Energy Efficiency / Demand Response Plan: Plan Year 2 (6/1/2009-5/31/2010)

Evaluation Report: Lights for Learning™ Program

Presented to

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Presented by

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Section E. Executive Summary

E.1 Evaluation Objectives

The primary objectives of this evaluation are to quantify energy impacts from the PY2 ENERGY STAR® Lights for Learning™ Fundraiser program[1] (L4L), to determine key process-related program strengths and weaknesses, and to identify ways in which the program can be implemented more effectively.

This evaluation report covers the PY2 time period, which overlaps with the 2009 – 2010 school year. The main goals of the L4L program are to provide schools and organizations with ways to educate students on the benefits of energy efficiency while conducting school fundraising by selling Compact Fluorescent Light bulbs (CFLs), LED lighting and power strips. The program has been offered statewide since 2005 and receives funding and support from the Illinois Department of Commerce and Economic Opportunity (DCEO), ComEd, and Ameren Illinois Utilities through the Illinois Energy Efficiency Portfolio Standard beginning with the 2008 – 2009 school year. Lights for Learning is a trademarked program developed by the Midwest Energy Efficiency Alliance (MEEA). Lights for Learning is implemented in Illinois by Applied Proactive Technologies (APT) with order fulfillment through Energy Federation, Inc. (EFI).

E.2 Evaluation Methods

The methods used for the L4L program's impact evaluation were to review default energy savings assumptions for products offered through the program and to quantify gross savings impacts from analysis of the program reporting data. Net impacts were derived using a planning assumption for the NTG ratio from ComEd.[2] Energy and demand impacts for the L4L program are presented within the report according to DCEO EEPS and DCEO Non-EEPS territories. The report's Appendix includes separate reporting for ComEd and Ameren utility territories.

The methods used for the PY2 process evaluation included in-depth interviews with program staff and contract implementers. In-depth interviews were conducted with ten (10) program participants (e.g. end-users who purchased energy efficient product(s) from the Lights for Learning fundraiser). The purpose of these interviews was to obtain a qualitative assessment of end-user satisfaction with the fundraiser and installed usage of the lighting products. Additionally, the evaluation team conducted a review of the PY2 program materials and tracking databases.

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[1] The L4L program for the 2009 – 2010 School Year began June 1, 2009 and ended May 31, 2010. This period of time is referred to as Program Year 2 (PY2) of the Illinois Energy Efficiency Portfolio Standard (EEPS).

[2] Please see Net to Gross discussion for rationale of using the planning assumption for NTG ratio for PY2 evaluation.

E.3 Key Findings

Key Impact Findings

During PY2, 165 schools and organizations participated in the L4L program in Illinois statewide, including 219 presentations by L4L staff reaching 19,815 students. Participating schools and organizations completed 178 fundraisers that featured 2,527 students who sold a total of 26,920 energy efficient products. Products sold included CFLs (from nine product options), LED nightlights, and LED holiday strands (from two product options), and energy efficiency products (including BITs Smart Strip 7-outlet power strips and Kill-A-Watt electricity usage monitors).[3] In addition, the program distributed 686 units as samples for outreach; these units are not included in the energy and demand savings estimates. The evaluation team made no adjustments to the number of units purchased reported by the program.

Table E-1 below provides L4L PY2 units purchased and distributed in DCEO-EEPS and DCEO non-EEPS sectors. DCEO-EEPS includes all public and private program participation in ComEd and Ameren utility territories in the state of Illinois. DCEO Non-EEPS are units purchased or distributed (including samples) in parts of Illinois that are not participating in EEPS.

Table E-1 Lights for Learning PY2 Units Purchased and Distributed

Units	DCEO- EEPS	DCEO Non-EEPS
CFL units purchased	20,274	1,791
LED lights purchased	4,382	263
Subtotal, for Impact Evaluation	24,656	2,054
Combined Subtotal for Impact Eval	26,710	
Energy efficiency products purchased[4]	210	
Units Distributed as Samples	686	
Total all units Purchased and Distributed	27,606	

Source: Midwest Energy Efficiency Alliance, ENERGY STAR® Lights for Learning™ Fundraiser, Summary Report, Results, and Lesson Learned, State of Illinois, 2009-2010 School Year, July 12, 2010. Chicago, IL

Table E-2 below provides program-reported gross energy savings and peak demand reductions for the PY2 Lights for Learning program, and evaluation-adjusted gross and net energy savings and peak demand impacts.

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[3] Midwest Energy Efficiency Alliance, *ENERGY STAR® Lights for Learning™ Fundraiser, Summary Report, Results, and Lesson Learned, State of Illinois, 2009-2010 School Year*, July 12, 2010. Chicago, IL

[4] Energy efficiency products include BITs Smart Power Strips & Kill-A-Watt Monitors and are not included in energy savings estimates.

