IMPACT AND PROCESS EVALUATION OF 2011 (PY4) AMEREN ILLINOIS COMPANY HOME ENERGY PERFORMANCE AND ELECTRIC SPACE HEAT PILOT PROGRAM

Final

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1. EXECUTIVE SUMMARY

This report presents results from the evaluation of the fourth program year of the Ameren Illinois Company's (AIC) Act On Energy Home Energy Performance (HEP) program and the first program year of the Electric Space Heat Pilot (ESHP) program for June 2011 to May 2012.[1] The expected savings from this program is 3% of the overall portfolio of electric savings and 12% of portfolio therm savings (including both residential and commercial).

To support the evaluation, we conducted the following research: a review of program materials and program tracking data, and interviews with program administrators, implementation staff, program allies, and AIC staff. Our quantitative research efforts included participant surveys with program participants.

HEP Program

The HEP Program is now in its fourth year of implementation (PY4). The HEP Program is a home diagnostic and improvement program offered to AIC's residential customers. The program has two parts, 1) offers audits, direct install measures, and 2) incentives for additional energy efficiency opportunities. A customer can participate in the Program in either of the two ways; receiving an audit from an HEP Energy Advisor, or through contacting a program ally to install shell measure improvements.

The HEP program also focuses on developing a local home performance industry and is in the process of transforming into a more comprehensive Home Performance with ENERGY STAR® (HPwES) program. The HEP program is working towards developing the local contractor network in Illinois through facilitating BPI certification and other whole building science training.

ESHP Program

The ESHP is a new program. ESHP is a home diagnostic program offered to existing homes. The program focuses on serving AIC customers living in older homes with electric space heat. CSG implements the program, which provides a comprehensive energy audit (including blower door testing and combustion safety testing) at no cost to targeted customers. CSG staff installs several low cost measures at the time of the audit. These measures include CFLs and/or water conservation measures, depending on homeowner eligibility and permission, in addition to blower door-assisted air sealing of the home by a specially trained air-sealing technician.

Impact Results

The team performed an impact assessment for the HEP and ESHP programs. For the HEP program, the evaluation team incorporated a retrospective assessment of net-to-gross to PY4 given that this program has not calculated an Illinois-specific net-to-gross ratio (NTGR) in past evaluation efforts. The net-to-gross values were collected through responses from a net-to-gross battery of questions in the participant survey to determine a program-level net-to-gross ratio along with end-use or measure-level net-to-gross ratios, where possible.

[1] The first year started in March of 2009 with a few audits only.

For the ESHP program, we used the HEP measure-level NTGRs and applied them to the ex post gross savings. During the evaluation planning phase, AIC, ICC Staff and the evaluation team discussed and agreed upon employing a program level NTGR of 0.80 to the ESHP program. Subsequently, we applied the HEP NTGRs given our understanding of the consistency of program design and implementation of the HEP and ESHP programs. Additionally, we applied the HEP spillover percents to the ex post gross savings to determine a final program-level electricity savings NTGR. Table 1 provides a summary of HEP program net energy impacts. Note that because spillover values differ across energy and demand savings, therms, MW and MWh NTGRs are not equivalent.

Table 1. Summary of HEP Program Net Energy Impacts

Impacts	MW	NTGR	MWh	NTGR	Therm	NTGR
Ex Ante Net Impact [b]	n/a [a]	n/a	1,491	0.80	625,749	0.89
Ex Post Net Impact	0.43	0.98	1,753	0.92	596,680	0.81
Net Realization Rate	n/a		1.18		0.95	

[a] Conservation Services Group (CSG), the implementer, is not required to track demand savings.

[b] Ex ante net-to-gross ratios were derived from the CSG database. Ex post net-to-gross ratios vary between therms, kW, MW and MWh for HEP due to spillover.

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

Table 2 provides a summary of ESHP program net energy impacts.

Table 2. Summary of ESHP Program Net Energy Impacts

Impacts	MW	NTGR	MWh	NTGR	Therm	NTGR
Ex Ante Net Impact[b]	n/a [a]	n/a	223	0.89	731	0.99
Ex Post Net Impact	0.038	1.01	222	0.92	628	0.80
Net Realization Rate	n/a		100		0.86	

[a] Conservation Services Group (CSG), the implementer, is not required to track demand savings.

[b] Ex ante net-to-gross ratios were derived from the CSG database.

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

Process Results

Based on discussions with AIC staff, HEP program allies, and program participants, key findings include:

- **Program participation partially increased with a corresponding increase in program staffing**. In PY4, the program increased the number of participants from PY3, particularly retrofit-only projects. The HEP and ESHP programs recruited 4,627 participants. Notably, the percent of projects that are "non-audit," (i.e., retrofit only), has grown over time in response to PY3 evaluation recommendations. Other contributing factors may include changes in incentive levels and growth in program ally network.
    - **Participants are satisfied with program components, staff, and measures installed**. Based upon participant responses, 86% of HEP and 84% of ESHP respondents were satisfied with the program overall (providing a score of 8 to 10 on a scale of 0 to 10, where 0 is dissatisfied and 10 is satisfied). Respondents were most satisfied with the quality of work completed and the time it took to complete the audit. HEP program participants were less satisfied with the audit report in providing a framework to understand the home's overall energy usage. ESHP program

participants were less satisfied with the amount of time between when they were called to schedule the audit and when the audit was completed.

- **PY4 marks a substantial increase in program staff and allies.** In PY4, the program substantially increased the number of program staff that provides services across AIC territory (increased staff levels from 6 in PY3 to 18 in PY4). In addition, the program conducted more recruitment of contractors with the number of contractors increasing from 40 to 69 from PY3 to PY4. Efforts were directed towards increasing staff and program allies in southern Illinois in an attempt to support market transformation of available contractors within the state.

- **The program increased the conversion rate from PY3.**The HEP program conversion rate, i.e., those who completed an audit and then continued to install retrofit measures in their homes, is 10%.[2] The conversion rate increased from 6% in PY3 to 10% in PY4.

Recommendations

- **Consider increasing marketing and outreach efforts, particularly targeting efforts.** The ESHP pilot is a targeted approach to achieving higher electricity savings. The HEP Program can also consider additional ways to target customers to achieve electricity savings.

  - **Continue to leverage existing targeting efforts.** The HEP and ESHP program implementers are doing a good job of identifying target customers for the programs through using customer usage data from AIC and past audit participation trends to stratify customers by expected probability of response based upon heating and cooling loads, age of home, size of home, income range, number of residents, etc.

- **Consider opportunities to improve the conversion rate for both HEP and ESHP**

  - **Consider following up with phone calls and/or mailers to those participants who have not followed up with program allies after six months**. Program staff could consider following up with audit only customers six months after the audit to remind the participant of the incentive measures.

[2] Note that this conversion rate only includes customers that completed HEP measures after the audit. It does not include customers that participated in other programs (e.g. HVAC) after the audit. It also does not include households that were audited during PY3 but did not install shell measures until PY4 (if these were not provided in the program-tracking database extract provided to the evaluation team).

2. INTRODUCTION

This report presents results from the evaluation of the fourth program year of the AIC's Act On Energy HEP program and the first program year of the ESHP program for June 2011 to May 2012.[3]

Home Energy Performance Program

The HEP Program is a home diagnostic and improvement program offered to AIC's residential customers. The program has two parts, 1) offers audits, direct install measures, and 2) incentives for additional energy efficiency opportunities. A customer can participate in the Program in either of the two ways; receiving an audit from an HEP Energy Advisor, or through contacting a program ally to install shell measure improvements.

In the first approach, CSG Energy Advisors conducts an "HEP Audit" of participant homes, and installs Instant Savings Measures (ISMs) such as CFLs and Domestic Hot Water (DHW) measures (faucet aerators, low-flow showerheads). According to AIC staff, throughout the HEP audit, auditors educate the homeowner on savings possible through shell measures such as air sealing and wall, and attic insulation, in addition to overall energy savings potential that includes all AOE incentive programs. Auditors also recommend HEP program allies (AIC-approved BPI certified insulation contractors) that offer incentives and can install shell measures.

In the other approach, HEP program allies can directly market the program to eligible customers, diagnostic testing providing customers with recommendations for their home. These program allies then install the selected energy efficiency measures (air sealing and insulation) in the participating customers' homes.

The HEP program also focuses on developing a local home performance industry and is in the process of transforming into a more comprehensive HPwES program. The HEP program is working towards developing the local contractor network in Illinois through facilitating BPI certification by offering tuition reimbursements and access to courses as well as other whole building science training.

Electric Space Heat Pilot Program

The ESHP is a new program. ESHP is a home diagnostic program offered to existing homes. The program focuses on serving AIC customers living in older homes with electric space heat. CSG implements the program, which provides a comprehensive energy audit (including blower door testing and combustion safety testing) at no cost to targeted customers who install several measures at the time of the audit. These measures include CFLs and/or water conservation measures, depending on homeowner eligibility and permission, in addition to blower door-assisted air sealing of the home by a specially trained air-sealing technician. The auditor produces a custom report with a set of recommended energy efficiency improvements for the homeowners to install. The report refers homeowners to the HEP program allies for improvements in the building shell and/or to HVAC program allies to replace older heating and cooling equipment with highly efficient HVAC systems. Customers who use program allies are eligible for HEP or HVAC program incentives.

[3] The first year started in March of 2009 with a few audits only.

The HEP program provides the incentives for the shell measures while the HVAC program provides the incentives for the HVAC equipment.

The pilot targeted two specific areas in Southern Illinois that have a relatively high proportion of electrically heated homes. Two 2-person air sealing crews, consisting of an energy advisor and an air-sealing technician, perform two "Air Sealing Audits" per day for participating customers, spending approximately 3-3.5 hours in each home.

Table 3 provides a summary of HEP and ESHP offerings.

Table 3. Summary of HEP and ESHP Offerings

Program Description	HEP	ESHP
Audit Description	Installation of CFLs and water conservation measures (high efficiency showerheads and faucet aerators), a thermal scan of the house using an infrared camera, and development of a recommended work order	Energy audit and blower door-assisted air sealing. Can include installation of CFLs and water conservation measures (high efficiency showerheads and faucet aerators); a thermal scan of the house using an infrared camera; development of a recommended work order; and air sealing.
Audit Duration	2 hours	3 to 3.5 hours
Audit Cost	$50	No cost, although raised cost to $50 in June 2012
Measures installed during audit	CFLs, faucet aerators, low-flow showerheads	CFLs, faucet aerators, low-flow showerheads, blower door assisted air sealing
Measures recommended for incentives	All AOE incentives are recommended as appropriate (these may include duct and air sealing; additional attic and/or wall insulation; programmable thermostats; HVAC equipment replacement; and water heater replacement	All AOE incentives are recommended as appropriate (these may include duct and air sealing; additional attic and/or wall insulation; programmable thermostats; HVAC equipment replacement; and water heater replacement).
Target audience	Existing homes heated by a service (electricity or natural gas) provided by AIC	AIC customers in existing homes with electric heat

3. EVALUATION METHODS

3.1 DATA SOURCES AND ANALYTICAL METHODS

The HEP and ESHP PY4 program evaluation used the following tasks to develop impact findings and process recommendations.

Table 4. Summary of Evaluation Methods

Task	PY4 Impact	PY4 Process	Forward Looking	Details
Program Material Review	√	√		Assess program implementation effectiveness and provide recommendations for improvement
Program Staff In-Depth Interviews		√		Understand each program's design, implementation, and evaluation priorities
Market Actor / Program Ally Interviews		√		Review program implementation successes and challenges, in addition to understanding barriers to participation for both contractors and participants
Participant Survey	√	√		Information regarding program awareness, satisfaction, participant verification and a HEP net-to-gross battery

3.1.1 PROCESS ANALYSIS

Process evaluation efforts included a review of program materials, in-depth interviews with program staff and implementation contractors, market actor interviews, and a quantitative participant survey.

The evaluation team reviewed program documentation and interviewed several program stakeholders, including program managers, implementation contractors, and participating contractors, to ensure that all aspects of the programs are working as expected. The evaluation team also assessed the HEP and ESHP program processes in PY4, by fielding a participant survey. The survey assessed process-related issues, such as customer satisfaction with program processes to inform program planning processes, barriers to adopting follow-up measures, and other key process issues, in addition to verifying measure installations and collecting net-to-gross ratios for HEP.

Program Manager and Implementer Interviews

The evaluation team conducted interviews with the AIC HEP and ESHP program manager and the CSG program manager in PY4 to understand the program's design, implementation, and evaluation priorities. These two interviews were conducted in August 2012.

Market Actor Interviews

The evaluation team conducted twelve in-depth telephone interviews with the HEP/ESHP program

allies in PY4. For the HEP, these program allies include CSG auditors in the field (n=3), as well as HEP program allies (n=9). Market actors were selected based upon feedback from program implementation staff. These interviews reviewed program implementation successes and challenges, in addition to understanding barriers to participation for both contractors and participants.

As part of our sampling process for calling program allies, we divided those allies with the highest volume of projects (population size=9) who received over 60 incentives during the program period, and low volume of projects (population size=9) who had received less than 5 incentives during the program period. We then called program allies from the high and low volume sample frame to support an understanding of business practices and project experience, training, barriers, drivers, and recommendations regarding the program design and implementation.

The evaluation team developed a program implementation and application model based upon our understanding of the program intervention and delivery. The models are provided in Appendix A.

Telephone Surveys

The evaluation team implemented Computer-Assisted Telephone Interviewing (CATI) telephone surveys with HEP and ESHP Program participants. The surveys were conducted from August 23 through September 7, 2012. The survey collected information useful for the process evaluation and fielded a net-to-gross battery for HEP participants.

3.1.2 IMPACT ANALYSIS

Below we outline the impact evaluation approaches for the HEP and ESHP programs.

Gross Impacts

The program-tracking database provides ex ante gross savings at the participant and measure level. The evaluation team took two steps to calculate ex post gross savings for the HEP and ESHP programs.

The first step was to assess whether the program-tracking database used the per-unit electric and gas savings values based upon the Illinois Commerce Commission Order for Docket 10-0568. The program database does not provide per-unit fixed electric and gas savings values by measure, rather they provide a total savings value across all quantities installed. In order to compare these values, we divided the total savings in the database by the quantity to arrive at per-unit values. This exercise allowed us to determine whether the program tracking database was using per-unit electric and gas savings values consistent with the Order for Docket 10-0568. For the two measures in which the per-unit savings were inconsistent, the approved value was assigned[4]. (See Appendix C for a measure-level comparison of per-unit values.) Additionally, for insulation and air sealing, the program-tracking database does not contain measures by heating fuel type and presence of air conditioning. However, the per-unit savings values are based on this differentiation. We used other information in the database to determine heating fuel type and presence of air conditioning and appropriately assign the per-unit value.

[4] This occurred for faucet aerators and programmable thermostats. In each case, the value assigned by the evaluation team was higher savings.

The second step was to verify participation. The participant survey that we fielded incorporated a measure verification battery with the understanding that the Technical Reference Manual may not be completed in time to support impact analysis for these programs. Ultimately, we did not apply the survey-derived verification rates for the Instant Savings Measures and instead used the in-service rates from the Statewide TRM (a synonymous value with a different name). For shell measures, we used survey data to verify installation. The result of the verification effort identified few (4) survey respondents who indicated that they had not had installed shell measures. For these respondents, we verified installation by requesting documentation of installation of these measures for these participants from AIC.

Table 5 provides the in-service rates applied for Instant Savings Measures (ISMs) based on the State of Illinois Energy Efficiency Technical Reference Manual.[5]

Table 5. In-Service Rates Applied from Technical Reference Manual

Measure	In-Service Rate	Source
CFLs (15W, 20W and 23W)	0.97	In-Service Rate for Direct Install, pp. 428
Faucet Aerators	0.95	In-Service Rate for Direct Install, pp. 408
Showerheads	0.98	In-Service Rate for Direct Install, pp. 414
Programmable Thermostats	1.00	In-Service Rate for Direct Install, pp. 387

For the shell measures of insulation and air sealing, we reviewed invoices that included equipment payment and certificates of completion signed by homeowners to verify installation for sampled participants. This review indicated that all our survey respondents had had the measures installed as expected and the verified participation rate for insulation and air sealing was a 1.0.

Using the Order-approved per unit energy savings and the quantity from the program tracking database along with the verified participation results (from the participant survey or TRM), we used Equation 1 to calculate ex post gross savings,

Equation 1. Ex Post Gross Savings Calculation

Ex Post Gross Savings = Per Unit Savings * Claimed Quantity Installed * Verified Participation Rate

Demand Impacts

There were no per-unit electric and gas kW savings values designated in Illinois Commerce Commission Order for Docket 10-0568. As such, the evaluation team calculated demand savings by applying coincidence factors[6] to the calculated ex post gross kWh savings. Because CSG is not required to track kW savings in the program-tracking database, ex ante kW savings values are zeroes in the database.

The coincidence factors came from two sources. The PY3 HEP and HVAC program evaluation reports developed by The Cadmus Group contained coincidence factors for DHW, shell, and lighting measures. (As per Cadmus, kW demand savings were calculated by multiplying energy reduction

[5] State of Illinois Energy Efficiency Technical Reference Manual, Final, September 14th 2012.

[6] In this case, coincidence factors represent the portion of the kWh savings (across 8,760 hours of the year) that occurs during the typical peak period for AIC. Conferring with AIC indicated that non-holiday weekdays for hours ending 4, 5, and 6 PM in June, July, and August are the appropriate hours to use. We averaged these 198 hours in the 2011 End-use load shapes to obtain the coincidence factors for PY4.

estimates by the appropriate end-use coincidence factor.) For ENERGY STAR appliances that were part of our spillover measures, we calculated the kW using the algorithms in the Statewide TRM.

The coincidence factors are outlined in the table below.

Table 6. Coincidence Factors Applied for kW Estimates

Unit	Coincidence Factor	Source
DHW Measures	0.0001246	The Cadmus Group, Inc. *Ameren Illinois Portfolio Cost-Effectiveness Evaluation.* December 30, 2009.
Shell Measures	0.0004036	
Lighting Measures	0.0000560	

Net Impacts

The ESHP program had not had a previous Illinois net-to-gross ratio (NTGR). Based on our evaluation plan, we retrospectively applied the HEP NTGR to PY4. The evaluation team estimated an HEP program NTGR from survey self-report by determining the level of free ridership (FR) and spillover (SO) in the survey sample. Measure-level free ridership values were arrived at by calculating the free ridership rate for each measure while spillover was applied at the program level. (See Appendix D for details on the NTG algorithm and survey questions.) The program level NTGR was calculated using an additive approach as follows:

Equation 2. NTGR In Principle

$$NTGR = 1 - FR + SO$$

During discussions with AIC, ICC staff and the evaluation team during the planning stages, we agreed to a deemed NTGR of 0.80 for ESHP. Subsequent understanding of program design and conversations with AIC staff indicated that the HEP NTGR was more applicable to the ESHP program. As a result, we applied the HEP FR measure level values to the ESHP program given our understanding of consistent program design. We also applied the HEP electricity savings and demand spillover percents to ESHP ex-post gross savings.[7] We used two approaches to calculate the final FR and SO described below.

Free Ridership

For the HEP program, the evaluation team fielded a self-report free ridership question battery within the participant survey to determine a program-level free ridership score along with end-use or measure-level free ridership scores. The self-report method asks the customer directly about the influence of the program activities on their actions. We based the estimates on a series of questions that explore the influence of the program in getting participants to install energy efficient equipment as well as other actions participants may have taken had the incentive not been available. We revised the attribution batteries from prior surveys to attempt to separately estimate program effects from effects of other factors and to be consistent where possible with the other Illinois utilities' evaluations.

[7] However we did not apply the HEP spillover gas savings percentage to the ESHP ex post gross savings since the program was targeted at households heated with electricity.

To calculate free ridership scores for the HEP program and measures, the evaluation team developed a scoring algorithm that incorporates aspects of program component influence, measure quantity and installation timing, as well as other factors that may have influenced measure adoption (our relative program influence score). The scoring algorithms are outlined in Appendix C and differ depending on whether the measures were ISMs or were installed by program allies. Given the small quantity of programmable thermostats installed through the program (3), we used the agreed fixed values derived from PY3 (FR=0.13).

For air-sealing and insulation measures, the free ridership questions included a consistency check that was triggered when an individual's responses appeared to be inconsistent. Analyzing the consistency check data, the evaluation team modified a portion of the free ridership scores and created adjusted and unadjusted measure-level free ridership values for air-sealing and insulation measures. This adjustment reduced the air sealing FR by 0.02 and the insulation FR by 0.01. The free ridership values for the energy and demand savings are the same for each measure. The measure-level free ridership values appear in Table 7 below.

Table 7. Free Ridership Values

Measure	Free Ridership Value
CFL	0.12
Faucet Aerator	0.27
Showerhead	0.18
Air Sealing	0.20
Insulation	0.23
Thermostat	0.13 (PY3 value from Appendix A)

Participant Spillover

The evaluation team also included a battery of qualitative questions to assess spillover among HEP participants, including:

- Whether the participant had made any additional improvements, for which they did not receive a utility incentive or discount, since the HEP energy audit to reduce their household energy consumption. (S01). If the respondent did not receive utility incentive or discount, then they were asked question S02.

- Rate from 0 to 10 whether the participant's experience with the HEP program influenced them to make these additional improvements. (S02)

For respondents who gave an 8 or higher for question S02, we calculated spillover. Spillover energy and demand savings are calculated based on the type of fuel for water heaters and space-heating equipment for installed measures where savings are dependent based on these types of equipment. The Illinois Technical Reference Manual (TRM) was used to determine the energy savings for each identified measure (see Appendix C for more detail).

The spillover rate was determined by first summing the total energy and demand impacts from the sampled participants who installed additional measures due to participation in the program, and then dividing this sum by the total ex post sample energy and demand impacts.

$$Energy\ or\ Demand\ Spillover\ Rate = \frac{Sum\ of\ Energy\ or\ Demand\ Impacts\ from\ Additional\ Measured\ Installed}{Sample\ Ex\ Post\ Gross\ Energy\ or\ Demand\ Impacts}$$

The spillover rates were then used to calculate the net spillover savings for the population of

participants. To do this, the evaluation team multiplied the spillover rate by the ex post gross savings for the program to calculate the net spillover savings. The approach is summarized in the equation below.

$$Population\ Energy\ or\ Demand\ Spillover\ Savings =$$

$$Energy\ or\ Demand\ Spillover\ Rate * Population\ Energy\ or\ Demand\ Ex\ Post\ Gross\ Savings$$

These spillover savings were added to the net savings associated with Program-rebated and Instant Savings measures to produce total Program net savings.

Non-Participant Spillover

Non-participant spillover information was not collected as part of this evaluation. The evaluation team will consider conducting non-participant spillover analysis in the PY5 evaluation.

3.2 SAMPLING AND SURVEY COMPLETES

3.2.1 TELEPHONE SURVEY

For HEP, we pulled a sample that meets the industry-standard two tail 90/10 criteria in terms of sampling error at a measure level. This means that we are 90% confident our results are within 10% of the true value in the population.

We based our final sample design and sample size on a review of PY4 participation data. Since customers who participated in the ESHP program had a different experience (and received air sealing as an ISM) than those in the main HEP program, we separated the program records into the two groups from which we then drew the sample.

HEP Program

For the HEP program, we divided the PY4 participant population of 4,627 participants into those participants who received an audit and those who did not. We surveyed a simple random sample within each of these groups and completed 201 interviews.[8] Table 8 shows the completed HEP sample points by measure type and MBTU. Due to budget constraints, we did not sample by fuel type.

[8] We completed surveys with 86 audit only participants, 16 audit and incentive participants, and 99 incentive only participants.

Table 8. Completed HEP Program Survey Points[9]

Project Type	Database Population		Sample Frame		Completed Surveys	
	House-holds [a]	MBTU Savings	House-holds	MBTU Savings	House-holds	MBTU Savings
CFLs	1,909	2,839	1,880	2,816	79	147
Faucet Aerators	1,388	353	1,372	350	66	18
Showerheads	1,492	3,289	1,475	3,268	69	139
Air Sealing	1,708	42,249	1,519	40,933	115	3,547
Insulation	1,660	31,269	1,543	30,095	113	2,398
Thermostat	3	6	3	6	0	0
Total (Unique Households)	**4,627**	**80,006**	**3,729**	**77,469**	**201**	**6,248**

[a] This is the number of households where each measure type was installed.

[b] Households receiving thermostats were represented in the sample in order to obtain process findings, although ultimately none of the three households with thermostats completed a survey.

ESHP Program

For the ESHP program, we attempted a census for the participant population in PY4. Out of a total population of 339 households, we completed 71 interviews with participants. To ensure that we received a sufficient number of completes by measure type, we prioritized participants by air sealing. Table 9 shows the completed ESHP sample points by measure type and MBTU.

Table 9. Completed ESHP Program Survey Points

Project Type	Database Population		Sample Frame		Completed Surveys	
	Households [a]	MBTU Savings	Households	MBTU Savings	Households	MBTU Savings
CFLs	237	340	234	335	52	76
Faucet Aerators	254	61	252	61	54	14
Showerheads	161	292	160	289	41	71
Air Sealing	90	235	83	221	18	43
Insulation	6	31	6	31	2	11
Total	**339**	**959**	**310**	**937**	**71**	**215**

[a] This is the number of households where each measure type was installed.

The surveys were used to gather data to support the estimation of the installation of measures, and collect other information useful for the process evaluation.

Survey Response Rates

The survey response rate is the number of completed interviews divided by the total number of potentially eligible respondents in the sample. We calculated the response rate using the standards

[9] Notably, we did not weight responses between audit only and incentive participants as we found no statistically significant differences in responses.

and formulas set forth by the American Association for Public Opinion Research (AAPOR).[10] We chose to use AAPOR Response Rate 3 (RR3), which includes an estimate of eligibility for these unknown sample units. The formulas used to calculate RR3 are presented below. The definitions of the letters used in the formulas are displayed in the Survey Disposition tables below.

$$E = (I + R + NC) / (I + R + NC + e)$$

$$RR3 = I / ((I + R + NC) + (E*U))$$

We also calculated a cooperation rate, which is the number of completed interviews divided by the total number of eligible sample units actually contacted. In essence, the cooperation rate gives the percentage of participants who completed an interview out of all of the participants with whom we actually spoke. We used AAPOR Cooperation Rate 1 (COOP1), which is calculated as:

$$COOP1 = I / (I + R)$$

Table 10. HEP and ESHP Survey Dispositions

Disposition	HEP N	ESHP N
Completed Interviews (I)	201	71
Eligible Non-Interviews	468	100
Refusals (R)	279	53
Mid-Interview terminate (R)	35	2
Respondent never available (NC)	152	45
Language Problem (NC)	2	0
Not Eligible (e)	158	21
Fax/Data Line	1	1
Non-Working	67	8
Wrong Number	39	7
Business/Government	34	4
Cell Phone	3	0
No Eligible Respondent	8	0
Duplicate Number	5	1
Unknown Eligibility Non-Interview (U)	1,844	118
Not dialed/worked	726	0
No Answer	773	75
Answering Machine	341	43
Busy	4	0
Call Blocking	0	0

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

Disposition	HEP N	ESHP N
Total Participants in Sample	2,671[a]	310
[a] Note that the total participants in the sample are lower than the sample frame as not all sample was released to achieve the desired number of completes.		

The following table provides the response and cooperation rates.

Table 11. HEP and ESHP Survey Response and Cooperation Rates

AAPOR Rate	HEP Percentage	ESHP Percentage
Response Rate (RR3)	9%	26%
Cooperation Rate	39%	56%

4. RESULTS AND FINDINGS

4.1 PROCESS FINDINGS

4.1.1 PROGRAM MODIFICATIONS

This is the fourth year of the HEP program. Since the PY3 evaluation, the program has undergone the following design and implementation changes:

- **Increased number of staff.** In PY4, the program substantially increased the number of program staff that provides services across AIC territory (increased staff levels from 6 in PY3 to 18 in PY4). In addition to Energy Advisors and Air Sealing Leads and Technicians, CSG hired QA/QC staff members, and new Program and Account Managers.

- **Adjusted audit offerings and cost.** The customer fee for audits changed from $25 to $50 and became more comprehensive; increasing audit time from 1.5 to 2 – 2.5 hours and incorporating diagnostic testing. The audit now consists of an in-depth inspection of the energy-related systems in the home as well as a thermal scan of the walls, floors, and ceiling using an infrared camera.

- **Recruited additional contractors as program allies**. The program conducted more recruitment of contractors with the number of contractors increasing from 40 in PY3 to 69 in PY4. Additionally, the program increased available incentives for BPI certification (i.e., tuition reimbursement) for contractors seeking to become program allies. The HEP program began offering tuition reimbursement for BPI certification, in addition to assisting facilitation of BPI classes across the state. Further, the HEP promoted the Better Buildings Better Business conference in 2012 and brought 20 program allies to the conference through program ally scholarships and hosted an ally dinner.

- **Increased incentives for shell measures and revised measure offerings.** Incentives were increased for one measure. The program added a new attic insulation incentive of $0.50 per square foot for homes with existing insulation ranging from R12 – R19 up to the insulation cap of $1400. The program removed water pipe insulation from measure offerings.

- **Offered the ESHP program to target electric heating homes and to increase electric savings for the HEP program.**
  - The ESHP program transferred from a pilot program in PY3 to a program in PY4.
  - CSG hired additional Energy Advisors for the program, but was delayed in program ramp up for the first 4 to 5 months of the program due to finding adequate staff.
  - Beginning in June 2012, raised cost of audit to $50.

4.1.2 PROGRAM PARTICIPATION

Participating Customers

In PY4, the HEP and ESHP program reached 4,627 participants; however, 412 of these participants did not receive any measures because, according to program staff, they declined the AIC installation or already had program measures in their homes.[11] As a result, the total number of participants that received measures is 4,215.

Approximately 70% of the participants received an "HEP Audit" through CSG as part of their participation in the program (3,229 participants). Almost one third of participants (30%) participated in the program through working directly with a program ally (1,398 incentive-only participants). Overall, HEP reached 4,288 participants and ESHP reached 339 participants. Table 12 provides an overview of participation by services received.

Table 12. Participation by Services Received

Program	CSG Audit Received No ISMs	CSG Audit ISMs only	CSG Audit and Program Ally Incentive	Incentive Only	Total
ESHP	18	315	6	n/a	339
HEP	394	2,181	315	1,398	4,288
Total	**412**	**2,496**	**321**	**1,398**	**4,627**
% of Participants	**9%**	**54%**	**7%**	**30%**	**100%**

Program participants installed a variety of measures through the program. Table 10 provides an overview of households that received measures and the total number of measures received. As expected, the majority of participants received ISMs, while fewer participants received a variety of retrofit measures. Note that we have provided the total number of households for both HEP and ESHP participants based upon our own categorization of ESHP and HEP participants.[12]

[11] 458 projects in the database were listed as project participants, but did not have any associated gross savings values. 457 of these participants received no direct install measures, and were categorized as either audit recipients (N=422), or audit_qa (N=17), and the remaining participant was listed as an "incentive" project, but cancelled. For ESHP, 18 participants did not receive measures (flagged as audit_airseal in the database).

[12] Conversations with CSG staff as well as a review of the program tracking database, indicate that the database does not currently flag ESHP and HEP participants in a formal way. We determined ESHP participants by those who received an "AUDIT_AIRSEAL" in the program tracking database.

