to purchase specialty CFLs through the online store had not been available, what would you have purchased for your facility elsewhere?
  - 1. CFL bulbs
  - 2. Incandescent bulbs
  - 3. Other type of light bulbs (specify\_\_\_\_\_)

#### [ASK IF FRC1=1, 3]

- FRC3. If the option to purchase specialty CFLs through the online store had not been available, the next time you were to shop for light bulbs for your facility elsewhere, what would you have purchased?
  - 1. CFL bulbs
  - 2. Incandescent bulbs
  - 3. Other type of light bulbs (specify\_\_\_\_\_)

#### [ASK IF FRC2=1 OR FRC3=1]

- FRC4. You paid somewhere between \$1.75 to a \$5 per bulb for your specialty CFLs for a total purchase cost of approximately \$[TOTAL \$]. Now, imagine that the specialty CFLs that you purchased cost you on average \$5 more per bulb, making your total purchase cost you about \$[TOTAL \$ NO DISCOUNT]. In this situation, would you have...?
  - 01. Purchased the same quantity of specialty CFL bulbs
  - 02. Purchased fewer specialty CFL bulbs
  - 00. Done something else (please specify):

#### [ASK IF FRC4=2]

FRC5. How many specialty CFLs would you have purchased if the option to purchase them through the online store at the discounted price had not been available?

[NUMERIC OPEN END]

FRC6. How important was a free shipping offer in your decision to purchase specialty CFLs through the online store?

Not at all										Very
important										important
0	1	2	3	4	5	6	7	8	9	10

#### Online Store LED Sign Purchases

[ASK IF (FR=4 AND V1C<>3) OR (FR=5 AND V1D<>3)]

[SHOW IF LED EXIT SIGN] I would now like to focus on the LED exit signs that you purchased through Ameren Illinois ActOnEnergy® online store.



[SHOW IF LED EXIT SIGN RETROFIT KIT] I would now like to focus on the LED exit sign light bulbs that you purchased through Ameren Illinois ActOnEnergy® online store.



FRD1. [READ IF LED EXIT SIGN RETROFIT KIT] Were you already considering changing the bulbs in your exit signs to LED light bulbs when you learned about the opportunity to purchase the bulbs through Ameren Illinois online store?

[READ IF LED EXIT SIGN] Were you already considering purchasing LED exit signs when you learned about the opportunity to purchase them through Ameren Illinois online store?

- 1. Yes
- 2. No

#### [ASK IF FRD1=1 AND LED EXIT SIGN RETROFIT KIT]

FRD2. If the option to purchase LED exit sign light bulbs through the online store had not been available, what would you have purchased for your facility elsewhere?

- 1. Incandescent bulbs for exit signs
- 2. Compact fluorescent bulbs for exit signs
- 3. LED bulbs for exit signs

#### [ASK IF FRD1=1 AND LED EXIT SIGN]

FRD3. If the option to purchase LED exit signs through the online store had not been available, what would you have purchased for your facility elsewhere?

- 1. Incandescent exit signs
- 2. Compact fluorescent exit signs
- 3. LED exit signs

#### [ASK IF FRD1=2 AND LED EXIT SIGN RETROFIT KIT]

- FRD4. If the option to purchase LED exit sign light bulbs through the online store had not been available, the next time you were to shop for exit sign light bulbs, what would you have purchased for your facility elsewhere?
  - 1. Incandescent bulbs for exit signs
  - 2. Compact fluorescent bulbs for exit signs
  - 3. LED bulbs for exit signs

#### [ASK IF FRD1=2 AND LED EXIT SIGN]

FRD5. If the option to purchase LED exit signs through the online store had not been available, the next time you were to shop for exit signs, what would you have purchased for your facility elsewhere?

- 1. Incandescent exit signs
- 2. Compact fluorescent exit signs
- 3. LED exit signs

#### [ASK IF FRD2=3 OR FRD4=3 AND VERIFIED PRODUCT QUANTITY>1]

FRD6. You paid between \$3.75 and \$8 per LED exit sign bulb kit for a total purchase cost of approximately \$ [TOTAL \$]. Now, imagine that the LED exit sign bulbs that you purchased cost you on average \$13 more per kit, making your total purchase cost you about \$[TOTAL \$ NO DISCOUNT]. In this situation, would you have...?

- 01. Purchased the same quantity of LED exit sign bulb kits
- 02. Purchased fewer LED exit sign bulb kits
- 00. Done something else (please specify):

#### [ASK IF FRD2=3 OR FRD4=3 AND VERIFIED PRODUCT QUANTITY =1]

- FRD7. You paid between \$3.75 and \$8 for your LED exit sign bulb kit. Now, imagine that the LED exit sign bulbs that you purchased cost you on average \$13 more per kit, making your total purchase cost you about \$[TOTAL \$ NO DISCOUNT]. Would you still purchase LED exit sign light bulbs or not?
  - 1. Would still purchase LED exit sign light bulbs
  - 2. Would not purchase LED exit sign light bulbs

#### [ASK OF FRD3=3 OR FRD5=3 AND VERIFIED PRODUCT QUANTITY>1]

FRD8. You paid between \$6.88 and \$14 per LED exit sign for a total purchase cost of approximately \$[TOTAL \$]. Now, imagine that the LED exit signs that you purchased cost you \$19 more per sign, making your total purchase cost you about \$ [TOTAL \$ NO DISCOUNT]. In this situation, would you have...?

