



THREE YEAR SUMMARY  
REPORT OF THE AMEREN ILLINOIS COMPANY  
COMMERCIAL AND INDUSTRIAL ELECTRIC  
ENERGY EFFICIENCY PROGRAMS

**Final**

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# 1. EXECUTIVE SUMMARY

Ameren Illinois Company (AIC) launched its electric energy efficiency and demand response programs in 2008 in response to the legislative mandate codified in the Illinois Public Utilities Act (220 ILCS 5/8-103). Based on this legislation, the utility is required to implement energy efficiency programs that reduce energy delivered among electric customers by 0.2% starting in program year 2008 (June 1, 2008 to May 31, 2009) with the ultimate goal of 2% savings by program year 2015. AIC is also required to implement these programs a total budget of no more than 2% of the amount paid by retail electric customers between June 1, 2006 and May 31, 2007.<sup>1</sup> In addition, the utility must submit a plan once every three years that describes how it will meet the energy savings targets prescribed by law. This report presents findings from the evaluation of AIC's electric energy efficiency programs for the first plan period, 2008-2010 (Plan 1 and PY1-PY3).

The AIC business portfolio incentive programs include the Standard and Custom programs, as well as the Retro-Commissioning and Demand Response programs. Throughout the first three years of program activity, the Commercial and Industrial (C&I) programs performed well enabling AIC to exceed its planned energy savings goal in both PY1 (2008) and PY3 (2010). In PY2 (2009), AIC exceeded its planned demand targets, but fell short of its planned energy savings goal.

**Table 1. C&I Portfolio Planned and Net Impacts by Program Year**

Program Year	Budget (mill) <sup>a</sup>	Planned Impacts <sup>b</sup>		Ex Post Net Impacts		Realization Rate <sup>c</sup>	
		kW	MWh	kW	MWh	kW	MWh
<i>AIC Contribution to C&amp;I Portfolio</i>							
PY1	\$4,824,681	11,452	42,901	8,778	53,295	0.77	1.24
PY2	\$8,872,970	21,621	83,868	42,654	70,320	1.97	0.84
PY3	\$12,425,272	30,169	115,395	20,614	138,640	0.68	1.19
<b>Total</b>	<b>\$26,122,923</b>	<b>63,242</b>	<b>242,164</b>	<b>72,046</b>	<b>262,255</b>	<b>1.14</b>	<b>1.08</b>

<sup>a</sup> From Energy Efficiency and Demand-Response Plan (AIC), November 15, 2007, Table 3. Values are rounded.

<sup>a</sup> From Energy Efficiency and Demand-Response Plan (AIC), November 15, 2007, Table 12. Values are rounded.

<sup>b</sup> Realization Rate=Ex Post Value/Planned Value.

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

The Standard Program has shown substantial growth and is the largest contributor to overall C&I energy savings.<sup>2</sup>

Throughout the first program cycle, the Custom and Standard programs have further revised their design and implementation processes to ensure an easier, faster, and more customer-friendly participation process. For example, by the close of PY3, the program had eliminated pre-approval and post-inspection requirement for smaller projects, and changed its Standard Program applications from end-use-specific to sector-specific (e.g., Grocery/Convenience, Agriculture, Lodging, etc). We found high levels of program satisfaction throughout the three years, potentially due to this continued focus on the customer. Additionally, the program continually increased its participant base and program ally network over the three years.

The C&I Retro-Commissioning Program has evolved substantially over the past three years. The program began as a pilot in PY1, but expanded into a formal program spanning PY2 and PY3. Since program start, AIC has made a number of changes to the program offering to enhance program delivery and make participation easier for customers. Key changes include: the offering of an early completion bonus, post-installation inspections, updated data tracking, and allowing customers to implement projects by themselves, through a contractor, or through the Retro-Commissioning Service Provider (RSP) that performed the study.

During the first program cycle, AIC implemented a number of initiatives outside of the Standard, Custom and Retro-Commissioning programs. These efforts included the Small Business HVAC Program, the Demand Control Thermostat Program, and the Direct Install of Faucet Aerators.

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<sup>2</sup> In confronting an oversubscription in PY1, AIC and program implementers allowed customers to submit applications for Standard measures through the Custom Program. This change allowed the Custom Program to contribute more to program savings in the first year.

## **2. LEGISLATIVE MANDATE FOR INDEPENDENT EVALUATION**

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This report is provided as required by the Illinois Public Utilities Act, Section 8-103(f)(7), which states:

Provide for an annual independent evaluation of the performance of the cost-effectiveness of the utility's portfolio of measures and the Department's portfolio of measures, as well as a full review of the 3-year results of the broader net program impacts and, to the extent practical, for adjustment of the measures on a going-forward basis as a result of the evaluations. The resources dedicated to evaluation shall not exceed 3% of portfolio resources in any given year.

### 3. SUMMARY OF EVALUATION ACTIVITIES

Over the first program cycle (Plan 1), the evaluation of the C&I portfolio involved a wide range of evaluation activities including onsite Measurement and Verification (M&V) for the Custom and Retro-Commissioning programs, as well as participant and nonparticipant research among AIC’s customer base. As illustrated below, evaluation efforts focused on the Standard and Custom programs given their overwhelming contribution to portfolio savings.

**Table 2. Evaluation Activities by Program Year**

Activity	Year	Commercial Portfolio			
		Standard	Custom	Retro-Cx	Small Business HVAC
Program Material Review	PY1	Every Year and Every Program			
	PY2				●
	PY3				
Program Manager and Implementer Interviews	PY1	Every Year and Every Program			
	PY2				●
	PY3				
Key Account Executive Interviews	PY1	●	●		
	PY2				
	PY3	●	●		
Trade Ally / Program Ally Interviews	PY1	●	●		
	PY2			●	●
	PY3	●	●	●	
Participant Survey	PY1	●	●		
	PY2	●	●	●	●
	PY3	●	●	●	
Nonparticipant Survey	PY1				
	PY2	●	●		
	PY3	●	●		
Site Visits	PY1		●		
	PY2		●	●	
	PY3		●		



In terms of determining program impacts, the team implemented a combination of approaches including the application of savings values for Standard measures and engineering analysis and onsite M&V for custom measures. In addition, as shown below, the team gathered free ridership and spillover information through participant surveys all three years for the Standard and Custom programs while collecting this information in PY2 and PY3 for Retro-Commissioning. This data was used to develop Net-to-Gross Ratios (NTGRs) for the programs.