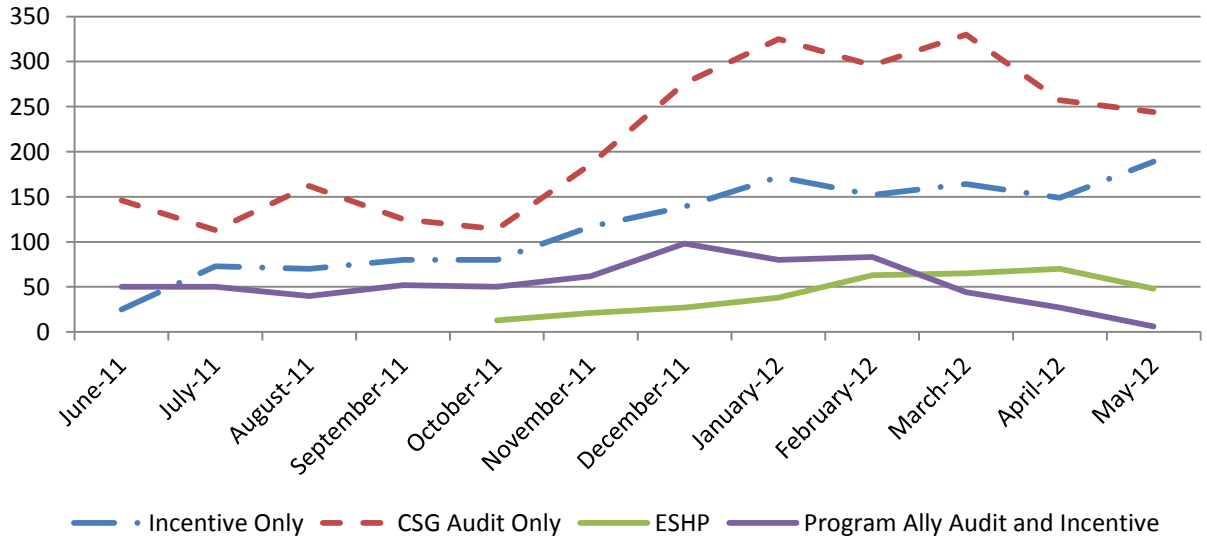
Table 10. Overview of PY4 Participation by Measure Category

Project Type	HEP Database Population		ESHP Database Population	
	Households [a]	Measures	Households [a]	Measures
CFLs	1,909	18,952	237	2,480
Faucet Aerators	1,388	3,036	254	591
Showerheads	1,492	2,159	161	231
Air Sealing	1,708	2,326,750 (CFM)[b]	90	35,383 (CFM)
Insulation	1,660	2,710,122 (SF)[b]	6	9,525 (SF)
Thermostat	3	3	n/a	n/a
Unique Households	4,627	n/a	339	n/a

[a] This is the number of households where each measure type was installed.
[b] Values were provided by implementation contractor.

Participation in the program grew over the program year. Figure 3 provides a timeline of HEP and ESHP projects by participant type. As can be seen, 'CSG Audit Only' participants were the largest number of participants and followed an upward trend per month, 'Incentive Only' participants continued to increase per month, while 'CSG Audit and Program Ally Incentive' participants remained below 50 per month. ESHP customers started out flat, but began recruiting customers in fall 2011, which is consistent with the delayed ramp up for this program. This may under report the conversions. These conversions may not include the households that were audited during PY3 but did not install shell measures until PY4. The evaluation team requested program-tracking databases for PY4 participants. Notably, Energy Advisors indicate that many participants can take up to six months to contact program allies for incentivized measures.

Figure 3. Timeline of HEP and ESHP Projects by Participant Type



The evaluation team conducted a survey with HEP and ESHP program participants. Table 13 provides an overview of HEP and ESHP participant demographics.

Table 13. Overview of HEP and ESHP Participant Demographics

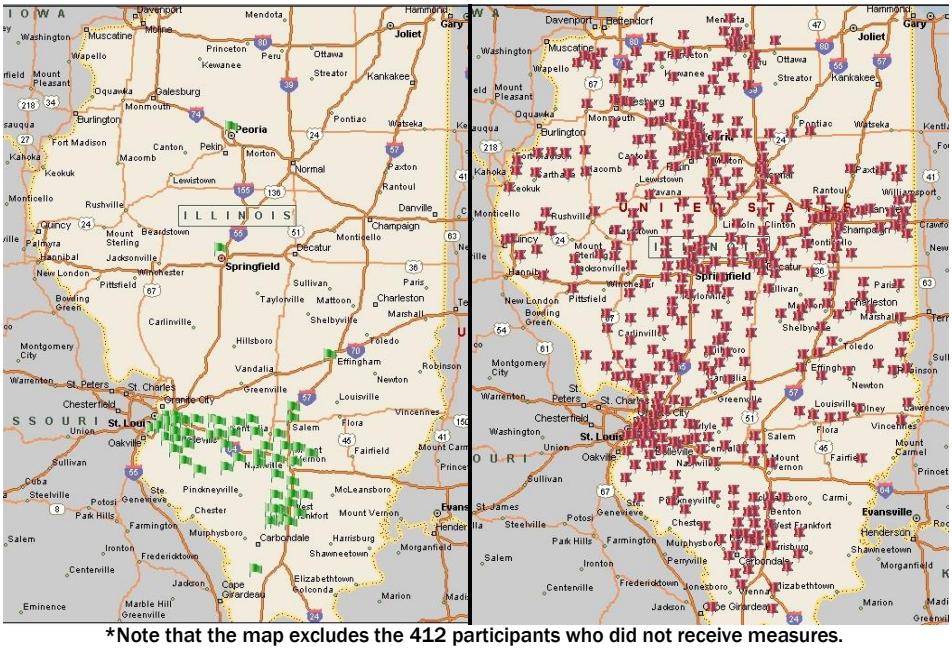
Demographics	HEP (n=201)	ESHP (n=68)

Demographics	HEP (n=201)	ESHP (n=68)
Single Family Detached Homes	93%	94%
Over 60 years old	46%	53%
Household income over $50,000	55%	49%

HEP program participants tend to have gas water heaters (80% overall), while 85% of ESHP participants have electric water heaters.

Participation in the program varied across the region. ESHP participants were concentrated in the southern part of the state primarily as the program was rolled out to key geographic areas targeted for having electric heat homes, whereas HEP projects were spread across the state although grouped in population areas as expected for this type of program. Program staff noted that there was a large increase in projects in the northern part of the state in PY4.

Figure 3. ESHP and HEP Projects by Region



*Note that the map excludes the 412 participants who did not receive measures.

Program Barriers

Overall, 20% of HEP responses and 13% of ESHP responses indicated that a perceived barrier to participation in the additional shell measures could be lack of awareness in the retrofit program as well as money (26% and 13%, respectively).

Table 14. Perceived Barriers to Customers for Participating in the Program (Multiple Responses)

Reasons for Not Participating in Program	% of HEP Responses (n=201)	% of ESHP Responses (n=68)
No Reason/Nothing	36%	46%
Money	26%	13%
Not aware of the program	20%	13%
Strangers in the house/don't trust the program	4%	10%
Don't understand purpose	3%	6%

Time	5%	6%
Ignorance/ don't care	5%	4%
Negative recommendation	1%	3%
Don't want improvements/already efficient/new home	3%	1%
Other	1%	1%
Don't know	2%	1%

We asked program allies why participants may decide not to participate in the program. Most program allies noted that their closing rates are very high and that the primary reason that homeowners choose not to have work done is related to the cost: either the rate of return works out to be too long, or that they do not have money upfront.

Program ally respondents suggested that financing would be helpful, in order to reduce upfront cost. One suggested that on-bill financing would be the best, as well as financing with a very low rate. Additionally, respondents suggested that, as per current program design, it is important to have the rebate go to the contractor instead of the customer. This reduces upfront cost for the customer, which can make or break a deal. Notably, AIC has launched an on-bill financing program in PY5, and that HEP now offers on-bill financing.

Barriers to 'CSG Audit Only' Customers

Overall, the number of HEP participants who decide to install incentivized measures after receiving an audit is 10%.[13] However, the conversion rate has improved from PY3 (6%). Overall, 60% of HEP program participants receive an audit only, with no additional incentivized measures installed.

For the ESHP program, only 25% of participants conducted air sealing while receiving an audit, and less than 2% of the participants went on to install any of the recommended measures. According to interviews with program staff and a review of program materials, ESHP is encountering a large number of homes that are disqualified from air sealing at the time of the audit, mainly due to lack of vapor barriers in crawl spaces and lack of exhaust fan venting to the outdoors. In addition, air sealing teams are encountering homes that are already considered air tight according to BPI standards. CSG anticipated working on refining mailing lists in PY5 to identify patterns in homes that are able to receive air sealing.

We asked survey respondents who had received an audit only, whether they had received any recommendations for their home, and whether they had completed or planned to complete any of those recommendations.

Table 15. 'CSG Audit Only' Participants Plans to Complete Recommendations

% of 'audit only' participants who...	% of HEP Respondents	% of ESHP Respondents
Received recommendations during audit	93% (n=181)	88% (n=68)
Indicated that they completed some energy savings recommendations	68% (n=165)	80% (n=60)

[13] Note that this conversion rate only includes customers that completed HEP measures after the audit. It does not include customers that participated in other programs (e.g. HVAC) after the audit. It also does not include households that were audited during PY3 but did not install shell measures until PY4 (if these were not provided in the program-tracking database extract provided to the evaluation team).

% of 'audit only' participants who...	% of HEP Respondents	% of ESHP Respondents
Plan to complete any recommendations	61% (n=114)	54% (n=50)

Of the respondents who had not completed all recommendations, we asked what recommendations were unlikely to be completed. Overall, 34% of HEP responses and 38% of ESHP responses noted that none of the recommendations would be completed, followed by 22% HEP and 26% ESHP responses noting that attic, wall, or other insulation were unlikely to be completed.

Table 16. HEP and ESHP recommended improvements that are unlikely to be completed (Multiple Responses)

What recommendations are unlikely to be completed by 'Audit Only' Participants	% of HEP Responses (n=114)	% of ESHP Responses (n=50)
None (indicating will do all recommendations)	34%	38%
Attic, wall, or other insulation	22%	26%
Duct sealing or insulating	4%	8%
High efficiency furnace/boiler/heat pump	4%	6%
Windows	4%	4%
Air Sealing	3%	6%
Low-flow shower heads	1%	0%
High efficiency air conditioner	1%	4%
Fans: whole house, attic, or bathroom	1%	2%
CFL bulbs	0%	2%
Other: Can't fit into budget	3%	0%
Don't know	28%	12%

When asked why these recommendations were unlikely to be completed, 53% of the HEP responses and 44% of the ESHP responses indicated project cost as the primary barrier, followed by the savings not being worth the effort (16% for HEP and 20% for ESHP).

Table 17. Reasons for not going forward with HEP or ESHP recommended measures (Multiple Responses)

Why recommendations are not likely to be completed by 'Audit Only' participants	% of HEP Responses (n=43)	% of ESHP Responses (n=25)
Project cost	53%	44%
The savings are not worth the effort	16%	20%
Not interested	9%	12%
Waiting	9%	0%
Too busy/ Too much time	5%	0%
Won't be here long enough/relocating	5%	12%
Program allies/Contractor are not available	2%	4%
Rental property	2%	8%
Don't know which contractors to use	2%	0%
Other	5%	4%
Don't know	2%	0%

According to AIC staff, for HEP participants, AIC sends a letter (at least one per year) to those participants who receive an audit only, but do not install incentivized measures. We understand and acknowledge that there can be significant lag time between when an audit occurs and when the homeowner decides to install shell measures. However, we recommend that the program continue following up with audit only customers six months after the audit to remind the participant of the incentive measures.[14]

[14] Future research should consider conducting follow-up surveys with audit only participants to ask whether on-bill financing would make them more likely to participate in the program.

Barriers to Obtaining an Audit for 'Incentivized Only' Participants

As per the PY3 evaluation recommendation, the program has focused on promoting the program through program allies. 'CSG Audit and Program Ally Incentive' participation has increased and represents 32% of overall participants.

As part of our survey, we asked these participants whether they knew they were eligible to receive a home energy audit prior to receiving program incentives for air sealing and insulation. Three quarters of the respondents were unaware of their eligibility to receive an audit. For those who were aware, those respondents noted that either they were not interested in an audit, already knew what work was necessary/needed, or felt that the audit was too costly. We note that program allies provide diagnostic testing as part of the development of their scope of work for the program; however, the program allies do not install Instant Savings Measures or conduct audits as part of this effort.

Program Ally Participation

The HEP and ESHP programs provide services to program participants offered by a variety of staff, including CSG Energy Advisors and pre-selected Home Energy Performance (HEP) program trade allies. Throughout the program year, the HEP and ESHP programs have continued to expand the number of CSG program staff and program contractors that offer services.

- **CSG Program Staff:** On-site consultations are conducted by eight CSG "Energy Advisors." In addition to Energy Advisors who conduct consultations, the HEP program also has Account Managers, Energy Advisors Air Sealing Technicians, a Field Manager, and Quality Assurance Inspectors.

- **Program Allies**: The HEP and ESHP programs pre-select contractors to retrofit homes. To select contractors, CSG facilitates BPI training to qualified contractors who become allies of the program. Selected contractors, as part of their participation in the HEP program, are required to be BPI certified.

Overall, the HEP program increased the number of participating contractors from 40 in PY3 to 69 in PY4 and interviews with allies indicate that some businesses are purchasing new equipment and offering more energy audits as a result of the program. Based upon our interviews with program allies, we found that:

- Training is a key part of the HEP program; the HEP program began offering tuition reimbursement for BPI certification, in addition to assisting facilitation of BPI classes across the state.

- Most respondents said that they would have been likely to obtain BPI certification without the HEP program (mean of 7.1 out of 10), though some did say that the program drove them to get certification sooner than they otherwise would have. One respondent said that they had gotten BPI training specifically to participate in the program. There was variation in the number of BPI staff based upon the project volume of program allies. For high-volume respondents, all had at least one other staff member who was BPI certified, while all low-volume partners said that they had only one person who was BPI certified.

- Some program allies attended non-program related training due to the HEP program. Program allies took advantage of sales trainings, online building science related trainings, and online HVAC training offered through the HEP program. Further, three respondents

reported that at least one person on their staff had attended a BPI training associated with the program.

- Respondents offered a variety of suggestions for additional training, including more BPI certification courses as well as revising the timing of training during contractor slow periods. In addition, program allies suggested additional training beyond BPI certification including trainings on "common issues found in the field," marketing training, multifamily training, and best practices for using infrared cameras and modeling.

- Barriers to participation in the program included marketing (i.e., time available to market the program and perform jobs), as well as equipment costs (i.e., diagnostic equipment). Low-volume participants identified barriers to submitting more jobs to the HEP program, which included a shortage of sufficiently trained workers and lack of program awareness.

- The program met program ally expectations. Program allies were most satisfied with program incentive levels and measure offerings; however, they were less satisfied with program marketing and paperwork.

- Consistent with participant satisfaction, the primary recommendations from program allies included more aggressive local marketing (including co-branding), as well as improving program paperwork.

Appendix B provides detailed findings from these interviews.

4.1.3 MARKETING & OUTREACH

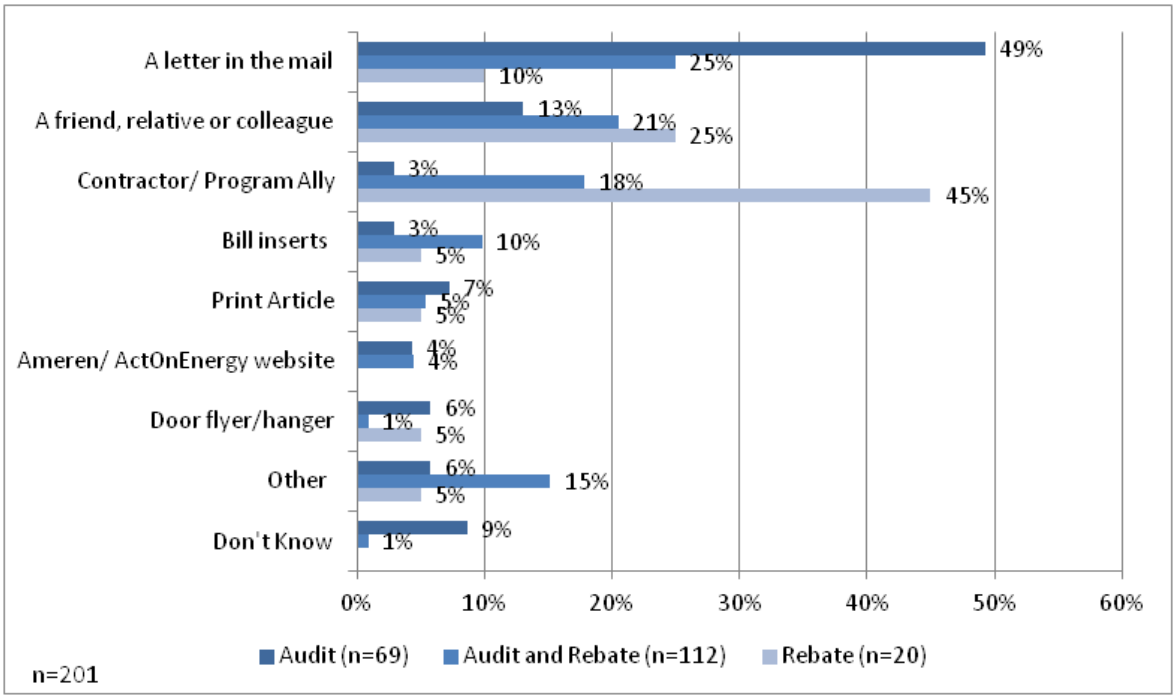
HEP Marketing & Outreach Findings

In PY4, the HEP program was primarily marketed to participants through a targeted direct mail marketing campaign to distinct geographic subsets of the AIC customer base. According to the Program Implementation Plan, CSG uses customer usage data from AIC and past audit participation trends, to stratify customers by expected probability of response based upon heating and cooling loads, age of home, size of home, income range, number of residents, etc. Print ads, bill inserts, and home shows are also leveraged to increase participation in the program.

We asked survey respondents to describe how they became aware of the HEP program. Overall, participants heard about the program through a letter in the mail (32%); a friend, relative, or colleague (18%); or a program ally (15%).

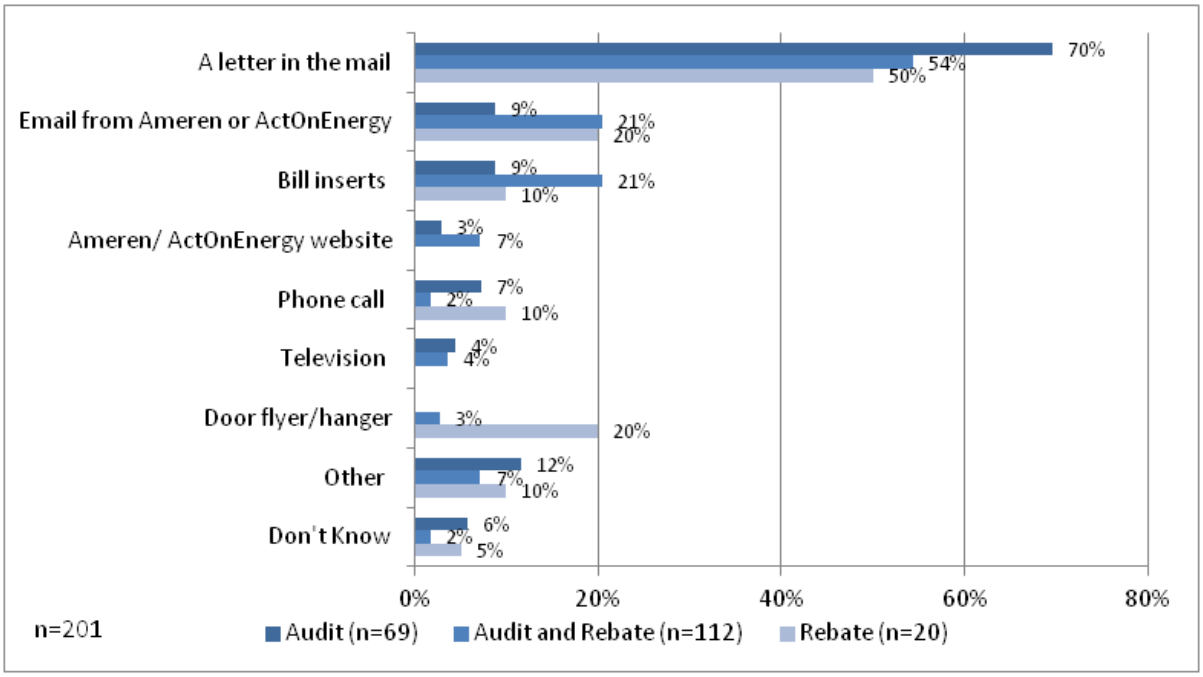
Figure 4 provides responses by participant type (i.e., those who received only an audit, those who received an audit and incentive, and those who received an incentive only). As expected, 'incentive only' participants tended to hear about the program through a contractor or program ally (45%) followed by a friend, relative, or colleague (25%). For 'audit only' participants, the primary avenue by which participants learned about the program is through a letter in the mail—the direct marketing approach (49%), followed by a friend, relative, or colleague. Participants who received both an audit and rebate heard from more avenues, which included those already stated above, but without any clear majority (letter in mail 25%, friend, relative, colleague 21%, and contractor/program ally 18%).

Figure 4. How Participants Heard About HEP Program, Multiple Response



We also asked respondents to share some of the best ways for AIC to inform their customers of the HEP program. Overall, respondents indicated that AIC letters (59%), bill inserts (15%), and emails (16%) were the best way to increase awareness of the program (see Figure 5).

Figure 5. Best Ways for Ameren to Inform You about HEP Program (Multiple Response)



Marketing & Outreach to 'Incentive Only' Participants

Program allies also market the program to customers. According to program materials, CSG assisted multiple HEP allies in creating and/or correcting their co-branding for advertising materials. Program allies recommended that AIC conduct more aggressive local marketing, including more co-branding. One respondent provided an example of placing specific contractor names on Ameren Act On Energy yard signs. Because program allies are a key way to leverage installation of shell measures, we recommend that AIC continue to conduct more cooperative advertising with allies, (i.e., providing 20% of the cost of advertising for contractors to market the program), to increase program ally marketing.

Interviews with program allies indicated that the majority of their participants cite word-of-mouth referrals from past customers as significant sources (80%) of new projects. The remaining sources of new projects tend to be referrals from customers who have received an audit through the HEP program and called a listed contractor, and very few through the AIC website or contact with AIC staff. This pattern does vary, however, with some contractors relying more heavily on customers who have had HEP-related audits or on Ameren marketing. Referrals from other customers were often cited as being the most effective marketing channel, though one respondent said that he had found that home shows have been particularly effective.

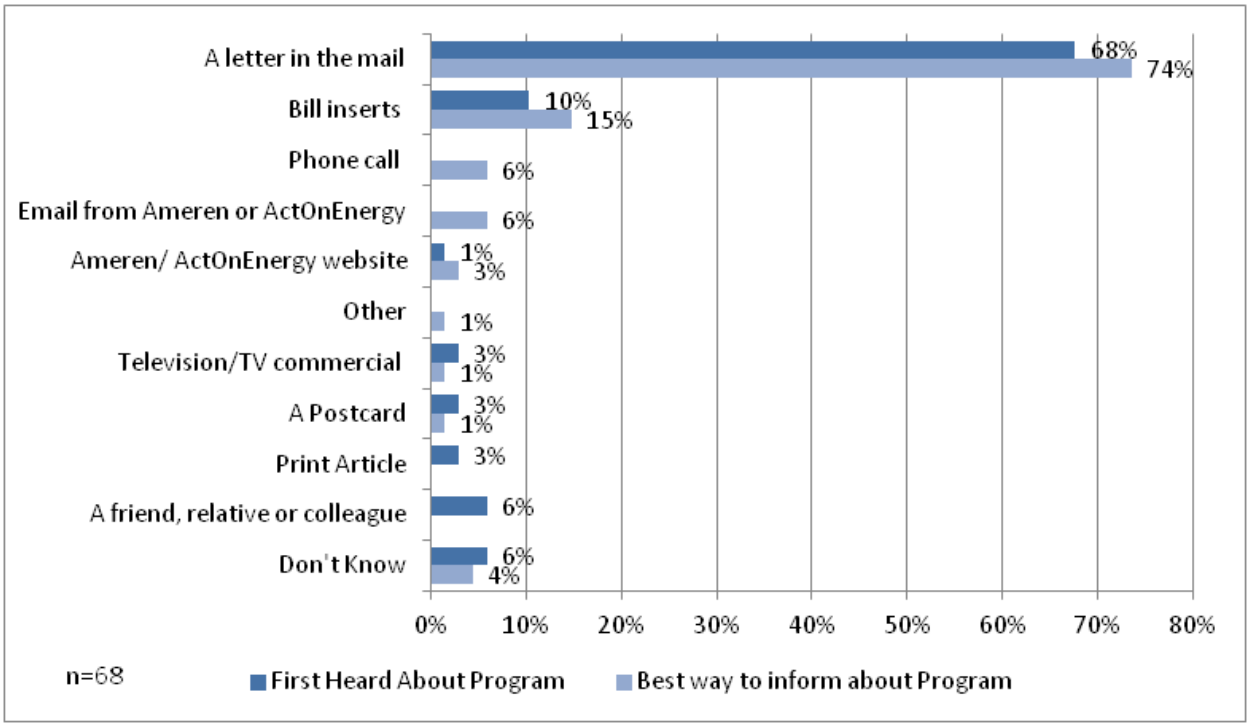
Many program allies view the energy audit as the most important and effective (though time consuming) marketing strategy, and all report closing rates of 65% or higher for customers. We note that as part of participation in the program, program allies are required to conduct diagnostic testing of the house and development of a scope of work prior to installing incentivized measures.

We also asked program allies whether they cross-market other programs. Program allies who offer HVAC services tend to cross-market participants into the HVAC program. Most respondents primarily perform energy audits, insulation, and air sealing, but those who also offer HVAC services say that HVAC-related jobs are often a useful complement to the HEP program. Those who receive a rebate on HVAC equipment are often open to having insulation and air sealing done as well. One program ally pointed out that one of the reasons that he had not done many HEP-related jobs is that he is often busy fulfilling projects through AIC's HVAC program.

ESHP Marketing & Outreach Findings

For ESHP, CSG identified distinct geographical areas with a high proportion of electrically heated homes in southern Illinois. CSG conducts direct mail marketing campaigns, which is the manner in which most customers learned about the program.

Figure 6. How Participants Heard About and Best Ways for Ameren to Inform You about ESHP Program, Multiple Response



We asked survey respondents why they decided to participate in the HEP and ESHP programs. Overall, the most frequent reason for participating was saving money on their energy bill, followed by reducing energy consumption.

Table 18. Reasons for Participating in Program (Multiple Responses)

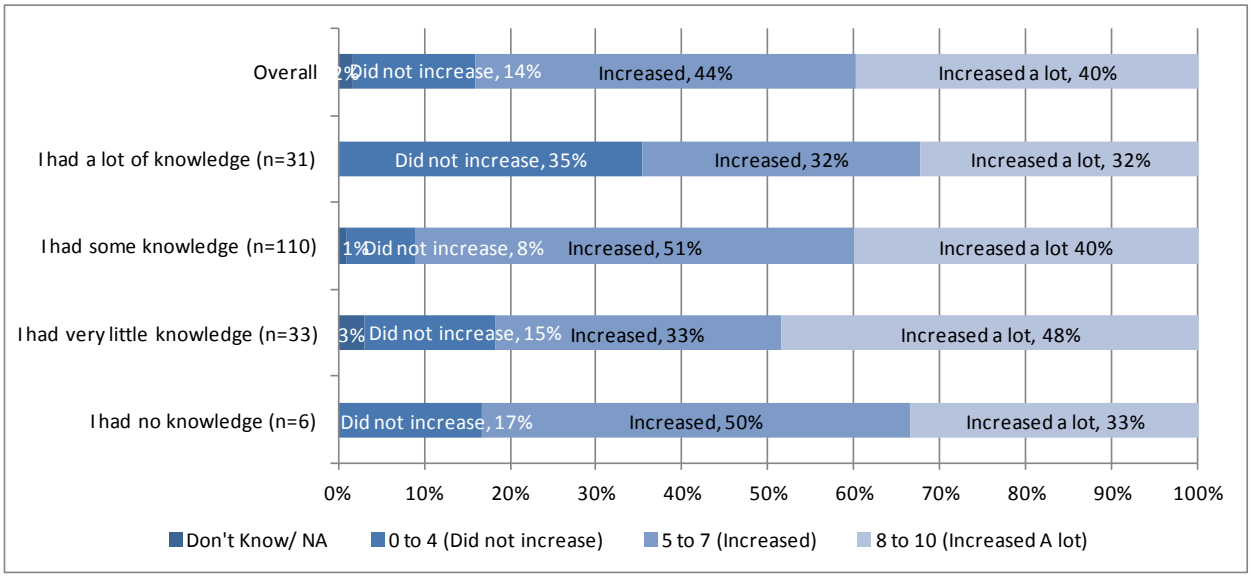
Reasons for Participating in Program	HEP % of Responses (n=201)	ESHP % of Responses (n=68)
Save money on energy/electric/gas bill	46%	32%
Reduce energy consumption	17%	21%
Make your home more comfortable	14%	0%
It was inexpensive	10%	18%
The available incentive	10%	1%
Planned to implement or needed improvements anyway	7%	4%
To learn/ understand my home/ diagnose my home	6%	24%
See where house stands/curious	4%	4%
Increase the value of your home	4%	3%
Improve the environment: cleaner air, etc.	4%	1%
Old house	3%	3%
Other	1%	0%

Don't know	0%	1%

Participant Knowledge of Energy Efficiency

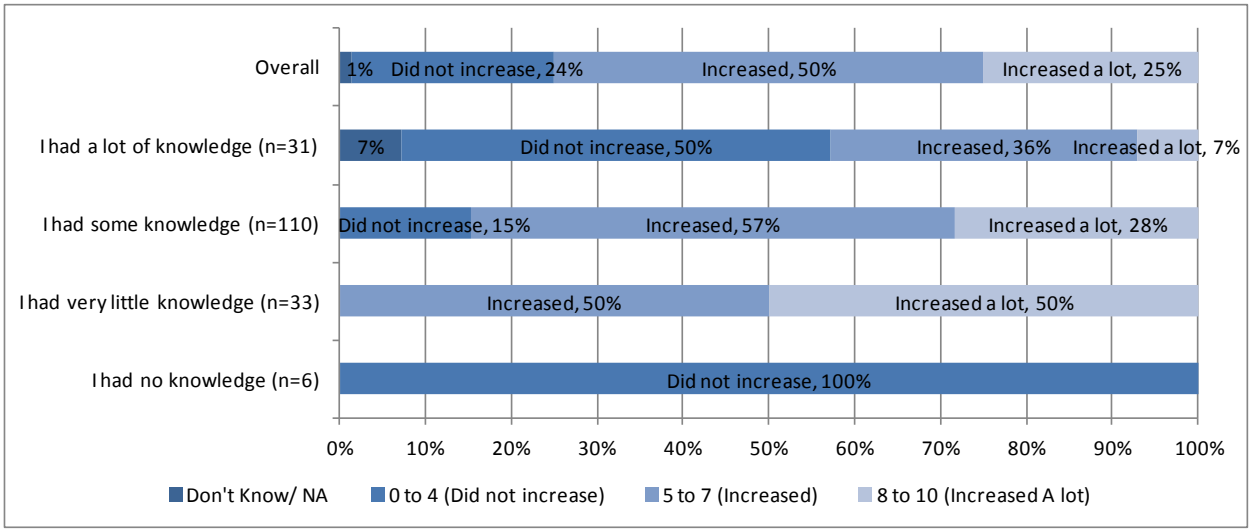
The survey measured a self-reported increase in knowledge that occurred as a result of receiving an audit. Overall, 84% of HEP respondents indicated that their knowledge increased, while 40% indicated that their knowledge had increased a lot. We also categorized respondents by those who had a lot of knowledge to having no knowledge regarding home energy improvements before receiving home energy audits. As can be seen, those who had less knowledge before the audit tended to have the higher increase in knowledge, while those who had a lot of knowledge before the audit did not increase their knowledge of home energy improvements as much (35%) (see Figure 7).