- 01. Purchased the same quantity of LED exit signs
- 02. Purchased fewer LED exit signs
- 00. Done something else (please specify):

#### [ASK OF FRD3=3 OR FRD5=3 AND VERIFIED PRODUCT QUANTITY=1]

FRD9. You paid between \$6.88 and \$14 for your LED exit sign. Now, imagine that the LED exit sign that you purchased cost you \$19 more, making your total purchase cost you about \$ [TOTAL \$ NO DISCOUNT]. Would you still purchase an LED exit sign or not?

- 1. Would still purchase LED exit sign
- 2. Would not purchase LED exit sign

#### [ASK IF FRD6=2 OR FRD8=2]

FRD10.[READ IF LED EXIT SIGN RETROFIT KIT] How many LED exit sign light bulbs would you have purchased if the option to purchase them through the online store at the discounted price had not been available?

[READ IF LED EXIT SIGN] How many LED exit signs would you have purchased if the option to purchase them through the online store at the discounted price had not been available?
[NUMERIC OPEN END]

FRD11.[READ IF LED EXIT SIGN RETROFIT KIT] How important was a free shipping offer in your decision to purchase LED exit sign bulbs through the online store?

[READ IF LED EXIT SIGN] How important was a free shipping offer in your decision to purchase LED exit signs through the online store?

Not at all										Very
important										important
0	1	2	3	4	5	6	7	8	9	10

#### **SPILLOVER**

- SO1. In the time since you got your products through the Ameren Illinois ActOnEnergy® online store, have you purchased and installed any other efficient equipment or products on your own WITHOUT any discounts from Ameren Illinois?
  - 1. Yes
  - 2. No

#### [ASK IF SO1=1, else skip to the next section]

SO2. How much influence did your experience with the Ameren Illinois ActOnEnergy® online store and products offered through online store have on your decision to take additional energy efficiency actions on your own?

No										A great
influence										deal of
at all										influence
0	1	2	3	4	5	6	7	8	9	10

#### [ASK IF S02>5]]

SO4. In your own words, please describe how the Ameren Illinois ActOnEnergy® online store and products offered through the online store influenced your decision to make these additional energy efficient improvements to your business? [OPEN END]

#### [ASK IF S02>5]

SOA2. What types of energy efficient products have you purchased and installed? [OPEN END]

#### COUPON EXPERIENCE AND FOLLOW-ON ONLINE STORE VISITS

#### [ASK IF MAIL ONLY=1 OR MAIL ONLINE=1] SV1. How easy or difficult was it to fill out the coupon for the free CFLs? Please use the scale below to answer the question. Very difficult Very easy 1 2 3 4 5 6 7 8 9 0 10 SV2. To the best of your knowledge, how long did it take you to receive your free CFLs after mailing the coupon? 01. 1 week 2 weeks 02 03 3 weeks 04 4 weeks (a month) 5 weeks 05 6 weeks 06 07 7 weeks 8 weeks (2 months) 80 More than 8 weeks 09 Did not receive my free CFLs yet 96 98 Cannot remember how long it took [SKIP IF QSV2=96,99] How satisfied are you with the time it took to receive your free CFLs? Use the scale below to SV3. answer the question. Very Very dissatisfied satisfied 7 1 2 3 5 6 8 9 0 10 [ASK IF MAIL\_ONLY =1 AND MAIL\_ONLINE=0] Did you visit the Ameren Illinois ActOnEnergy® online store either before or after receiving your free CFLs? 1. Yes 2. No [SKIP TO F1a]

#### [ASK IF SV4=1]

SV5. Why didn't you purchase anything through the online store? [OPEN END]

#### **SOURCES OF AWARENESS**

#### [ASK IF MAIL\_ONLY=0 OR SV4=1, ELSE SKIP TO CH1]

The next few questions are about the online store itself.

A1. How did you first learn about the existence of the Ameren Illinois ActOnEnergy® online store? [OPEN END]

A2. Do you remember seeing or receiving any of the following? [1=YES, 2=N0,]

 A. A mailer from Ameren Illinois promoting the online store and its offerings?
 B. An insert in your energy bill promoting the online store and its offerings?

 A3. What are the best ways of reaching companies like yours with information about the online store offerings? [OPEN END]

#### WEBSITE EXPERIENCES

- W2. How would you rate the amount of information displayed on the online store website?
  - 1. Too much
  - 2. Just the right amount
  - 3. Too little

#### [ASK IF W2=1]

W3. What information do you think needs to be removed from the website? [OPEN END]

#### [ASK IF W2=3]

W4. What information do you think is missing from the website? [OPEN END]

W5. On a 0 to 10 point scale displayed below, how easy or difficult was each of the following for you personally? [RANDOMIZE]

Very										
difficult										Very easy
0	1	2	3	4	5	6	7	8	9	10

- A. Getting to the online store landing page
- B. Finding the products that interested you
- C. Getting the information that you were looking for
- D. [SKIP IF SV4=1] Creating an online store account
- E. Navigating the online store website
- F. [SKIP IF SV4=1] Making payments for the purchased products

W6. How satisfied are you with the selection of products offered through the online store?