**Table 3. Summary of Impact Approach by Program and Year**

Program Impacts	Activity	Year	Commercial Portfolio			
			Standard	Custom	Retro-Cx	Small Business HVAC <sup>b</sup>
Gross Impacts	Engineering Analysis	PY1	●			
		PY2	●			●
		PY3	●			
	Engineering Desk Review	PY1		●		
		PY2				
		PY3				
	Engineering Desk Review & Onsite M&V	PY1				
		PY2		●	●	
		PY3		●		
Net Impacts	Self-Report	PY1	●	●		
		PY2	●	●	● <sup>a</sup>	●
		PY3	●	●	●	

<sup>a</sup> While the team gathered information to develop a program level NTGR in PY2 for the Retro-Commissioning Program, ultimately customers participating in the NTG interviews were smaller in size compared to the full population. As such, the evaluation team chose to apply the default NTGR of 0.8 that the program implementer chose to use for tracking purposes for the Retro-Commissioning Program in PY2.

<sup>b</sup> These activities were conducted under the gas program and are discussed in that report.

In addition to the program-specific evaluation activities outlined above, the team conducted a Lighting Hour of Use (HOU) Study during PY3. The primary objective of the study was to gather AIC territory-specific lighting hours of operation and coincident factors (CF) to update these deemed savings values for commercial lighting measures. The report developed for this study is included in Appendix F.

## 4. HIGH-LEVEL IMPACT FINDINGS

### Portfolio Performance

Overall, the Commercial and Industrial (C&I) portfolio has faced dramatically increasing energy saving goals throughout the first three program years. In PY2, the utility experienced a 95% increase in energy saving goals from PY1, and in PY3 goals ramped up by 38% over PY2. As shown in Table 4, despite these challenges the C&I programs performed well enabling AIC to exceed its energy savings goals in two of the three program years and exceed their cumulative Plan 1 goals.

Table 4. Portfolio Savings Goals by Program Year

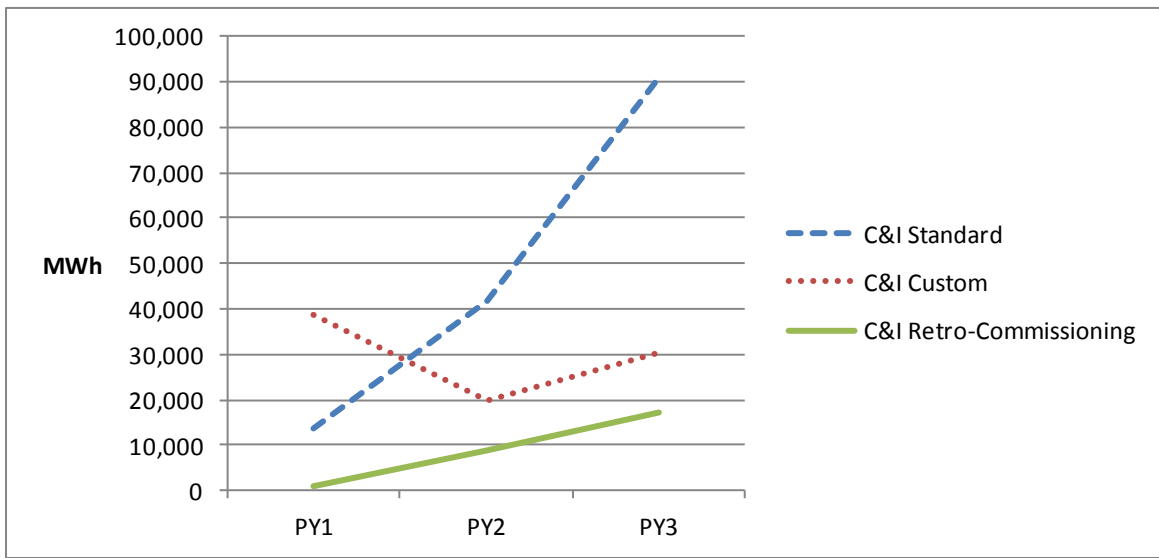
Program Year	MWh Goal <sup>a</sup>	% Increase in Goal over Prior Year	Ex-Post Net Impacts MWh	% Increase in Savings over Prior Year	Percent of Goal
PY1	42,901	-	53,295	-	124%
PY2	83,868	95%	70,320	32%	84%
PY3	115,395	38%	138,640	96%	120%
Total	242,164		262,255		108%

<sup>a</sup> Note: From Energy Efficiency and Demand-Response Plan (AIC), November 15, 2007, Table 12. Values are rounded.

<sup>b</sup> Percent of goal=ex post net impacts/MWh goal.

At the program level, the Standard Program has contributed the most to overall energy savings throughout the three program years. In the first year, the Standard Program experienced high demand leading to an oversubscription before the end of the program year. Due to this oversubscription, eligible customers could apply through the Custom Program for incentives towards Standard measures. As shown below, the Custom Program benefitted from this change in program delivery and outpaced the savings from the Standard Program for this first program year.

**Figure 1. Energy Savings by Program and Program Year**



In general, the Standard and Custom program’s net effect on participating customers’ electricity usage remained consistent across the three program years. As show in Table 5, the evaluation team applied default Net-to-Gross Ratios (NTGR) to the gross savings achieved by the Retro-Commissioning Program. In all cases where a default value was not used, the NTGR is based on self-reported information from the participant surveys. In addition, the NTGRs were calculated based on both the level of free-ridership and participant spillover where found. The team also included non-participant spillover in the NTGR for the Standard Program in PY3.

**Table 5. Summary of NTGRs by Program and Program Year**

Program	PY1	PY2	PY3
Standard <sup>a</sup>	0.62	0.76	0.77
Custom	0.77	0.69	0.75
Retro-Commissioning <sup>b</sup>	1.00	0.80	0.58

<sup>a</sup> Values presented here are for the core program.

<sup>b</sup> The team applied default values used by the implementation team in PY1 and PY2.

### **C&I Standard**

The following table summarizes the NTGRs developed for the program by program year, as well as program level gross and net energy impacts. In general, lighting has remained the dominant end use for the Standard Program throughout Plan 1. Appendix A provides additional information on the program population and number of survey respondents that informed the impact evaluation.