Figure 7. Increase in HEP Participant Knowledge of Home Energy Improvements as a Result of Audit



Overall, 75% of ESHP respondents indicated that their knowledge increased, while 25% indicated that their knowledge had increased a lot as a result of the audit. We also categorized respondents by those who had a lot of knowledge to having no knowledge regarding home energy improvements before receiving home energy audits. In contrast to HEP respondents, those who had no knowledge before the audit tended to have no increase in knowledge (100%); however, we note that this is a small number of respondents, and those who had very little knowledge before the audit (n=33) tended to have the higher increase in knowledge (see Figure 8).

Figure 8. Increase in ESHP Participant Knowledge of Home Energy Improvements as a Result of Audit



Program allies noted that customers are generally aware of energy efficiency due to their energy bill. However, customers tend to ask about changing windows and doors, since these are measures that are readily visible. Further, program allies noted that air-infiltration and the need for air sealing is the most difficult concept to explain to customers. The importance of air sealing is much easier to explain during an audit when the contractor can use auditing tools to explicitly show sources of energy waste.

According to CSG Energy Advisors, homeowners tend to think that if they already have insulation then no improvements need to be made (i.e., proper installation or additional insulation or air sealing). Further, they noted that homeowners are typically not aware of how air flow affects the comfort and efficiency of the home. They also noted that participants are primarily motivated by energy savings and secondarily by curiosity about energy efficiency. In addition, during the course of the audit, participants often express concerns focused on home comfort and high utility bills.

4.1.4 PROGRAM SATISFACTION

Program Component Satisfaction

Figure 9 provides an overview of HEP respondent satisfaction with various program components. Based upon their responses, 86% of respondents were satisfied with the program overall (providing a score of 8 to 10 on a scale of 0 to 10, where 0 is dissatisfied and 10 is satisfied). Respondents were most satisfied with the quality of work completed (mean score of 9.4) and the time it took to complete the audit (mean score of 9.2). Notably, program participants were less satisfied with the audit report in helping to understand the home's overall energy usage (mean score of 8.8).

Figure 9. HEP Satisfaction with Program Components

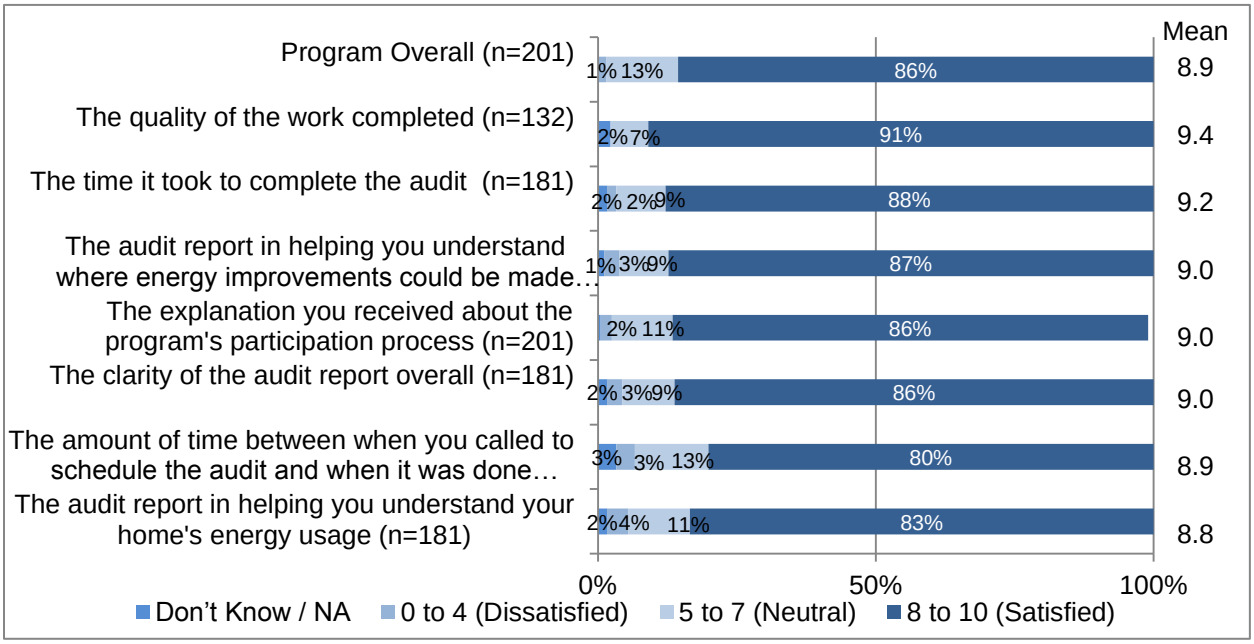
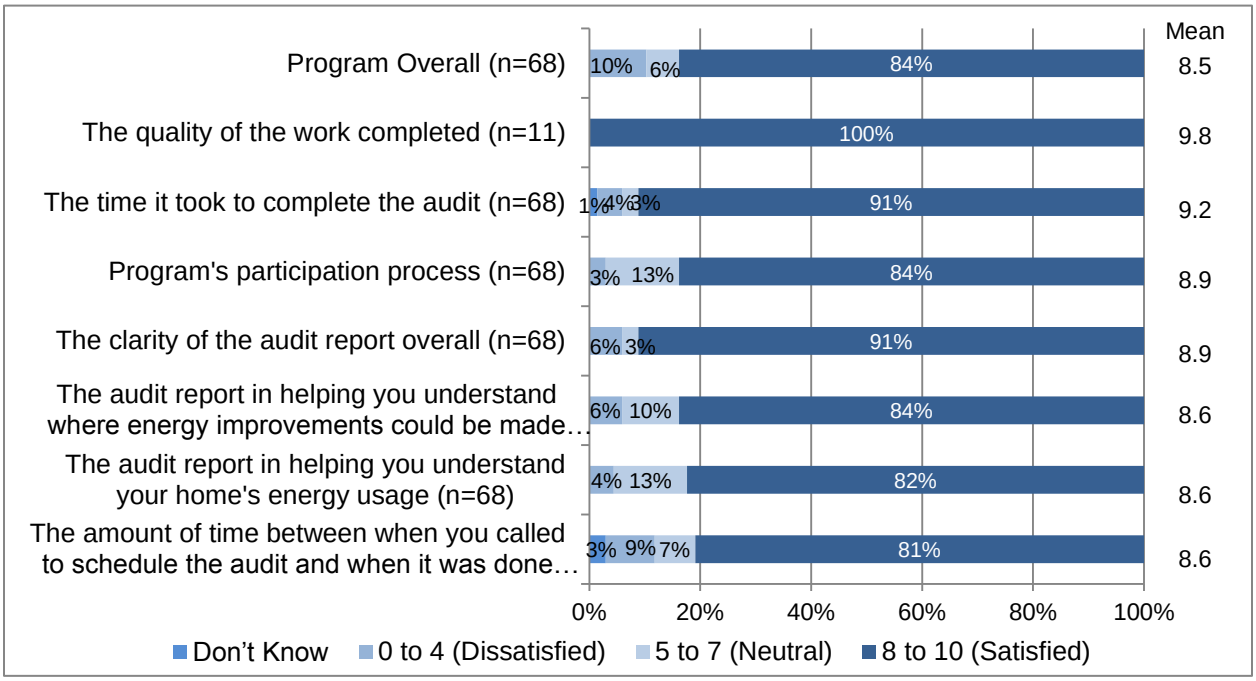


Figure 10 provides an overview of ESHP respondent satisfaction with various program components. Based upon their responses, 84% of respondents were satisfied with the program overall on a scale of 0 to 10, where 0 is dissatisfied and 10 is satisfied. Respondents were most satisfied with the quality of work completed (mean score of 9.8) and the time it took to complete the audit (mean score of 9.2). Notably, program participants were less satisfied with the amount of time between when the audit was scheduled and when the audit was completed (mean score of 8.6).

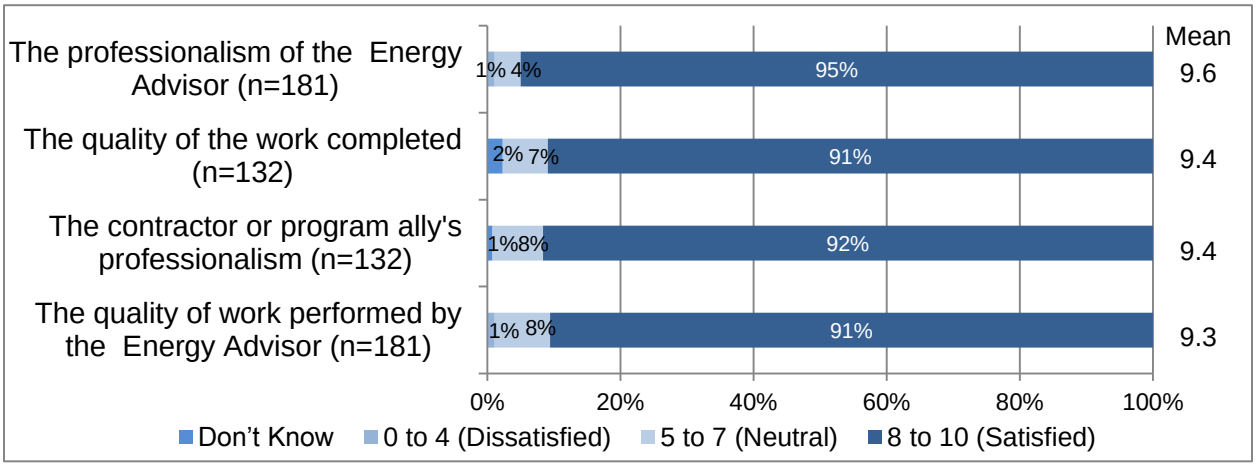
Figure 10. ESHP Satisfaction with Program Components



Satisfaction with Program Staff

Figure 11 provides an overview of respondent satisfaction with HEP program staff that provides services to participants (i.e., Energy Advisor and program ally). Overall, respondents were very satisfied with program staff with the lowest mean score as 9.3, on a scale of 0 to 10 where 0 is dissatisfied and 10 is satisfied. Respondents were most satisfied with the professionalism and quality of work performed by the Energy Advisor (9.6 and 9.4 mean scores, respectively).

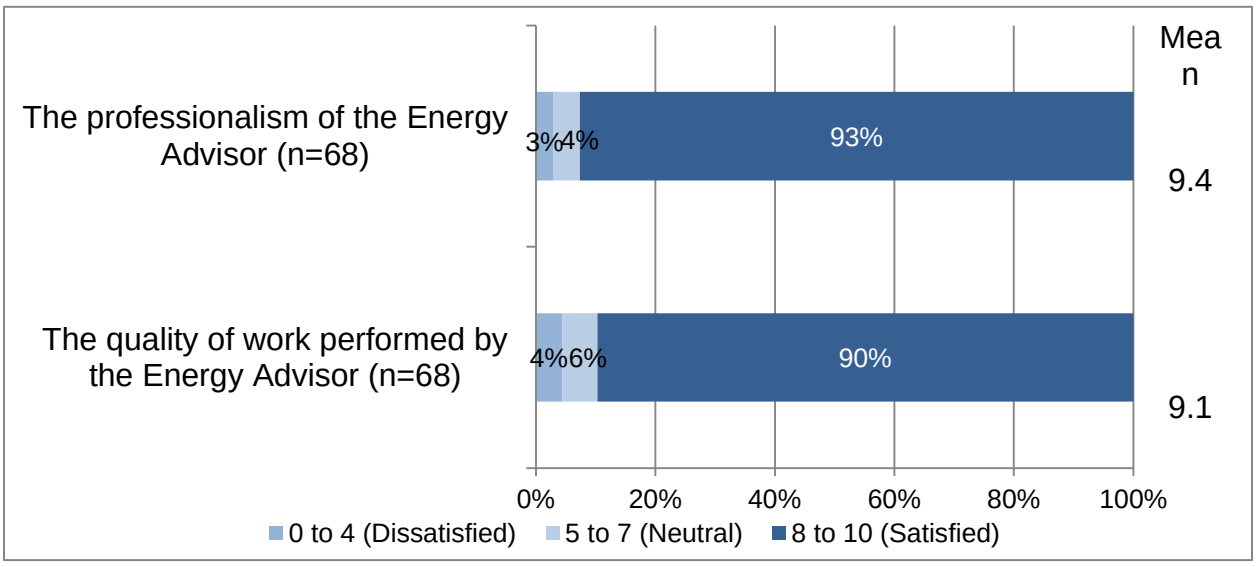
Figure 11. HEP Satisfaction with Program Staff



ESHP respondents were most satisfied with the professionalism of the Energy Advisor (9.4 mean score), on a scale of 0 to 10 where 0 is dissatisfied and 10 is satisfied.

Figure 12 provides an overview of respondent satisfaction with ESHP program staff that provide services to participants (i.e., Energy Advisor and program ally). ESHP respondents were most satisfied with the professionalism of the Energy Advisor (9.4 mean score), on a scale of 0 to 10 where 0 is dissatisfied and 10 is satisfied.

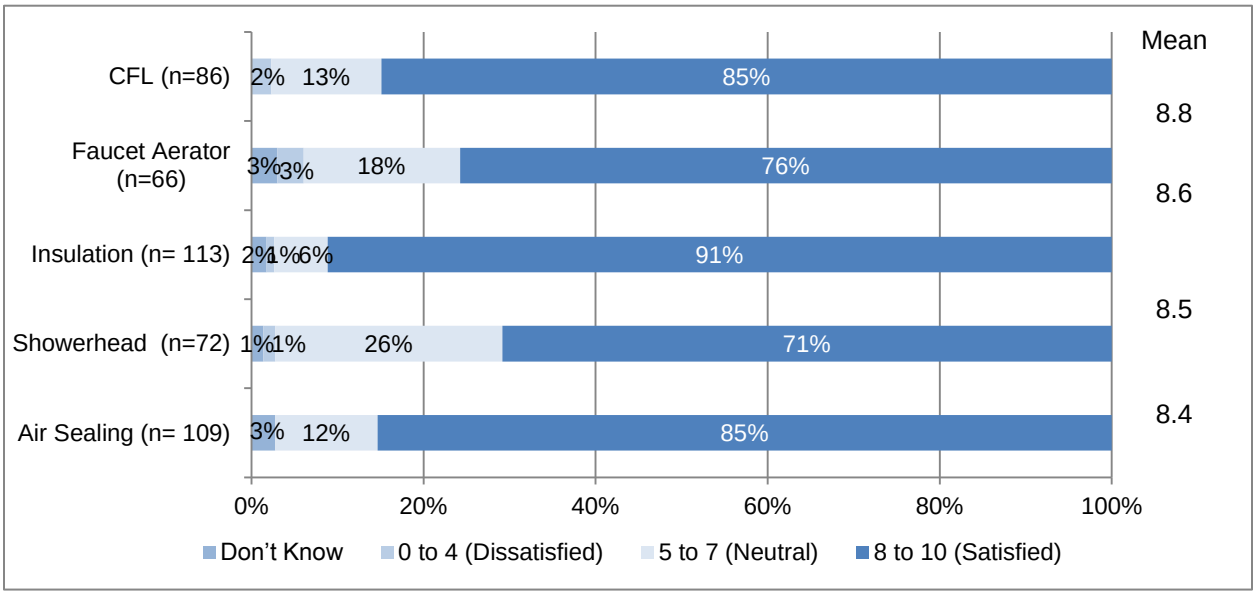
Figure 12. ESHP Satisfaction with Program Staff



Measure Satisfaction

As part of the telephone surveys conducted with program participants, the evaluation team asked respondents to share their satisfaction with the measures installed through the program (see Figure 13). Overall, each measure offered received a mean satisfaction score greater than 8, on a scale of 0 to 10 where 0 is dissatisfied and 10 is satisfied. All of the respondents were most satisfied with the CFLs and least satisfied with the low-flow energy efficiency showerheads. Notably, measure satisfaction was consistently higher for customers who received both an audit and a rebate (compared to those customers who received only an audit or only a rebate).

Figure 13. HEP Measure Satisfaction

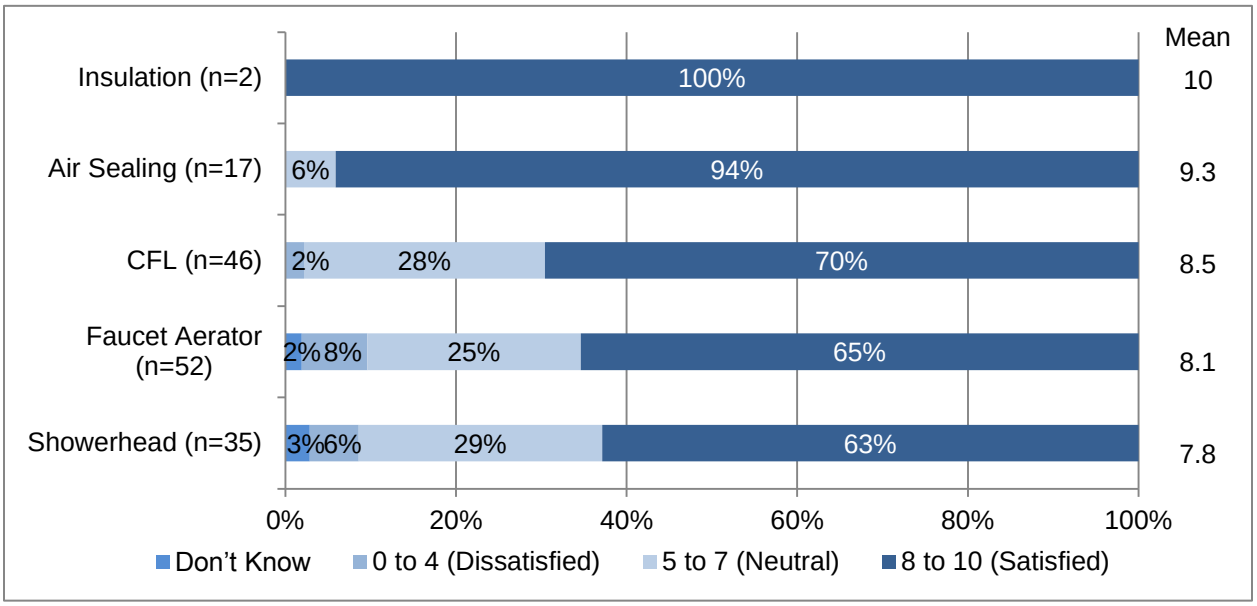


There were a variety of reasons respondents indicated that they were dissatisfied with the measures. For CFLs, the primary reasons for dissatisfaction were that the bulbs did not work or had to be replaced and that they were difficult to dispose of. For faucet aerators, the majority of respondents were dissatisfied due to the pressure being too low; however, others were dissatisfied with the sturdiness of the item, as well as the fact that the measure either made no improvement or was not needed because it did not save much energy. For showerheads, respondents were dissatisfied with the amount of pressure that came from the item. Respondents were dissatisfied with air sealing and insulation measures primarily because the measure did not reduce their bills as much as anticipated.

The evaluation team also asked ESHP respondents to share their satisfaction with the measures installed through the program (see Figure 14). Overall, each insulation or shell measure installed received a mean satisfaction score greater than 9, on a scale of 0 to 10 where 0 is dissatisfied and 10 is satisfied. We note that a few of the respondents indicated that they have received insulation measures as part of their participation in the program, which is in addition to the air sealing that occurred as part of the audit. However, instant savings measures such as CFLs, faucet aerators, and showerheads were scored lower with the lowest mean score of 7.8 for showerheads. Similar to HEP, all of the respondents were most satisfied with the CFLs and least satisfied with the low-flow energy efficiency showerheads. Measure satisfaction was lower for ESHP participants than for HEP

participants for the same measures.

Figure 14. ESHP Measure Satisfaction



There were a variety of reasons respondents indicated they were dissatisfied that were similar to HEP participants. For CFLs, respondents were dissatisfied with the brightness of the bulb and that they were difficult to dispose of. For faucet aerators, the majority of respondents were dissatisfied due to the pressure being too low, as well as the fact that the measure made no improvement. For showerheads, respondents were dissatisfied with the amount of pressure that came from the item.

4.1.5 SUGGESTIONS FOR PROGRAM IMPROVEMENTS

Most respondents indicated that they had no improvement suggestions, but of those who did offer suggestions, they focused on more advertising, improving the clarity of information provided, and follow-up, as well as more rebates/incentives. The ESHP respondents also suggested more advertising and improving clarity, but also recommended offering more products/measures and easier access to program allies and auditors.[15]

[15] The utility notes that doing so would lower incentives and volumes.

Table 19. Suggestions for Program Improvement (Multiple Responses)

Suggestions for Program Improvement	% of HEP Responses (n=201)	% of ESHP Responses (n=68)
Nothing	43%	51%
Don't know	12%	12%
More advertising	12%	7%
Improve clarity/more available information/follow-up	11%	6%
More rebates/incentives	5%	1%
Easier access to different contractors/auditors/program allies	5%	0%
Offer more products/measures	4%	7%
Improve implementation of measures	4%	3%
Lower bill/cost	2%	1%
Other	2%	1%
Speed up process	2%	4%
Improve convenience/make program easier to participate	1%	3%
Easier access to different contractors/auditors/program allies	0%	9%

Program Database

Consistent with the PY3 evaluation, issues remain with the program-tracking database. According to AIC, the program database is still unable to provide information regarding the program status on a timely basis. This is a program monitoring function that we did not assess.

We received a program tracking database from CSG that included both HEP and ESHP projects, which was both complete and accurate. However, the program tracking database does not provide calculations for how gross savings values are derived per project. In addition, the database does not provide measure by heating fuel type and presence of air conditioning, which makes it difficult to identify the quantity of measures installed, reflected in the measure types provided in the Illinois Commerce Commission in the Order for Docket 10-0568. For example, we found that the total gross kWh savings values for faucet aerators were substantially less than the amount that we calculated through multiplying the quantity in the database by the per-unit deemed savings value found in the docket. In addition, the database could make the following improvements to data tracking:

- **Consistently flag heating fuel type for all project types**. The database does not consistently flag fuel type for projects, rather only for those who have applied for incentive-based measures (i.e., shell measures). If all projects provided a heating fuel type, it would allow evaluators to assess whether the gross savings values assigned per project reflect heating fuel type, and assess whether incentive values or savings values are accurate when discrepancies occur.

4.2 IMPACT RESULTS

The expected savings from this program is 3% of the overall portfolio of electric savings and 12% of portfolio therm savings (including both residential and commercial).

The team performed an impact assessment for the HEP and ESHP programs. As described in Section 3, Evaluation Methods, we calculated ex post gross impact estimates for the HEP and ESHP programs by adjusting program tracking database ex ante gross values in two ways: 1) an assessment of per-unit savings values used in the program database if those values were consistent with the per-unit fixed values; and if found, a subsequent adjustment to the savings values, and 2) application of the in-service rate applied from the Technical Reference Manual in the case of Instant Savings Measures and verification of invoices, equipment payment and certificates of completion signed by homeowners to confirm installation and in the case of shell measures. We outline these adjustments below.

4.2.1 PER-UNIT SAVINGS ADJUSTMENT

The evaluation team compared the per-unit savings values provided in the program tracking database to the per-unit fixed deemed savings values. Because the program database per-unit values were not provided specifically, we calculated them by dividing the gross savings value by the quantity of the measure installed. The per-unit savings values provided in the program database were consistent with the per-unit fixed order deemed savings values except in the case of faucet aerators and attic insulation. We acknowledge that per CSG's contract the program tracking database uses measure values that were received prior to March 1, 2012. Going forward, CSG will incorporate TRM values.

- **Attic Insulation.** The database does not provide measure by heating fuel type nor information on the presence of air conditioning (i.e., whether the insulation was installed in a home with an electric heat pump, electric resistance, natural gas heat with electric AC, etc.). Because of this, we cannot assess whether the deemed savings applied to the quantity of measures installed reflects the per unit savings value found in the Illinois Commerce Commission Docket # 10-0568. However, the program tracking database kWh savings values do not correspond to the sum of the per-unit values found in the ICC Docket. The realization rate between the per-unit fixed order calculated savings and program database tracked savings is 1.03 for attic insulation measures.

- **Faucet Aerators.** The program tracking savings values for faucet aerators underestimate program savings as the per-unit savings values that we calculated by taking the gross savings and dividing by the quantity are lower than the per-unit fixed values for faucet aerators in the Illinois Commerce Commission Docket # 10-0568. The realization rate between per-unit fixed order calculated savings and program database tracked savings is 1.90 for kWh, and 2.17 for therms.

- **Programmable Thermostats.** The program tracking savings values for programmable thermostats underestimate program savings as the per-unit savings values that we calculated by taking the gross savings and dividing by the quantity are lower than the per-unit fixed values for faucet aerators in the Illinois Commerce Commission Docket # 10-0568. Notably, only three measures were installed.

We provide a table in Appendix C that presents a per-unit comparison between the program

tracking database and the ICC Docket # 10-0568.

4.2.2 In-Service Rate Adjustments

Savings were decreased from ex ante gross savings values to ex post gross savings values as a result of in-service rate adjustments that reduced the quantity of measures installed and used within the participants' households. In-service rates were applied from the Technical Reference Manual for ISMs for direct install measures. The evaluation team reviewed invoices that included information regarding equipment payment and certificates of completion signed by homeowners to confirm installation of shell measures for sampled participants.

Table 20 provides a summary of in-service rate adjustments by measures for the HEP program. As can be seen, the largest adjustment to savings was for showerheads and faucet aerators.

Table 20. HEP In-Service Rates by Measure

Measure	Households	Measures	Units	Total Verified Measures	In-Service Rate
60W to 15W CFL	1,731	12,984	Bulb	12,581	0.97
75W to 20W CFL	774	2,899	Bulb	2,809	0.97
100 W to 23W CFL	857	3,069	Bulb	2,974	0.97
Faucet Aerators	1,388	3,036	Aerator	2,884	0.95
Showerheads	1,492	2,159	Showerhead	2,116	0.98
Air Sealing (HEP)	2,834	2,305,708	CFM	2,305,708	1.00
Attic insulation (R-11 to R-38)	2,400	1,775,800	Sqft	1,775,800	1.00
Attic insulation (R-19 to R-49)	72	71,685	Sqft	71,685	1.00
Wall insulation (R-0 to R-11)	2,112	838,241	Sqft	838,241	1.00
Thermostat	3	3	Thermostat	3	1.00

Table 21 provides a summary of adjustments by measure for the ESHP program.

Table 21. ESHP In-Service Rates by Measure

Measure	Households	Measures	Units	Total Verified Measures	In-Service Rate
60W to 15W CFL	228	2,212	Bulb	2,143	0.97
75W to 20W CFL	54	111	Bulb	108	0.97
100 W to 23W CFL	66	157	Bulb	152	0.97
Faucet Aerators	254	591	Aerator	561	0.95
Showerheads	161	231	Showerhead	226	0.98
Air Sealing	91	35,383	CFM	35,383	1.00
Attic insulation (R-11 to R-38)	5	9,246	Sqft	9,246	1.00
Attic insulation (R-19 to R-49)	1	0	Sqft	0	1.00
Wall insulation (R-0 to R-11)	2	279	Sqft	279	1.00

4.2.3 GROSS IMPACTS

As noted in the Methodology section, ex post gross savings are calculated using the following equation:

Ex Post Gross Savings = Per Unit Savings * Claimed Quantity Installed * In-Service Rate

Table 22 provides a summary of gross impact results. The ex post gross savings values are lower because of the in-service rate adjustments.

Table 22. HEP PY4 Program Gross Impacts

End-Use	Ex Ante Gross Savings			Ex Post Gross Savings			Gross Realization Rate		
	kWh	kW	Therm	kWh	kW	Therm	kWh	kW	Therm
CFLs	832,199	-	0	806,401	45	0	0.97	-	n/a
Faucet aerators	18,750	-	2,893	33,844	4	5,955	1.81	-	2.06
Showerheads	162,089	-	27,360	158,847	20	26,813	0.98	-	0.98
Attic insulation (R-11 to R-38)	422,034	-	149,075	415,519	168	146,375	0.98	-	0.98
Attic insulation (R-19 to R-49)		-	0	10,276	4	2,473	n/a	-	n/a
Wall insulation (R-0 to R-11)	167,484	-	143,746	167,078	67	143,046	1.00	-	1.00
Programmable Thermostats		-	60	582	n/a	201	n/a	-	3.35
Air sealing	319,226	-	411,815	312,100	126	409,447	0.98	-	0.99
Total	**1,921,781**	**-**	**734,950**	**1,904,647**	**434**	**734,310**	**0.99**	-	**1.00**

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

Note that the realization rate for faucet aerators and programmable thermostats are higher due to incorrect usage of per-unit values in the program tracking database.

Table 23 provides a summary of gross impact results. Our impact analysis activities for the ESHP program yielded ex post gross kWh, kW, and therm impacts that are lower than ex ante estimates.

Table 23. ESHP PY4 Program Gross Impacts

End-Use	Ex Ante Gross Savings			Ex Post Gross Savings			Gross Realization Rate		
	kWh	kW	Therm	kWh	kW	Therm	kWh	kW	Therm
CFLs	99,635	-	0	96,546	5.41	0	0.97	-	n/a

End-Use	Ex Ante Gross Savings			Ex Post Gross Savings			Gross Realization Rate		
Faucet aerators	16,470	-	50	29,728	3.70	104	1.81	-	2.06
Showerheads	76,532	-	304	75,001	9.34	298	0.98	-	0.98
Attic insulation (R-11 to R-38)	9,246	-	0	8,962	3.62	0	0.97	-	n/a
Attic insulation (R-19 to R-49)	-	-	0	0	0.00	0	n/a	-	n/a
Wall insulation (R-0 to R-11)	700	-	0	700	0.28	0	1.00	-	n/a
Programmable Thermostats	-	-	0	0	n/a	0	n/a	-	n/a
Air sealing	51,094	-	387	57,598	23.25	387	1.13	-	1.00
Total	**253,678**	**-**	**741**	**268,536**	**46**	**788**	**1.06**	-	**1.04**

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

Note that the realization rate for faucet aerators is higher due to incorrect usage of per-unit values in the program tracking database. In addition, the realization rate for air sealing is higher based upon how the program tracking database flags HEP and ESHP participants.

4.2.4 NET IMPACTS

For the HEP program, the evaluation team incorporated a retrospective assessment of net-to-gross to PY4 given that this program has not calculated an Illinois specific NTGR. The net-to-gross values were collected through responses from a net-to-gross battery of questions in the participant survey to determine a program-level net-to-gross ratio along with end-use or measure-level net-to-gross ratios.

For the ESHP program, we applied the same HEP NTGRs to each measure in the program. The ESHP program will be continued as part of HEP going forward. As such, we will develop a retrospective NTGR in PY6. The *Final Order* and *Order on Rehearing* provided a framework on how and when to apply NTGRs as well as when any update to NTGRs should be applied. According to the Order, "For existing and new programs not yet evaluated… deeming a NTG ratio prospectively may be appropriate if… it is determined that the savings and benefits of the program are not sufficient to devote the evaluation resources necessary to better estimate a NTG ratio." The evaluation team chose not to assess the net-to-gross ratio based upon the smaller level of savings and participation for this program in PY4, following this framework.