Not at all										Very
satisfied										satisfied
0	1	2	3	4	5	6	7	8 or	9	10

#### [ASK IF W6<5]

W7. What energy efficient products would you like to see added to the online store's existing selection? [OPEN END]

W8.	The online store website offers a few features to shoppers. How helpful did you find each of
	the following features? [RANDOMIZE]

Not at Did not all Very Did not know the helpful helpful use the feature 0 1 2 3 5 7 9 10 6 8 feature exists

- A. [SKIP IF SV4=1] Package tracking
- B. Customer support through live chat
- C. Search function
- D. Detailed product descriptions
- W9. Are there any website features or functionalities that are missing from the online store website?
  - 1. Yes
  - 2. No

#### [ASK IF W9=1]

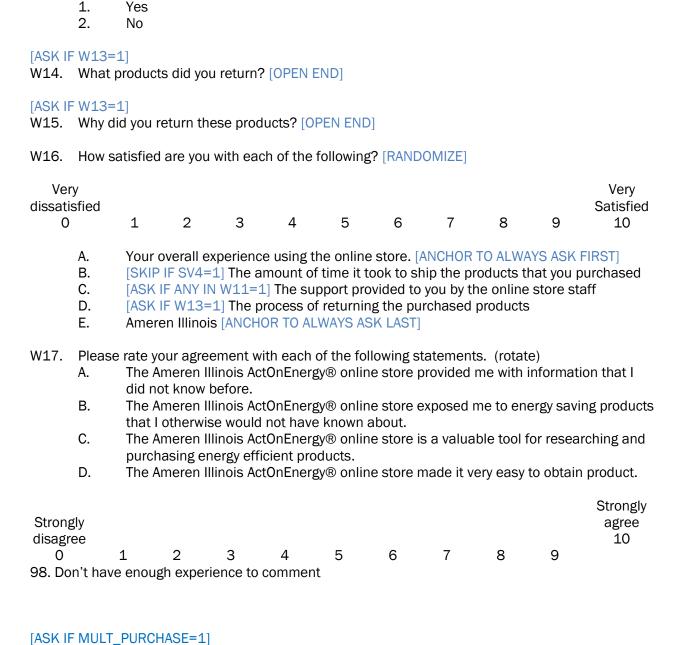
W10. What features or functions would you like to see added to the online store website? [OPEN END]

Please think back to your experiences shopping on the Ameren Illinois ActOnEnergy® online store when answering the following questions.

- W11. When shopping online at the Ameren Illinois ActOnEnergy® online store, did you ask for assistance through any of these channels?
  - A. Via email
    - 1. Yes
    - 2. No
  - B. Via phone
    - 1. Yes
    - 2. No

#### [SKIP IF SV4=1]

- W12. You might have made single or multiple purchases through the online store and they all might have been shipped at different times. On average, how long did it take for you to receive your products in the mail?
  - 01. 1 week
  - 02 2 weeks
  - 03 3 weeks
  - 04 4 weeks (a month)
  - 05 5 weeks
  - 06 6 weeks
  - 07 7 weeks
  - 08 8 weeks (2 months)
  - 09 More than 8 weeks
  - 96 Did not receive my free CFLs yet
  - 98 Cannot remember how long it took



W13. Did you return any of the products that you purchased through the online store?

[SKIP IF SV4=1]

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- W18. Our records indicate that you made multiple purchases through the online store. What motivated you to come back and shop using the online store again? Select all that apply.
  - 01. An Online store promotion offering discounts on select products
  - 02. Your experience with the products you already purchased
  - 03. A need for additional products
  - 00. [OTHER-SPECIFY]

#### CHANNELING COMPONENT

- CH1. Are you aware that in addition to the products offered through the online store, Ameren Illinois offers incentives to its business customers for energy efficient equipment upgrades and improvements?
  - 1 Yes
  - 2 No

#### [ASK IF CH1=1, ELSE SKIP TO NEXT SECTION]

- CH2. In the past year, have you applied for any of the additional incentive opportunities that Ameren Illinois offers?
  - 1. Yes
  - 2. No

#### [ASK IF CH2=1]

CH3. What type of equipment did you get incentives from Ameren Illinois? [OPEN END]

#### [ASK IF CH2=1]

- CH4. Did the online store influence your decision to take advantage of these additional incentive opportunities in any way?
  - 1. Yes
  - 2. No

#### [ASK IF CH4=1]

CH5. Please describe how the online store influenced your decision to take advantage of additional incentive opportunities offered by Ameren Illinois? [OPEN END]

#### FEEDBACK AND RECOMMENDATIONS

- R1. Do you plan to use the online store for any energy efficient product purchases within the next year?
  - 1. Yes
  - 2. No
  - 3. Maybe

#### [ASK IF R1=2]

- R2. Why don't you plan on shopping the online store within the next year? [OPEN END]
- R3. Overall, how likely are you to recommend the online store to other businesses?

Very unlikely										Very likely
0	1	2	3	4	5	6	7	8	9	10

#### [ASK IF R3<5]

R4. What can Ameren Illinois improve about the online store to make you more likely to recommend it to other businesses? [OPEN END]

#### **FIRMOGRAPHICS**

We would like to know a little more about your business, and then we will be done.