Table 6. Summary of Standard Program Impacts by Year

Program Year	End Use	Ex Ante Gross MWh	Ex Post Gross MWh	Gross RR	Ex Ante NTGR	Ex Post NTGR	Ex Ante Net MWh	Ex Post Net MWh	Net RR
PY1	HVAC	109	112	1.02	1.00	0.80	109	89	0.82
	Lighting	16,225	19,570	1.21	1.00	0.58	16,225	11,356	0.70
	Motors	25	4	0.18	1.00	0.43	25	2	0.08
	Refrigeration	2,347	2,347	1.00	1.00	0.95	2,347	2,229	0.95
	<b>TOTAL</b>	<b>18,706</b>	<b>22,033</b>	<b>1.18</b>	<b>1.00</b>	<b>0.62</b>	<b>18,706</b>	<b>13,677</b>	<b>0.73</b>
PY2	Grocery	99	99	1.00	0.76	0.76	75	75	1.00
	HVAC	1,260	1,260	1.00	0.76	0.47	957	595	0.62
	Lighting	39,803	39,804	1.00	0.76	0.78	30,250	31,097	1.03
	Motors	7,943	5,252	0.66	0.76	0.63	6,036	3,303	0.55
	Refrigeration	1,184	1,184	1.00	0.76	0.9	900	1,062	1.18
	<b>Core Total</b>	<b>50,288</b>	<b>47,599</b>	<b>0.95</b>	<b>0.76</b>	<b>0.76</b>	<b>38,219</b>	<b>36,132</b>	<b>0.95</b>
	Online Store	2,979	2,979	1.00	0.80	0.80	2,383	2,383	1.00
	SB HVAC	3,092	3,092	1.00	1.00	1.00	3,092	3,092	1.00
	<b>TOTAL</b>	<b>56,359</b>	<b>53,669</b>	<b>0.95</b>	<b>0.78</b>	<b>0.78</b>	<b>43,694</b>	<b>41,607</b>	<b>0.95</b>
PY3	Lighting	49,648	55,238	1.11	0.78	0.76	38,725	41,981	1.08
	HVAC	3,486	1,829	0.52	0.47	0.78	1,639	1,426	0.87
	Refrigeration	6,732	6,706	1.00	0.90	0.82	6,059	5,499	0.91
	Motors	24,178	27,905	1.15	0.63	0.76	15,232	21,208	1.39
	Agriculture	18	18	1.00	0.76	0.76	14	14	1.00
	<b>Core Total</b>	<b>84,062</b>	<b>91,695</b>	<b>1.09</b>	<b>0.76</b>	<b>0.77</b>	<b>61,668</b>	<b>70,127</b>	<b>1.14</b>
	Online Store	32,620	32,620	1.00	0.80	0.64	26,096	20,866	0.80
	DI Faucet Aerators	10	10	1.00	0.76	0.76	8	8	1.00
	<b>TOTAL</b>	<b>116,693</b>	<b>124,326</b>	<b>1.07</b>	<b>0.73</b>	<b>0.75</b>	<b>87,772</b>	<b>91,002</b>	<b>1.04</b>

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

**C&I Custom**

Table 7 below presents the estimated NTGR for the program by program year, and the program level gross and net energy impacts attributable to the Custom Program. Appendix A provides additional information on the program population and number of respondents that informed the impact evaluation.

**Table 7. Summary of Custom Program Impacts by Year**

Program Year	Ex Ante Gross MWh	Ex Post Gross MWh	Gross RR	Ex Ante NTGR	Ex Post NTGR	Ex Ante Net MWh	Ex Post Net MWh	Net RR
PY1	51,687	51,111	0.99	1.00	0.77	51,687	38,596	0.75
PY2	33,392	28,652	0.86	0.77	0.69	25,712	19,770	0.77
PY3	50,032	40,455	0.81	0.69	0.75	34,522	30,341	0.88

**C&I Retro-Commissioning**

We present the estimated NTGR for the program by program year, and program level gross and net energy impacts attributable to the Retro-Commissioning Program in Table 8 below. Appendix A provides additional information on the program population and number of survey respondents that informed the impact evaluation.

**Table 8. Summary of Retro-Commissioning Program Impacts by Year**

Program Year	Ex Ante Gross MWh	Ex Post Gross MWh	Gross RR	Ex Ante NTGR	Ex Post NTGR	Ex Ante Net MWh	Ex Post Net MWh	Net RR
PY1	1,022	1,022	1.00	1.00	1.00	1,022	1,022	1.00
PY2	12,640	10,890	0.86	0.80	0.80	10,112	8,712	0.86
PY3	29,819	29,819	1.00	0.80	0.58	23,885	17,295	0.69

**Other Initiatives**

The following table presents the impacts associated with the Demand Control Thermostat initiative implemented by AIC in PY2 and PY3.

**Table 9. Summary of Impacts from Other Initiatives**

Program Year	Initiative	Ex Ante Gross MWh	Ex Post Gross MWh	Gross RR	Ex Ante NTGR	Ex Post NTGR	Ex Ante Net MWh	Ex Post Net MWh	Net RR
PY2	Demand Control T-Stats	299.7	299.7	1.00	0.77	0.77	230.7	230.7	1.00
PY3 <sup>a</sup>	Demand Control T-Stats	2.4	2.4	1.00	0.77	0.77	1.8	1.8	1.00

<sup>a</sup> While initially presented in the Other Initiatives Section of the PY3 Annual Report, the savings associated with the faucet aerator initiative are ultimately included under the Standard Program.