Table 24. Summary of NTGR Applied by Program and Measure

Measure	HEP (& ESHP) Ex Ante NTG[a]	HEP (& ESHP) Ex Post kWh NTG[c]	HEP (& ESHP) Ex Post kW NTG[c]
15W CFL	0.75	0.88	0.88
20W CFL	0.75	0.88	0.88
23W CFL	0.75	0.88	0.88
Faucet Aerators	0.99	0.73	0.77
Low-Flow Shower Heads	0.97	0.82	0.96
Attic insulation (R-11 to R-38)	0.63	0.77	0.79
Attic insulation (R-19 to R-49)	0.63	0.77	0.79
Wall insulation (R-0 to R-11)	0.63	0.77	0.79
Programmable Thermostats	0.87	0.87[b]	n/a
Air sealing	1.00	0.80	0.79
[a] HEP ex ante NTG values were derived from the net savings values found in the Illinois Commerce Commission Docket # 10-0568.			
[b] Note that no NTGR was calculated for programmable thermostats (given the small number of participants who installed this measure). We applied the HEP programmable thermostat value listed in the PY4 list of agreed fixed values (PY4 Evaluation Plan Appendix A).			
[c] This represents 1-FR only, SO is added to the program level NTGR below.			

Program Level Net-to-Gross Ratios

Table 25 provides the HEP program-level net-to-gross ratios. Notably, they differ between the two programs due to the different measure mix offered by the programs and installed within participant homes.

Table 25. HEP Program Level Ex Post Net-To-Gross Ratios

HEP	kWh	kW	Therm
1-FR	0.83	0.80	0.81

SO	0.09	0.18	0.025
Program Level NTGR	**0.92**	**0.98**	**0.81**

Table 26. ESHP Program Level Ex Post Net-to-Gross Ratios

ESHP	kWh	kW	Therm
1-FR	0.83	0.83	0.80
SO	0.09	0.18	n/a
Program Level NTGR	**0.92**	**1.01**	**0.80**

Following this table we provide more detailed results for each program.

HEP Net Impacts

We applied the evaluated NTGR to the ex post gross savings to produce the PY4 ex post net savings. We calculated the same FR score for gas and electric measures as surveying participants based upon fuel type was beyond the evaluation budget. However, spillover savings were distinct across kWh and therm savings values and therefore created distinct NTGRs across kWh and therm savings. Table 27 provides the program net energy impacts.

Table 27. Summary HEP Program Ex Post Net Energy Impacts

Impacts	MW	NTGR	MWh	NTGR	Therm	NTGR
Ex Ante Net Impact	–[a]	n/a	1,491	0.80[b]	625,749	0.89[b]
Ex Post Net Impact	0.43	0.98	1,753	0.92	596,680	0.81
Net Realization Rate	n/a		1.18		0.95	

[a] Conservation Services Group (CSG), the implementer, is not required to track demand savings.

[b] Ex ante net-to-gross ratios were derived from the CSG database. Ex post net-to-gross ratios vary between therms, kW, MW and MWh for HEP due to spillover.

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

Table 28 provides the net savings results for the HEP program at a measure level. Overall, NTGRs were applied to ex post gross savings at a measure level to determine net savings.

Table 28. PY4 Ex Post Net Savings for HEP Program

Measure	Annual Net Savings			
	NTG Ratio	kWh	kW	therm
15W CFL	0.88	421,563	24	-
20W CFL	0.88	116,417	7	-
23W CFL	0.88	173,066	10	-
Faucet Aerators	0.73	24,662	3	4,340
Low-Flow Shower Heads	0.82	130,330	19	21,999
Attic insulation (R-11 to R-38)	0.77	321,823	132	113,369
Attic insulation (R-19 to R-49)	0.77	7,959	3	1,915
Wall insulation (R-0 to R-11)	0.77	129,403	53	110,790
Programmable Thermostats	0.87[a]	506	n/a	175
Air sealing	0.80	248,298	100	325,744
Total Ex Post Net Annual Savings (Rebated & Instant Savings Measures)		**1,574,026**	**350**	**578,332**
Total Annual Ex Post Net Savings (Spillover[b])		**179,400**	**78**	**18,348**

Total	1,753,426	428	596,680

[a] Note that no NTGR was calculated for programmable thermostats (given the small number of participants who installed this measure). We applied the HEP programmable thermostat value listed in the PY4 list of agreed fixed values (PY4 Evaluation Plan Appendix A).

[b] Net spillover savings were calculated for the population of participants by multiplying the spillover rate (see . Table 29 below) by the ex post gross savings (see Table 22 above) for the program, summarized as Population Energy or Demand Spillover Savings = Energy or Demand Spillover Rate * Population Energy or Demand Ex Post Gross Savings.

Spillover

AIC customers participating in the HEP program indicated that they installed several specific energy efficient measures outside of the program. Nineteen participants specified that the program influenced them to install these measures.

Spillover was calculated based on the installation of additional energy efficient measures from customers who reported that the program had an influence of 8 or greater, on a 10-point scale. Participants who reported influence scores of 8 or higher, but indicated having received rebates for these measures, are not included in the spillover savings. The total amount of spillover savings calculated for the 19 surveyed participants within Ameren's HEP program are shown below in Table 29.

Table 29. Spillover Savings per Measure

Measure (n=19)	kWh	Therms	kW
ES Dishwasher	60	1	0.01
ES Freezer	109	-	0.02
ES Refrigerator	242	-	0.03
Gas Storage WH	-	186	n/a
Gas Tankless WH	-	48	n/a
A/C	3,262	-	2.39
Gas Furnace	-	136	n/a
windows	4,152	514	1.68
Attic Insulation	293	145	0.12
Air Sealing	948	71	0.38
CFLs	255	0	0.01
Ducts	366	305	0.15
Total Spillover Impacts	**9,687**	**1,406**	**4.78**
Total Sample Ex Ante Savings	**106,963**	**58,153**	**26.93**
Spillover Rate	**9%**	**2.5%**	**18%**
Total Number of Surveyed Respondents		**201**	

ESHP Net Impacts

We applied the FR measure level values to the ESHP program given our understanding of consistent program design. We also applied the HEP electricity savings and demand spillover percents to ESHP ex-post gross saving. We used the same NTGR for gas and electric measures as surveying participants based upon fuel type was beyond the evaluation budget. Table 30 provides the program net energy impacts.

Table 30. Summary ESHP Program Ex Post Net Energy Impacts

Impacts	MW	NTGR	MWh	NTGR	Therm	NTGR
Ex Ante Net Impact	–[a]	n/a	223	0.89[g]	731	0.99[g]
Ex Post Net Impact	0.038	1.01	222	0.92	628	0..80

Impacts	MW	NTGR	MWh	NTGR	Therm	NTGR
Net Realization Rate	n/a		1.00		0.86	

[a] Conservation Services Group (CSG), the implementer, is not required to track demand savings.

[b] Ex ante net-to-gross ratios were derived from the values as outlined by the Illinois Commerce Commission in the Order for docket 10-0568. Ex post net-to-gross ratios vary for HEP due to spillover.

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

Table 31 provides the net savings results for the ESHP program at a measure level. Overall, NTGRs were applied to ex post gross savings at a measure level to determine net savings.

Table 31. PY4 Ex Post Net Savings for ESHP Program

Measure	Annual Net Savings			
	NTG Ratio	kWh	kW	therm
15W CFL	0.88	71,819	4	-
20W CFL	0.88	4,457	0	-
23W CFL	0.88	8,853	0	-
Faucet Aerators	0.73	21,663	3	76
Low-Flow Shower Heads	0.82	61,537	9	244
Attic insulation (R-11 to R-38)	0.77	6,941	3	-
Attic insulation (R-19 to R-49)	0.77	0	0	-
Wall insulation (R-0 to R-11)	0.77	542	0	-
Programmable Thermostats	0.87	0	n/a	-
Air sealing	0.80	45,823	18	308
Total Net Annual Savings (without Spillover)		**221,636**	**38**	**628**
Spillover		**25,294**	**8**	**0**
Total		**246,930**	**46**	**628**

4.3 INPUTS FOR FUTURE PROGRAM PLANNING

We performed no evaluation activities in PY4 that were focused on future programs.

A. APPENDIX - IMPLEMENTATION MODEL

The evaluation team created an implementation model for the Home Energy Performance (HEP) Program (including the Electric Space Heat Pilot (ESHP) Program) evaluated in PY4. An implementation model is a graphic presentation of the intervention – what occurs and who undertakes the functional activities of the program. The model is displayed using a multi-level Visio document that has various functions in its rows, and key stakeholders and populations in the columns. We determined the functions, stakeholders and processes through a review of the available program documentation and further refined them based on interviews with program staff. This model does not attempt to assess the effects of the program.

The model is organized by function and the stakeholders involved.

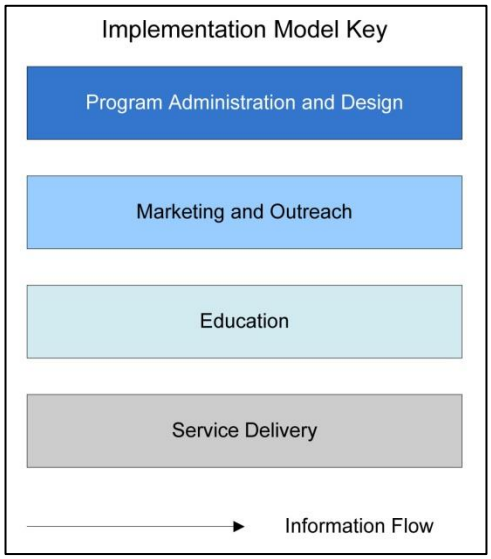
- **Functions** represent the discrete functions inherent to the program. These functions include program administration and design, marketing and outreach, education, service delivery and evaluation. Service delivery encompasses activities that are directed towards intervention recipients and, for this model, is a catch-all for any activity not included in the other functions.
- **Stakeholders** include the various providers who are involved in program delivery or receive program services. Stakeholders include Ameren Illinois Company (AIC) customers, program allies, Conservation Services Group (CSG), and AIC.

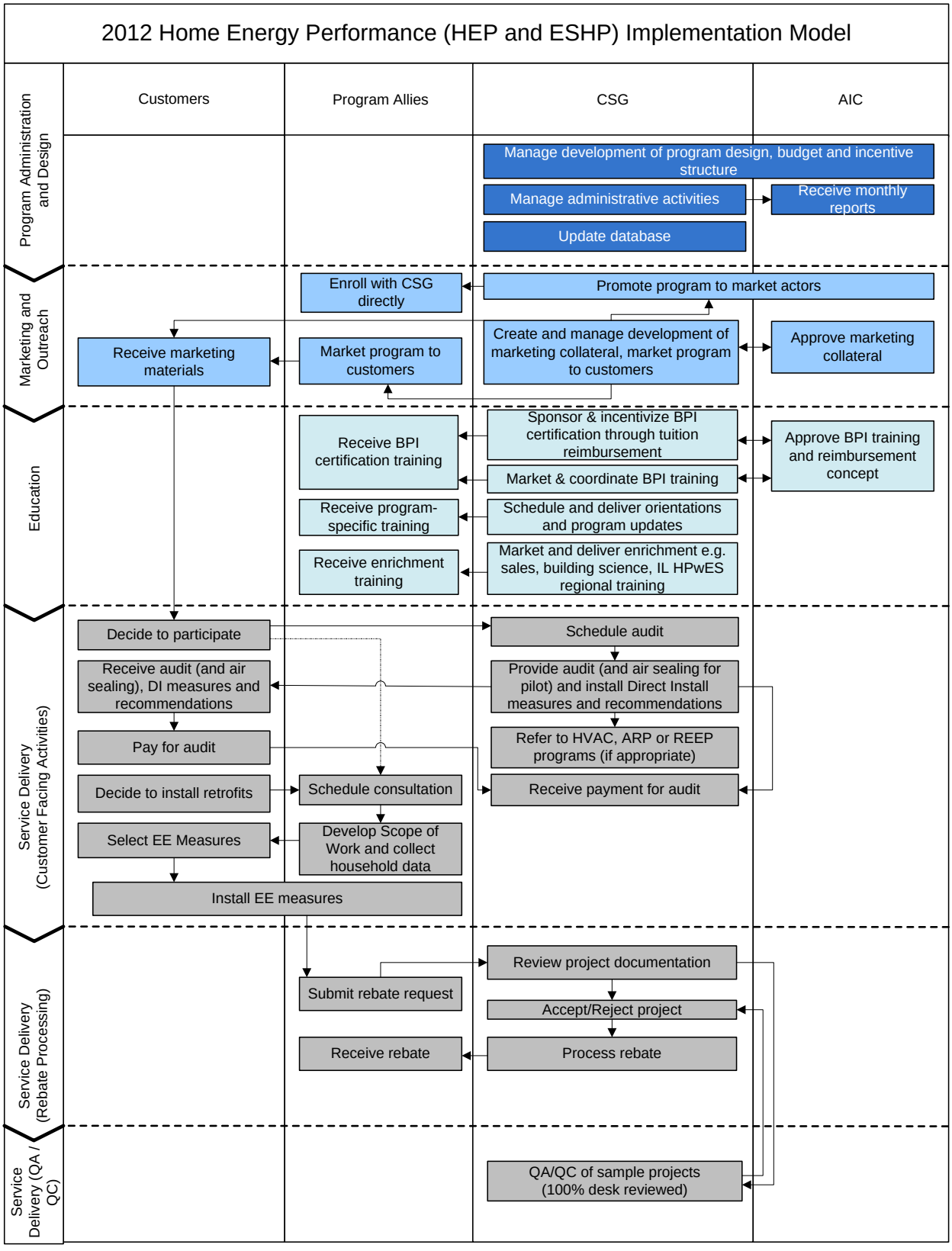
For HEP key program functions include:

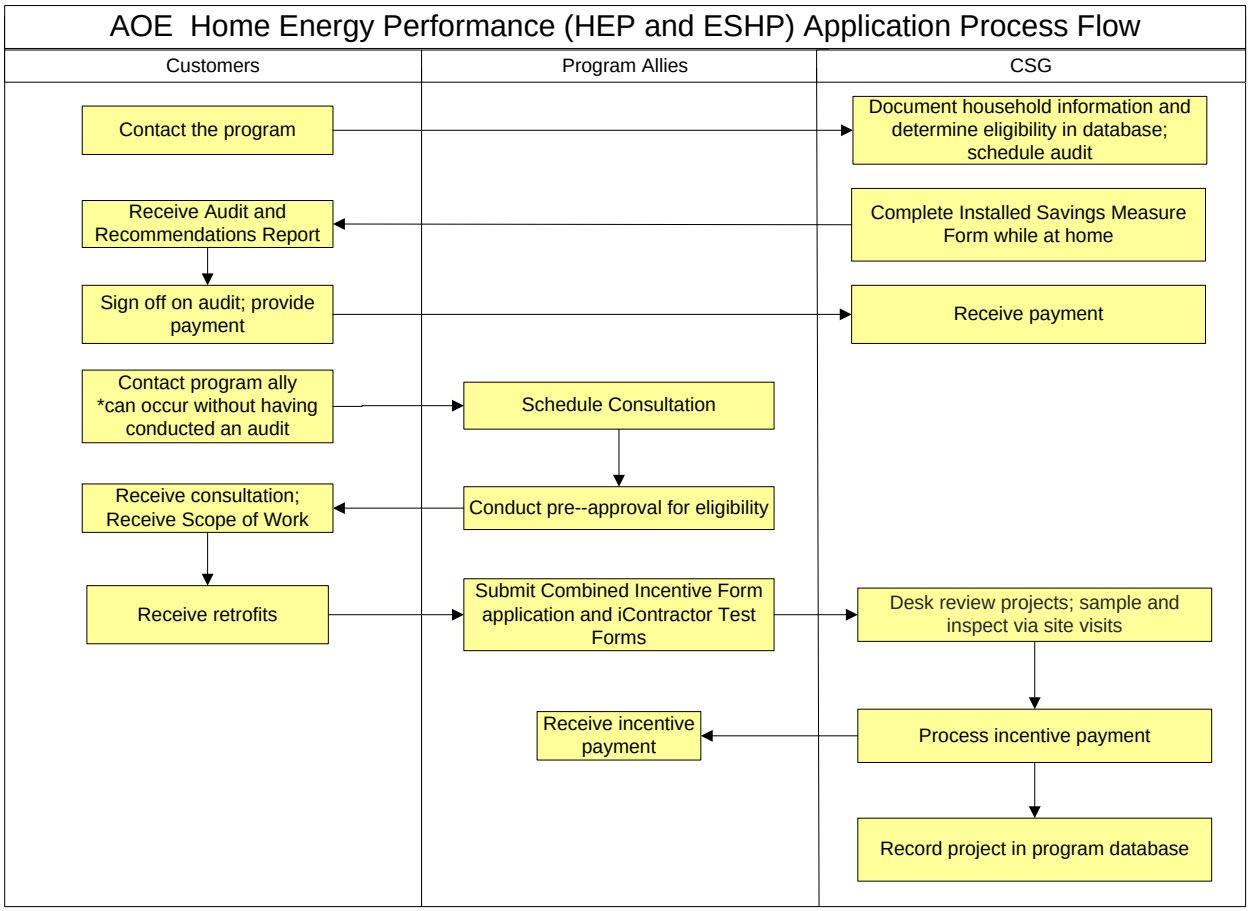
- **Program Administration and Design**: CSG is the main facilitator and driver of program design, budget and incentive structure, while AIC reviews and accepts proposed program features. CSG is also responsible for managing administrative activities and recording projects in the central program database.
- **Marketing & Outreach**: Both AIC and CSG perform marketing and outreach to market actors who may become program allies. However, CSG provides AIC-approved marketing and outreach to customers.
- **Education**: CSG is the main driver and implementer of the program's education efforts aimed at local contractors interested in participating as program allies. AIC approves the educational strategies that CSG submits. Further, education activities are diverse and span BPI certification training to sales training.
- **Service Delivery (Customer Facing Activities)**: At first, the customer and CSG work together to determine program eligibility and schedule an audit. In some cases, CSG audits the home, installs ISMs, and produces a list of recommendations for follow-up retrofits. Alternatively, program allies or customers may initiate retrofit projects outside of the audit process. In these cases, customers do not receive ISMs since there is no audit process. However, if CSG inspects the retrofit projects, the inspectors may provide the homes with ISMs. Customers receive program incentives for any program-qualifying retrofits in the form of a lower upfront price.
- **Service Delivery (Rebate Processing)**: When program allies initiate retrofit projects they must collect household level data (e.g., primary heating fuel type, test in and out parameters) and provide this information along with the rebate request to CSG. CSG then reviews the project details before processing the rebates to the program allies.

- **Service Delivery (QA/QC):** CSG performs a desk review on 100% of the retrofit projects. Onsite inspections occurred in PY4 for a small portion of projects.

Below we provide the Home Energy Performance Program (and ESHP) implementation model. In addition, we include an additional "Application Process Flow Model" that documents points at which customer-based records are generated and tracked.




2012 Home Energy Performance (HEP and ESHP) Implementation Model
Customers
Program Allies
CSG
AIC
Program Administration and Design
Manage development of program design, budget and incentive structure
Manage administrative activities
Receive monthly reports
Update database
Marketing and Outreach
Enroll with CSG directly
Promote program to market actors
Receive marketing materials
Market program to customers
Create and manage development of marketing collateral, market program to customers
Approve marketing collateral
Education
Receive BPI certification training
Sponsor & incentivize BPI certification through tuition reimbursement
Approve BPI training and reimbursement concept
Market & coordinate BPI training
Receive program-specific training
Schedule and deliver orientations and program updates
Receive enrichment training
Market and deliver enrichment e.g. sales, building science, IL HPwES regional training
Service Delivery (Customer Facing Activities)
Decide to participate
Schedule audit
Receive audit (and air sealing), DI measures and recommendations
Provide audit (and air sealing for pilot) and install Direct Install measures and recommendations
Pay for audit
Refer to HVAC, ARP or REEP programs (if appropriate)
Decide to install retrofits
Schedule consultation
Receive payment for audit
Select EE Measures
Develop Scope of Work and collect household data
Install EE measures
Service Delivery (Rebate Processing)
Review project documentation
Submit rebate request
Accept/Reject project
Receive rebate
Process rebate
Service Delivery (QA / QC)
QA/QC of sample projects (100% desk reviewed)


AOE Home Energy Performance (HEP and ESHP) Application Process Flow
Customers
Program Allies
CSG
Contact the program
Document household information and determine eligibility in database; schedule audit
Receive Audit and Recommendations Report
Complete Installed Savings Measure Form while at home
Sign off on audit; provide payment
Receive payment
Contact program ally *can occur without having conducted an audit
Schedule Consultation
Receive consultation; Receive Scope of Work
Conduct pre--approval for eligibility
Receive retrofits
Submit Combined Incentive Form application and iContractor Test Forms
Desk review projects; sample and inspect via site visits
Receive incentive payment
Process incentive payment
Record project in program database

B. APPENDIX - PROGRAM ALLY FINDINGS

Overall, the HEP program increased the number of participating contractors from 40 in PY3 to 69 in PY4. As part of our sampling process for calling program allies, we divided those allies with the highest volume of projects (N=9) who received over 60 incentives during the program period, and low volume of projects (N=9) who had received less than 5 incentives during the program period. We then called program allies from the high and low volume sample frame to support an understanding of business practices and project experience, training, barriers, drivers and recommendations regarding the program design and implementation. Below we provide findings from interviews conducted with nine program allies.

Business Practices

We asked program allies about any changes they had made to their business or business practices since participating or as a result of participating in the program.

- **New equipment purchased.** Three of the seven respondents said that they had purchased new equipment and/or tools in the last six months due to the HEP program.

- **Offer energy audits.** Three of the seven (one high volume, two low volume) said that they had started offering energy audits in the last six months due to the HEP program.

We also asked program allies about their projects related to HEP. Program allies noted the following:

- **Difference in volume as share of work across contractors.** High volume respondents reported that over 50% of their residential projects were HEP related, while low volume respondents tended to report zero to 20%. One low volume respondent said that 100% of his jobs most recent jobs have been HEP related, but was hesitant to characterize his typical workflow this way because he had been receiving so few calls for this type of work.

- **Variation in expectations for projects across allies.** High volume participants were uncertain if they would experience an increase in HEP projects in the next six months, citing an uncertain construction market and the recently reduced incentives. They do not anticipate an increase, but also were not sure that the workload would decrease. Low volume partners all expected that the number of jobs would increase in the next six months. This is primarily due to seasonal shifts in demand; cold weather motivates people to take care of any heat related projects that they may have been putting off or had not realized they needed until the weather changed.

Training

Training is a key part of the HEP program, in its efforts to build a contractor network across the state. We asked program allies to discuss the training they received as a result of the program (i.e. BPI certification and program training). The HEP program began offering tuition reimbursement for BPI certification, in addition to assisting facilitation of BPI classes across the state. Further, the HEP promoted the Better Buildings Better Business conference in 2012 and brought 20 program allies to the conference through program ally scholarships and hosted an ally dinner.

Most respondents said that they would have been likely to obtain BPI certification without the HEP program (mean of 7.1 out of 10), though some did say that the program drove them to get

certification sooner than they otherwise would have. One high volume respondent said that they had gotten BPI training specifically to participate in the program.

All three high volume respondents had at least one other staff member who was BP certified, while all four low volume partners said that they had only one person with certification. All three high volume respondents had at least one other staff member who was BP certified, while all four low volume partners said that they had only one person with certification.

Based upon our interviews, we found that program allies attended non-program related training due to the HEP program (n=2), however, we don't have information about what this additional training was. In addition, program allies noted that they had taken advantage of sales trainings, online building science related trainings, and online HVAC training offered through the HEP program. Further, three respondents reported that at least one person on their staff had attended a BPI training associated with the program.

Respondents offered a variety of suggestions for additional training, these include:

- **More BPI certification courses**. Additional courses would make it easier for program allies to grow staff and increase workflow.
- **Expand training beyond BPI certification**. Program allies suggested adding additional types of training including the following:
    - More practical "common issues in the field" training for insulation installers.
    - Marketing training. Respondents indicated that having marketing training focused on effective mediums, strategies and messaging particularly emphasizing co-branded messaging. Notably, this training would not focus on the types of marketing that are permitted for program allies.
    - Multifamily training.
- **Training timing.** Respondents indicated that training courses should be offered in the fall would increase the likelihood of attendance, since this is a time after the summer AC work has slowed, but the winter furnace and insulation work has yet to ramp up.

Barriers to Participation

High volume allies were asked "What do you think are the main reasons some Program Allies do not participate in the HEP program more than they do?", respondents indicated that marketing and equipment costs were the primary barriers to participation.

- **Marketing.** Smaller allies do not have the staff to both promote the program and perform jobs at the same time. Being out on a job site means not that the contractor is unable to bid for more work. This respondent believed that is would be impossible to survive by depending on HEP marketing alone.
- **Equipment Costs.** One respondent believed that equipment costs are prohibitive, and that smaller or new contractors who do not have home performance as a specialty must spend a significant amount of money on infrared cameras, insulation equipment, etc. The respondent suggested that the program could leverage suppliers to lower prices on relevant equipment, and thus help companies field more work teams.

We interviewed low volume participants to determine what barriers they may have to submitting more jobs to the HEP program than they currently submit. Barriers were as follows:

- **Shortage of sufficiently trained workers.** One low-volume respondent said that it is hard to find people with enough skill to help perform program projects. He offered an anecdote of a particular worker who had applied to work at his company but felt was not qualified. This person immediately had three job offers, all willing to pay more than, in the respondent's opinion, the worker's skill set was worth.
- **Focused in new rather than retrofit projects.** One respondent indicated that their focus was primarily on performing energy audits on new construction projects, so the HEP insulation program was not and never would be their focus.
- **Lack of program awareness.** One respondent suggested that more local advertising directly from AIC would help increase awareness of the program. This respondent was referring to advertising targeted towards local communities, rather than state-wide advertisements.

According to Energy Advisor interviews, barriers to becoming a program ally may include an unwillingness to become BPI certified and a lack of understanding of the program.

Additionally, program allies noted that not all contractors use infrared cameras and modeling scrupulously. According to respondents, some contractors use the dramatic infrared images to exaggerate the current energy loss (and thus the expected savings). The infrared camera pictures are calibrated to look dramatic in order to make energy leaks easier to see, but because of this they distort the importance of any given situation. This is especially true for untrained homeowners, which makes it easy for unscrupulous contractors to exaggerate project benefits.

Program Satisfaction

As part of our interviews, we asked respondents their satisfaction with the program.

- **Program meets expectations overall.** All but one respondent felt that the program has met expectations.

- **Incentive levels and measures rate highly.** Many respondents indicated that the program measures have improved over time.

- **Program marketing rated lower.** The program marketing approach was not ranked highly, primarily because respondents indicated that they had not seen very much marketing from AIC. Respondents indicated that they would like to see more marketing, and would also like more co-marketing opportunities.

- **Program paperwork is also not rated highly**. This is another aspect of the program that respondents have said has improved over time, but is still considered to be technical and a source of friction.

Table 32 provides the mean scores for program ally satisfaction with program components.

Table 32. Program Ally Satisfaction with Program Components

Question Item (n=9)	Mean Score
The program overall	8.3
The program incentive levels	8.3
The program measures	8.0
The communication with program staff	7.4
The training activities in which you participated	7.0

Question Item (n=9)	Mean Score
The program's marketing approach	6.0
The program paperwork	5.8

Program Ally Recommendations

Overall, the program allies offered a variety of recommendations for program improvement.

- **More aggressive local marketing**. This includes closer co-branding. For example- place specific company names on Ameren Act On Energy yard signs.
- **Be clearer with customers about the need for three estimates**. Many customers think that they are required by the program to solicit three estimates, though this sometimes adds more time and hassle than is necessary.
- **Paperwork can be improved.** The paperwork is very technical, and respondents indicated that it is difficult to delegate the paperwork to their staff.
- **Consider the number of projects that use visqueen and whether or not it should be required.** According to program allies, the program requires allies to put in visqueen in a crawl space. However, this measure is not incentivized. The respondent indicated that if there was a requirement for visqueen's, there should also be an incentive as customers are already charged for this measure. According to the respondent, "I have to charge them for it, so customers are going to balk at that. It would be easier to sell if every requirement had an incentive, so other contractors couldn't underbid by not including that measure."
- **Combustion testing is beneficial to customers.** According to one respondent, at first the combustion testing requirement seemed like it was a needless requirement that added time and frustration. Other programs in Illinois do not require this, and the respondent indicated that he can complete more jobs more quickly without the requirement. However, since he began testing he found a few dangerous and/or wasteful gas leaks, and now thinks it is an important requirement to have.
- **Pay contractors three times a month instead of twice a month**.
- **Consider keeping program allies despite volume (if not ongoing cost to program).** One low volume contractor had a passionate comment to communicate: "We have invested a significant amount of money in buying the equipment for this program. We have also invested about $20,000 in advertising our business, and ActOnEnergy is in all of those advertisements. After all of that, we got a letter saying that unless we completed a certain number of jobs by a certain date; we would be dropped from the program. That is not fair, and is not a good way to treat program allies. Work is somewhat cyclical: summer AC work is not as common, since AC problems are not as difficult to deal with. Business always picks up in the winter when the cold weather starts to set in. There is only so much control we have over the number of calls we get. The problem isn't that we can't handle more jobs; we just aren't; getting enough calls for that type of work. Between our advertising and the weather, things should pick up, but we still might get dropped from the program. That isn't fair."

  We note that the program incorporated an "inactive contractor policy", which drops program allies with low volume from the program after no jobs for 90 days. The rationale for this policy is that dropping low volume contractors will support contractors that promote whole building science and the program and remove dilution of program. Notably, a

contractor can re-apply for program ally status.

C. Appendix - Program Tracking and Fixed Order Per Unit Comparison

Table 33 provides a comparison of the ICC per-unit fixed values from ICC Docket # 10-0568 to the calculated per-unit values from the program tracking database. The evaluation team calculated per-unit values by taking the gross savings values in the program tracking database and dividing them by the quantity installed.

Table 33: PY4 Per-Unit Comparison (Database to Per Unit Values)

End-Use	Measure Type	Different Value?	Deemed Per Unit Fixed Values from ICC Docket		Program Database Per Unit Values	
			kWh	therms	kWh	therm
CFLs	15W CFL		38		38	
	20W CFL		47		47	
	23W CFL		66		66	
Faucet aerators	Electric	X	57		30	
	Natural gas	X		2.6		1.2
Showerheads	Electric		361		361	
	Natural gas			16		16
Attic insulation (R-11 to R-38)	Electric - Heat pump		0.52		Cannot assess because database does not provide measures by heating fuel type and presence of air conditioning.	
	Electric Resistance		1.24			
	Electric AC only		0.22			
	Natural Gas Heat w Electric AC		0.22	0.09		
	Natural Gas Heat w No AC			0.09		
Attic insulation (R-19 to R-49)	Electric - Heat pump		0.26		Cannot assess because database does not provide measures by heating fuel type and presence of air conditioning.	
	Electric Resistance		0.62			
	Electric AC only		0.11			
	Natural Gas Heat w Electric AC		0.11	0.04		
	Natural Gas Heat w No AC			0.04		
Wall insulation (R-0 to R-11)	Electric Heat pump		0.97		Cannot assess because database does not provide measures by heating fuel type and presence of air conditioning.	
	Electric Resistance		2.51			
	Electric AC only		0.17			
	Natural Gas Heat w Electric AC		0.17	0.18		
	Natural Gas Heat w No AC			0.18		
Programmable Thermostats	Natural Gas with Electric AC	X	194		20	
Air sealing (HEP)	Electric Heat pump		0.85		Cannot assess because database does not provide measures by heating fuel type and presence of air conditioning.	
	Electric Resistance		2.23			
	Natural Gas Heat w Electric AC		0.05	0.19		
	Natural Gas Heat w No AC			0.19		
Air sealing (ESHP)	Electric Heat pump		0.85		Cannot assess because database does not	
	Electric Heat with No AC		2.23			

End-Use	Measure Type	Different Value?	Deemed Per Unit Fixed Values from ICC Docket		Program Database Per Unit Values
	Natural Gas Heat w No AC			0.19	provide measures by heating fuel type and presence of air conditioning.