- F1a. What is your company's business type?
  - 02. Grocery
  - 03. Medical
  - 04. Hotel/Motel
  - 06. Office
  - 07. Restaurant
  - 08. Retail/Service
  - 09. Warehouse/Distribution
  - 10. Community/Recreational center
  - 11. Non-profit organization
  - 12. Agriculture
  - 13. Gas station/Convenience store
  - 14. Light industry
  - 15. Heavy industry
  - 16. K-12 School
  - 17. College/university
  - 00. Other, specify
  - 98. Prefer not to say
- F1b. And is the business type of the facility for which you ordered products through Ameren Illinois ActOnEnergy® online store the same sector?
  - 1. Yes
  - 2. No
  - 3. Prefer not to answer

# [ASK F1c IF F1b=2] F1c. What is the business type of the facility? 02. Grocery 03. Medical 04. Hotel/Motel 06. Office

- 07. Restaurant
- 08. Retail/Service
- 09. Warehouse/Distribution
- 10. Community/Recreational center
- 11. Non-profit organization
- 12. Agriculture
- 13. Gas station/Convenience store
- 14. Light industry
- 15. Heavy industry
- 16. K-12 School
- 17. College/university
- 00. Other, specify
- 98. Prefer not to say
- F2. Which of the following best describes the ownership of the facility for which you ordered products through Ameren Illinois ActOnEnergy® online store?
  - 1. My company owns and occupies this facility
  - 2. My company owns this facility but it is rented to someone else
  - 3. My company rents this facility
  - 4. Prefer not to say
- F3 Does your company pay the electric bill?
  - 1. Yes
  - 2. No
  - 3. Prefer not to say
- F7 In comparison to other companies in your industry, would you describe your company as...?
  - 1. A small company
  - 2. A medium-sized company
  - 3. A large company
  - 4. Prefer not to say
- END1. These are all the questions that we have for you. Before hitting the NEXT button, please tell us how easy or difficult it was to complete this survey.

Very										Very
difficult										easy
0	1	2	3	4	5	6	7	8	9	10

END2. And, how easy or difficult was it to understand the questions asked in this survey?

Very										Very
difficult										easy
0	1	2	3	4	5	6	7	8	9	10

# [ASK IF END2<6]

END3. What topics did you find especially difficult to provide adequate responses to? [OPEN END]

This completes our survey. Thank you very much for you time and effort completing this survey.



## Ameren Illinois C&I Retro-Commissioning Program

### **Participant Survey**

July 19, 2011

#### Introduction

Hello, this is \_\_\_\_\_ from Opinion Dynamics calling on behalf of Ameren Illinois regarding your company's participation in the Retro-Commissioning program. May I please speak with <CONTACTNAME>?

Our records show that <COMPANY> participated in Ameren Illinois' Retro-Commissioning Program and we are calling to conduct a follow-up study about your firm's participation in this program. I was told you're the person most knowledgeable about this project. Is this correct? [IF NOT, ASK TO BE TRANSFERRED TO MOST KNOWLEDGABLE PERSON OR RECORD NAME & NUMBER.]

This survey will take about 15 minutes. Is now a good time? [If no, schedule call-back]

(IF NEEDED: Is it possible that someone else dealt with the retro-commissioning project?)

A1. Just to confirm, between June 1, 2010 and May 31, 2011 did <COMPANY> participate in Ameren Illinois' Retro-Commissioning Program at <ADDRESS> in <CITY>?

- 1. (Yes, participated as described)
- 2. (Yes, participated but at another location) [THANK AND TERMINATE]
- 3. (NO, did NOT participate in program) [THANK AND TERMINATE]
- 00. (Other please specify in the box below)
- 98. (Don't know) [THANK AND TERMINATE]
- 99. (Refused) [THANK AND TERMINATE]

[IF A1=2,3,98,99: Thank and terminate. Record dispo as "Could not confirm participation".]

#### **Process Module**

- S1. How did you first hear about the Retro-Commissioning Program?
  - 1. (Ameren representative/staff)
  - 2. (Ameren Website)
  - 3. (Friend/colleague/word of mouth)
  - 4. (Bill insert)



- 5. (Direct mail from Ameren)
- 6. (Chamber of Commerce Publication)
- 7. (Speaker/Presentation at an event)
- 8. (Retro-commissioning service provider, "RSP")
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)
- S1A. Before deciding to participate in the program, did you speak or meet with a program representative about the Retro-Commissioning Program?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

## [ASK IF S1A=1]

S1B. On a scale of 0 to 10, where 0 is "not at all helpful" and 10 is "very helpful", how helpful was the program representative in explaining program requirements and incentives? [Record 0-10; 98=Don't know; 99=Refused]

### [ASK IF S1A=2,8,9]

- S1C. In your opinion, would speaking with a program representative have helped to explain the requirements and incentives for the Retro-Commissioning Program?
  - 1. Yes
  - 2. No
  - 98. Don't know
  - 99. Refused
- S1D. Before participating in the Retro-Commissioning Program, did you have a prior working relationship with your retro-commissioning service provider whom I will refer to as your RSP throughout this survey?
  - 1. Yes
  - 2. No.
  - 98. (Don't know)
  - 99. (Refused)
- S2. Did YOU fill out all or some of the program application for the project?
  - 1. Yes, all of it
  - 2. Yes, some of it
  - 3. No
  - 98. (Don't know)
  - 99. (Refused)