Table E-2 Lights for Learning PY2 Energy and Coincident Demand Savings

First-Year Energy Savings	DCEO- EEPS	DCEO Non-EEPS
Program Reported Gross kWh Savings (ex ante)	956,435	85,599
Evaluation Adjusted Gross kWh Savings (ex post)	946,171	84,710
kWh Realization Rate	99%	99%
Program Reported Gross Coincident kW savings (ex ante)	85.5	7.7
Evaluation Adjusted Gross Coincident kW savings (ex post)	84.5	7.6
kW Realization Rate	99%	99%
Net-to-Gross Ratio *(80% for PY2)*[5]	80%	80%
Net kWh Savings (ex post)	756,937	67,768
Net Coincident kW Savings (ex post)	67.6	6.1

Source: Navigant analysis of PY2 program annual report data.

Table E-3 below provides a summary of the gross impact parameters used to derive evaluation adjusted Lights for Learning PY2 first-year gross energy savings and coincident demand reductions. A key impact parameter, the delta watts for baseline to efficient-product conversion for each product type, was taken from the ComEd PY2 Residential Lighting evaluation report, where possible.[6]

Table E-3 Lights for Learning PY2 Evaluation Gross Impact Parameters

Evaluation Factor	Value
Purchased units	Program Tracking Data
Annual Hours of Use: CFLs	854
Annual Hours of Use: LED Nightlight	2,920
Annual House of Use: LED Holiday Lights	272
Installation Rate	0.9[7]
Coincidence Factor: CFLs	0.081
Coincidence Factor: LED Lights (all)	0.0
HVAC Interaction Factor (indoor lighting)	1.0
Delta Watts	ComEd PY2 Residential Lighting Evaluation, where possible

Source: Navigant research and analysis.

[5] The net-to-gross ratio value of 80% is drawn from the program plan presented in ComEd's 2008-2010 Energy Efficiency and Demand Response Plan (November 15, 2007). Please see the discussion in Section 2.1 for more information about the net-to-gross ratio value applied for this evaluation.

[6] Navigant, DRAFT PY2 ComEd Residential ENERGY STAR Lighting Program Evaluation (Sept 22, 2010).

[7] Please see discussion of installation rate methodology in Section 2.1 for more detail about the evaluation-adjusted assumption.

The evaluation-adjusted gross impact for CFLs in DCEO EEPS territory is 44.0 kWh per unit and the 38.4 kWh per unit averaged over all lighting products. The gross realization rates for energy and peak demand savings are 99%, with the minor difference being that the PY2 evaluation adjusted delta watts for some products based on findings from ComEd's PY2 residential lighting evaluation.

Interview results from a small sample of participants indicate that adjustments may be forthcoming to the installation rate for future years. For example, the evaluation team interviewed ten (10) participants during the PY2 evaluation and found that only 36 of 78 products were installed by the participants. The evaluation team determined that the sample size of completed interviews was too small to extrapolate the interview results to the entire program. Despite the small sample size, the installation rate from the participant surveys would indicate that the actual installation rate for the program is much lower than the current assumed installation rate of 0.90 from the DEER database.

The evaluation team did not have access to a large enough sample size to accurately calculate an updated installation rate or NTG ratio for the PY2 program year. However, other residential lighting evaluations and interviews with a small sample of program participants indicate that the program's installation rate and NTG ratio will need to be reviewed in greater detail during PY3. Other residential lighting evaluations that have conducted larger sample surveys have applied a NTG Ratio of 0.58, based on the average of the two customer self-report NTGR results for the ComEd Residential ENERGY STAR Lighting program. However, the evaluation team has determined that the Lights for Learning program includes enough significant differences in program design (e.g. education and outreach, delivery methods, implementation) to warrant a different NTG Ratio than that of the ComEd Residential ENERGY STAR Lighting program.

The L4L NTG ratio estimate should examine participant spillover, as 9 out of the 10 purchasers interviewed have made other energy efficiency improvements in their homes; mainly the purchase of more efficient household appliances and efficient lighting products. Among this group, four indicated that the fundraiser influenced their decision to take action.

Key Process Findings

The PY2 process evaluation resulted in the following key findings:

Table E-4 below provides a summary of Lights for Learning PY2 presentations and proceeds.

Table E-4: Lights for Learning PY2 Presentations and Proceeds

Presentations and Proceeds	DCEO- EEPS	DCEO Non-EEPS	Total Program
School Presentations	213	6	219
Participating Students	2,385	142	2,527
Participating Schools	154	11	165
Number of Fundraisers	157	21	178
Proceeds	$51,775.85	$5,798.25	$57,574.10

Source: Midwest Energy Efficiency Alliance, ENERGY STAR® Lights for Learning™ Fundraiser, Summary Report, Results, and Lesson Learned, State of Illinois, 2009-2010 School Year, July 12, 2010. Chicago, IL.