D. APPENDIX - HEP NET-TO-GROSS METHODOLOGY

Net-to-Gross Methodology

Net program impacts were estimated by determining the level of (FR) and spillover (SO). The net-to-gross ratio (NTGR) was calculated as follows:

NTGR = 1 – Free-Ridership Rate + Spillover

To arrive at the program-level FR value, the evaluation team first calculated FR values for each individual measure across each survey respondent receiving it. Next, these FR values were weighted by individual energy savings based on the quantity of ISMs and the amount of insulation and air sealing each respondent had installed through the program. Then, the program-level FR value was calculated by rolling up measure-level FR values weighted by energy and demand savings for each measure type. Finally, the program level NTGR was arrived at by adding in program-level spillover.

Measure Level Free Ridership Scoring for ISMs (example for CFLs)

The evaluation team asked participating customers a series of free rider for CFLs, and developed a score for each measure based on responses to this battery of questions. This approach provides several important features and benefits, such as the ability to derive a partial FR score based on the likelihood of taking similar actions in absence of an incentive.

If participating customers would not have installed any CFLs without the program, they are categorized as 0 percent free riders. Customers who would have installed the measure without the program are categorized as 100 percent free riders.

Participating customers can also be partial free riders. Partial scores are assigned to customers who had plans to install the measure, but the program had at least some influence over that decision, particularly in terms of the timing of the decision (e.g., the program might have accelerated the installation) or the quantity (e.g., the program might have led to the installation of additional measures).

Direct Install Measure FR Algorithm

The following table provides an overview of the questions used to determine FR scores.

Table 34. FR Algorithm Framework

Question Type	Algorithm Component	Survey Question	Potential Response	Potential Score
PI	If you had not received free CFLs during the energy audit, how likely is it that you would have **installed any CFLs on your own within the next year?**	CFL8	• Scalar, 0 to 10, 0=not at all likely, 10= extremely likely.	0 to 1 based on response to scale 0 to 10 scale (DK removed from analysis)

PT1	If you had not received free CFLs during the energy audit, would you have **installed the same number or fewer CFLs** than were installed?	CFL9	• Fewer • The same • More • None	Fewer = 0.5, Same = 1, More =1 (DK is removed from analysis)
PT2	If you had not received free CFLs from the energy audit, **when would you have installed CFLs** on your own?	CFL10	• Same time • Within six months • Within a year • More than a year	Same time = 1, within a few months= 0.5, within a year =0.33, more than a year=0 (DK removed from analysis)

Often NTGR algorithms include three distinct components made up of several questions in each component. We typically average the three values from each component to obtain the final NTGR. However, we asked only three questions to reduce respondent burden and in line with the free aspect of the CFLs. As such, these three questions are comparable to a single component in the longer battery of free ridership questions and we did not average them. Instead we multiplied them together as this was the logical way to combine the information from three questions addressing the same concept. Below, the evaluation team provides the FR algorithm.

- FR = PI*PT1*PT2
  - FR=1: 100 percent free rider; FR=0: not at all free rider

Discounted Measure Free Ridership Scoring

To determine measure-level NTG values for the discounted, envelope measures, the evaluation team weighted the FR scores by ex post energy savings for each participant.

FR Algorithm

Below, the evaluation team provides the FR algorithm.

Table 35. HEP FR Algorithm Framework

Algorithm Component	Survey Question	Algorithm Use
On your 2011 federal tax return, did you claim or do you plan to claim a tax credit for the <MEAS1> that you <RMEAS1>ed?	N1	Role of FTC (RPI)
When did you first learn that you would be charged a price that was significantly below market rate for the <MEAS1>? Was it before or after < RMEAS1>ing your <MEAS1>?	N3	Overall Program Influence (OPI)
Just to be clear, did you have the <MEAS1> <RMEAS1>ed and then find out that the price was significantly lower than usual?	N3a	Overall Program Influence (OPI)
Importance of factors that might have influenced your decision to install the measure.		
• The availability of the utility discount	N5a	Program Component (PC)
• The availability of Federal tax credit	N5b	Role of FTC (RPI)

Algorithm Component	Survey Question	Algorithm Use
• The energy audit you received	N5c	Program Component (PC)
• Information from the utility marketing materials	N5d	Program Component (PC)
• Information from the contractor or program ally	N5e	Program Component (PC)
If the program had not been available, how likely is it that you would have < RMEAS1>ed the same <MEAS1> at all? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely". [RECORD 0-10 98=Don't know; 99=Refused]	N6	Overall Program Influence (OPI)
If you had not participated in the program, how likely is it that you would have as much <MEAS1> <RMEAS1>ed as you did? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".	N8	Efficiency adjustment (ADJ_E&T)
Did participating in the program cause you to < RMEAS1> <MEAS1> earlier than you were planning or did participating have no influence on when you did it?	N7a	Timing adjustment (ADJ_E&T)
If you hadn't participated in the program, when would you have <RMEAS1>ed your <MEAS1>? Would you say…?	N7b	Timing adjustment (ADJ_E&T)
Just to make sure I understand, please explain the importance of the program on your decision to install your <MEAS1>.	N9	Consistency check

For each respondent included in the survey, we calculated a raw, unadjusted FR score and then adjusted it when the consistency check was triggered and the information it provided clearly indicated that the FR value should be increased or decreased. First we address the calculation for the unadjusted score and then we describe how the consistency check data were used to adjust a subset of the FR values.

Unadjusted Base FR Score

The unadjusted, basic free ridership factor consists of two scores:[16]

1. **Overall Program Influence (OPI).** This score reflects the degree of influence the program had on the customer's decision to have the specified measures installed. This score is based on two survey questions. The first question asked respondents if they knew they would receive a program discount before or after they installed the equipment. If respondents learned about the program discount *after* installing the energy efficient equipment, they are considered free riders. The second question asked respondents who learned about the program discount *before* they installed the measure to rate the likelihood that they would have installed the measure in the absence of the program (on a 0 to 10 scale, where 0 is not at all likely and 10 is extremely likely). A higher likelihood value means a higher level of free ridership, i.e., a lower level of attribution to the program.

    - **Timing and Efficiency Adjustment Factor (ADJ_E&T).** This factor adjusts the Overall Program Influence score downward for gains in efficiency and earlier installation of equipment installation due to the program. It is based on two questions asked of respondents who said it was likely they would have installed the equipment without

[16] This algorithm is based on the basic rigor self-report method used in California.

the program: 1) The first asks how likely they would have been to install as much weatherization on their own (on a 0 to 10 scale); 2) The second asks respondents if the program caused them to install the weatherization earlier, and if so, how much earlier (four categories of time intervals). The responses to the two questions are averaged together to derive the Program Influence Adjustment Factor. This factor is then multiplied by the Overall Program Influence score to create an adjusted program influence score[17]. The following algorithm defines this part of the scoring:

Overall Program Influence (OPI) based on N3, N3a, N6,

(IF QN3A=1) OPI=1

(IF QN3=1) OPI=QN6/10

Timing and Efficiency Adjustment Factor (ADJ_E&T) based on N8, N7a and N7b

ADJ_E=QN8/10

(IF QN7B=1) ADJ_T=1

(IF QN7B=2) ADJ_T=.66

(IF QN7B=3) ADJ_T=.33

(IF QN7B=4) ADJ_T=0

(IF QN7A=2) ADJ_T=1

(IF QN7A=3) ADJ_T=0

ADJ_E&T= MEAN (ADJ_E, ADJ_T)

Adjusted Program Influence

OPI_ADJ=OPI* ADJ_E&T.

1. **Influence of Program Components (PC).** This score is based on a series of four questions which 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 the program discount, the availability of the audit, recommendations from the contractor, and program information and/or marketing materials. Greater importance of the program components means a lower level of free ridership. To align with the OPI score, we calculated four PC scores by dividing each QN5a, c, d, and e score by 10 and then subtracting it from 1.The final Program Components free-ridership score was the lowest of these values, such that the highest original program components scores became the lowest

[17] Note that this adjustment factor can reduce the level of free ridership, but not increase it. If the respondent indicates that the equipment would have been of the same efficiency and installed at the same time without the program, the Program Influence Adjustment Factor is 1, and the adjusted program influence score is the same as the Overall Program Influence score.

possible free-ridership component score. The following algorithm defines this part of the scoring:

Program Component Influence (PCI) based on N5a, N5c, N5d, and N5e

Program Components

PC1=1-QN5A/10

PC2=1-QN5C/10

PC3=1-QN5D/10

PC4=1-QN5E/10

PC= Minimum (PC1, PC2, PC3, PC4)

2. **Relative Program Influence Score (RPI).** This score only adjusts the PC score when respondents stated that they have submitted or plan to claim the measures on their federal tax return. It is based on two questions: 1) The first asked if the respondents plan to claim the measures on their tax return; 2) The second asked respondents how important the tax credits were on their decision to have the weatherization measures installed (on a 0 to 10 scale).

   The score on the second question was used to determine relative program influence against the tax credit by adding the tax credit score to the raw, highest PC score to become the total influence, of which the portion that is the PC score is the adjustment factor. For example, if the highest, raw PC score was 8 and the importance of the tax credit was 6, then the RPI score is 8/(6+8)=0.57.

   Relative Program Influence Score (RPI) based on N1 and N5b

   When N1=1 OR 2:

   (IF QN5B <98)

   FTC=1-QN5B/10

   RPI=1-(Maximum (QN5A, QN5C, QN5D, QN5E))/(Maximum (QN5A, QN5C, QN5D, QN5E))+QN5B))

   (If RPI is greater than or equal to 0) PC=RPI.

   Whether we used the PC or the RPI score, we reversed the score (by subtracting it from 1) so that low values indicate low free ridership and high values indicate high free ridership. This step was necessary for combining this score with the OPI and developing the final free ridership score. The following algorithm defines this part of the scoring:

The overall, unadjusted free ridership score is the average of the Overall Program Influence (adjusted by the Timing and Efficiency Adjustment Factor) and the Program Components score (for which the Relative Program Influence score was also used when appropriate), divided by 10. The free ridership score for each respondent thus ranges from 0 (0% free ridership, 100% program attribution) to 1 (100% free ridership, 0% program attribution).

Final Unadjusted Free Ridership Score
FR=MEAN[OPI_ADJ, (PC)]

Adjusting Base FR Scores with Consistency Check Data

In cases in which respondent answers appeared to be possibly contradictory in regard to program influence, a consistency check was triggered in which a follow up question was asked to gain additional, clarifying information. For example, if a respondent scored the program incentive highly on their decision to implement the envelope measure but also stated that that there was a high likelihood that they would have done the same thing without the program, we asked for clarification regarding program influence (N9).

For Air Sealing (AS) and Insulation (Ins) measures, the consistency check question was triggered when participants gave ratings over 4 for the influence of any program element (QN5a, 5c, 5d, and 5e) and stated that the likelihood of having the measure installed in absence of the program was also 4 or higher (where the higher the score the more likely it was that the respondent would have taken the action). Using this trigger criteria and as shown in Table 36, about 45% of the respondents for both envelope measures triggered the follow-up question.

Table 36. Number of Original Triggered Responses

Measure	Consistency Check Not Triggered	Consistency Check Triggered
Air Sealing *(n=109)*	60 *(55%)*	49 *(45%)*
Insulation *(n=113)*	61 *(54%)*	52 *(46%)*

In reviewing the open end response data collected for the consistency check, we found that our criteria for the trigger was too loose. In other words, there were cases in which respondents gave a 5 or 6 for one construct and a 9 or 10 for another–consistent with how they had answered previous questions. In fact, the earlier questions were capturing legitimate nuance around the constructs. However there were many other open ends that showed clear program attribution or FR-ship. So we honed in on the open ends in which there was a difference of 3 or less between the highest program element score and likelihood score, e.g., 8,10; 10,10; 8,8; 9;7; etc. In this way we redefined our trigger, making it tighter, and extracted a set of respondents whose open ends were appropriate to analyze. This new set included about 30 percent of the cases as shown in Table 37. The remaining respondents received the unadjusted FR scores as indicated above.

Table 37. Number of Extracted Triggered Responses Analyzed

Measure	Consistency Check Cases Not Analyzed	Consistency Check Analyzed
Air Sealing *(n=109)*	73 *(67%)*	36 *(33%)*
Insulation *(n=113)*	80 *(71%)*	33 *(29%)*

We coded the open end responses into clear statements of program influence (Coding=1), where participant indicated that they were free riders (Coding=2), or we could not determine whether there were clear statements for program influence or free ridership (i.e. ambiguous/neutral statements) (Coding=3). We had high inter-rater reliability among two analysts who completed the coding and reached a consensus for the few cases we had earlier disagreed on. As shown in Table 38, coding indicated that about half of the scores should be adjusted, and in most of these cases, it

indicated that the existing unadjusted FR should be decreased for these respondents based on their clear statements of program influence on their decision to have the measures implemented.

Table 38. Number of Extracted Triggered Responses Coded

Measure	Program Influence	FR	Ambiguous/Neutral
Air Sealing *(n=36)*	17 *(47%)*	5 *(14%)*	14 *(42%)*
Insulation *(n=33)*	12 *(36%)*	4 *(12%)*	17 *(52%)*

Next we determined that a reasonable approach to increasing or decreasing the existing FR values would be to focus on the QN6 value which is the basis of the OPI score in the algorithm, and to focus on the maximum of the program components scores which is the basis for the PC score. Since these two scores are averaged together to calculate the unadjusted, FR value, decreasing one, increases the relative value of the other. Thus, to decrease the FR score, we decreased the QN6 value by half, and to increase the FR score we decreased the PC score by half. (Those whose responses we coded as ambiguous or neutral received the unadjusted FR value). In this way, we adjusted 22 AS scores and 16 Ins scores and decreased the overall, average measure-level FR values for these respondents as shown in Table 39.

Table 39. FR Values Before and After Consistency Check Adjustment

Measure	FR Value Before Adjustment	FR Value After Adjustment
Air Sealing *(n=22)*	0.22	0.20
Insulation *(n=16)*	0.24	0.23

As shown in Table 40, incorporating these new adjusted FR scores slightly decreased measure level FR values (weighted by ex post savings) and increases the measure-level NTG values.

Table 40. NTG Values Before and After Consistency Check Adjustment

Measure	NTGR Before Adjustment	NTGR After Adjustment
Air Sealing	0.78	0.80
Insulation	0.76	0.77

The analysis outlined above, is expressed by the following algorithm. Changes in the algorithm stemming from the consistency check analysis and from what appears above in the unadjusted values section, are indicated in italics.

Overall Program Influence (OPI) based on N3, N3a, N6,

(IF QN3A=1) OPI=1

(IF QN3=1) OPI=QN6/10

*(IF Ins_FR_coding = 1) Ins_OPI_3=Ins_OPI_2 * .5.*

Timing and Efficiency Adjustment Factor (ADJ_E&T) based on N8, N7a and N7b

ADJ_E=QN8/10

(IF QN7B=1) ADJ_T=1

(IF QN7B=2) ADJ_T=.66

(IF QN7B=3) ADJ_T=.33

(IF QN7B=4) ADJ_T=0

(IF QN7A=2) ADJ_T=1

(IF QN7A=3) ADJ_T=0

ADJ_E&T= MEAN (ADJ_E, ADJ_T)

Adjusted Program Influence

OPI_ADJ=OPI* ADJ_E&T.

Program Component Influence (PCI) based on N5a, N5c, N5d, and N5e

Program Components

PC1=QN5A

PC2=QN5C

PC3=QN5D

PC4=QN5E

PC= 1-[Minimum (PC1, PC2, PC3, PC4)/10]

(IF Ins_FR_coding = 2) Ins_PC_adj=1-((MAX(QN5Ab, QN5Cb, QN5Db, QN5Eb))/(10/2).

Relative Program Influence Score (RPI) based on N1 and N5b

When N1=1 OR 2:

(IF QN5B <98)

FTC=1-QN5B/10

RPI=1-(Maximum (QN5A, QN5C, QN5D, QN5E))/(Maximum (QN5A, QN5C, QN5D, QN5E))+QN5B))

(IF Ins_FR_coding = 2 & Ins_RPI ge 0) Ins_RPI_adj=1-((MAX(QN5Ab, QN5Cb, QN5Db, QN5Eb))/2)/((MAX(QN5Ab, QN5Cb, QN5Db, QN5Eb))/2+QN5Bb).

(If RPI is greater than or equal to 0) PC=RPI.

Final Unadjusted Free Ridership Score

FR=MEAN[OPI_ADJ, (PC)]

Spillover Scoring

The evaluation team also included a battery of qualitative questions to assess spillover. Key questions are included in Table 41 below.

Table 41. Key Questions Used to Determine Spillover

Survey Question	Survey Number
Since your participation in the <PROGRAM NAME>, have you made any additional energy saving home improvements for which you did not receive a utility incentive, rebate, or other discount?	SO1
Did the <PROGRAM> influence you in any way to make these additional improvements?	SO1a
How influential was your participation in the <PROGRAM> on your decision to make additional energy efficiency improvements on your own? Please use a scale that ranges from 0 to 10 where 0 is "not at all influential" and 10 is "extremely influential".	SO2
More specifically, how did Ameren's <PROGRAM > influence your decision to make additional home improvements to increase your energy savings?	SO3

Spillover energy and demand savings were calculated for those with influence scores (SO2) of 8 or greater. Spillover energy and demand savings were calculated based on the type of fuel for water heaters and space heating equipment for installed measures where savings are dependent based on these types of equipment. The Illinois Technical Reference Manual (TRM) was used to determine the energy savings for each measure identified by participants. Other resources were used when needed. Participants who reported influence scores of 8 or higher, but indicated having received rebates for these measures, are not included in the spillover savings.

The Illinois Technical Reference Manual (TRM) was used to determine the energy savings for each identified measure shown in the table below. Other resources were used when needed and are indicated Table 42. Below are the assumptions and per-unit values used to calculate spillover energy and demand savings associated with these measures.

Table 42. Spillover Measure Assumptions

Spillover Measure	kWh/unit	kW/unit	therms/unit	units	Quantity	Source	Assumptions
EnergyStar Dishwasher – gas water heating fuel	60	0.006	0.94	Unit	1	– Illinois TRM – EnergyStar	One participant indicated installed an EnergyStar dishwasher. This participant also installed a gas tankless water heater. Savings were calculated based on this type of water heater
EnergyStar Freezer	54.6	0.009	0.00	Unit	1	– Illinois TRM	Deemed savings reported as an average of upright freezer w/ auto defrost and chest freezer
EnergyStar Refrigerator	121.0	0.018	0.00	unit	2	– Illinois TRM	Deemed savings reported as an average for variations of top mounted freezer, bottom mounted freezer, and side by side with auto defrost and with or without a through-the-door ice-maker
Gas Storage Water Heater	0.0	0.000	20.63	unit	9	– Illinois TRM	Assumed existing water heater was a standard 40 gallon gas storage water heater with efficiency factor of 0.60; Assumed the efficient equipment was a 40 gallon high efficiency gas storage water heater with efficiency factor of 0.67. Assumed 50 gallons of hot water use per day and temperature setting of 125˚F
Gas Tankless Water Heater	0.0	0.000	48.30	unit	1	– Illinois TRM	Assumed existing water heater was a standard 40 gallon gas storage water heater with efficiency factor of 0.60; Assumed an efficiency factor for the efficient gas tankless water heater of 0.82. Assumed 50 gallons of hot water use per day and temperature setting of 125˚F
Central A/C	271.9	0.281	0.00	ton	4	– Illinois TRM	Assumed existing unit of 10 SEER upgraded to SEER ≥ 14.5 SEER; Assumed 3 ton system

Spillover Measure	kWh/unit	kW/unit	therms/unit	units	Quantity	Source	Assumptions
Natural Gas Furnace	0.0	0.000	136.18	unit	1	– Illinois TRM	Assumed the existing equipment was a standard gas furnace with AFUE 80%; and was replaced with a high efficiency gas furnace with AFUE 95%; Assumed a gas furnace heating load for Springfield, IL of 690 therms
Windows – CAC & gas heating	6.8	0.01	11.43	Per window (3x5 = 15 sf)	45	– Illinois TRM – NY TRM – IECC 2006 – ASHRAE 2009 Chp 15 – "Calculating Energy Savings for Windows"[18]	Assumed standard window area is 3 ft by 5 ft = 15 sf; existing window single pane vinyl frame (U-0.93); efficient window double pane Low-e (U-0.35) Equivalent of IECC 06 standard
Windows – CAC & electric heating	274.8	0.01	0.00	Per window (3x5 = 15 sf)	14	– Illinois TRM – NY TRM – IECC 2006 – ASHRAE 2009 Chp 15 – "Calculating Energy Savings for Windows"[1]	Assumed standard window area is 3 ft by 5 ft = 15 sf; existing window single pane vinyl frame (U-0.93); efficient window double pane Low-e (U-0.35) Equivalent of IECC 06 standard
Attic Insulation – CAC & gas heating	292.8	0.367	165.20	1000 sf floor area	1	– Illinois TRM – 2010 ASHRAE 90.2 Table 5.5-4 and Table 5.5-5	Assumed existing attic is uninsulated (R-6.88 for 2x6 construction) and efficient insulation R-38 (minimum code std); Assumed existing Central Air Conditioner (CAC) SEER 10; Gas furnace AFUE 80%
Air Sealing – CAC & gas heating	947.7	1.19	70.94	per home	1	– Illinois TRM – Ameren HEP Tracking Database	Recommended measure within program; existing blower door 3725.79 cfm50; reduced blower door results by 100 cfm50 (10 hrs @ 100 cfm50/hr); Assumed exposure to wind is normal; savings calculated for

[18] http://www.ccrpc.org/eecbg/images/Calculating_Energy_Savings_Windows.pdf

Spillover Measure	kWh/unit	kW/unit	therms/unit	units	Quantity	Source	Assumptions
							specific participant home
CFLs	51.0	0.005	0	Per lamp	1	– Illinois TRM	Assumed 5 CFLs per participant; deemed savings reported as an average for 11W, 14W, 20W, and 25W CFL.
Ducts (Sealing & Insulation)	365.9	0.459	305.29	Per home	1	– Illinois TRM	Assumed 10 SEER CAC and gas heating (80% AFUE); deemed savings based on existing ducts less than R-4, improved insulation between R-4 to R-7 sealed with mastic

E. APPENDIX - DATA COLLECTION INSTRUMENTS

Ameren Home Energy Performance / ESHP Participant Phone Survey

August, 2012

Survey Overview

[This is a telephone survey that will go to 200 HEP customers and 70 ESHP customers. The survey will gather information regarding program awareness, program satisfaction, preferred methods for receiving energy efficiency information, actions taken, measures received and installed, and key demographics. In addition, for HEP participants we will also field a net-to-gross battery to assess program attribution and spillover of measures. The survey will also assess barriers to installation of discounted shell measures and opportunities to overcome those barriers.]

Introduction

[CALCULATE PROG_FLAG
Home Energy Performance Participants = HEP
Electric Space Heat Pilot Program = ESHP]
[CALCULATE TYPE_FLAG
Audit Only = AUDIT_FLAG
Rebate Only = REBATE_FLAG
Audit & Rebate = AUDITREBATE_FLAG]

Hello, my name is _____ and I am calling from Opinion Dynamics, an independent research firm, on behalf of Ameren Illinois. We're calling recent participants in Ameren's [IF PROG_FLAG=HEP, "Home Energy Performance Audit Program", IF PROG_FLAG=ESHP "Air Sealing Pilot Program"] to learn about their experience and satisfaction with the program. Ameren Illinois will use this information to improve their programs to benefit customers. I want to assure you that this is not a sales call and your answers will be strictly confidential. This survey will just take about 20 minutes of your time.

(IF NEEDED: The Ameren [IF PROG_FLAG=HEP, "Home Energy Performance Audit Program", IF PROG_FLAG=ESHP "Air Sealing Pilot Program"] offers [If PROG_FLAG=HEP, INSERT "$50 or $25; If PROG_FLAG=ESHP, INSERT "free"] in-home energy audits, free energy efficiency products such as CFLS, or incentives for recommended energy efficiency upgrades through program allied contractors.)

May I speak with [CONTACT NAME] or someone in your household who is familiar with the [IF PROG_FLAG=HEP, "Home Energy Performance Audit Program", IF PROG_FLAG=ESHP "Air Sealing Pilot Program"]?

C1. Are you currently talking to me on a regular landline phone or a cell phone?

1. Regular landline phone
2. Cell Phone
8. (Don't know)
9. (Refused)

[ASK IF C1 = 2; ELSE GO TO SURVEY START]

C2. Are you currently in a place where you can talk safely and answer my questions?

1. Yes
2. No [Schedule call back]
8. (Don't know) [Schedule call back]
9. (Refused) [Schedule call back

Screeners

S1. Our records show that you participated in the [IF PROG_FLAG=HEP, "Home Energy Performance Audit Program", IF PROG_FLAG=ESHP "Air Sealing Pilot Program"]. Since there are many ways Ameren customers can participate in the program, please tell me about your participation by answering yes or no to each question. Did you: [INSERT NEXT ITEM AND REPEAT FOR ALL ITEMS.] [1=YES, 2=NO, 98=DON'T KNOW, 99=REFUSED]

a. Receive an in-home energy audit, where an energy advisor assessed your home's energy use?
b. Have free energy saving products such as CFL bulbs, faucet aerators, or showerheads installed in your home [If PROG_FLAG=ESHP, ADD, " and have air sealing performed"?]
c. Have incentivized [READ IN: IF PROG_FLAG= HEP, "air sealing or insulation", IF PROG_FLAG=ESHP, "insulation"] installed in your home by Ameren program allies? (IF NECESSARY, "AMEREN PROGRAM ALLIES ARE AMEREN-AFFILIATED CONTRACTORS")
d. [ASK IF Multi_prop_flag] Do you represent more than one home at which energy improvements were made through the program?

[GEN AUDIT_FLAG_CONF IF S1a=1 AND S1c<>1]

[GEN AUDITREBATE_FLAG_CONF IF S1a=1 AND S1c=1]

[GEN REBATE_FLAG_CONF IF S1a<>1 AND S1c=1]

[GEN Multi_prop_flag_CONF IF S1d=1]

[IF S1a<>1 AND S1b<>1 AND S1c<>1, THANK AND TERMINATE: "Thank you. We do not have any more questions for you today.]

S2. Are you an employee of Ameren Illinois or Conservation Services Group?

1. Yes [THANK AND TERMINATE]
2. No
8. (Don't know) [THANK AND TERMINATE]
9. (Refuse) [THANK AND TERMINATE]

Program Awareness

IF Multi_prop_flag_CONF=1, READ "Since you represent multiple homes that participated in the program, please answer the questions based on a typical home.

PA1. Where did you first hear about the [IF PROG_FLAG=HEP, "Home Energy Performance Audit

Program", IF PROG_FLAG=ESHP "Air Sealing Pilot Program"]?

1. (Ameren/ActOnEnergy website)
2. (Email from Ameren or ActOnEnergy)3. (Other Ameren or ActOnEnergy source)
4. (Internet search engine, such as Google, Bing or Yahoo)
5. (A friend, relative or colleague)
6. (Contractor/ Program Ally)
7. (Neighborhood associations)
8. (A letter in the mail)
9. (A Postcard)
10. (Door flyer/hanger)
11. (Radio ad)
12. (Print Article)
13. (Home Show)
14. (A public event)
00. (Other, please specify)
98. (Don't Know)
99. (Refused)

PA2. What are the best ways for Ameren to inform you about the energy efficiency programs it offers residential customers? [MULTIPLE RESPONSE; UP TO 3]

1. (Ameren/ActOnEnergy website)
2. (Email from Ameren or ActOnEnergy)3. (A friend, relative or colleague)
4. (Contractor/Program Ally)
5. (Neighborhood associations)
6. (Bill Inserts)
7. (A letter in the mail)
8. (A Postcard)
9. (Door flyer)
10. (Print Advertisement)
11. (Home Show)
12. (A public event)
00. (Other, please specify)
98. (Don't Know)
99. (Refused)

[SKIP IF PA1=1, 2 OR 3]

PA3. And in general, do you consider Ameren a resource for energy efficiency information?

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

Program Processes

[ASK ALL]

First I would like to ask you about your participation in the program.

PP1. Why did you decide to participate in this program? [RECORD ALL THAT APPLY]

1. (Save money on energy/electric/gas bill)
2. (Reduce energy consumption)
3. (Make your home more comfortable)
4. (Increase the value of your home)
5. (Improve the environment: cleaner air, etc.)
6. (The available incentive)
7 (It was inexpensive)
00. (Other [Specify])
98. (Don't know)
99. (Refused)

Energy Education

[ASK SECTION FOR AUDIT_FLAG_CONF=1 OR AUDITREBATE_FLAG_CONF=1]

E1a. What best describes your knowledge of home energy improvements BEFORE receiving your home energy audit?

1. I had no knowledge
2. I had very little knowledge
3. I had some knowledge
4. I had a lot of knowledge
8. (Don't know)
9. (Refused)

E1b. On a scale from 0 to 10, where 0 is "NOT increased at all," and 10 is "increased A LOT," how much has your KNOWLEDGE of home energy improvements INCREASED based on the information provided in the energy audit?

[0-10, 98=Don't know, 99=Refused]

Barriers to Audit Recommendations

[ASK SECTION FOR AUDIT_FLAG_CONF=1 OR AUDITREBATE_FLAG_CONF=1]

B1. Do you recall receiving recommendations for how to save energy in your home from the auditor?

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

[ASK IF B1=1 AND AUDIT_FLAG_CONF=1
B2. Would you say you have completed all, some, or none of the energy saving recommendations you received from the auditor?

1. All
2. Some

3. None
8. (Don't know)
9. (Refused)

[ASK IF B1=1 AND AUDITREBATE_FLAG_CONF=1]
B2a. Would you say you have completed all or some of the energy saving recommendations you received from the auditor?

1. All
2. Some
8. (Don't know)
9. (Refused)

[ASK IF (B2=2 OR 3) OR (B2A=2)]
B3. Do you have any current plans to complete any of the remaining energy saving recommendations?

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

[ASK IF (B2=2 OR 3) OR (B2A=2)]
B4. What recommendations are unlikely ever to be completed? [OPEN END; Multiple Response Up to 5]

1. (CFL bulbs)
2. (Faucet Aerators)
3. (Low-Flow Shower Heads)
4. (Air Sealing)
5. (Duct sealing or insulating)
6. (Attic, wall or other insulation)
7. (Programmable Thermostat)
8. (High efficiency Air conditioner)
9. (High efficiency Furnace/Boiler/Heat Pump)
00. (Other: Specify)
96. (None)
98. (Don't know)
99. (Refused)

[ASK IF B4 =00 through 10]
B5. Why aren't these recommendations likely to be completed? [OPEN END; Multiple Responses Up to 5]

1. (Project cost)
2. (Too busy/ Too much time)
3. (Don't know which contractors to use)
4. (The savings are not worth the effort)
5. (Not interested)
6. (Program allies/Contractor are not available)
7. (Program allies/Contractors are more expensive than non-program contractors)
00. (Other: Specify)
96. (None)

98. (Don't know)
99. (Refused)

Channeling

[ASK ALL]

CH1. Do you recall learning about other Ameren Illinois programs through your participation in the <PROGRAM> program?