# 5. HIGH-LEVEL PROCESS FINDINGS

## 5.1 C&I Standard and Custom Programs

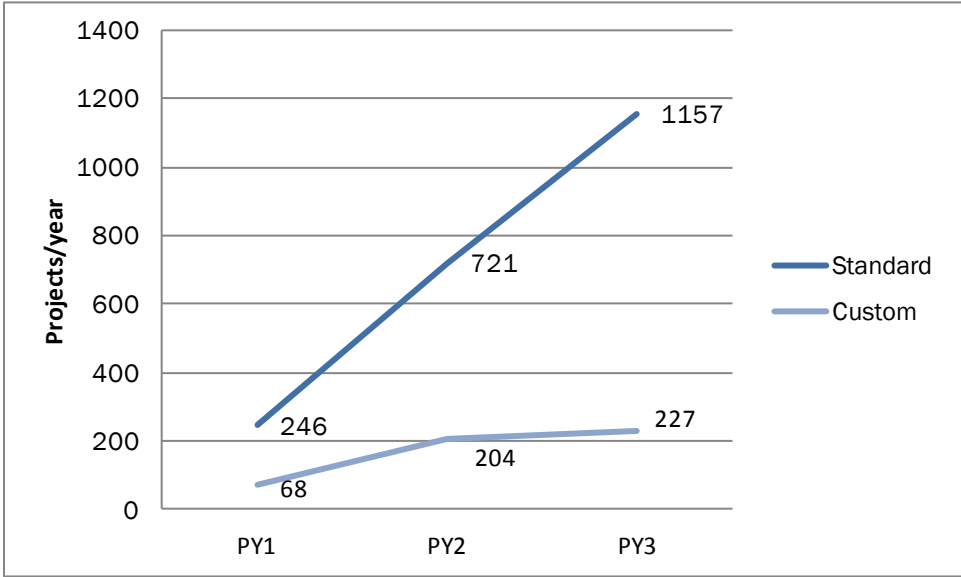
### 5.1.1 Program Changes and Implementation

The AIC Standard and Custom programs have successfully completed the first three year program cycle in terms of participant satisfaction, as well as program performance against goals. The following sections highlight key aspects of program performance over the past three years, as well as changes to and challenges overcome by the program.

#### Program Participation and Changes

As the business portfolio matured, participation levels increased consistently across both programs. As shown below in Figure 2, the number of Standard projects more than doubled between PY2 and PY3 and the total number of Custom projects also increased over the course of the program years.

Figure 2. Overview of Program Participation across Program Years



Overall, the Standard and Custom programs have been implemented in a consistent manner throughout the first program cycle. Key changes to the programs include modifications to the program applications, as well as the modification of pre-approval rules for small projects. While the former involved creating measure and then sector specific application forms, the latter led to the removal of pre-approval requirements for small projects. Together, these changes generally eased the participation process for interested customers.

## Program Allies

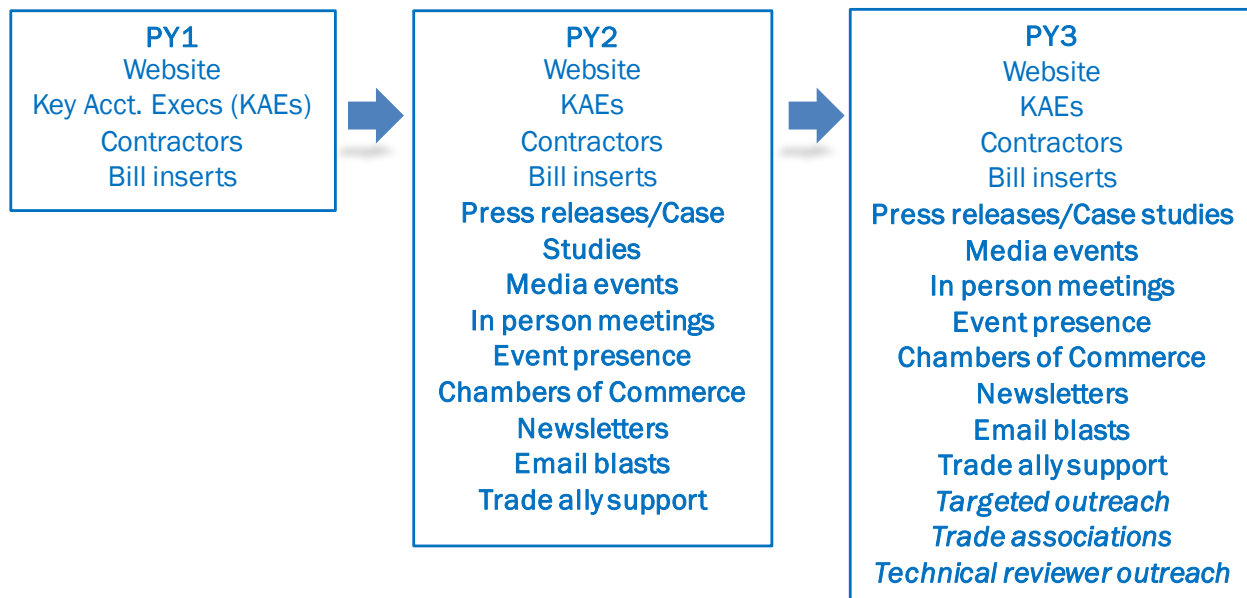
AIC’s business program has worked to grow an active program ally network, which serves as the cornerstone of efforts to recruit customers.<sup>3</sup> A variety of tactics aimed at retaining motivated and high quality trade allies, such as trade ally bonuses, meetings and the provision of support services, have been utilized since program inception. The number of registered program allies increased from 184 in PY1 to 393 at the end of PY2 to 426 in PY3. Program allies are supported through a variety of mechanisms, including bonus offers, training and development opportunities, marketing and co-branding materials.

While allies registered with the business program continue to cater to a variety of market segments and provide a full breadth of services, a small number of trade allies continue to be responsible for a large number of projects.

## Marketing

While promotion of the business program was limited in the first program year due to the oversubscription of the Standard Program, AIC used a comprehensive and aggressive marketing strategy to provide program outreach and encourage program participation in both PY2 and PY3. As shown in the figure below, key tactics included geographic, stakeholder, and market sector targeted outreach. In addition, AIC conducted customer workshops in PY1 at six locations and business symposiums at two locations in PY3.

**Figure 3. Plan 1 Marketing and Outreach Strategies**



Despite this level of activity, the relative shortage of marketing and outreach personnel presented program staff with challenges in taking advantage of additional marketing and outreach opportunities. However, AIC and its implementation contractor have begun to address this issue with the hiring of additional staff for the Plan 2 period.

<sup>3</sup> Program ally is the term used to describe trade allies that have registered with AIC and become official members of the Program Ally Network. We use the term trade ally to refer to contractors in general.



## Program Satisfaction

As shown in Table 10 below, the Custom and Standard programs have maintained high levels of participant satisfaction in nearly all program areas—from program paperwork to processing incentives, and addressing customer questions and concerns. Such consistency from one year to the next is needed to maintain interest in the suite of options provided through the portfolio. These high levels of customer satisfaction are indicators of a well-run program.