[ASK IF S2=1, 2 ELSE SKIP TO S3]

- S2A. Did the application form clearly explain the program requirements and how to participate?
  - 1. Yes
  - 2. No
  - 3. (Somewhat)
  - 98. (Don't know)
  - 99. (Refused)
- S2B. How would you rate the application process overall? Please use a scale of 0 to 10 where 0 is "extremely difficult" and 10 is "extremely easy". [SCALE 0-10; 98=Don't know, 99=Refused]

## [ASK IF S2B<4]

- S2C. Why did you rate it that way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Difficult to understand)
  - 2. (Long process)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## [ASK IF S2=3]

- S3. Who filled out the application for the project?
  - 1. (Someone else at the facility)
  - 2. (Someone else at the company)
  - 3. (Retro-commissioning Service Provider, RSP)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

#### **Early Completion Bonus**

- EB1. Starting in October 2010, Ameren Illinois offered an early completion bonus incentive for Retro-Commissioning projects completed either by the end of March or the end of April. Were you aware of this bonus offer?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

## [ASK IF EB1=1, ELSE SKIP TO S5]

- EB2. Did you intend to complete your project early in order to receive the early completion bonus incentive for your project?
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)

#### [ASK IF EB2=2, ELSE SKIP TO EB4]

- EB3. Why didn't your company intend to take advantage of the early completion bonus incentive? [OPEN END]
- EB4. Did you ultimately receive or have you been approved for an early bonus incentive through the Retro-Commissioning Program?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)
- EB5. Please tell me how strongly you agree or disagree with the following statement: The early completion bonus incentive motivated my company to complete our project in a shorter amount of time than we otherwise would have. Would you say you strongly agree, somewhat agree, somewhat disagree or strongly disagree with this statement?
  - 1. Strongly disagree
  - 2. Somewhat disagree
  - 3. Somewhat agree
  - 4. Strongly agree
  - 98. (Don't know)
  - 99. (Refused)

#### **Program Satisfaction**

- S5. How would you rate your RSPs ability to meet your needs in terms of implementing your project? Please use a scale from 0 to 10, where 0 is "not at all able to meet needs" and 10 is "completely able to meet needs". [SCALE 0-10; 98=Don't know, 99=Refused]
- S6. Would you recommend the RSP you worked with to other people or companies?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

#### [ASK IF S6=2]

S6A. Why not? [OPEN END]

98. (Don't know)

99. (Refused)

- S7. During the course of your participation in the program, did you place any calls to the Act On Energy Business Call Center? (IF NEEDED, this is the call center for all of Ameren Illinois' business energy efficiency programs)
  - 1. Yes

- 2. No
- 98. (Don't know)
- 99. (Refused)

### [ASK IF S7=1]

S8. On a scale of 0 to 10, where 0 is "very dissatisfied" and 10 is "very satisfied", how would you rate your satisfaction with the Call Center's ability to answer your questions? [SCALE 0-10; 96=not applicable, 98=Don't know, 99= Refused]

#### [ASK IF S8<4]

- S9. Why did you rate it that way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Provided inconsistent information)
  - 2. (Didn't understand the question)
  - 3. (Hard to reach the right person/person with the answer)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- S9C. Did you have any contact with the Ameren Illinois program staff over the course of implementing your project?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

#### [SKIP TO S10 IF S9C=2, 98, 99]

- S9A. Did you ask any questions of your technical reviewer while participating in the program? (If needed: This is a program staff person you would have spoken or e-mailed with to clarify any issues that came up during the review of your application. Technical reviewers are SAIC or GDS employees, who are Retro-Commissioning program partners.)
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

#### [ASK IF S9A=1]

- S9B. Approximately how long did it take for your questions to be answered?
  - 1. (Within the same day)
  - 2. (1-2 business days)
  - 3. (3-5 business days)
  - 4. (1 -2 weeks)
  - 5. (More than 2 week)
  - 98. (Don't know)
  - 99. (Refused)

- S10. On a scale of 0 to 10, where 0 is very dissatisfied and 10 is very satisfied, how would you rate your satisfaction with...? [SCALE 0-10; 96=not applicable, 98=Don't know, 99=Refused]
  - a. the incentive amount
  - b. the program's technical review staff
  - c. the Retro-commissioning program overall
  - d. Ameren Illinois

## [ASK IF S10A<4]

S11a. You indicated some dissatisfaction with the incentive amount, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3] [OPEN END; 98=DK; 99=REF]

#### [ASK IF S10B<4]

- S11b. You indicated some dissatisfaction with the program's technical review staff, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Provided inconsistent information)
  - 2. (Didn't understand the question)
  - 3. (Hard to reach the right person/person with the answer)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

### [ASK IF S10c<4]

S11c. You indicated some dissatisfaction with the Retro-commissioning program overall, why did you rate it this way? [OPEN END; 98=Don't know, 99=Refused]