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

[ASK IF CH1=1, ELSE SKIP TO RP1]
CH2. Which other Ameren Illinois programs did you learn about? [Multiple Response Up to 3]

1. (Old/inefficient refrigerator or freezer recycling; "Appliance Recycling Program")
2. (Central air conditioner/ Heat pump/ Gas furnace or boiler replacements; "HVAC Program")
3. (Rebates for efficient air purifier/ water heater; "Rebates on Energy-saving Products for your Home Program")
00. (Other: Specify)
98. (Don't know)
99. (Refused)

[ASK IF CH1=1]
CH3. How did you hear about the other programs? [Open End] [Multiple Response Up to 3]

1. (Energy advisor /auditor/ audit report)
2. (Contractor/ Program ally)
3. (CSG or Ameren Illinois employee)
4. (Ameren Illinois website)
00. (Other: Specify)
98. (Don't know)
99. (Refused)

[ASK IF CH2<98]
CH4. In which of the other programs, if any, have you participated? [MULTIPLE RESPONSE up to 5]

1. (Old/inefficient refrigerator or freezer recycling; "Appliance Recycling Program")
2. (Gas furnace replacements - "HVAC Program")
3. (Central air conditioner -"HVAC Program")
4. (Heat pump replacements -"HVAC Program")
5. (Boiler replacement - "HVAC Program")
6. (Rebates for efficient air purifier - "Rebates on Energy-saving Products for your Home Program")
7. (Rebates for efficient room air conditioner - "Rebates on Energy-saving Products for your Home Program")
8. (Rebates for efficient water heater - "Rebates on Energy-saving Products for your Home Program")

9. (Rebates for smart strips; "Rebates on Energy-saving Products for your Home Program")
10. (Rebates for programmable thermostats; "Rebates on Energy-saving Products for your Home Program")
11. (Purchased discounted CFL bulbs)
00. (Other: Specify)
96. (None)
98. (Don't know)
99. (Refused)

Rebate Process

[ASK IF REBATE_FLAG_CONF=1]

RP1. Before you received program incentives for having air sealing or insulation upgrades installed by Ameren program allies did you know that you were eligible to receive a home energy audit?

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

[ASK IF RP1=1]

RP2. Why didn't you get an audit? [Multiple response up to 3]

1. (An audit is not required to get incentives for air sealing or insulation)
2. (Already knew what work was necessary/desired)
3. (Too much time)
1. 4. (Too costly)
2. 5. (Didn't understand eligibility requirements)
3. 6. (Didn't have enough information)
4. 7. (Not interested)

5. 00. (Other: Specify)

6. 98. (Don't Know)
7. 99. (Refuse)

Measure Verification

CFL Measure Verification and Free Ridership
[ASK SECTION IF ANY_CFL_FLAG=1]

CFL1. Our records show that you had the following free CFLs installed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your house"] during the audit.
[READ IN 60WQT] 60 watt equivalent CFLs (14w)
[READ IN 75WQT] 75 watt equivalent CFLs (19w)
[READ IN 100WQT] 100 watt equivalent CFLs (23w)
[READ IN CFLQT] Total number of bulbs:

Is this correct?
1. Yes
2. No, quantity incorrect
3. (Did not receive any CFL bulbs at all) [SKIP TO FA1]
8. (Don't know) [SKIP TO FA1]
9. (Refused) [SKIP TO FA1]

[ASK IF CFL1=2]

CFL1A. Are you able to tell me how many bulbs of each wattage type you received?
1. Yes
2. No
8. (Don't know)
9. (Refused)

[ASK IF CFL1A=1]
CFL2. How many of each type of CFL were installed during the audit? (READ LIST IF NECESSARY)
CFL2A. 60 watt equivalent (14w CFL) [NUMERIC OPEN END]
CFL2B. 75 watt equivalent (19w CFL) [NUMERIC OPEN END]
CFL2C. 100 watt equivalent (23w CFL) [NUMERIC OPEN END]

[ASK IF CFL1A<>1]
CFL2D. How many CFLs, in total, were installed during the audit? [NUMERIC OPEN END]

[SKIP TO FA1 IF CFL2A/B/C ALL EQUAL DK/REFUSED/NONE OR CFL2D EQUALS DK/REFUSED/NONE]

[CREATE VERIFIED CFL TOTAL AND CFLS BY WATTAGE]

CFL3. Are all of the CFLs still installed?
1. Yes
2. No
8. (Don't know) [SKIP TO FA1]
9. (Refused) [SKIP TO FA1]

[SKIP TO CFL7 IF CFL3=1]

[ASK IF CFL1A=1 AND CFL3=2,8,9]
CFL4. How many of each type of CFL is still installed?
(IF NEEDED: The numbers you have given don't agree with the number you said have been installed.)
(PREVIOUS VALUES)
(60 watt equivalent (14w) [READ IN <VQ60W>] (75 watt equivalent (19w) [READ IN <VQ75W>]
(100 watt equivalent) [READ IN CFL <VQ100W>])
(Unknown) [READ IN CFL2d_4]) CFL4A. 60 watt equivalent (14w) [NUMERIC OPEN END: SHOULD NOT EXCEED <VQ60W>]
CFL4B.75 watt equivalent (19w) [NUMERIC OPEN END: SHOULD NOT EXCEED <VQ75W>]
CFL4C.100 watt equivalent (23w) [NUMERIC OPEN END: SHOULD NOT EXCEED <VQ100W>]

[ASK IF CFL1A=2,8,9 CFL4D. How many CFLs, in total, are still in installed?[NUMERIC OPEN END: SHOULD NOT EXCEED <VTOTACFL>]

96. (None are installed)
98. (Don't know)
99. (Refused)

CFL5. Why did you remove the CFLs?
00. [OPEN END]
98. (Don't know)
99. (Refused)

CFL6. What did you do with the CFLs that are not installed?
1. (Stored them for future use)
2. (Stored them to give to someone else later)
3. (Stored them to dispose of later)
4. (Recycled them)
5. (Threw them away in the garbage)
6. (Gave them to someone else)
7. (Other, specify)
98. (Don't know)
99. (Refused)

[ASK IF VTOTACFL>0]]
CFL7. Did the CFLs installed during the energy audit replace standard incandescent bulbs or older CFLs?
1. (Incandescent Standard)
2. (CFLs)
3. (Both)
8. (Don't know)
9. (Refused)

[ASK IF PROG_FLAG=HEP, ELSE SKIP TO CFL11]
CFL8. If you had not received free CFLs during the energy audit, how likely is it that you would have installed any CFLs on your own within the next year? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely". [RECORD 0-10 98=Don't know; 99=Refused]

[ASK IF HEP AND 0<CFL8<98, ELSE SKIP TO CFL11]
CFL9. If you had not received free CFLs during the energy audit, would you have installed the same number or fewer CFLs than were installed?
1. (We would have installed FEWER CFLs)
2. (We would have installed the SAME number of CFLs)
3. (We would have installed more)
4. (We would NOT have installed any)
8. (Don't know)
9. (Refused)

[ASK IF HEP AND CFL9<>4]

CFL10. If you had not received free CFLs during the energy audit when would you have installed CFLs on your own?
1. At roughly the same time
2. Within six months
3. Within a year
4. More than a year
8. (Don't know)
9. (Refused)

CFL11. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the CFLS that you received? [0-10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF CFL11 <6]
CFL12. Why did you give this rating?
1. [OPEN END]
98. (Don't know)
99. (Refused)

Faucet Aerator Measure Verification
[ASK SECTION IF FA_FLAG=1]

FA1. Our records indicated that you had [FAQUANT] free faucet aerator(s) installed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"] during the audit, is that correct?
1. Yes
2. No, quantity incorrect
3. (No, aerators were installed at all.) [SKIP TO SH1]
8. (Don't know) [SKIP TO SH1]
9. (Refused) [SKIP TO SH1]

[ASK IF FA1=2]
FA2. How many free faucet aerators did you have installed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"] during the audit? [NUMERIC OPEN END, 1-90]
96. (None) [SKIP TO SH1]
98. (Don't know) [SKIP TO SH1]
99. (Refused) [SKIP TO SH1]

FA3. Are all of the faucet aerators you received through the program still installed?
1. Yes
2. No
8. (Don't know)
9. (Refused)

[ASK IF FA3=2, ELSE SKIP TO FA6]
FA4. How many of the faucet aerators are still installed?
96. (None)
98. (Don't know)
99. (Refused)

FA5. Why did you remove the faucet aerators?

00. [OPEN END]
98. (Don't know)
99. (Refused)

[ASK IF PROG_FLAG=HEP, ELSE SKIP TO FA9]

FA6 If you had not received free faucet aerators during the audit, how likely is it that you would have installed any faucet aerators on your own within the next year? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely". [RECORD 0-10 98=Don't know; 99=Refused]

[ASK IF HEP AND 0<FA6<98; ELSE SKIP TO FA9]

FA7. If you had not received free faucet aerators during the energy audit, would you have installed the same number or fewer faucet aerators than were installed?
1. We would have installed FEWER faucet aerators
2. We would have installed the SAME number of faucet aerators
3. (We would have installed more)
4. (We would NOT have installed any)
8. (Don't know)
9. (Refused)

[ASK IF HEP AND FA7 < >4, ELSE SKIP TO FA9]

FA8. If you had not received free faucet aerators during the energy audit when would you have installed faucet aerators on your own?
1. At roughly the same time
2. Within six months
3. Within a year
4. More than a year
8. (Don't know)
9. (Refused)

FA9. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the faucet aerators you received? [0-10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF FA9 <6]

FA10. Why did you give this rating?
2. [OPEN END]
98. (Don't know)
99. (Refused)

High Efficiency Showerhead Measure Verification

[ASK SECTION IF SH_FLAG=1]

SH1. Our records indicated [SHQUANT] free high efficiency showerhead(s) were installed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"] during the audit, is that correct?
1. Yes
2. No, quantity incorrect
3. (No, showerheads were installed at all.) [SKIP TO AS1]
8. (Don't know) [SKIP TO TW1]
9. (Refused) [SKIP TO TW1]

[ASK if SH1=2]

SH2. How many high efficiency showerheads were installed when the auditor assessed [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"]? [NUMERIC OPEN END, 1-90]
96. (None) [SKIP TO AS1]
98. (Don't know) [SKIP TO AS1]
99. (Refused) [SKIP TO AS1]

SH4. Are all of the high efficiency showerheads you had installed through the program still installed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"]?
1. Yes
2. No
8. (Don't know)
8. 9. (Refused)

[ASK IF SH4=2, ELSE SKIP TO SH7]

SH5. How many of the high efficiency showerheads are still installed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"]?
00. [OPEN END]
98. (Don't know)
99. (Refused)

SH6. Why did you remove [some of] the high efficiency showerheads?
00. [OPEN END]
98. (Don't know)
99. (Refused)

[ASK IF PROG_FLAG=HEP, ELSE SKIP TO SH10]

SH7. If you had not received free high efficiency showerheads during the audit, how likely is it that you would have installed any high efficiency showerheads on your own within the next year? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely". [RECORD 0-10 98=Don't know; 99=Refused]

[ASK IF HEP AND 0<SH7<98; ELSESKIP TO SH10]

SH8. If you had not received free high efficiency showerheads during the energy audit, would you have installed the same number or fewer high efficiency showerheads than were installed?
1. We would have installed FEWER high efficiency showerheads
2. We would have installed the SAME number of high efficiency showerheads
3. (We would have installed more)
4. (We would NOT have installed any)
8. (Don't know)
9. (Refused)

[ASK IF HEP AND SH8<>4, ELSE SKIP TO SH10]

SH9. If you had not received free high efficiency showerheads during the energy audit when would you have installed high efficiency showerheads on your own?
1. At roughly the same time
2. Within six months
3. Within a year

4. More than a year
8. (Don't know)
9. (Refused)

SH10. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the high efficiency showerheads you received?
[0-10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF SH10<6]
SH11. Why did you give this rating?
1. [OPEN END]
98. (Don't know)
99. (Refused)

Air Sealing Measure Verification

[ASK SECTION IF AirSeal_FLAG=1]
AS1. Our records indicate that you had air sealing improvements such as caulk, spray foam, weather stripping or duct upgrades completed in [IF Multi_prop_flag_CONF=1, "multiple homes", ELSE "your home"] through the program. Is that correct?
1. Yes
2. No
8. (Don't know)
9. (Refused)

[SKIP IF AS1=2,8,9]
AS2. Are the air sealing measures still in place?
1. Yes
2. No
8. (Don't know)
9. (Refused)

[ASK IF AS2=2]
AS3. What air sealing measures were removed? [OPEN END, 98=DON'T KNOW, 99=REFUSE]

AS7. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the air sealing you received?
[0-10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF AS7<6]
AS8. Why did you give this rating?
1. [OPEN END]
98. (Don't know)
99. (Refused)

Insulation Measure Verification

[ASK SECTION IF Insulat_FLAG=1]
IN1. [IF Multi_prop_flag_CONF=1, "Our records indicate that you had insulation work done on ceilings, walls, floors or attics through the program", ELSE "Our records indicate that you

had insulation work done on ceilings, walls, floors OR in your attic through the program"]. Is that correct?
1. Yes
2. No
8. (Don't know)
9. (Refused)

[ASK IF IN1=1]
IN2. Through your program ally you could have received incentives on insulation upgrades such as wall, attic, ceiling, and basement insulation. Which types of insulation upgrades did you receive? [MULTIPLE RESPONSE, UP TO 3]
1. (Wall)
2. (Attic)
3. (Ceiling)
4. (Basement)
5. (Rim joist)
6. (Knee wall)
00. (Other insulation specify: _____)
98. (Don't know)
99. (Refused)

IN3. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the insulation you received? [0-10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF IN3<6]
IN4. Why did you give this rating?
9. 1. [OPEN END]

98. (Don't know)
99. (Refused)

Free Ridership

[ASK IF PROG_FLAG=HEP]

ASK SECTION FOR EACH MEASURE: "AIR SEALING" (AirSeal_FLAG=1) AND "INSULATION" (Insulat_FLAG=1)

[ASK IF (AirSeal_FLAG=1AND PROG_FLAG=HEP) OR Insulat_FLAG=1, ELSE SKIP TO SO1]

[FOR MEAS1 READ-IN USE THE FOLLOWING:
IF AIRSEAL, READ IN "AIR SEALING"
IF INSULAT, READ-IN "INSULATION"]

[FOR RMEAS1 READ-IN USE THE FOLLOWING:
IF AIR SEALING READ-IN "PERFORM"
IF INSULATION READ-IN "INSTALL"]

For the next series of questions, please think about the <MEAS1> you had <RMEAS1>ed by program allies using the program incentives. IF Multi_prop_flag_CONF=1, READ "Since you represent multiple homes that participated in the program, please answer the questions based on the typical home.

[ASK IF INSTALL YEAR=2011]

N1. On your 2011 federal tax return, did you claim or do you plan to claim a tax credit for the <MEAS1> that you <RMEAS1>ed?
1. (Yes, I did claim that expense)
2. (Yes, I plan to claim that expense)
3. (No to both)
4. (Don't know)
5. (Refused)

N2. Our records show that for having <MEAS1> <RMEAS1>ed, you received an incentive of about < MEAS1_REBATE> dollars [IF URB_INCENT_FLAG=1 ", including both Ameren Illinois and the City of Urbana incentives"]. Does this amount sound about right? (NOTE TO INTERVIEWER, "URBANA IS PRONOUNCED ER-BAN-A". IF THE RESPONDENT REPRESENTS MULTIPLE HOMES, THEN THE AMOUNT OF INCENTIVE DOLLARS IS THE TOTAL NUMBER OF DOLLARS FOR THE MEASURE TYPE ACROSS THE DIFFERENT SITES.))
1. (Yes)
2. (No)
8. (Don't know)
9. (Refused)

N3. When did you first learn that you could receive incentives from Ameren [IF URB_INCENT_FLAG=1 " and the City of Urbana] for the <MEAS1>? Was it before or after < your <MEAS1> was RMEAS1>ed?
1. Before
2. After
8. (Don't know)
9. (Refused)

[ASK IF N3=2, ELSE SKIP TO N5]

N3a. Just to be clear, did you have the <MEAS1> <RMEAS1>ed and then find out that you could receive incentives from Ameren [IF URB_INCENT_FLAG=1 " and the City of Urbana]?
1. (Yes) [SKIP TO SAT1]
2. (No)
8. (Don't know)
9. (Refused)

N5. I'm going to ask you to rate the importance of several factors that might have influenced your decision to <RMEAS1> the <MEAS1>. Please use a scale from 0 to 10, where 0 is "not at all important" and 10 is "extremely important". How important was…in your decision to <RMEAS1> the <MEAS1>? [0-10; 96=Not Applicable; 98=Don't Know; 99=Refused]

N5a. The availability of the incentive from Ameren [IF URB_INCENT_FLAG=1 " and the City of Urbana]

N5b. [ASK IF N1=1] The availability of Federal tax credits

N5c. [ASK IF AUDITFLAGCONF=1 OR AUDITREBATELFLAGCONF=1] The energy audit you received

N5d. Information from the Ameren marketing materials
N5e. Information from the contractor or program ally

N6. If the program had not been available, how likely is it that you would have < RMEAS1>ed the same <MEAS1> at all. Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely". [RECORD 0-10 98=Don't know; 99= Refused]

[SKIP TO N9 IF N6<5, 98, 99]

[ASK IF MEAS1=INSULATION OR AIRSEAL]
N8. If you had not participated in the program, how likely is it that you would have as much <MEAS1> <RMEAS1>ed as you did? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely". [RECORD 0-10 98=Don't know; 99=Refused]

N7a. Did participating in the program cause you to < RMEAS1> <MEAS1> earlier than you were planning or did participating have no influence on when you did it?
1. <RMEAS1>ed earlier
2. Did not change when I <RMEAS1>ed it
3. Would not have done it at all without the program
8. (Don't know)
9. (Refused)

[ASK IF N7a=1]
N7b. If you hadn't participated in the program, when would you have <RMEAS1>ed your <MEAS1>? Would you say…?
1. Within 6 months of when you did,
2. 6 months to 1 year later,
3. 1-2 years later,
4. or more than 2 years later
8. Don't know
9. Refused

[ASK IF N6>4 AND N5a or c or d or e>4, ELSE SKIP TO MEAS2]
N9. Just to make sure I understand, please explain the importance of the program on your decision to install your <MEAS1>.
00. [OPEN END]
98. (Don't know)
99. (Refused)

Spillover

[ASK IF HEP=1]

SO1. Since your participation in the <PROGRAM NAME>, have you made any additional energy saving home improvements for which you did NOT receive a utility incentive, rebate, or other discount?
1. Yes
2. No
98. (Don't Know)
99. (Refused)

[ASK IF S01=1; ELSE SKIP TO SAT1]
S01a. Did the <PROGRAM> influence you in any way to make these additional improvements?

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

[ASK IF S01a=1; ELSE SKIP TO SAT1]
S02. How influential was your participation in the <PROGRAM> on your decision to make additional energy efficiency improvements on your own? Please use a scale that ranges from 0 to 10 where 0 is "not at all influential" and 10 is "extremely influential", RECORD 0-10; 98=Don't Know; 99=Refused]

[ASK IF S02=8, 9 or 10; ELSE SKIP TO SAT1]
S03. More specifically, how did Ameren's <PROGRAM > influence your decision to make additional home improvements to increase your energy savings? [OPEN END; 98=Don't Know; 99=Refused]

S04. Now I have a few questions about the energy saving improvements you made <u>that did not receive incentives from Ameren.</u> Did you: [1=Yes; 2=No; 98=Don't Know; 99=Refused]

a. Purchase an Energy Star Appliance?
b. Purchase a new high efficiency water heater?
c. Purchase a new air conditioner?
d. Purchase a new furnace?
e. Purchased new windows?

[ASK IF S04a=1]
S05a. Did you purchase an ENERGY STAR refrigerator, dishwasher, clothes washer or freezer? [MULTIPLE RESPONSE]

1. (Yes, Refrigerator)
2. (Yes, Dishwasher)
3. (Yes, clothes washer)
4. (Yes, freezer)
5. (No)
98. (Don't Know)
99. (Refused)

[ASK IF S04b=1 ELSE SKIP TO S05c]
S05b.Was the water heater you purchased an electric or gas water heater?

1. Electric heat pump water heater
2. ENERGY STAR Gas water heater
98. (Don't Know)
99. (Refused)

[ASK IF S04b=1 & S05B=2 (ONLY GAS)]
S05bb. Was it a storage or tankless water heater?

1. Tankless water heater
2. Storage water heater
98. (Don't Know)

99. (Refused)

[ASK IF SO4c=1]
SO5c. Did you receive a government tax credit or rebate for the air conditioner you purchased?
1. Yes
2. No
8. (Don't Know)
9. (Refused)

[ASK IF SO4d=1]
SO5d. Did you receive a government tax credit or rebate for the furnace you purchased?
1. Yes
2. No
8. (Don't Know)
9. (Refused)

[ASK IF SO4e=1]
SO5e. How many windows did you install? [NUMERIC OPEN END, 98=DON'T KNOW, 99= REFUSE]

[ASK IF SO4e=1]
SO6a. Why did you not seek a rebate for the windows you installed? [MULTIPLE RESPONSE; UP TO 3]
1. (Haven't gotten around to submitting the paperwork)
2. (The paperwork is too much of a hassle)
3. (Was not aware rebates were available)
4. (Forgot about the rebates)
00. (Other: specify_____)
98. (Don't Know)
99. (Refused)

[ASK IF SO5a= 1]
SO6b. Why did you not seek a rebate for the ENERGY STAR refrigerator you purchased? [MULTIPLE RESPONSE; UP TO 3]
1. (Haven't gotten around to submitting the paperwork)
2. (The paperwork is too much of a hassle)
3. (Was not aware rebates were available)
4. (Forgot about the rebates)
00. (Other: specify_____)
98. (Don't Know)
99. (Refused)

[ASK IF SO5a= 2]
SO6c. Why did you not seek a rebate for the ENERGY STAR dishwasher you purchased? [MULTIPLE RESPONSE; UP TO 3]
1. (Haven't gotten around to submitting the paperwork)
2. (The paperwork is too much of a hassle)
3. (Was not aware rebates were available)
4. (Forgot about the rebates)
00. (Other: specify_____)
98. (Don't Know)
99. (Refused)

[ASK IF SO5a= 3]
SO6d. Why did you not seek a rebate for the ENERGY STAR clothes washer you purchased? [MULTIPLE RESPONSE; UP TO 3]

1. (Haven't gotten around to submitting the paperwork)
2. (The paperwork is too much of a hassle)
3. (Was not aware rebates were available)
4. (Forgot about the rebates)
00. (Other: specify_____)
98. (Don't Know)
99. (Refused)

[ASK IF SO5a= 4]
SO6e. Why did you not seek a rebate for the ENERGY STAR freezer you purchased? [MULTIPLE RESPONSE; UP TO 3]

1. (Haven't gotten around to submitting the paperwork)
2. (The paperwork is too much of a hassle)
3. (Was not aware rebates were available)
4. (Forgot about the rebates)
00. (Other: specify_____)
98. (Don't Know)
99. (Refused)

[ASK IF (AUDIT_FLAG_CONF=1 OR AUDITREBATE_FLAG_CONF=1) AND ANY SO4a-e=1]
SO7. Were any of these improvements we've just talked about recommended during the audit you received?

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

SO8. Did you make any other improvements that were recommended during the audit that did not receive incentives and that we haven't talked about yet?

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

[ASK IF SO8=1, ELSE SKIP TO SAT1]
SO9. What were these other energy efficient improvements?

1. (Wall Insulation)
2. (Ceiling or Attic Insulation)
3. (Basement Insulation)
4. (Programmable thermostat)
5. (Additional Air Sealing)
6. (HVAC equipment)
7. (Water Heater)
00. (Other [SPECIFY])
98. (Don't know)

99. (Refused)

[ASK FOR EACH SO9=1-00, ELSE SKIP TO SAT1]
SO10. Why didn't you use the Ameren incentives for the [Insert each S08=1-00]? [MULTIPLE RESPONSE; UP TO 3]

1. (Haven't gotten around to submitting the paperwork)
2. (The paperwork is too much of a hassle)
3. (Was not aware rebates were available)
4. (Forgot about the rebates)
00. (Other: specify_____)
98. (Don't Know)
99. (Refused)

Program Satisfaction

[ASK ALL]

SAT1. Please think about your experience with the <PROGRAM NAME> program. On a scale of 0 to 10 where 0 is 'extremely dissatisfied' and 10 is 'extremely satisfied', how satisfied were you with <PROGRAM NAME> program overall? [INDICATE NUMBER 0 THROUGH 10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF SAT1 <6]
SAT1a. Why did you give this rating? (OPEN END) [PROBE FOR SPECIFICS]

[ASK IF AUDIT_FLAG_CONF=1 OR AUDITREBATE_FLAG_CONF=1] [ROTATE]

SAT2. Using the same scale where 0 is 'extremely dissatisfied' and 10 is 'extremely satisfied'… how satisfied were you with… [INDICATE NUMBER 0 THROUGH 10, 98=DON'T KNOW, 99=REFUSED]

[ASK IF AUDIT_FLAG_CONF=1 OR AUDITREBATE_FLAG_CONF=1] [ROTATE]
a. The amount of time between when you called to schedule the audit and when it was done
b. The professionalism of the Energy Advisor who visited your home
c. The time it took to complete the audit
d. The quality of work performed by the Energy Advisor
e. The clarity of the audit report overall
f. The audit report in helping you understand your home's energy usage
g. The audit report in helping you understand where energy improvements could be made in your home

[ASK IF REBATE_FLAG=1 OR AUDITREBATE_FLAG=1]
h. The contractor or program ally's professionalism
i. The quality of the work completed at [IF Multi_prop_flag_CONF=1, "the multiple homes in which you had changes or upgrades made", ELSE "your home"]

[ASK ALL]

SAT3. Using the same scale where 0 is 'extremely dissatisfied' and 10 is 'extremely satisfied' how satisfied were you with the explanation you received about the program's participation

process? [INDICATE NUMBER 0 THROUGH 10, 96= I was not given an explanation, 98=DON'T KNOW, 99=REFUSED]

[ASK IF SAT3<6]

SAT4. Can you please explain which part of the participation process was not clearly explained to you?

00. OPEN END
98. (Don't know)
99. (Refused)

SAT5. From your perspective, what if anything, could be done to improve the program?

00. OPEN END
96. (No/nothing)
98. (Don't know)
99. (Refused)

SAT6. Can you think of any reasons why people might not participate in this program?

00. OPEN END
01. (Not aware of the program)
96. (No/nothing)
98. (Don't know)
99. (Refused)

Demographics

We're almost finished. I just have a few questions about your household.These are for background purposes only.

IF Multi_prop_flag_CONF=1, READ "Since you represent multiple homes that participated in the program, please answer the questions based on a typical home.

D1. What type of house do you live in? Is it a ….?

1. Single Family Detached Home (No common walls)
2. Single Family Attached Home (Townhouse or Duplex)
00. Other, specify
98. (Don't know)
99. (Refused)

D2. Do you or members of your household own this home or do you rent?

1. Own/Buying
2. Rent/Lease
3. (Occupied without payment of rent)
00. Other, specify
8. (Don't know)
9. (Refused)

D3. Counting yourself, how many people normally live in your household on a FULLTIME basis. (IF NECESSARY "Please include everyone who lives in your home whether or not they are

related to you BUT EXCLUDE anyone who is just visiting or children who may be away at college or in the military.

[NUMERIC OPEN END]
98. (Don't know)
99. (Refused)

[ASK D7 IF D2=2 OR 3]

D4.

Do you pay your utility bill directly to your utility company or are your utilities included in your rent or condo fee?

1. Pay directly to utility company
2. Utilities included in rent or condo fee
3. (Pay some utilities directly and some are included in rent or condo fee)
4. (Paid for in some other way)
8. (Don't know)
9. (Refused)

[ASK D4=3]

D4a. Which utilities do you pay directly to the utility company? [MULTIPLE RESPONSE, UP TO 3]

1. Natural gas
2. Electricity
00. (Other: specify)
98. (Don't know)
99. (Refused)

[SKIP IF SO4b=1]

D5. Is your water heater gas or electric?

1. (Gas)
2. (Electric)
8. (Don't know)
9. (Refused)

D6. Do you use a space heater, and if so, is it gas or electric?

1. (Gas)
2. (Electric)
3. (Do not use a space heater)
8. (Don't know)
9. (Refused)

D7. What is the highest level of education that the head of household has completed so far?

1. Less than ninth grade
2. Ninth to twelfth grade (no diploma)
3. High school graduate (includes GED)

4. Some college, No degree
5. Associates degree
6. Bachelors degree
7. Graduate or professional degree
8. (Don't know)
9. (Refused)

D8. In what year were you born?

00. [NUMERIC OPEN END; 1900-1993]
9999. (Refused)

D9. Which category best describes your total household income in 2011, before taxes? Please stop me when I get to the appropriate category.

1. Less than $15,000
2. $15,000 to less than $20,000
3. $20,000 to less than $30,000
4. $30,000 to less than $40,000
5. $40,000 to less than $50,000
6. $50,000 to less than $75,000
7. $75,000 to less than $100,000
8. $100,000 to less than $150,000
9. $150,000 or more
98. (Don't know)
99 (Refused)

CLOSING. We appreciate the information that you have provided. This information is valuable to understanding the effects of the program. Would you be willing to have your individual responses shared with Ameren Illinois and the Illinois Commerce Commission to assist them in making decisions about future programs?
1. Yes
2. No
8. (Don't know)
9. (Refused)

On behalf of Ameren Illinois, thank you for your responses. We are now finished with the survey.

Energy Advisors Interview Guide

Ameren Illinois Evaluation:

Residential Home Energy Performance [HEP, ESHP, MI] Program

HEP: Energy Advisor
ESHP: Air Sealing Energy Advisor
MI: Project Coordinator
In-Depth Interview Guide

July 2012 Final

Name of Interviewee: _____ Date: _____

Title: _____ Company: _____

[Note to Reviewer] The Interview Guide is a tool to guide process evaluation interviews with implementation contractors. The guide helps to ensure the interviews include questions concerning the most important issues being investigated in this study. Follow-up questions are a normal part of these types of interviews. Therefore, there will be sets of questions that will be more fully explored with some individuals than with others. The depth of the exploration with any particular respondent will be guided by the role that individual played in the program's design and operation, i.e., where they have significant experiences for meaningful responses. The interviews will be audio taped and transcribed.

This guide will be used to conduct interviews with 2 CSG Energy Advisors for HEP, 1 CSG Air Sealing Energy Advisor for ESHP and 2 CSG Project Coordinators for Moderate Income. These interviews review program implementation successes and challenges, in addition to understanding barriers to participation for both contractors and participants. The guide attempts to elicit insights into program design, implementation, strengths and weaknesses. The guide also addresses questions of attribution regarding other programs that are operating in this field to develop an appropriate NTG battery for our participant survey.

Introduction

Hi, may I please speak with [NAME FROM LIST]?

My name is _____ and I'm calling from Opinion Dynamics. We are part of the team conducting the evaluation of Ameren Illinois' residential energy efficiency programs and we're currently in the process of conducting follow-up interviews with program staff in order to get updated information on the residential [READ IN BASED UPON SAMPLE Home Energy Performance, Electric Space Heat Pilot, Moderate Income] program. The questions will likely take about 20 minutes to complete. Is this a good time to talk? [IF NOT, SCHEDULE A CALL BACK.]

S1. Our records indicate that you conduct audits for the [READ IN PROGRAM NAME]. Is this correct?

S2. Do you conduct audits for any other programs?