**Table 10. Satisfaction across Program Years**

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

Note: Mean rating on a 0-10 scale where 0 is not at all satisfied and 10 is very satisfied.

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

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

In summary, AIC has successfully implemented the Standard and Custom programs over the past three years achieving energy saving goals while maintaining high levels of customer satisfaction. The main challenge confronting the program occurred in PY1 with an oversubscription within the Standard Program. However, AIC and their implementation team responded effectively to this issue and avoided similar issues in subsequent program years.

### 5.1.2 Key Process Recommendations

The following section provides an overview of the key process recommendations from each program year. In general, the recommendations contained in all three annual evaluation reports focused on supporting trade allies, expanding program marketing, engaging key account executives, and updating program design. The team's PY1 recommendations were geared towards program design changes related to simplifying the application process. However, by PY3, the team's recommendations were aimed at ways the program could maintain its strong presence in the market through the program ally base and key account executives.

AIC has also actively sought to respond to evaluation recommendations and maintain open and ongoing communication with the evaluation team about ongoing modifications to the programs with the C&I portfolio. Appendix E provides the utility's response to these recommendations.

The following subsections provide a high level statement of the evaluation team's recommendations from PY1 through PY3.

### **Program Year 1**

- Create greater fluidity between program years such as processing applications for pre-approval during crossover period.
- Continue to monitor customer feedback to ensure that the application process remains straightforward and easy to follow for participants.
- Periodically review the database to ensure key fields are complete and to correct database entries where information has been entered inconsistently or incorrectly.
- Including a "Date Added or Approved" field for program allies.
- Develop collateral based on successful customer projects from PY1.
- Develop a strategy to raise awareness of the Program Ally Network, and demonstrate the value of this program component to their customers.

### **Program Year 2**

- Address the financial barrier to participation (both cost of equipment and financing) cited by program participants by considering different financing options.<sup>4</sup>
- Increase in-depth messaging and consider additional case studies or targeted outreach towards small commercial customers.
- Consider placing greater emphasis on differentiating program allies from non-registered trade allies, as well as promoting the benefits of registered program allies.

### **Program Year 3**

- Continue providing support to program allies while further building trade ally network.
- Continue customer education about trade allies.
- Continue providing program updates and support to Key Account Executives.

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<sup>4</sup> Although offering financing options was a recommendation in the PY2 report, discussions with AIC later revealed that the utility cannot offer on-bill financing to business customers.

## 5.2 C&I Retro-Commissioning

### 5.2.1 Program Changes and Implementation

The C&I Retro-Commissioning Program has evolved substantially over the past three years. Developed based on implementation team research into retro-commissioning programs around the country, as well as the make-up of the AIC service territory, the program focused on two areas: compressed air and the healthcare sector. The program began as a pilot in PY1, but expanded into a formal program spanning PY2 and PY3.

#### **Program Participation**

During this time the number of participants grew from one initial pilot project to approximately 20 projects a year. As illustrated in the table below, the majority of projects in the first three years are compressed air projects.

**Table 11. Summary of Retro-Commissioning Projects by Program Year**

Project Type	PY1	PY2	PY3
Healthcare	-	2	3
Compressed Air	1	17	18
<b>Total Number of Projects</b>	<b>1</b>	<b>19</b>	<b>21</b>

Participation among Retro-Commissioning Service Providers (RSPs), the official contractors performing work on behalf of the program, also increased over the first three years of the program. Compared to PY2 in which three RSPs participated, nine RSPs performed work for the program in PY3.

#### **Program Changes**

After its first full year as a formal program, AIC further refined the Retro-Commissioning Program in PY3. Modifications included the addition of an early completion bonus, a post-installation inspection and technical review phase, application related estimates of energy savings and changes to data tracking in AIB, AIC' tracking database.

#### **Marketing**

In both PY2 and PY3, marketing was primarily done through the RSPs. Other marketing efforts include bill inserts, email advertisements, the Act On Energy website, and participation at trade conferences. Two-thirds of customers related seeing some sort of advertising for the program in PY3. Additionally, awareness of the early completion bonus appeared to stimulate customers to complete their projects in a shorter time period, even if they were outside the bonus window.

#### **Program Satisfaction**

Over the first program cycle, the team conducted research with both participating customers and RSPs. In general, RSPs were generally favorable towards all four phases (application,

system survey, implementation, and verification) of the project process, and felt that the process ran smoothly overall. In addition, RSPs were very satisfied with the program overall.

Consistent with RSP perceptions that customer satisfaction with the program was high, a survey of customers participating in the program in PY3 found generally high levels of satisfaction, as shown in Table 12.

**Table 12. PY3 Participant Mean Satisfaction Ratings for Various Program Elements**

How would you rate your satisfaction with...?	Mean Rating (n=15)
AIC	8.5
Incentive Level	8.1
Technical Review Staff	8.0
RCx Program overall	8.0
The Call Center's ability to answer your questions	7.7 (n=3)

Note: Mean rating on a 0-10 scale where 0 is not at all satisfied and 10 is very satisfied.

## 5.2.2 Key Process Recommendations

The following section provides an overview of the key process recommendations from each program year. In PY1, the Retro-Commissioning Program only offered as a pilot program, and not fully evaluated. As such, there were not key process recommendations. Appendix E provides the utility's response to these recommendations.

In general, the recommendations contained in each of the two annual evaluation reports focused on ways to expand program participation both among customers and RSPs. This is not surprising for this program given the participation size. Additional recommendations included ways to deal with the relatively high level of freeridership quantified in PY3.

The following subsections provide a high level statement of the evaluation team's recommendations from PY2 through PY3.

### Program Year 2

- Document protocols for SAIC inspection of RSP work, and consider expanding the number of SAIC inspections performed each year
- Encourage greater RSP participation in the program
- Educate participants about program responsibilities, such as outside verification and evaluation activities
- Reduce processing time for key project paperwork

### Program Year 3

- Develop ways with RSPs to screen out potential participants during the initial application phase to ensure program is motivating the customer to implement a project they would not have completed otherwise

- Continue to draw upon the AIC Key Account Executives when working with large customers
- Continue to offer the early completion bonus to encourage early completion of retro-commissioning projects

### **5.3 Other Initiatives**

During the first program cycle, AIC implemented a number of initiatives outside of the Standard, Custom and Retro-Commissioning programs. These efforts included the Small Business HVAC Program, the Demand Control Thermostat Program, and the Direct Install of Faucet Aerators. Given the limited contribution of these programs to the overall portfolio savings, the team did not perform process evaluations of these efforts.