## [ASK IF S10d<4]

- S11d. You indicated some dissatisfaction with Ameren Illinois, why did you rate it this way? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Rates are too high)
  - 2. (Poor customer service)
  - 3. (Poor power supply/service)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- S15. Did you experience any problems during the participation process? (IF NEEDED: (Other than what we have already talked about)
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

[ASK IF S15=1]

- \$16. What problems did you experience? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Phone calls not returned)
  - 2. (Process takes too long)
  - 3. (Low incentives/rebates)
  - 00. (Other specify)
  - 98. (Don't know)
  - 99. (Refused)

### Marketing and Outreach

- MK1. Do you recall seeing or receiving any marketing materials or other information for the Retro-Commissioning Program?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99 (Refused)

### [ASK IF MK1=1, ELSE SKIP TO MK4]

MK1A. What types of materials do you remember? [MULTIPLE RESPONSE, UP TO 4]

- 1. (Presentation/workshop)
- 2. (Brochure)
- 3. (Ameren Illinois website)
- 00. (Other, please specify)
- 98. (Don't know)
- 99. (Refused)
- MK2. How useful were these materials in providing information about the program? Would you say they were...?
  - 1. Very useful
  - 2. Somewhat useful
  - 3. Not very useful
  - 4. Not at all useful
  - 98. (Don't know)
  - 99. (Refused)

### [ASK IF MK2=3, 4]

- MK3. What would have made the materials more useful to you? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (More detailed information)
  - 2. (Where to get additional information)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

- MK4. What is the best way of reaching companies like yours to provide information about energy efficiency opportunities? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Bill inserts)
  - 2. (Flyers/ads/mailings)
  - 3. (E-mail)
  - 4. (Telephone)
  - 5. (Key Account Executive)
  - 6. (Webinars/roundtables/events)
  - 7. (Through trade or professional associations)
  - 8. (Program allies/contractors)
  - 9. (Luncheons)
  - 10. (Ameren reps)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

#### **Benefits and Barriers**

- B1. What do you see as the main benefits to participating in the Retro-commissioning Program?
  - 01. (Helps reduce the company's energy bills)
  - 02. (Helps my company save energy)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)
- B2. What do you see as the drawbacks to participating in the program? [MULTIPLE RESPONSE, **UP TO 31** 
  - 1. (Paperwork too burdensome)
  - 2. (Incentives not high enough/not worth the effort)
  - 3. (Program is too complicated)
  - 00. (Other, specify)
  - 96. (No drawbacks)
  - 98. (Don't know)
  - 99. (Refused)
- B3. What do you think are the reasons companies like yours do not participate in this program? [MULTIPLE RESPONSE, UP TO 3]
  - 1. (Lack of awareness of the program)
  - 2. (Not aware of savings/don't realize the savings)
  - 3. (Time consuming application process)
  - 4. (No time)
  - 00. (Other, specify)
  - 96. (None)
  - 98. (Don't know)
  - 99. (Refused)

- B4. In advertising the Retro-Commissioning Program, Ameren Illinois informs customers that they will cover between 50% and 80% of the cost of the retro-commissioning study performed by the RSP. When deciding whether or not your company would participate, did not knowing the exact incentive level your company would receive pose any challenges?
  - 1. Yes
  - 2. No
  - 98. Don't know
  - 99. Refused

## [ASK IF B4=1]

B5. Can you explain how this made the decision-making process challenging? [OPEN END; 98=Don't Know; 99=Refused]

## **Retro-Commissioning NTG**

I would now like to ask you a few questions about your company's decision to perform retrocommissioning at your facility.

# [ASK IF MULTIPLEFACILITIES=1, ELSE SKIP TO N1]

N1A. Our records indicate that your company completed multiple projects through the program. Was your decision to participate in the program the same for each project?

- 1. Yes
- 2. No
- 98. Don't know
- 99. Refused

#### [ASK IF N1A=2, 98 or 99]

N1B. Can you explain how your decision to participate was different for each project? [OPEN END; 98=DK; 99=REF]

N1. What was the main factor that prompted you to start thinking about performing retrocommissioning at your facility? [OPEN END; DK=98; REF=99]

#### [ASK IF PTYPE=1]

N2a. Before learning about the Ameren Illinois Retro-commissioning Program, had you ever conducted retro-commissioning at this facility or any of your other facilities?

- 1. Yes, at this facility
- 2. Yes, at another facility
- 3. Yes, at both this and another facility
- 4. No
- 98. (Don't know)
- 99. (Refused)

### [ASK IF PTYPE=2]

- N2aa. Before learning about the Ameren Illinois Retro-commissioning Program, had you ever conducted a compressed air audit or leak detection survey at this facility or any of your other facilities?
  - 1. Yes, at this facility
  - 2. Yes, at another facility
  - 3. Yes, at both this and another facility
  - 4. No
  - 98. (Don't know)
  - 99. (Refused)

## [SKIP TO N3 IF N2a or N2aa=4, 98, 99]

- N2b. Did you receive an incentive or another form of financial support for performing this previous retro-commissioning work?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

#### [SKIP TO N4 IF N2b=2, 98, 99]

- N2c. From whom did you receive this financial support and what was it? [IF NEEDED: This financial support may have been a federal or state tax credit or an incentive from another entity]
  - 00. [OPEN END]
  - 98. (Don't know)
  - 99. (Refused)