Background

1. Could you describe your role in the program?

a. What are your responsibilities?
b. How long have you been an Energy Advisor/Project Coordinator?
c. How long have you been in the energy efficiency industry?

Overview

2. Could you walk me through a typical process of auditing the home starting from when you first arrive at the home up to the point that a project is completed?
    a. Probe for:
        i. installing the measures
        ii. creating the recommendations report
        iii. [MI ONLY] overseeing contractor work, if applicable
        iv. [MI ONLY] QA / QC efforts
        v. [MI ONLY] determining customer satisfaction at the close of a project
        vi. [MI ONLY] coordinating incentive payments with EAF

3. What would you say are the challenges associated with the auditing (and air sealing) stage?
    a. Probe for:
        i. testing
        ii. installing the direct install measures
        iii. paperwork
        iv. reports
    b. Are there any opportunities for improvement?

Participant Perception

4. Based on your conversations with home-owners, what would you say most motivates them to participate in this program?

5. Are there typical concerns home-owners have around any of the program processes:
    a. The audit of their home?
    b. The installation of the free measures?
    c. The recommendations report?
    d. The rebates for additional measures?

6. How do you think homeowners view the free measures that are installed?
    a. Are there any that they appear to like or dislike more than the others?

Participant Awareness and Knowledge of Home Energy Efficiency

7. How would you describe homeowner awareness or knowledge of home energy efficiency? What makes you say this?
    a. What areas do homeowners appear to have the most awareness or knowledge about?
    b. What areas do homeowners appear to have the least awareness or knowledge about?
    c. Are there aspects of home energy efficiency that are difficult to explain or discuss?
        i. If so, can you think of any ways this process may be improved?

Implementation Challenges and Surprises

8. Is there anything you find routinely challenging about working with homeowners in this program? If so, please describe it.

9. Is there anything you find surprising about working with homeowners in this program? If so, please describe it.

10. What are the biggest challenges to completing high quality work for the program?
    a. Which aspects of the job require the most time?
    b. Which aspects of the job require the most expertise?
    c. Which aspects of the program require most explanation to the home-owners?

Barriers

11. Based on your knowledge of the market and the way the program is marketed, can you think of anything that may keep contractors from participating in the program? What makes you say this?

12. Based on your knowledge of the market and the way the program is marketed, can you think of anything that may keep eligible Ameren customers from requesting an audit? What makes you say this?

10.

13. Based on your conversations with homeowners, what would you guess might most often keep them from acting on the report recommendations? What makes you say this?
    a. Can you think of any ways that homeowners might be further motivated to act on the recommendations?
    b. Can you think of any ways to improve the process by which participants are channeled into other programs for water heater and HVAC rebates, or refrigerator recycling?

[ASK IF HEP/ESHP PARTICIPANTS ONLY]

14. Do you ever review the online list of program allies with the homeowner?

Training (for Development of the Home Building Science Market)

15. Are you BPI-certified?
    [If yes:]
    a. What BPI certifications do you have?
    b. Did you have these BPI certifications before you became an Energy Advisor for CSG?
    c. Could you describe any BPI or other home energy efficiency training you received since becoming an Energy Advisor?

16. How satisfied were you with the training received for the program?

17. Based on your experience as an Energy Advisor/Project Coordinator including the homes you've audited and [ASK IF HEP/ESH: any feedback you've received from CSG's QA/QC inspectors], is there anything you would suggest CSG adds to its training or mentoring activities for Energy Advisors going forward?
    a. About how many homes did you audit before you felt fully competent as an Advisor or is it still a learning process?
    b. What are the most challenging aspects to doing a home audit well?

Other Programs in the Market

18. Can you think of any other programs in the market that provide similar services or otherwise support home energy audits and upgrades?
    [If yes:]
    a. What are they?
    b. Do you know if Ameren customers have access to them?
    c. How do participants in these other programs finance the audit and upgrades?

Opportunities for Program Improvement

19. Aside from what we've talked about so far, are there any other areas where the program could improve to create a more effective program for customers and achieve further energy savings?
20. Do you have any other final comments or suggestions for us?

Thank you very much for taking the time to assist us with this evaluation. Your contribution is a very important part of the process. Do you mind if we follow-up with your by phone or e-mail later, if additional questions arise?

Program Ally Interview Guide

Ameren Illinois Evaluation:

Residential Home Energy Performance HEP, ESHP and MI Program

Program Ally In-Depth Interview Guide

August 2012 - FINAL

Name of Interviewee: _____ Date: _____

Title: _____ Company: _____

[Note to Reviewer] The Interview Guide is a tool to guide process evaluation interviews with Program Allies. The guide helps to ensure the interviews include questions concerning the most important issues being investigated in this study. Follow-up questions are a normal part of these types of interviews. Therefore, there will be sets of questions that will be more fully explored with some individuals than with others. The depth of the exploration with any particular respondent will be guided by the role that individual played in the program's design and operation, i.e., where they have significant experiences for meaningful responses. The interviews will be audio taped and transcribed.

This guide will be used to conduct interviews with 10 Program Allies. The sample of program allies will be selected based upon the number of projects completed in PY4, in addition to their participation across the HEP and Moderate Income programs. These interviews review program implementation successes and challenges, in addition to understanding barriers to participation for both contractors and participants. The guide attempts to elicit insights into program design, implementation, strengths and weaknesses. The guide also explores satisfaction with training, program information, application processes and the program's impact on their business. The guide also addresses questions of attribution regarding other programs that are operating in this field to develop an appropriate NTG battery for our participant survey.

{NOTES TO INTERVIEWER]

1. *AIC notes "The ESHP pilot program is very small and only in specific geographical locations, as such program allies are likely unfamiliar with the program. We suggest removing references to ESHP." So references to the ESHP program have been removed, yet the program may still come up in the interview. In most cases, allies who are represented in ESHP jobs will consider themselves to have participated in the HEP program instead.*

2. *We would like to complete a total of 10 interviews using this approach:*

   - *4 interviews with high volume HEP (and ESHP) program allies*
   - *4 interviews with low volume HEP (and ESHP) program allies*
   - *2 interviews with Moderate Income ("Warm Neighbors Cool Friends") allies*

   Since some allies work in both programs and since there are fewer MI program allies generally, use the beginning of the interview to establish whether or not the ally is a MI ally and if so collect that information first. After we have two interviews completed with MI allies, we can move on to focusing on HEP data collection.

Introduction

Hi, may I please speak with [NAME FROM LIST]?

My name is _____ and I'm calling from Opinion Dynamics on behalf of Ameren and the [READ IN: Home Energy Performance, Warm Neighbors Cool Friends] program. We would like to talk with you for about 30 minutes to get your perspective and feedback for program improvement. Is this a good time to talk? [IF NOT, SCHEDULE A CALL BACK.]

Screener

[Ask all]

21. We'd like to talk to a person in your business that has the most experience with the program. Would you be that person? [IF NOT GET A NAME AND TRY TO SCHEDULE A CALL BACK.]

22. Program records show that you are an active Ameren Program Ally and that you submit jobs to the [READ IN: Home Energy Performance, Warm Neighbors Cool Friends] program(s)]. Is that correct?

Participation in the Market

[Ask all]

23. Could you describe your business and your role in it?
    a. How long have you worked at/ owned [business name]?
    b. Have you always had the same job responsibilities? (Probe for whether program/training impacted change in job responsibilities)
    c. [If not] How long have you been doing what you are doing now?
    d. What are your main types of jobs? HVAC? Insulation? Audits? Etc.

24. Could you describe your client base?
    a. Who do you typically serve: residential or commercial clients?
        i. [ASK IF COMMERCIAL] About what percent of your jobs are residential?
    b. What counties do you primarily serve?
        i. Do you tend to perform different work or serve different types of clients in different counties?
        ii. [if so] Please describe these differences

Program Participation

<u>Expectations</u>

[Ask all]

25. Program records indicate that you started as a residential Program Ally on [Insert date] Does that sound about right? (If not, collect approximate start date)
    a. Has participating in the program met your expectations? Please explain why you say

that.

Training

[Ask all]

26. Could you describe any program training you received either to become a Program Ally or since becoming one?
    Listen for:
    a. **Attendance assistance for continuing education:** Better Buildings Better Business Conference January 31 – February 2nd 2012 in Schaumburg Illinois.
    b. **Spring HEP Contractor Meetings**-with Energy Federation Inc who supplies products such as spray foams, bath fans, light bulbs, aerators etc. Program updates were provided including an extensive discussion on ActOnEnergy Materials and Installation standards as well as there was a presentation on ASHRAE 62.2 ventilation standards by AOE Southern Account Manager Paul Englert
        i. May 20th, Peoria
        ii. May 21st, Decatur
        iii. April 3rd, Metro East
        iv. April 4th in Marion
    c. **Sales Trainings:** May 22nd and May 23rd ActOnEnergy hosted sales training, on identifying the consumer type & needs and tailoring interactions to best educate the consumer and ultimately close the sale for an energy efficiency improvement.
        i. May 22nd, Double Tree Hotel, Collinsville (Metro East)
        ii. May 23rd, Best Western Ashland House, Morton
    d. **On Line Basic Building Science**
    e. **On Line HVACR Training**
    f. **BPI Training:**
        i. John Logan college, near Carbondale,
        ii. Southwest IL Community College Campus, in the metro east.

27. Are you BPI-certified?
    [If yes:]
    d. What BPI certifications do you have?
    e. Did you have these BPI certifications before you became a Program Ally?
    f. How likely is it that you would have sought out these/this BPI certifications(s) if not for the support of the program? Please use a scale where 0 is 'not at all likely' and 10 is 'very likely'.
    g. How about other employees within your business: How many of them have BPI certifications?
        i. When did they get certified?

28. Based on your experience as a Program Ally, is there anything you would suggest CSG or Ameren add to the training activities going forward? What makes you say this?

Impact on Business

[Ask all]

29. In the last six months, about what percentage of your residential jobs have been for the

Ameren [READ IN: Home Energy Performance, Warm Neighbors Cool Friends program(s)]?

a. Do you see this percentage changing at all over the next six months?
b. [If so] How and why?
c. What are the main types of jobs you do for the program?
d. [ASK IF ALLY DOES AIR SEALING AND INSULATION JOBS:] How do the air sealing jobs and insulation jobs you do for the program differ?
    i. Is one typically easier to complete?
    ii. Are the customers different?
    iii. Any other differences you notice?

30. How do you typically get program jobs: by referral from the program, or through your own efforts?
    a. About what percent of program jobs do you get from an audit provided by the program?
    b. About what percent of the program jobs do you get through either the website or through program staff?
    c. About what percent of the program jobs do you get through your own efforts?

31. Aside from anything we have already discussed, what are the ways the [Read in: HEP, WNCF] program has affected your business in the last six months?
    a. Have you hired more staff to be able to complete Ameren program work?
    b. Have you invested in new tools or equipment?
    c. Have you or other staff received other non-program training in residential energy efficiency?
    d. Have you marketed yourself as an energy efficiency or green contractor?
    e. Have you expanded your service area?
    f. Have the number of jobs increased?
    g. Have you started auditing homes for energy efficiency?

Similar Programs in the Market

[Ask all]

32. Are you aware of any other home energy performance programs or initiatives in the market, either in Ameren service territory or in nearby regions?
    a. What are they?
    b. Where are they?
    c. Do you know what upgrades or retrofits they support or promote?
    d. Do you know the other programs well enough to be able to compare Ameren's program to these others?
    e. [If so] What are the key differences between these programs and the Ameren program?
    f. How do these other programs affect your business?
    g. What percent of your residential business jobs/revenues are associated with these other programs/initiatives?
    h. Do your Ameren customers use these programs (e.g., rebates) to help finance their home energy upgrade projects?

Barriers to Contractor Participation

[Ask ESHP / HEP ALLIES ONLY]

My next few questions have to do with Program Ally participation.

33. [Ask of high volume allies] What do you think are the main reasons some Program Allies do not participate in the HEP program more than they do?
    a. What do you think it would take to get these allies to submit more jobs to the HEP program?
    b. Do you think there are certain types of allies for whom participating in the HEP program is more difficult than for others?
        i. If yes, why?

34. [Ask of high volume allies] Is it possible for you to participate in the HEP program even more than you currently do? What has to happen for you to submit more jobs through the program?

35. [Ask of lower volume allies] What keeps you from submitting more jobs to the HEP program than you currently do?
    a. Do you think there are certain types of allies for whom participating in the program is more difficult than for others?
        i. If yes, why?

Participant Awareness and Knowledge of Home Energy Efficiency

36. How would you describe homeowner awareness or knowledge of home energy efficiency? What makes you say this?
    d. What areas do homeowners appear to have the most awareness or knowledge about?
    e. What areas do homeowners appear to have the least awareness or knowledge about?
    f. Are there aspects of home energy efficiency that are difficult to explain or discuss?

Barriers to Customer Participation

[Ask all]

My next few questions have to do with customer participation.

37. Please describe any messaging or marketing approaches you believe motivate homeowners to complete energy efficiency upgrades projects on their homes.

38. Generally speaking, what keeps homeowners from making energy upgrades to their homes?

[Ask if Program Ally participates outside of referrals]

39. In cases in which you've made contact with Ameren customers who did not receive audits through the program, what are the main reasons they might not go ahead with work you

that could be rebated through the program?

a. Can you think of any ways that homeowners might be further motivated to act on energy efficiency upgrades through the program?

[Ask all]

40. Do you tell your customers about other Ameren residential programs?
    a. [If so] Which ones?

Program Component Satisfaction

[Ask all]

Now I am going to ask about your satisfaction with a few program features, please tell me your level of satisfaction using a scale where 0 is 'not satisfied at all' and 10 'is completely satisfied'.

41. How satisfied are you with:
    a. The program overall?
    b. The training activities in which you participated?
    c. The communication with program staff?
    d. The program paperwork?
    e. The program incentive levels? *[Note to interviewer: Be aware that incentive levels are dropping, as such feedback should be separated by PY4 and PY5 incentive levels for a better cross reference.]*
    f. The program measures and upgrades for which the programs give incentives?
    g. The program's marketing approach?

Opportunities for Program Improvement

[Ask all]

42. Can you think of any ways that the program might encourage more participation among Ameren customers with electrically-heated homes?
43. Aside from anything you've already suggested, are there other areas where the program could improve to create a more effective program for customers and achieve further energy savings?
44. Do you have any other final comments or suggestions for us?

Thank you very much for taking the time to assist us with this evaluation. Your contribution is a very important part of the process. Do you mind if we follow-up with your by phone or e-mail later, if additional questions arise?

F. Appendix - Topline from Participant Survey

QS1A

S1A. Our records show that you participated in the (Home Energy Performance Audit Program/Air sealing pilot program). Since there are many ways Ameren customers can participate in the program, please tell me about your participation by answering yes or no to each question. Did you: Receive an in-home energy audit, where an energy advisor installed free energy saving products such as CFLs, faucet aerators, or showerheads and recommended upgrades such as (air sealing or/insulation)?

Choices	
Yes	93%
No	6%
(Don't know)	1%
(Refused)	0%

QS1B

S1b. Did you: Have free energy saving products such as CFL bulbs, faucet aerators, or showerheads installed in your home (and have air sealing performed)?

N: 180

Choices	
Yes	89%
No	10%
(Don't know)	1%
(Refused)	0%

QS1C

S1c. Did you: Have incentivized (air sealing or/insulation) installed in your home by Ameren program allies?

Choices	
Yes	53%
No	46%
(Don't know)	1%
(Refused)	0%

QS1D

S1d. Do you represent more than one home at which energy improvements were made through the program?
N: 4

Choices	
Yes	50%
No	50%
(Don't know)	0%
(Refused)	0%

QS2

S2. Are you an employee of Ameren Illinois or Conservation Services Group?

Choices	
Yes	0%
No	100%
(Don't know)	0%
(Refused)	0%

QPA1

PA1. Where did you first hear about the (Home Energy Performance Audit Program/Air sealing pilot program)?

Choices	
(A letter in the mail)	42%
(A friend, relative or colleague)	15%
(Contractor/ Program Ally)	12%
Bill inserts	8%
(Print Article)	5%
(Ameren/ ActOnEnergy website)	3%
(Door flyer/hanger)	2%
(Neighborhood associations)	2%
(Email from Ameren or ActOnEnergy)	1%
(A Postcard)	1%
(Home Show)	1%
(A public event)	1%
Television/TV commercial	1%
Local government/the city	1%
(Don't Know)	4%
(Refused)	0%

QPA2

PA2. What are the best ways for Ameren to inform you about the energy efficiency programs it offers residential customers?

Choices	
(A letter in the mail)	63%
Bill inserts	15%
(Email from Ameren or ActOnEnergy)	14%
Phone call	5%
(Ameren/ ActOnEnergy website)	4%
Television	3%
(Door flyer/hanger)	3%
(Contractor/ Program Ally)	1%
(A Postcard)	1%
(Radio ad)	1%
(Print Article)	1%
Local government/the city	1%
(Other)	2%
(Don't Know)	4%
(Refused)	0%

QPA3

PA3. And in general, do you consider Ameren a resource for energy efficiency information?
N: 242

Choices	
Yes	84%
No	13%
(Don't know)	3%
(Refused)	0%

QPP1

PP1. Next, I would like to ask you about your participation in the program. Why did you decide to participate in this program?

Choices	
(Save money on energy/electric/gas bill)	43%
(Reduce energy consumption)	18%
(It was inexpensive)	12%
To learn/ understand my home/ diagnose my home	10%
(Make your home more comfortable)	10%
See where house stands/curious	8%
(The available incentive)	8%
Planned to implement or needed improvements anyway	7%
(Increase the value of your home)	4%
(Improve the environment: cleaner air, etc.)	3%
Old house	3%
(Other)	1%
(Don't know)	1%
(Refused)	0%

QE1A

E1a. What best describes your knowledge of home energy improvements BEFORE receiving your home energy audit?
N: 249

Choices	
I had no knowledge	3%
I had very little knowledge	16%
I had some knowledge	63%
I had a lot of knowledge	18%
(Don't know)	0%
(Refused)	0%

QE1B

E1b. On a scale from 0 to 10, where 0 is "NOT increased at all," and 10 is "increase A LOT" how much has your KNOWLEDGE of home energy improvements INCREASED based on the information provided in the energy audit?
N: 249

Choices	
0 - NOT increased at all	2%
1	1%
2	3%
3	6%
4	5%
5	15%
6	9%
7	22%
8	24%
9	4%
10 - Increased A LOT	8%
(Don't know)	2%
(Refused)	0%
MEAN	**6.43**

QB1

B1. Do you recall receiving recommendations for how to save energy in your home from the auditor?
N: 249

Choices	
Yes	92%
No	8%
(Don't know)	1%
(Refused)	0%

QB2

B2. Would you say you have completed all, some, or none of the energy saving recommendations you received from the auditor?
N: 115

Choices	
All	6%
Some	70%
None	23%
(Don't know)	1%
(Refused)	0%

QB2A

B2a. Would you say you have completed all or some of the energy saving recommendations you received from the auditor?
N: 113

Choices	
(All)	50%
(Some)	50%
(Don't know)	0%
(Refused)	0%

QB3

B3. Do you have any current plans to complete any of the remaining energy saving recommendations?
N: 164

Choices	
Yes	59%
No	36%
(Don't know)	5%
(Refused)	0%

QB4

B4. What recommendations are unlikely ever to be completed?
N: 164

Choices	
(Attic, wall or other insulation)	23%
(Duct sealing or insulating)	5%
(Air Sealing)	4%
(High efficiency Furnace/Boiler/Heat Pump)	4%
Windows	4%
Can't fit into budget	2%
(High efficiency Air conditioner)	2%
(CFL bulbs)	1%
(Low-Flow Shower Heads)	1%
Fans: whole house, attic, or bathroom	1%
(None)	35%
(Don't know)	23%
(Refused)	0%

QB5

B5. Why aren't these recommendations likely to be completed?
N: 68

Choices	
(Project cost)	50%
(The savings are not worth the effort)	18%
(Not interested)	10%
Won't be here long enough/relocating	7%
(Waiting for XYZ)	6%
Rental property	4%
(Too busy/ Too much time)	3%
(Program allies/Contractor are not available)	3%
(Don't know which contractors to use)	1%
(Other)	4%
(Don't know)	1%
(Refused)	0%

QCH1

CH1. Do you recall learning about other Ameren Illinois programs through your participation in the (Program)?

Choices	
Yes	26%
No	69%
(Don't know)	5%
(Refused)	0%

QCH2

CH2. Which other Ameren Illinois programs did you learn about?
N: 69

Choices	
(Old/inefficient refrigerator or freezer recycling; "Appliance Recycling Program"	25%
(Rebates for efficient air purifier/ water heater; "Rebates on Energy-saving Products for your Home Program")	23%
(Central air conditioner/ Heat pump/ Gas furnace or boiler replacements; "HVAC Program")	19%
Financial rebates	7%
Insulation/other building envelope	4%
CFLs/Lighting	3%
Buying EE appliances	3%
Warm Neighbors Cool Friends	1%
(Other)	7%
(None)	1%
(Don't know)	26%
(Refused)	0%

QCH3

CH3. How did you hear about the other programs?
N: 69

Choices	
(Energy advisor /auditor/ audit report)	58%
Newspaper	10%
(Contractor/ Program ally)	9%
Mail	6%
Bill insert	6%
Word of mouth	4%
(CSG or Ameren Illinois employee)	4%
(Ameren Illinois website)	4%
Flyer	3%
Media ads (radio, TV, etc...)	3%
(Other)	3%
(Don't know)	3%
(Refused)	0%

QCH4

CH4. In which of the other programs, if any, have you participated?
N: 52

Choices	
(Old/inefficient refrigerator or freezer recycling; "Appliance Recycling Program")	6%
(Rebates for programmable thermostats; "Rebates on Energy-saving Products for your Home Program")	6%
(Purchased discounted CFL bulbs)	6%
(Gas furnace replacements - "HVAC Program")	2%
(Central air conditioner -"HVAC Program")	2%
(Heat pump replacements -"HVAC Program")	2%
(Rebates for efficient air purifier - "Rebates on Energy-saving Products for your Home Program")	2%
(Rebates for efficient room air conditioner - "Rebates on Energy-saving Products for your Home Program")	2%
Warm Neighbors Cool Friends	2%
(Other)	8%
(None)	65%
(Don't know)	2%
(Refused)	0%

QRP1

RP1. Before you received program incentives for having air sealing or insulation upgrades installed by Ameren program allies, did you know that you were eligible to receive a home energy audit?
N: 20

Choices	
Yes	25%
No	75%
(Don't know)	0%
(Refused)	0%

QRP2

RP2. Why didn't you get an audit?
N: 5

Choices	
(Not interested)	40%
(Already knew what work was necessary/desired)	20%
(Too costly)	20%
(Don't Know)	20%
(Refused)	0%

QMV1

MV1. Earlier, you mentioned that you had free energy products installed through the program. Please tell me if you had the following products installed.
N: 61

Choices	
CFLs	31%
Showerheads	13%
Faucet Aerators	3%
(Did not have any of these measures installed)	66%
(Don't know)	0%
(Refused)	0%

QCFL1

CFL1. Our records show that you had the following free CFLs installed in (multiple homes/your home) during the audit(Quantity) 60 watt equivalent CFLS(14w) , (Quantity) 75 watt equivalent CFLS(19w), (Quantity) 100 watt equivalent CFLS(23w), For a total of (Quantity) bulbs. Is that correct?
N: 131

Choices	
Yes	94%
No, quantity incorrect	2%
(Did not receive any CFLs at all)	1%
(Don't know)	4%
(Refused)	0%

QCFL1A

CFL1A. Are you able to tell me how many bulbs of each wattage type you received?
N: 21

Choices	
Yes	33%
No	48%
(Don't know)	19%
(Refused)	0%

QCFL2A

CFL2A. How many 60 watt equivalent (14w CFL) CFL bulbs were installed during the audit?
N: 7

Choices	
(None)	0%
1	14%
2	14%
6	14%
10	14%
16	14%
20	14%
(Don't know)	14%
(Refused)	0%

QCFL2B

CFL2B. 75 watt equivalent (19w CFL) CFL bulbs?
N: 7

Choices	
(None)	71%
(Don't know)	29%
(Refused)	0%

QCFL2C

CFL2C. 100 watt equivalent (23w CFL) CFL bulbs?
N: 7

Choices	
(None)	71%
1	14%
(Don't know)	14%
(Refused)	0%

QCFL2D

CFL2D. How many CFLs, in total, were installed during the audit?
N: 14

Choices	
(None)	14%
3	7%
5	7%
6	14%
8	7%
10	7%
(Don't know)	43%
(Refused)	0%

QCFL3

CFL3. Are all of the CFLs still installed?
N: 132

Choices	
Yes	92%
No	8%
(Don't know)	0%
(Refused)	0%

QCFL4A

CFL4A. 60 watt equivalent (14w)
N: 10

Choices	
(None)	20%
1	10%
2	10%
3	10%
4	10%
5	20%
11	10%
(Don't know)	10%
(Refused)	0%

QCFL4B

CFL4B. 75 watt equivalent (19w)
N: 2

Choices	
(None)	0%
2	50%
(Don't know)	50%
(Refused)	0%

QCFL4C

CFL4C. 100 watt equivalent (23w)
N: 6

Choices	
(None)	50%
1	17%
2	17%
(Don't know)	17%
(Refused)	0%

QCFL4D

CFL4D. How many CFLs, in total, are still installed?
N: 0

Choices	
(None)	0%
(Don't know)	0%
(Refused)	0%

QCFL5

CFL5. Why did you remove the CFLs?
N: 10

Choices	
Burned out/ no longer worked	60%
Not all were installed	30%
(Don't know)	10%
(Refused)	0%

QCFL6

CFL6. What did you do with the CFLs that are not installed?
N: 10

Choices	
(Stored them for future use)	70%
(Gave them to someone else)	20%
(Threw them away in the garbage)	10%
(Don't know)	0%
(Refused)	0%

QCFL7

CFL7. Did the CFLs installed during the energy audit replace standard incandescent bulbs or older CFLs?
N: 130

Choices	
(Incandescent Standard)	83%
(CFLs)	8%
(Both)	7%
(Don't know)	2%
(Refused)	0%

QCFL8

CFL8. If you had not received free CFLs during the energy audit, how likely is it that you would have installed any CFLs on your own within the next year?
N: 86

Choices	
0 - Not at all likely	5%
1	3%
2	6%
3	8%
4	2%
5	7%
6	5%
7	6%
8	12%
9	5%
10 - Extremely likely	40%
(Don't know)	2%
(Refused)	0%
MEAN	**6.99**

QCFL9

CFL9. If you had not received free CFLs during the energy audit, would you have installed the same number or fewer CFLs than were installed?

N: 84

Choices	
(We would have installed FEWER CFLs)	45%
(We would have installed the SAME number of CFLs)	40%
(We would have installed more)	7%
(We would NOT have installed any)	6%
(Don't know)	1%
(Refused)	0%

QCFL10

CFL10. If you had not received free CFLs during the energy audit when would you have installed CFLs on your own?

N: 79

Choices	
At roughly the same time	10%
Within six months	30%
Within a year	33%
More than a year	16%
(Don't know)	8%
(Refused)	3%

QCFL11

CFL11. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the CFLS that you received?

N: 132

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	1%
4	2%
5	4%
6	7%
7	8%
8	18%
9	12%
10 - Extremely satisfied	49%
(Don't know)	0%
(Refused)	0%
MEAN	**8.68**

QCFL12

CFL12. Why did you give this rating?
N: 8

Choices	
CFLs are not bright enough	50%
CFLs are not working	25%
Too expensive	12%
(Other)	12%
(Don't know)	0%
(Refused)	0%

QFA1

FA1. Our records indicated that you had (Quantity) free faucet aerators installed in (multiple homes/your home) during the audit, is that correct?
N: 119

Choices	
Yes	97%
No, quantity incorrect	2%
(Not aerators were installed at all)	1%
(Don't know)	1%
(Refused)	0%

QFA2

FA2. How many free faucet aerators did you have installed in (multiple homes/your home) during the audit?
N: 4

Choices	
(None)	25%
1	50%
2	25%
(Don't know)	0%
(Refused)	0%

QFA3

FA3. Are all of the faucet aerators you received through the program still installed?
N: 118

Choices	
Yes	95%
No	5%
(Don't know)	0%
(Refused)	0%

QFA4

FA4. How many of the faucet aerators are still installed?
N: 5

Choices	
(None)	0%
1	60%
2	40%
(Don't know)	0%
(Refused)	0%

QFA5

FA5. Why did you remove the faucet aerators?
N: 6

Choices	
Installed a new sink/new aerator	50%
Weren't working properly	50%
(Don't know)	0%
(Refused)	0%

QFA6

FA6. If you had not received free faucet aerators during the audit, how likely is it that you would have installed any faucet aerators on your own within the next year? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".
N: 66

Choices	
0 - Not at all likely	48%
1	11%
2	11%
3	9%
4	3%
5	5%
6	0%
7	0%
8	2%
9	3%
10 - Extremely likely	9%
(Don't know)	0%
(Refused)	0%
MEAN	**2.24**

QFA7

FA7. If you had not received free faucet aerators during the energy audit, would you have installed the same number or fewer faucet aerators than were installed?
N: 66

Choices	
(We would have installed FEWER faucet aerators)	52%
(We would have installed the SAME number of faucet aerators)	21%
(We would have installed more)	2%
(We would NOT have installed any)	24%
(Don't know)	2%
(Refused)	0%

QFA8

FA8. If you had not received free faucet aerators during the energy audit when would you have installed faucet aerators on your own?
N: 50

Choices	
At roughly the same time	4%
Within six months	20%
Within a year	8%
More than a year	44%
(Don't know)	22%
(Refused)	2%

QFA9

FA9. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the faucet aerators you received?
N: 118

Choices	
0 - Extremely dissatisfied	0%
1	1%
2	1%
3	2%
4	2%
5	8%
6	4%
7	9%
8	15%
9	7%
10 - Extremely satisfied	49%
(Don't know)	3%
(Refused)	0%
MEAN	**8.39**

QFA10

FA10. Why did you give this rating?
N: 15

Choices	
Low pressure	47%
Liked old one better/doesn't work properly	27%
Don't see improvement/efficiency	20%
(Don't know)	7%
(Refused)	0%

QSH1

SH1. Our records indicated (Quantity) free high efficiency showerhead(s) were installed in (multiple homes/your home) during the audit, is that correct?

N: 107

Choices	
Yes	92%
No, quantity incorrect	1%
(No showerheads were installed at all)	7%
(Don't Know)	1%
(Refused)	0%

QSH2

SH2. How many high efficiency showerheads were installed when the auditor assessed (multiple homes/your home)?

N: 9

Choices	
(None)	0%
1	44%
2	56%
(Don't know)	0%
(Refused)	0%

QSH4

SH4. Are all of the high efficiency showerheads you had installed through the program still installed in (multiple homes/your home)?

N: 107

Choices	
Yes	94%
No	6%
(Don't Know)	0%
(Refused)	0%

QSH5

SH5. How many of the high efficiency showerheads are still installed in (multiple homes/your home)?

N: 3

Choices	
(None)	0%
1	100%
(Don't know)	0%
(Refused)	0%

QSH6

SH6. Why did you remove (some of) the high efficiency showerheads?

N: 6

Choices	
Remodeled/replaced everything	50%
Didn’t work properly	33%
Shower location	17%
(Don't know)	0%
(Refused)	0%

QSH7

SH7. If you had not received free high efficiency showerheads during the audit, how likely is it that you would have installed any high efficiency showerheads on your own within the next year? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".

N: 72

Choices	
0 - Not at all likely	42%
1	7%
2	8%
3	4%
4	6%
5	8%
6	3%
7	4%
8	1%
9	3%
10 - Extremely likely	12%
(Don't know)	1%
(Refused)	0%
MEAN	**3.11**

QSH8

SH8. If you had not received free high efficiency showerheads during the energy audit, would you have installed the same number or fewer high efficiency showerheads than were installed?