## A. APPENDIX – PROGRAM LEVEL SUMMARIES

The following tables summarize the participant population and sample points used by the evaluation team for the impact analysis. We have not included program components (i.e., the PY3 Standard Program’s Faucet Aerator Direct Install Initiative) that did not involve participant research.

Table 13. Standard Program Summary

Program Year	End Use	Population (N)*	Telephone Survey Completes (n)	Gross RR	Ex Ante NTGR	Ex Post NTGR
PY1	HVAC	4	--	1.02	1.00	0.80
	Lighting	49	15	1.21	1.00	0.58
	Motors	2	1	0.18	1.00	0.43
	Refrigeration	30	1	1.00	1.00	0.95
	<b>TOTAL</b>	<b>85</b>	<b>17</b>	<b>1.18</b>	<b>1.00</b>	<b>0.62</b>
PY2	HVAC	24	8	1.00	0.76	0.47
	Lighting	626	57	1.00	0.76	0.78
	Motors	26	10	0.66	0.76	0.63
	Grocery	13	2	1.00	0.76	0.76
	Refrigeration	21	3	1.00	0.76	0.9
	<b>Total</b>	<b>710</b>	<b>80</b>	<b>0.95</b>	<b>0.76</b>	<b>0.76</b>
PY3	Lighting	965	80	1.11	0.78	0.76
	HVAC	116	29	0.52	0.47	0.78
	Refrigeration	346	48	1.00	0.90	0.82
	Motors	86	21	1.15	0.63	0.76
	Agriculture	2	--	1.00	0.76	0.76
	<b>Core Total</b>	<b>1,515</b>	<b>178</b>	<b>1.09</b>	<b>0.76</b>	<b>0.77</b>
	Online Store	17,596	88	1.00	0.80	0.64
	<b>TOTAL</b>	<b>19,111</b>	<b>266</b>	<b>1.07</b>	<b>0.73</b>	<b>0.75</b>

\*Note: The population figures for PY1 and PY2 represent unique projects whereas the figures for PY3 represent measures.

**Table 14. Custom Program Summary**

Program Year	Population (N)	Site Visit Completes (n)	Telephone Survey Completes (n)	Gross RR	Ex Ante NTGR	Ex Post NTGR
PY1	229	20	56	0.99	1.00	0.77
PY2	195	55	51	0.86	0.77	0.69
PY3	231	45	47	0.81	0.69	0.75

**Table 15. Retro-Commissioning Program Summary**

Program Year	Population (N)	Site Visit Completes (n)	Telephone Survey Completes (n)	Gross RR	Ex Ante NTGR	Ex Post NTGR
PY1	1	N/A	N/A	1.00	1.00	1.00
PY2	19	8	N/A	0.86	0.80	0.80
PY3	21	N/A	17	1.00	0.80	0.58

## **B. APPENDIX – PY1 ANNUAL REPORT**

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Provided under a separate cover



## C. APPENDIX – PY2 ANNUAL REPORT

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Provided under a separate cover

## **D. APPENDIX – PY3 ANNUAL REPORT**

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Provided under a separate cover

## **E. APPENDIX – RESPONSE TO PROCESS RECOMMENDATIONS**

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### SAIC/GDS Response to ODC Recommendations Ameren Illinois Efficiency Programs Program Year 1 January 25, 2012

**Date:** January 25<sup>th</sup>, 2012  
**To:** Opinion Dynamics Corporation (ODC)  
**From:** Keith Martin, Ken Woolcutt, Karen Kansfield—Ameren Illinois  
John Nicol and Lance Escue—SAIC  
Rich Hackner—GDS Associates  
**Re:** Response to ODC PY1 Recommendations for  
Ameren Illinois Commercial and Industrial Programs

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The Ameren Illinois Efficiency Team and their commercial and industrial energy efficiency program implementers, SAIC and GDS Associates (GDS), appreciate the recommendations provided by Opinion Dynamics Corporation (“ODC”) in their Ameren Illinois program evaluation report for the 2008-2009 program year; “Commercial and Industrial Program Portfolio: PY1.” Ameren Illinois, SAIC and GDS have seriously contemplated the recommendations and appreciate the opportunity to provide a summary of the status of the recommendations made for each program area:

#### **Process Recommendations**

Key recommendations related to the program processes are:

##### ***Program Design and Processes***

□ Where possible, efforts should be made to create greater fluidity between program years. Although necessary for budgetary purposes, the ability to process applications for pre-approval during the crossover period would improve efficiency and keep potential participants engaged. In particular, customers could apply earlier for projects in the next program year and the need to communicate with customers

about why the program is closed or not accepting applications on a temporary basis would cease.

- *The program database was modified to allow for addition of the next program year projects and to allow for projects not completed in one program year to transition to the next program year.*

□ Despite the fact that participants found both of the program applications easy to understand and complete, AIU has already made a change to the Standard program application by providing a separate application for each end-use. Given the positive feedback received to date, program staff should continue to monitor customer feedback to ensure that the application process remains straightforward and easy to follow for participants.

- *Program staff continues to monitor customer and program ally feedback regarding the applications. Suggestions made by customers, program allies, and program staff have been used to update subsequent application forms to ensure the capture of all relevant project and customer information and to make the application process as straightforward, as possible..*

### **Data Tracking**

□ Some key evaluation data fields related to program allies, such as contractor phone number, contact name and approval status, are not populated for all records in AIB. We recommend periodically reviewing the database to ensure that these fields are complete and to correct database entries where information has been entered inconsistently or incorrectly. For example, for some allies, the Allies Contact Name was entered in the Allies Company field while the company name was entered in the contact name field.

- *In PY1 the AIB database contained Ally information that was imported from a secondary source. The current data entry process is designed to ensure that all required information is entered in the correct fields.*

□ Including a “Date Added or Approved” field for program allies would also be useful as the program matures. This information would enable the evaluation team and program staff to assess growth in the program ally network over time and during particular periods.