- While the Light for Learning Program more than exceeded PY2 goals for products sold set by ComEd and Ameren, the program also experienced slower growth in some areas in PY2 compared to PY1. For example, the program sold 26,920 products in PY2, down from 37,018 products in PY1, resulting in a 27% decline in total unit sales. Despite the decline in unit sales, actual fundraiser proceeds grew by 31% in PY2 to a total of $57,574.10 vs. $43,902.25 in PY1. The increase in proceeds is due to an increase in prices and fundraiser retention percentage, and the product mix.

- The total number of students participating in fundraisers also increased in PY2 – albeit by a modest 6% (2,527 students in PY2 vs. 2,394 students in PY1). However, the average number of students participating per school decreased in PY2. On average, about 15 students participated per school or organization (2,527 students in 165 schools), but in PY1, on average, 17 students participated per school (2,394 students in 139 schools).

- The Lights for Learning program experienced a successful PY2 on other program metrics compared to PY1 levels. In PY2, there were 10.5% more organized fundraisers than in PY1 (178 in PY2 vs. 161 in PY1), and nearly 19% more schools and organizations participating in fundraisers (165 in PY2 vs. 139 in PY1). Lastly, a total of 219 marketing educational presentations (up about 8% from 202 presentations in PY1) were conducted by either MEEA or APT to a total of 19,815 audience members (up 20% from 16,500 attendants in PY1).

- The marketing materials that were evaluated in PY2 show the messages to be clear and actionable. Purchasers reflect the program's central marketing messages in their motivations to purchase. When asked unprompted about their motivation to participate,

most people mention the financial benefits for schools, personal financial savings (3 of 10), environmental benefits (3 of 10), and the usability/attractiveness of the products (3 of 10). However, awareness of sponsors is mixed, as most had some knowledge of ComEd[8] as a sponsor, while none mentioned DCEO.

- The roles, relationships and operating procedures between the stakeholders, MEEA, APT, and EFI remain unchanged and are operating effectively for the program to meet its goals. Furthermore, the PY2 implementation strategy is effective and allows the program to perform at a high level with high satisfaction among a sample of product purchasers from the fundraiser.

- All purchasers interviewed for the evaluation (n=10) indicated they were satisfied with both the selection and quality of bulbs sold through the fundraiser. All ten participants indicated that they plan to participate in the fundraiser again.

[8] All 10 purchasers from the fundraiser interviewed by the evaluation team were ComEd customers.

Section 1. Introduction to the Program

1.1 Program Description

The Lights for Learning (L4L) program began in the 2005-2006 school year. The program is sponsored by the Illinois Department of Commerce and Economic Opportunity (DCEO), Commonwealth Edison (ComEd), and Ameren Illinois Utilities. The program targets any size K-12 school, group, organization, or community college on the benefits of energy efficiency and energy conservation. The program educates students on the benefits of energy efficiency and energy conservation through 1) educational presentations, 2) a school fundraiser of energy-saving bulbs, and 3) teacher curriculum for classroom instruction.

The school fundraiser is based on the sale of energy-saving bulbs to the general public - with schools retaining 60% of the sale proceeds from the program. The majority of schools and organizations also request in-school educational presentations which range in size from individual classrooms to whole-school audiences. Teachers are provided with a curriculum to help implement environmental and energy-related lessons that are tailored to meet the specific age level of the students. This curriculum was developed by MEEA and APT with input from the program's sponsoring utilities. Schools/organizations are able to utilize the educational presentations even if they opt not to participate in the fundraiser.

1.1.1 Implementation Strategy

Roles of the Implementation Contractor

The Lights for Learning program is administered by the Midwest Energy Efficiency Alliance (MEEA). Applied Proactive Technologies, Inc., (APT) is the program implementer across Illinois. Furthermore, Energy Federation, Inc (EFI) serves as the provider of energy-saving products sold through the school fundraiser.

Program Timeline

The Lights for Learning Program for the 2009 – 2010 School Year began June 1, 2009 and ended May 31, 2010. This is referred to as Program Year 2 (PY2) of the Illinois Energy Efficiency Portfolio Standard (EEPS).

Program Delivery Mechanisms

The program implements three key components for the program; 1) educational presentations, 2) school fundraisers, and 3) curriculum for classroom instruction.

1.1.2 Changes to Implementation in PY2

The following are key changes to the program that occurred from Program Year One (PY1) to Program Year Two (PY2)[9].