N: 71

Choices	
(We would have installed FEWER high efficiency showerheads)	41%
(We would have installed the SAME number of high efficiency showerheads)	34%
(We would have installed more)	1%
(We would NOT have installed any)	24%
(Don't know)	0%
(Refused)	0%

QSH9

SH9. If you had not received free high efficiency showerheads during the energy audit when would you have installed high efficiency showerheads on your own?

N: 54

Choices	
At roughly the same time	6%
Within six months	19%
Within a year	19%
More than a year	48%
(Don't know)	7%
(Refused)	2%

QSH10

SH10. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the high efficiency showerheads you received?
N: 107

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	1%
3	2%
4	0%
5	10%
6	7%
7	9%
8	17%
9	10%
10 - Extremely satisfied	41%
(Don't know)	2%
(Refused)	0%
MEAN	**8.23**

QSH11

SH11. Why did you give this rating?
N: 14

Choices	
Doesn't work well/Don't like it	43%
Low pressure	29%
Don't see improvement/efficiency	21%
(Other)	7%
(Don't know)	0%
(Refused)	0%

QAS1

AS1. Our records indicate that you had air sealing improvements such as caulk, spray foam, weather stripping or duct upgrades completed in (multiple homes/your home) through the program. Is that correct?
N: 133

Choices	
Yes	95%
No	3%
(Don't Know)	2%
(Refused)	0%

QAS2

AS2. Are the air sealing measures still in place?
N: 126

Choices	
Yes	98%
No	1%
(Don't Know)	2%
(Refused)	0%

QAS3

AS3. What air sealing measures were removed?
N: 1

Choices	
Attic cover	100%
(Don't know)	0%
(Refused)	0%

QAS7

AS7. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the air sealing you received?
N: 126

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	0%
4	0%
5	2%
6	2%
7	6%
8	21%
9	17%
10 - Extremely satisfied	48%
(Don't know)	2%
(Refused)	0%
MEAN	**8.98**

QAS8

AS8. Why did you give this rating?
N: 3

Choices	
Did not see improvements	67%
Poor aesthetics	33%
(Don't know)	0%
(Refused)	0%

QIN1

IN1. Our records indicate that you had insulation work done on ceilings, walls, floors OR attics through the program. Is that correct?
N: 115

Choices	
Yes	100%
No	0%
(Don't Know)	0%
(Refused)	0%

QIN2

IN2. Through your program ally you could have received incentives on insulation upgrades such as wall, attic, ceiling, and basement insulation. Which types of insulation upgrades did you receive?
N: 115

Choices	
(Attic)	76%
(Wall)	36%
(Ceiling)	30%
(Basement)	26%
Crawl space	5%
Floor/foundation/base of house	3%
(Rim joist)	2%
(Knee wall)	2%
(Other)	2%
(Don't know)	3%
(Refused)	0%

QIN3

IN3. On a scale from 0 to 10, where 0 is "extremely dissatisfied" and 10 is "extremely satisfied", how would you rate your overall satisfaction with the insulation you received?
N: 115

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	1%
4	0%
5	1%
6	2%
7	3%
8	21%
9	15%
10 - Extremely satisfied	56%
(Don't know)	2%
(Refused)	0%
MEAN	**9.14**

QIN4

IN4. Why did you give this rating?
N: 2

Choices	
Did not see bill improvements	50%
(Other)	50%
(Don't know)	0%
(Refused)	0%

QN1A

N1. On your 2011 federal tax return, did you claim or do you plan to claim a tax credit for the air sealing that you performed?
N: 47

Choices	
(Yes, I did claim that expense)	45%
(Yes, I plan to claim that expense)	9%
(No to both)	34%
(Don't know)	13%
(Refused)	0%

QN2A

N2. Our records show that for having air sealing performed, you received an incentive of about (Quantity) dollars (including both Ameren Illinois and the City of Urbana incentives). Does this amount sound about right?
N: 109

Choices	
(Yes)	81%
(No)	5%
(Don't know)	15%
(Refused)	0%

QN3A

N3. When did you first learn that you could receive incentives from Ameren (and the City of Urbana)? Was it before or after your air sealing was performed?
N: 109

Choices	
(Before)	93%
(After)	4%
(Don't know)	3%
(Refused)	1%

QN3AA

N3a. Just to be clear, did you have the air sealing performed and then find out that you could receive incentives from Ameren (and the City of Urbana)?
N: 4

Choices	
(Yes)	50%
(No)	50%
(Don't know)	0%
(Refused)	0%

QN5AA	
N5a. How important was... The availability of the incentive from Ameren (and the City of Urbana)	
N: 107	
Choices	
0 - Not at all important	2%
1	0%
2	1%
3	0%
4	3%
5	7%
6	4%
7	6%
8	18%
9	11%
10 - Extremely important	48%
(Not applicable)	0%
(Don't know)	1%
(Refused)	0%
MEAN	**8.40**

QN5BA	
N5b. How important was... The availability of Federal tax credits	
N: 21	
Choices	
0 - Not at all important	5%
1	5%
2	5%
3	0%
4	0%
5	10%
6	10%
7	5%
8	19%
9	0%
10 - Extremely important	43%
(Not applicable)	0%
(Don't know)	0%
(Refused)	0%
MEAN	**7.33**

QN5CA

N5c. How important was... The energy audit you received
N: 52

Choices	
0 - Not at all important	0%
1	0%
2	0%
3	2%
4	0%
5	6%
6	2%
7	6%
8	19%
9	12%
10 - Extremely important	54%
(Not applicable)	0%
(Don't know)	0%
(Refused)	0%
MEAN	**8.83**

QN5DA

N5d. How important was... Information from the Ameren marketing materials
N: 107

Choices	
0 - Not at all important	3%
1	0%
2	3%
3	4%
4	2%
5	10%
6	5%
7	11%
8	15%
9	6%
10 - Extremely important	36%
(Not applicable)	3%
(Don't know)	4%
(Refused)	0%
MEAN	**7.57**

QN5EA

N5e. How important was... Information from the contractor or program ally
N: 107

Choices	
0 - Not at all important	1%
1	0%
2	0%
3	0%
4	1%
5	3%
6	4%
7	6%
8	20%
9	16%
10 - Extremely important	50%
(Not applicable)	1%
(Don't know)	0%
(Refused)	0%
MEAN	**8.83**

QN6A

N6. If the program had not been available, how likely is it that you would have performed the same air sealing at all. Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".
N: 107

Choices	
0 - Not at all likely	25%
1	3%
2	8%
3	8%
4	9%
5	8%
6	9%
7	5%
8	9%
9	3%
10 - Extremely likely	11%
(Don't know)	0%
(Refused)	0%
MEAN	**4.25**

QN8A

N8. If you had not participated in the program, how likely is it that you would have as much air sealing performed as you did? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".

N: 49

Choices	
0 - Not at all likely	2%
1	0%
2	4%
3	6%
4	6%
5	20%
6	14%
7	4%
8	24%
9	2%
10 - Extremely likely	16%
(Don't know)	0%
(Refused)	0%
MEAN	**6.45**

QN7AA

N7a. Did participating in the program cause you to perform air sealing earlier than you were planning or did participating have no influence on when you did it?

N: 49

Choices	
(Performed earlier)	55%
(Did not change when I performed it)	39%
(Would not have done it at all without the program)	4%
(Don't know)	0%
(Refused)	2%

QN7BA

N7b. If you hadn't participated in the program, when would you have performed your air sealing? Would you say...?

N: 27

Choices	
Within 6 months of when you did	15%
6 months to 1 year later	30%
1-2 years later	37%
More than 2 years later	19%
(Don't know)	0%
(Refused)	0%

QN9A

N9. Just to make sure I understand, please explain the importance of the program on your decision to perform air sealing.
N: 49

Choices	
Open-ended response	96%
(Don't know)	2%
(Refused)	6%

QN1B

N1. On your 2011 federal tax return, did you claim or do you plan to claim a tax credit for the insulation that you installed?
N: 47

Choices	
(Yes, I did claim that expense)	47%
(Yes, I plan to claim that expense)	13%
(No to both)	32%
(Don't know)	9%
(Refused)	0%

QN2B

N2. Our records show that for having insulation installed, you received an incentive of about (Quantity) dollars (including both Ameren Illinois and the City of Urbana incentives). Does this amount sound about right?
N: 113

Choices	
(Yes)	84%
(No)	4%
(Don't know)	12%
(Refused)	0%

QN3B

N3. When did you first learn that you could receive incentives from Ameren (and the City of Urbana) for the insulation? Was it before or after your insulation was installed?
N: 113

Choices	
(Before)	96%
(After)	2%
(Don't know)	1%
(Refused)	1%

QN3AB

N3a. Just to be clear, did you have the insulation installed and then find out that you could receive incentives from Ameren (and the City of Urbana)?
N: 2

Choices	
(Yes)	50%
(No)	50%
(Don't know)	0%
(Refused)	0%

QN5AB

N5a. How important was... The availability of the incentive from Ameren (and the City of Urbana)?

N: 112

Choices	
0 - Not at all important	3%
1	0%
2	2%
3	1%
4	1%
5	7%
6	1%
7	6%
8	16%
9	10%
10 - Extremely important	53%
(Not applicable)	0%
(Don't know)	1%
(Refused)	0%
MEAN	**8.46**

QN5BB

N5b. How important was... The availability of Federal tax credits
N: 22

Choices	
0 - Not at all important	9%
1	0%
2	5%
3	0%
4	0%
5	14%
6	5%
7	14%
8	9%
9	0%
10 - Extremely important	41%
(Not applicable)	5%
(Don't know)	0%
(Refused)	0%
MEAN	**7.14**

QN5CB

N5c. How important was... The energy audit you received
N: 54

Choices	
0 - Not at all important	0%
1	0%
2	0%
3	0%
4	2%
5	0%
6	0%
7	9%
8	31%
9	9%
10 - Extremely important	46%
(Not applicable)	0%
(Don't know)	2%
(Refused)	0%
MEAN	**8.87**

QN5DB

N5d. How important was... Information from the Ameren marketing materials
N: 112

Choices	
0 - Not at all important	6%
1	1%
2	0%
3	2%
4	5%
5	9%
6	5%
7	8%
8	16%
9	9%
10 - Extremely important	35%
(Not applicable)	3%
(Don't know)	1%
(Refused)	0%
MEAN	**7.44**

QN5EB	
N5e. How important was... Information from the contractor or program ally	
N: 112	
Choices	
0 - Not at all important	2%
1	0%
2	0%
3	2%
4	1%
5	3%
6	4%
7	8%
8	20%
9	8%
10 - Extremely important	51%
(Not applicable)	1%
(Don't know)	1%
(Refused)	0%
MEAN	**8.59**

QN6B	
N6. If the program had not been available, how likely is it that you would have installed the same insulation at all. Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".	
N: 112	
Choices	
0 - Not at all likely	23%
1	3%
2	10%
3	11%
4	7%
5	10%
6	8%
7	4%
8	3%
9	3%
10 - Extremely likely	19%
(Don't know)	0%
(Refused)	0%
MEAN	**4.45**

QN8B

N8. If you had not participated in the program, how likely is it that you would have as much insulation installed as you did? Please use a likelihood scale from 0 to 10, where 0 is "Not at all likely" and 10 is "Extremely likely".
N: 52

Choices	
0 - Not at all likely	10%
1	0%
2	4%
3	10%
4	0%
5	17%
6	13%
7	6%
8	8%
9	4%
10 - Extremely likely	29%
(Don't know)	0%
(Refused)	0%
MEAN	**6.29**

QN7AB

N7a. Did participating in the program cause you to install insulation earlier than you were planning or did participating have no influence on when you did it?
N: 52

Choices	
(Installed earlier)	50%
(Did not change when I installed it)	48%
(Would not have done it at all without the program)	2%
(Don't know)	0%
(Refused)	0%

QN7BB

N7b. If you hadn't participated in the program, when would you have installed your insulation? Would you say...?
N: 26

Choices	
Within 6 months of when you did	23%
6 months to 1 year later	23%
1-2 years later	31%
More than 2 years later	23%
(Don't know)	0%
(Refused)	0%

QN9B

N9. Just to make sure I understand, please explain the importance of the program on your decision to install your insulation.
N: 52

Choices	
Open-ended response	88%
(Don't know)	6%
(Refused)	6%

QSO1

SO1. Since your participation in the (Program), have you made any additional energy saving home improvements for which you did NOT receive a utility incentive, rebate, or other discount?
N: 201

Choices	
Yes	33%
No	65%
(Don't Know)	2%
(Refused)	0%

QSO1A

SO1a. Did the (Program) influence you in any way to make these additional improvements?
N: 67

Choices	
Yes	60%
No	40%
(Don't Know)	0%
(Refused)	0%

QSO2

SO2. How influential was your participation in the (Program) on your decision to make additional energy efficiency improvements on your own? Please use a scale that ranges from 0 to 10 where 0 is "not at all influential" and 10 is "extremely influential".
N: 40

Choices	
0 - Not at all influential	0%
1	0%
2	0%
3	2%
4	0%
5	8%
6	8%
7	20%
8	15%
9	3%
10 - Extremely influential	45%
(Don't know)	0%
(Refused)	0%
MEAN	**8.22**

QSO3

SO3. More specifically, how did Ameren's (Program) influence your decision to make additional home improvements to increase your energy savings?

N: 25

Choices	
Open-ended response	100%
(Don't know)	0%
(Refused)	0%

QSO4A

SO4a. Did you... Purchase an Energy Star Appliance?
N: 25

Choices	
Yes	32%
No	68%
(Don't Know)	0%
(Refused)	0%

QSO4B

SO4b. Did you... Purchase a new high efficiency water heater?
N: 25

Choices	
Yes	40%
No	60%
(Don't Know)	0%
(Refused)	0%

QSO4C

SO4c. Did you... Purchase a new air conditioner?
N: 25

Choices	
Yes	20%
No	80%
(Don't Know)	0%
(Refused)	0%

QSO4D

SO4d. Did you... Purchase a new furnace?
N: 25

Choices	
Yes	8%
No	92%
(Don't Know)	0%
(Refused)	0%

QSO4E

SO4e. Did you... Purchase new windows?
N: 25

Choices	
Yes	40%
No	60%
(Don't Know)	0%
(Refused)	0%

QSO5A

SO5a. Did you purchase an ENERGY STAR refrigerator, dishwasher, clothes washer or freezer?
N: 8

Choices	
(Yes, Refrigerator)	38%
(Yes, freezer)	38%
(Yes, Dishwasher)	12%
(Yes, clothes washer)	0%
(No)	38%
(Don't Know)	0%
(Refused)	0%

QSO5B

SO5b. Was the water heater you purchased an electric or gas water heater?
N: 10

Choices	
(ENERGY STAR Gas water heater)	100%
(Electric heat pump water heater)	0%
(Don't Know)	0%
(Refused)	0%

QSO5BB

SO5bb. Was it a storage or tankless water heater?
N: 10

Choices	
Tankless water heater	10%
Storage water heater	90%
(Don't Know)	0%
(Refused)	0%

QSO5C

SO5c. Did you receive a government tax credit or rebate for the air conditioner you purchased?
N: 5

Choices	
Yes	20%
No	60%
(Don't Know)	20%
(Refused)	0%

QSO5D

SO5d. Did you receive a government tax credit or rebate for the furnace you purchased?
N: 2

Choices	
Yes	50%
No	50%
(Don't Know)	0%
(Refused)	0%

QSO5E

SO5e. How many windows did you install?
N: 10

Choices	
2	30%
3	20%
6	10%
11	20%
14	10%
24	10%
(Don't know)	0%
(Refused)	0%

QSO6A

SO6a. Why did you not seek a rebate for the windows you installed?
N: 10

Choices	
(Was not aware rebates were available)	30%
(Forgot about the rebates)	10%
(Other)	60%
(Don't Know)	0%
(Refused)	0%

QSO6B

SO6b. Why did you not seek a rebate for the ENERGY STAR refrigerator you purchased?
N: 3

Choices	
(Was not aware rebates were available)	33%
(Other)	67%
(Don't Know)	0%
(Refused)	0%

QSO6C

SO6c. Why did you not seek a rebate for the ENERGY STAR dishwasher you purchased?
N: 1

Choices	
(Was not aware rebates were available)	100%
(Don't Know)	0%
(Refused)	0%

QSO6D

SO6d. Why did you not seek a rebate for the ENERGY STAR clothes washer you purchased?
N: 0

Choices	
(Other)	0%
(Don't Know)	0%
(Refused)	0%

QSO6E

SO6e. Why did you not seek a rebate for the ENERGY STAR freezer you purchased?
N: 3

Choices	
(Was not aware rebates were available)	33%
(Other)	67%
(Don't Know)	0%
(Refused)	0%

QSO7

SO7. Were any of these improvements we've just talked about recommended during the audit you received?
N: 15

Choices	
Yes	53%
No	47%
(Don't Know)	0%
(Refused)	0%

QSO8

SO8. Did you make any other improvements that were recommended during the audit that did not receive incentives and that we haven't talked about yet?
N: 25

Choices	
Yes	40%
No	56%
(Don't Know)	4%
(Refused)	0%

QSO9	
SO9. What were these other energy efficient improvements?	
N: 10	
Choices	
(Additional Air Sealing)	50%
New lighting	20%
(Ceiling or Attic Insulation)	20%
Duct work	20%
(Wall Insulation)	10%
(HVAC equipment)	10%
(Other)	10%
(Don't know)	0%
(Refused)	0%

QSO10A	
So10a. Why didn't you use the Ameren incentives for the wall insulation?	
N: 0	
Choices	
(Other)	0%
(Don't Know)	0%
(Refused)	0%

QSO10B	
So10B. Why didn't you use the Ameren incentives for the ceiling or attic insulation?	
N: 2	
Choices	
(Other)	100%
(Don't Know)	0%
(Refused)	0%

QSO10C	
So10c. Why didn't you use the Ameren incentives for the basement insulation?	
N: 0	
Choices	
(Other)	0%
(Don't Know)	0%
(Refused)	0%

QSO10D	
So10d. Why didn't you use the Ameren incentives for the programmable thermostat?	
N: 0	
Choices	
(Other)	0%
(Don't Know)	0%
(Refused)	0%

QSO10E

So10e. Why didn't you use the Ameren incentives for the additional air sealing?
N: 2

Choices	
(Other)	50%
(Don't Know)	50%
(Refused)	0%

QSO10F

So10f. Why didn't you use the Ameren incentives for the HVAC equipment?
N: 0

Choices	
(Other)	0%
(Don't Know)	0%
(Refused)	0%

QSO10G

So10g. Why didn't you use the Ameren incentives for the water heater?
N: 0

Choices	
(Other)	0%
(Don't Know)	0%
(Refused)	0%

QSO10H

So10h. Why didn't you use the Ameren incentives for the (Response to QSO9)?
N: 7

Choices	
(Was not aware rebates were available)	29%
(Other)	57%
(Don't Know)	14%
(Refused)	0%

QSAT1

SAT1. Please think about your experience with the (Program) program. How satisfied were you with (Program) overall?

Choices	
0 - Extremely dissatisfied	1%
1	0%
2	1%
3	1%
4	1%
5	3%
6	3%
7	4%
8	16%
9	15%
10 - Extremely satisfied	54%
(Don't know)	0%
(Refused)	0%
MEAN	**8.80**

QSAT1A

SAT1a. Why did you give this rating?
N: 19

Choices	
The audit was not extensive enough	21%
The information provided was not sufficient	21%
Too expensive to follow through	21%
I did not learn anything new	11%
Have not noticed any decrease in my energy bills	11%
(Other)	11%
(Don't know)	11%
(Refused)	0%

QSAT2A

SAT2a. How satisfied are you with... The amount of time between when you called to schedule the audit and when it was done
N: 249

Choices	
0 - Extremely dissatisfied	1%
1	1%
2	1%
3	0%
4	2%
5	0%
6	3%
7	8%
8	15%
9	10%
10 - Extremely satisfied	56%
(Don't know)	3%
(Refused)	0%

MEAN	**8.82**

QSAT2B

SAT2b. How satisfied are you with... The professionalism of the Energy Advisor who visited your home
N: 249

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	1%
4	0%
5	0%
6	1%
7	3%
8	5%
9	11%
10 - Extremely satisfied	78%
(Don't know)	0%
(Refused)	0%
MEAN	**9.53**

QSAT2C

SAT2c. How satisfied are you with... The time it took to complete the audit
N: 249

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	2%
4	0%
5	2%
6	1%
7	4%
8	12%
9	10%
10 - Extremely satisfied	67%
(Don't know)	2%
(Refused)	0%
MEAN	**9.20**

QSAT2D	
SAT2d. How satisfied are you with... The quality of work performed by the Energy Advisor	
N: 249	
Choices	
0 - Extremely dissatisfied	1%
1	0%
2	0%
3	1%
4	0%
5	2%
6	1%
7	5%
8	9%
9	12%
10 - Extremely satisfied	69%
(Don't know)	0%
(Refused)	0%
MEAN	**9.25**

QSAT2E	
SAT2e. How satisfied are you with... The clarity of the audit report overall	
N: 249	
Choices	
0 - Extremely dissatisfied	1%
1	0%
2	0%
3	2%
4	0%
5	2%
6	1%
7	4%
8	17%
9	11%
10 - Extremely satisfied	60%
(Don't know)	1%
(Refused)	0%
MEAN	**8.96**

QSAT2F

SAT2f. How satisfied are you with... The audit report in helping you understand your home's energy usage
N: 249

Choices	
0 - Extremely dissatisfied	2%
1	0%
2	1%
3	0%
4	1%
5	4%
6	2%
7	6%
8	15%
9	12%
10 - Extremely satisfied	56%
(Don't know)	1%
(Refused)	0%
MEAN	**8.78**

QSAT2G

SAT2g. How satisfied are you with... The audit report in helping you understand where energy improvements could be made in your home
N: 249

Choices	
0 - Extremely dissatisfied	1%
1	0%
2	1%
3	1%
4	0%
5	2%
6	4%
7	3%
8	14%
9	12%
10 - Extremely satisfied	60%
(Don't know)	1%
(Refused)	0%
MEAN	**8.91**

QSAT2H

SAT2h. How satisfied are you with... The contractor or program ally's professionalism
N: 143

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	0%
4	0%
5	1%
6	2%
7	4%
8	11%
9	11%
10 - Extremely satisfied	70%
(Don't know)	1%
(Refused)	0%
MEAN	**9.42**

QSAT2I

SAT2i. How satisfied are you with... The quality of the work completed at (multiple homes in which you had changes or upgrades made/your home)
N: 143

Choices	
0 - Extremely dissatisfied	0%
1	0%
2	0%
3	0%
4	0%
5	0%
6	1%
7	5%
8	13%
9	12%
10 - Extremely satisfied	67%
(Don't know)	2%
(Refused)	0%
MEAN	**9.41**

QSAT3

SAT3. Using the same scale where 0 is 'extremely dissatisfied' and 10 is 'extremely satisfied' how satisfied were you with the explanation you received about the program's participation process?

Choices	
0 - Extremely dissatisfied	1%
1	0%
2	0%
3	1%
4	1%
5	2%
6	2%
7	7%
8	16%
9	10%
10 - Extremely satisfied	58%
(I was not given an explanation)	1%
(Don't know)	0%
(Refused)	0%
MEAN	**8.98**

QSAT4

SAT4. Can you please explain which part of the participation process was not clearly explained to you?
N: 12

Choices	
Didn’t receive what was expected	25%
Rushed/Didn’t go into good detail	17%
Not enough information/unclear	17%
Poor staff performance/lack of professionalism	17%
(Other)	17%
(No/nothing)	17%
(Don't know)	8%
(Refused)	0%

QSAT5

SAT5. From your perspective, what if anything, could be done to improve the program?

Choices	
More advertising	11%
Improve clarity/more available information/follow-up	10%
Easier access to different contractors/auditors/program allies	6%
Offer more products/measures	5%
More rebates/incentives	4%
Improve implementation of measures	4%
Speed up process	3%
Lower bill/cost	2%
Improve convenience/make program easier to participate	2%
(Other)	2%
(Nothing)	45%
(Don't know)	12%
(Refused)	0%

QSAT6

SAT6. Can you think of any reasons why people might not participate in this program?

Choices	
Money	23%
(Not aware of the program)	18%
Strangers in the house/don't trust the program	6%
Time	5%
Ignorance/laziness/don't care	5%
Don't understand purpose	4%
Don't want improvements/already efficient/new home	3%
Negative recommendation	1%
(Other)	1%
(No Reason/Nothing)	38%
(Don't know)	2%
(Refused)	0%

QT1

T1. Does your home use one or more thermostats to control heating and/or cooling?
N: 166

Choices	
Yes	84%
No	16%
(Don't know)	0%
(Refused)	0%

QT2

T2. How many programmable thermostats are in your home?
N: 140

Choices	
0	26%
1	64%
2	8%
3	1%
5	1%
(Don't know)	0%
(Refused)	1%

QT3

T3. How many manual thermostats are in your home?
N: 140

Choices	
0	61%
1	30%
2	4%
3	2%
5	1%
7	1%
(Don't know)	0%
(Refused)	0%

QT4

T4. (Do any of your thermostats/Does your thermostat) control when your air conditioning turns on and off in your home?
N: 140

Choices	
Yes	88%
No	11%
(Don't know)	1%
(Refused)	0%

QT5

T5. Is this thermostat manual or programmable?
N: 17

Choices	
Programmable	76%
Manual	24%
(Don't know)	0%
(Refused)	0%

QT5A

Does this thermostat also control your heating system?
N: 140

Choices	
Yes	94%
No	6%
(Don't know)	0%
(Refused)	0%

QT6

T6. Do you program your thermostat for regular temperature setting changes, do you manually adjust it on occasion, or do you leave it at the same setting always?
N: 99

Choices	
(Only manually adjust on occasion)	43%
(Program for regular temperature setting changes)	28%
(Leave at same setting)	27%
(Don't know)	1%
(Refused)	0%

QT6A

T6A. Which of the following best describes how you manually adjust your programmable thermostat? Do you...
N: 43

Choices	
(Override setting when it is too hot or too cold)	70%
(Use override instead of programming regular setting changes)	12%
(Don't know)	19%
(Refused)	0%

QT7

T7. Please describe how you program your thermostat.
N: 28

Choices	
Adjust for night and daytime work hours both summer and winter	71%
Adjusts based on temperature	7%
Adjust for night and daytime work hours, summer only	7%
Adjust for night only both summer and winter	4%
Adjust for night only, summer only	4%
Set at one temperature for summer and one temperature for winter	4%
(Other)	4%
(Don't know)	0%
(Refused)	0%

QT8

T8. Do you manually adjust your thermostat regularly, on occasion, or do you leave it at the same setting always?
N: 41

Choices	
(Adjust for regular temperature setting changes)	39%
(Only manually adjust on occasion)	37%
(Leave at same setting)	24%
(Don't know)	0%
(Refused)	0%

QT9

T9. Please describe how you regularly adjust your thermostat.
N: 16

Choices	
Adjust for night and daytime work hours both summer and winter	62%
Adjusts based on temperature	12%
Adjust for night only both summer and winter	6%
Adjust for night only, winter only	6%
(Other)	6%
(Don't know)	6%
(Refused)	0%

QT10

T10. Approximately how long have you been operating your thermostat this way? Would it be...
N: 130

Choices	
Less than 3 months	4%
3 months to less than 6 months	2%
6 months to less than 9 months	7%
9 months to a year	9%
More than a year	77%
(Don't know)	1%
(Refused)	0%

QT11

T11. What temperature setting is your thermostat typically set for at night in the winter, would it be...
N: 140

Choices	
Less than 62 degrees	11%
63 to 66 degrees	26%
66 to 69 degrees	31%
70 to 74 degrees	25%
75 to 79 degrees	5%
80 degrees or higher	0%
(Don't know)	2%
(Refused)	0%

QT12

T12. What temperature setting is your thermostat typically set for at 4 p.m. in the summer, would it be...
N: 123

Choices	
Less than 62 degrees	0%
63 to 66 degrees	0%
66 to 69 degrees	5%
70 to 74 degrees	36%
75 to 79 degrees	49%
80 degrees or higher	11%
(Don't know)	0%
(Refused)	0%

QT13

T13. Approximately what percentage of your home's living space has the temperature controlled with this thermostat? Would it be...
N: 140

Choices	
Less than 10%	1%
11 - 20%	0%
21 - 30%	1%
31 - 40%	1%
41 - 50%	3%
51 - 60%	3%
61 - 70%	3%
71 - 80%	11%
81 - 91%	7%
More than 90%	70%
(Don't know)	1%
(Refused)	0%

QD1

D1. We're almost finished. I just have a few questions about your household. These are for background purposes only. (Since you represent multiple homes that participated in the program, please answer the questions based on a typical home) What type of house do you live in? Is it a ....

Choices	
Single Family Detached Home (No common walls)	93%
Single Family Attached Home (Townhouse or Duplex)	6%
(Other, specify)	0%
(Don't know)	0%
(Refused)	0%
(Other)	0%

QD2

D2. Do you or members of your household own this home or do you rent?

Choices	
(Own/Buying)	99%
(Rent/Lease)	1%
(Don't know)	0%
(Refused)	0%

QD3

D3. Counting yourself, how many people normally live in your household on a FULLTIME basis?

Choices	
1	17%
2	48%
3	17%
4	12%
5	6%
(Don't know)	0%
(Refused)	0%

QD4

D4. Do you pay your utility bill directly to your utility company or are your utilities included in your rent or condo fee?

N: 3

Choices	
(Pay directly to electric company)	67%
(Pay some utilities directly and some are included in rent or condo fee)	33%
(Don't know)	0%
(Refused)	0%

QD4A

D4a. Which utilities do you pay directly to the utility company?
N: 1

Choices	
Electric	100%
Natural gas	0%
(Don't know)	0%
(Refused)	0%

QD5

D5. Is your water heater gas or electric?
N: 259

Choices	
(Gas)	63%
(Electric)	36%
(Don't know)	1%
(Refused)	0%

QD6

D6. Do you use a space heater, and if so, is it gas or electric?

Choices	
(Electric)	28%
(Gas)	4%
(Do not use a space heater)	68%
(Don't know)	0%
(Refused)	0%

QD7

D7. What is the highest level of education that the head of household has completed so far?

Choices	
Less than ninth grade	0%
Ninth to twelfth grade (no diploma)	1%
High school graduate (includes GED)	16%
Some college, No degree	17%
Associates degree	10%
Bachelors degree	25%
Graduate or professional degree	29%
(Don't know)	0%
(Refused)	1%

QD8

D8. In what year were you born?

Choices	
18-24	1%
25-34	9%
35-44	14%

45-54	18%
55-64	23%
65-74	21%
75+	10%
(Don't know)	0%
(Refused)	3%

QD9

D9. Which category best describes your total household income in 2011, before taxes? Please stop me when I get to the appropriate category.

Choices	
Less than $15,000	4%
$15,000 to less than $20,000	3%
$20,000 to less than $30,000	9%
$30,000 to less than $40,000	8%
$40,000 to less than $50,000	10%
$50,000 to less than $75,000	17%
$75,000 to less than $100,000	15%
$100,000 to less than $150,000	16%
$150,000 or more	5%
(Don't know)	1%
(Refused)	13%

CLOSING

We appreciate the information that you have provided. This information is valuable to understanding the effects of the program. Would you be willing to have your individual responses shared with Ameren Illinois and the Illinois Commerce Commission to assist them in making decisions about future programs?

Choices	
Yes	93%
No	6%
(Don't know)	0%
(Refused)	1%