- *There is a separate AIB table that contains information on Program Allies. A “Date Added” is one of the table fields.*

### **Marketing and Outreach**

□ The program should consider ways to draw upon the high levels of participant satisfaction with the program in future marketing and outreach efforts. While AIU is planning to develop case studies based on successful customer projects from Program Year 1, we recommend that the development of this collateral is prioritized and made a visible component of the marketing strategy for both programs.

- *Case studies have been completed and made available through the website and in print form. In addition, Frequently Asked Question, and information on*

*Business Symposiums and other education and training events have been added to the website.*

### **Program Allies**

□ If a key benefit of joining the Program Ally Network is the exposure and free advertising available to participating contractors through the service provider listings on the Act On Energy Business Program Website, customers have to know that this information exists. Given the lack of participant awareness of even official “Program Allies”, AIU should develop a strategy to raise awareness among and demonstrate the value of this program component to their customers. One option is to utilize findings from this evaluation, specifically the high use of contractors and customer satisfaction with them, to promote the ally listings.

- *A Business Program Ally tab has been added to the website. Included in the website is an application form and information on co-marketing the ActOnEnergy™ brand. In addition, a “Find a Contractor” option has been added to the website that allows for identifying ActOnEnergy program allies by name, specialty, areas served and customer type.*

**SAIC/GDS Response to  
ODC Recommendations  
Ameren Illinois Efficiency Programs  
Program Year 2  
January 25, 2012**

**Date:** January 25<sup>th</sup>, 2012  
**To:** Opinion Dynamics Corporation (ODC)  
**From:** Keith Martin, Ken Woolcutt, Karen Kansfield—Ameren Illinois  
John Nicol and Lance Escue—SAIC  
Rich Hackner—GDS Associates  
**Re:** Response to ODC PY2 Recommendations for  
Ameren Illinois Commercial and Industrial Programs

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The Ameren Illinois Efficiency Team and their commercial and industrial energy efficiency program implementers, SAIC and GDS Associates (GDS), appreciate the recommendations provided by Opinion Dynamics Corporation (“ODC”) in their Ameren Illinois program evaluation report for the 2009-2010 program year; “Commercial and Industrial Program Portfolio: PY2.” Ameren Illinois, SAIC and GDS have seriously contemplated the recommendations and appreciate the opportunity to provide a summary of the status of the recommendations made for each program area:

TRM or AIB-related

1. Add non-HVAC VFD write-up to the TRM  
*Status: Complete*
2. Limit savings for non-HVAC VFDs to 42% estimated baseline motor usage for pump applications and 67% for fan and all other applications  
*Status: Complete*

3. Review measure baselines in TRM for possible improvements due to codes and standards affecting
  - a. Efficient motors  
*Status: Non-issue...discontinued incentivizing NEMA premium efficient motors as of 12/31/10*
  - b. Lighting  
*Status: T12 is current baseline – will change to T8 baseline after T12 measures are retired*
  - c. HVAC  
*Status: In accordance with response to EM&V, plan was to utilize ComEd modeling information (due to cost of modeling effort and relatively small participation in ActOnEnergy™ HVAC program, however, HVAC electric measures (except vfds and tuneups) were discontinued as of 12/1/2012.*
4. Modify BPL60 in the TRM and AIB to account for a baseline of T8 as well as T12  
*Status: High watt T8 to low watt T8 will continue to be processed as a custom measure until we change to T8 baseline (after T12 measures retired)*
5. Correct AIB/TRM calculation discrepancy for motor replacement  
*Status: This was corrected in AIB early in PY3*
6. Update AIB to include additional information for retro-commissioning projects, specifically project status and what stage ex ante savings estimates are at  
*Status: This required two adjustments in AIB. First, a check box was included that allowed a technical reviewer to quickly determine if the savings are estimated or verified. Second, an adjustment linked to facility address allows a technical reviewer to easily identify follow-on projects that were generated as the result of a preceding retro-cx project.*

Program Ally-related

7. Explore the degree to which Program Allies use their affiliation with the program when reaching out to potential customers  
*Status: We have conducted a Program Ally Survey (December) and included this issue in the survey.  
The closest question to this issue that was asked in the December survey was ‘When meeting with a customer, how often do you promote ActOnEnergy?’  
The survey was sent out to two groups - Lighting Allies and all other Allies, I organized the responses with crosstabs based on how long they have been a Program Ally, the results are listed below:*

Lighting Allies:

	Response Total	3+ years	2 years	1 year	Less than 1 year
Frequently	66.7%	75%	66.7%	60.0%	
Often	27.8%	18.8%	0%	40%	42.9%
Sometimes	2.8%	0%	33.3%	0%	
	0%				

<i>Seldom</i>	0%	0%	0%	0%	0%
<i>Never</i>	2.8%	6.3%	0%	0%	0%
<i># Responded</i>	36	16	3	10	7

All other Allies:

	<i>Response Total</i> <i>1 year</i>	<i>3+ years</i>	<i>2 years</i>	<i>1 year</i>	<i>Less than</i>
<i>Frequently</i> <i>50%</i>	53.2%	69.2%	34.8%	44.4%	
<i>Often</i>	30.9%	23.1%	43.5%	38.9%	21.4%
<i>Sometimes</i>	11.7%	7.7%	13.0%	11.1%	21.4%
<i>Seldom</i>	3.2%	0%	8.7%	0%	7.1%
<i>Never</i>	1.1%	0%	0%	5.6%	0%
<i># Responded</i>	94	39	23	18	14

*Based on this information, a majority of Program Allies are promoting ActOnEnergy when speaking with customers. We have talked about this issue with Ameren several times and have decided that whether or not customers understand the term ‘Program Ally’ is a non-issue, as long as they know that there are contractors that can help them with their project. We added a section to each of the program pages on the website that lists all of the contact options if customers need help - so we’ve included a sentence about what a Program Ally is and how to find one in this section.*

8. Consider placing greater emphasis on differentiating program allies from non-registered trade allies, as well as promoting the benefits of registered program allies

*Status: The key to this issue is promoting the benefits to being a registered program ally. We will be adding a ‘How to Get Started Page’ on the website that will have more information about the benefits of using a Program Ally. In addition, now that we have two employees dedicated to building relationships with Allies - we have placed greater emphasis on communicating the benefits of their involvement in our program and providing more tools for Program Allies to sell energy efficiency. We have decided that instead of spending much time on communicating this to customers - we should be using this to engage current Allies and recruit new allies.*