#### [SKIP N3 IF N2a or N2aa=1 OR 3]

- N3. And before learning about the Ameren Illinois Retro-commissioning Program, had you ever considered performing retro-commissioning at this particular facility?
  - 1. Yes
  - 2. No
  - 98. (Don't know)
  - 99. (Refused)

# [ASK IF PTYPE=1]

- N3b. To the best of your knowledge, when your facility was built was building commissioning performed? [IF NEEDED: "Commissioning is sometimes done as part of the construction process for new buildings and focuses on verifying and documenting that the facility and all of its systems are planned, designed, installed, tested, operated, and maintained to meet the owner's requirements."]
  - 1. Yes
  - 2. No
  - 8. (Don't know)
  - 9. (Refused)
- N4. Now I'm going to ask you to rate the importance of several factors that might have influenced

your decision to perform retro-commissioning at your facility. On a scale from 0 to 10, where 0 means 'not at all important' and 10 means 'extremely important', how important were the following in your decision to perform the Ameren Illinois-sponsored retro-commissioning at this time. [FOR N4a-d, RECORD 0 to 10; 96=Not Applicable; 98=Don't Know; 99=Refused][If needed: How important in your DECISION to implement the project was...]

(Interviewer Note: we want to get at the importance of these factors in deciding to participate in the program, i.e., sign up to have the study done and <u>commit</u> to making certain improvement. This question is NOT about the actual measures they ended up implementing.)

#### **ROTATE N4A-N4D**

- N4a. The availability of funding for the retro-commissioning study
- N4b. The recommendation from the retro-commissioning service provider
- N4c. The information from the Retro-Commissioning Program or Ameren Illinois marketing materials
- N4d. The recommendation from an Ameren Illinois program staff person [IF NECESSARY: This would be someone from Ameren Illinois that is affiliated with the program and not someone from the utility that might ordinarily contact you about your account]
- N4e. Were there any other factors that we haven't discussed that were influential in your decision to perform retro-commissioning?
  - 00. [OPEN END]
  - 96. (Nothing else influential)
  - 98. (Don't know)
  - 99. (Refused)

### [SKIP TO N5a IF N4e=96, 98, 99]

N4ee. Using the same 0 to 10 scale, how would you rate the influence of this factor?

- N5a. Were you aware of the equipment performance issues identified through your retrocommissioning study prior to conducting it?
  - 1 Yes, I was aware of all the issues identified
  - 2. I was aware of some, but not all of the issues identified
  - 3 No, I wasn't aware of any of the issues identified
  - 98 (Don't know)
  - 99 (Refused)

#### [SKIP IF N5a=1, 3, 98, 99]

N5aa. Which issues were you aware of? [OPEN END]

### [SKIP IF N5a=3]

- N5b. Were you aware of the measures and/or upgrades recommended to you by your retrocommissioning service provider prior to the retro-commissioning study?
  - 1 Yes, I was aware of all the measures identified
  - 2. I was aware of some, but not all of the measures identified
  - No. I wasn't aware of any of the measures identified
  - 98 (Don't know)

## 99 (Refused)

#### [SKIP IF N5b=1, 3, 98, 99]

N5bb. Which measures or upgrades were you aware of? [OPEN END]

- N6. And if the Ameren Illinois Retro-commissioning program had NOT been available, would you have taken all, most, some, or none of the retro-commissioning actions that were implemented as the result of the Ameren Illinois-sponsored study?
  - 1. All
  - 2. Most
  - 3. Some
  - 4. None
  - 98 (Don't know)
  - 99 (Refused)

#### [SKIP IF N6=4,8,9]

- N7. Without the program, when do you think you would have performed retro-commissioning that was implemented at your facility? Would you say...
  - 1. At the same time
  - Earlier
  - 3. Later
  - 4. (Never)
  - 98 (Don't know)
  - 99 (Refused)

### [ASK IF N7=3]

N8. Would you say...

- 1. Less than 1 year later
- 2 1 year later
- 3 2 years later
- 4 3 years later
- 5 4 or more years later
- 98 (Don't know)
- 99. (Refused)

#### **Spillover**

- SP1. Since your participation in the Retro-commissioning program, have you installed any ADDITIONAL energy efficiency measures at this facility that did NOT receive incentives through any utility or government program?
  - 1 Yes
  - 2 No
  - 8 (Don't know)
  - 9 (Refused)

## [ASK IF SP1=1, ELSE SKIP TO R1]

SP2. On a scale of 0 to 10, where 0 means "no influence" and 10 means "greatly influenced," how much influence did your participation in the Retro-Commissioning Program have on your decision to install additional energy efficiency measures on your own? [SCALE 0-10; 98=Don't know, 99=Refused]

#### [ASK IF SP2=8.9 or 10; ELSE SKIP TO R1]

SO3. More specifically, how did the Retro-Commissioning Program influence your decision to make these additional changes? [OPEN END: 98=Don't Know: 99=Refused]

Now I have a few questions for you about the energy efficient equipment you installed without an incentive from Ameren Illinois.