9. Develop a strategy to raise awareness of Program Allies among customers and demonstrate the value of this program component

*Status: This goes hand-in-hand with #8 above. As mentioned above, we are spending more focus on Program Allies rather than customers. Cheryl Miller mentioned that she would be working with Jonathan Jackson, who is a contact for EM&V, to make sure the questions asked about this issue are appropriate so that it doesn’t continue to come up in our evaluations.*

Retro-Commissioning related



10. Consider ways to encourage greater RSP participation in the program

*Status: We have added requirement that to maintain RSP status each RSP must submit a project annually (approx.). We are hopeful this will bolster activity from the current RSPs. We also allow non RSP's (who are interested in becoming a RSP) to perform 1- time RCx projects. The RSP's are aware of the requirement to complete a project in year, and we did adjust the PY4 RSP list per the guidelines.*

11. Document the protocol for SAIC inspection of RSP work and consider expanding the number of SAIC inspections performed each program year

*Status: 100% of RCx projects have/will receive post inspections in PY4 and have relevant documentation completed. The protocol for completing and documenting all post inspection (retrocommissioning and other projects) is available.*

12. Educate Retro-Commissioning participants about their program responsibilities, ensuring that they are aware that outside verification of projects is a possibility

*Status: RSP refresher webinars were held on 11/3/10 (healthcare) and 11/4/10 (compressed air) and at that time RSPs were reminded about outside verification. Customers are informed of their program responsibilities throughout the process but to further solidify understanding wording regarding outside verification will be added to the PY4 Program Commitment Form*

QA/QC-related

13. Update or strengthen the review process for very large customers to ensure that all necessary documentation for estimating energy savings and determining sufficient completion of work is provided

*Status: Completed*

Small Business HVAC-related

14. Work with Small Business HVAC trade allies in PY3 to identify additional marketing tools that would help them reach small customers targeted by the program

*Status: During the last week of September we met face-to-face with SBHVAC allies across the territory and provided the allies initial training and specific materials to help them reach their customers. Additionally, we conducted a SBHVAC specific webinar in January 2011 to help SBHVAC allies promote the ActOnEnergy™ program. These are two examples of several things that have been done for this market segment in PY3*

15. Consider simplifying the Small Business HVAC incentive structure to a fixed incentive amount

*Status: Completed. This recommendation was adopted as part of the PY4 design update*

Marketing-related

16. Develop additional case studies and other marketing collateral aimed at providing detailed information to Ameren Illinois customers about the ActOnEnergy™ Commercial and Industrial programs

*Status: We now have 8 case studies posted on the AOE website. Additionally, we have developed market segment specific brochures, the cost of waiting piece, and special offer sell sheets for both customers and program allies*

**SAIC/GDS Response to  
ODC Recommendations  
Ameren Illinois Efficiency Programs  
Program Year 3  
February 6, 2012**

**Date:** February 6<sup>th</sup>, 2012  
**To:** Opinion Dynamics Corporation (ODC)  
**From:** Keith Martin, Ken Woolcutt, Karen Kansfield—Ameren Illinois  
John Nicol and Lance Escue—SAIC  
Rich Hackner—GDS Associates  
**Re:** Response to ODC PY3 Recommendations for  
Ameren Illinois Commercial and Industrial Programs

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The Ameren Illinois Efficiency Team and their commercial and industrial energy efficiency program implementers, SAIC and GDS Associates (GDS), appreciate the recommendations provided by Opinion Dynamics Corporation (“ODC”) in their Ameren Illinois program evaluation report for the 2010-2011 program year; “Commercial and Industrial Program Portfolio: PY3.” Ameren Illinois, SAIC and GDS have seriously contemplated the recommendations and appreciate the opportunity to provide a summary of the status of the recommendations made for each program area:

Key recommendations for the programs include the following:

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

*Status: Ongoing effort to provide as clear of documentation, as possible. Calculation, assumptions, and other project documentation are being uploaded and made available within AIB.*

**Continue providing support to program allies while further building trade ally network.** Year-over-year research has shown that trade allies are the key force behind the decision-making process related to equipment selection and project specification. The program has made great strides in engaging trade allies with the program and promoting the program

through this market actor segment. However, moving forward, the program should continue to maintain close contact with trade allies while further expanding the network, especially in areas lacking trade ally representation. With increased program staff and the creation of a position solely responsible for trade ally support, the program is well positioned for success in this area.

*Status: PY4 Budget increases and subsequent staff additions in both marketing and trade ally support have strengthened the outreach capabilities for the Program. Dedicated staff engage both trade allies, as well as, associations and other key stakeholder groups.*

**Continue customer education about trade allies.** Participant research suggests that contractor affiliation with the program, as well as the benefits of using registered program allies for energy efficient projects is not widely recognized. The program should consider taking additional steps to further educate program participants about and encourage them to use registered program allies for their energy efficient projects. Registered program allies tend to be familiar with the program and are capable of providing high quality program assistance to customers, which has the potential to result in higher customer satisfaction and repeat participation.

*Status: We will be adding a 'How to Get Started Page' on the website that will have more information about the benefits of using a Program Ally. In addition, now that we have two employees dedicated to building relationships with Allies - we have placed greater emphasis on communicating the benefits of their involvement in our program and providing more tools for Program Allies to sell energy efficiency. We have decided that instead of spending much time on communicating this to customers - we should be using this to engage current Allies and recruit new allies. However, we will be using other platforms such as the annual Customer Symposium in May.*

**Explore additional financial support options.** Prohibitive costs are mentioned by program participants and non-participants as a major barrier to energy efficiency. Key Account Executive and trade allies support this notion and further indicate that a lack of upfront capital to invest in energy efficiency presents a major obstacle to program participation. While increased incentives and other promotions undertaken by the program throughout PY3 were successful in increasing participation, the program might want to consider exploring other ways of mitigating the financial barrier of making an energy efficiency investment such as equipment financing options through the program.

*Status: Additional financial support options, including, but not necessarily limited to, capital lease options will be considered during the PY5 planning process.*

## **F. APPENDIX – LIGHTING HOU REPORT**

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Provided under a separate cover