- SP2. What measures did you install? (IF RESPONSE IS GENERAL, E.G., "LIGHTING EQUIPMENT", PROBE FOR SPECIFIC MEASURE. PROBE FROM LIST, IF NECESSARY. MULTIPLE RESONSE)
  - a Lighting
  - b Cooling
  - c Motors
  - d Refrigeration
  - e Something else (specify)

### [ASK IF SP2A=1]

SP3a Which of the following types of lighting did you install? [MULTIPLE RESPONSE UP TO 7]

- 1 T8 lamps
- 2 T5 lamps
- 3 Highbay Fixture Replacement
- 4 CFLs
- 5 Controls / Occupancy sensors
- 6 LED lamps
- 00 Other (specify)
- 98 (Don't know)
- 99 (Refused)

### [ASK IF SP2B=1]

- SP3b Which of the following types of cooling equipment did you install? [MULTIPLE RESPONSE UP TO 3]
  - 1 Unitary/Split Air Conditioning System
  - 2 Room air conditioners
  - 3 Variable Frequency Drives (VFD/VSD) on HVAC Motors
  - 00 Other (specify)
  - 98 (Don't know)
  - 99 (Refused)

## [ASK IF SP2D=1]

- SP3d Which of the following types of refrigeration equipment did you install? [MULTIPLE RESPONSE UP TO 4]
  - 1 Strip curtains
  - 2 Anti-sweat controls
  - 3 EC motor for WALK-IN cooler/freezer
  - 4 EC motor for REACH-IN cooler/freezer
  - 00 Other (specify)
  - 98 (Don't know)
  - 99 (Refused)

### **Feedback and Recommendations**

- R1. Do you plan to participate in the program again in the future?
  - 1. Yes
  - 2. No
  - 3. (Maybe)
  - 98. (Don't know)
  - 99. (Refused)
- R2. How could the Retro-commissioning Program be improved? [MULTIPLE RESPONSE, UP TO 4]
  - 1. (Higher incentives)
  - 2. (More measures)
  - 3. (Greater publicity)
  - 4. (Advance payment)
  - 5. (Key Account Executives provide more information)
  - 96. (No recommendations)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

## **Firmographics**

I only have a few general questions left.

- F1a What is your company's business type? (PROBE, IF NECESSARY)
  - 1. (Grocery)
  - 2. (Medical)
  - 3. (Hotel/Motel)
  - 4. (Office)
  - 5. (Restaurant)
  - 6. (Retail/Service)
  - 7. (Warehouse/Distribution)
  - 8. (Community/recreational center)
  - 9. (Non-profit organization)
  - 10. (Agriculture)
  - 11. (Gas station/convenience store)
  - 12. (Light industry)
  - 13. (Heavy industry)
  - 14. (K-12 School)
  - 15. (College/university)
  - 00. (Other, specify)
  - 98. (Don't know)
  - 99. (Refused)

F1b. And is this business type the same business type as the facility where the Retro-commissioning work was performed?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

## [ASK IF F1b=2]

F1c. What is the business type of the facility? (PROBE, IF NECESSARY)

- 1. (Grocery)
- 2. (Medical)
- 3. (Hotel/Motel)
- 4. (Office)
- 5. (Restaurant)
- 6. (Retail/Service)
- 7. (Warehouse/Distribution)
- 8. (Community/recreational center)
- 9. (Non-profit organization)
- 10. (Agriculture)
- 11. (Gas station/convenience store)
- 12. (Light industry)
- 13. (Heavy industry)
- 14. (K-12 School)
- 15. (College/university)
- 00. (Other, specify)
- 98. (Don't know)
- 99. (Refused)

F2. Which of the following best describes the ownership of this facility?

- 1. My company owns and occupies this facility
- 2. My company owns this facility but it is rented to someone else
- 3. My company rents this facility
- 8. (Don't know)
- 9. (Refused)

F3. Does your company pay the electric bill?

- 1. Yes
- 2. No
- 8. (Don't know)
- 9. (Refused)

F4a. How old is this facility? [NUMERIC OPEN END, 0 TO 150; 998=Don't know, 999=Refused]

[ASK IF F4a=998]

F4b. Do you know the approximate age? Would you say it is...

- 1. Less than 2 years
- 2. 2-4 years
- 3. 5-9 years
- 4. 10-19 years
- 5. 20-29 years
- 6. 30 years or more years
- 8. (Don't know)
- 9. (Refused)

F5a, How many employees, full plus part-time, are employed at this facility? [NUMERIC OPEN END, 0 TO 2000; 9998=Don't know, 9999=Refused]

# [ASK IF F5a=9998]

F5b. Do you know the approximate number of employees? Would you say it is...

- 1. Less than 10
- 2. 10-49
- 3. 50-99
- 4. 100-249
- 5. 250-499
- 6. 500 or more
- 8. (Don't know)
- 9. (Refused)

F6. Which of the following best describes your facility? This facility is...

- my company's only location 1.
- 2. one of several locations owned by my company
- 3. the headquarters location of a company with several locations
- 8. (Don't know)
- 9. (Refused)

## [SKIP IF F2=2]

F7. In comparison to other companies in your industry, would you describe your company as...

- 1. A small company
- 2. A medium-sized company
- 3. A large company
- 4. (Not applicable)
- 8. (Don't know)
- 9. (Refused)

Those are all of the questions I have. Thank you very much for your participation.