Education/Assemblies

- Because of the high levels of enthusiasm it seemed to generate among students in PY1, in PY2 the exercise bike became standard practice in the presentation format at educational assemblies and was used in almost all (98%) of presentations in PY2.
- Presentations at nature parks and zoos were added as Lights for Learning marketing venues in PY2.
- In PY2, APT added an additional part-time staff member to support the work of its Education Coordinator.

Fundraiser

- In PY2 the order form for student fundraisers was streamlined into one form to facilitate the ordering process. Additionally in PY2, the ordering materials were placed in one cohesive packet so materials are more easily distributed to students, and students could more easily transport the materials.
- The program modified the language for the ENERGY STAR pledge. The CFL disposal instructions were also modified to meet a change in EPA specifications.
- In PY2 the program added new energy-efficient lighting products: desk lamps, smart power strips (BITs Power Strips), electricity load meters (Kill-A-Watt monitors), higher watt CFLs (equivalent to 75 watt incandescent bulbs), and different CFL designs (3-way and dimmable bulbs). A couple of the new products (26 and 25 watt dimmable bulbs) were only offered briefly as they were removed early in the year because of poor quality.
- In PY2 the prices for many of the individual products increased by $0.25-1.00 from PY1 prices.

Curriculum

- Program educational materials, or "toolkits," that are provided to K-5 grades were modified in PY2 to include multimedia CDs and more comprehensive books and activities on environmental and energy-related issues for teachers to use in their social science or science curriculum.

[9] The time period for Program Year One (PY1) went from 6/1/08-5/31/09. The time period for Program Year Two (PY2) went from 6/1/09-5/31/10.

Marketing

- In PY2 the program began to utilize a multimedia CD that includes a video explaining the program, its goals, and how it functions.
- Due to the success of video contests in PY1, in PY2, the program added poetry and poster contests for participating students in the fundraiser. Additionally, in PY2 the program designed a school rivalry challenge, called "Battle of the Greenest," between neighboring schools to stimulate schools' and students' interest in participating.[10]

Measures and Incentives

- In PY2, schools and organizations participating in Lights for Learning fundraisers received 60% of the sale proceeds from the fundraiser, up from 50% in PY1.
- In PY2, all students who participated received a pen and a backpack, and students who sold 20 or more items received a t-shirt and a backpack, while students who sold 40 or more items received a t-shirt, a backpack and $10 bookstore gift card.
- In PY2, recognition ceremonies were conducted for the top-performing school in each sponsor territory.

Educational Presentations and Assemblies

The program offers custom 35-45 minute on-site presentations for schools/organizations in an effort to increase K-12 student education on the benefits of energy efficiency and energy conservation. Schools are able to request presentations without having to sign-up for the fundraiser. The program measures the effectiveness of the presentations on three metrics that educational associations typically use: "What do you know?" "What do you want to learn?" and "What have you learned?"

In PY1 the educational presentations included an exercise bike in larger venues to show energy demonstrations. In PY2 the exercise bike became standard practice in the presentation format and was used in almost all (98%) of presentations. In PY2, APT conducted a total of 219 in-school presentations, which is up from the 202 in-school presentations in PY1.

School Fundraiser

The Lights for Learning program offers a fundraiser that sells energy-saving light bulbs. Schools and organizations participating in the program receive 60% of the sale proceeds from the fundraiser. In PY2, the Lights for Learning program had 165 entities (schools and organizations participate in the fundraiser, which is up from 139 organizations in PY1. Similar to PY1, the

[10] Information provided in interview with APT Program Manager.

energy-saving CFL bulbs provided by EFI in PY2 are all rated at 6,000 to 10,000 life hours and the LED lights are all rated at 30,000 lifetime hours. Working with EFI, program staff determined that the regional market is becoming saturated with 13 Watt CFLs (equivalent to a 60 Watt incandescent bulb). As a result, the program began selling new products in PY2 such as desk lamps, power strips (BITs Power Strips), electricity load meters (Kill-A-Watt Monitor), higher watt CFLs (equivalent to 75 watt incandescent bulbs), and different CFL designs (3-way and dimmable bulbs). A couple of the new products (26 and 25 watt dimmable bulbs) were only offered briefly as they were removed early in the year because of poor quality. EFI continued to manage the receipt, fulfillment and shipment of bulb orders, as well as customer service.

The staff at APT is the main point of contact between the school coordinator and the program. In PY2, APT added an additional part-time staff member to support the work of its Education Coordinator. At the outset of the fundraiser, APT provides schools with a checklist for a successful fundraiser, which includes presenting the accrued knowledge of the fundraiser to students and teachers through custom presentations or assemblies. The Education Coordinator works with the teachers and/or school fundraising coordinators to ensure that they have received all the materials for the program, including but not limited to posters, banners, and order forms. During the course of the fundraiser, APT makes multiple contacts with the school fundraising coordinator through emails and phone calls to check in on the status of the program, including status of order placement, order receipt, prize receipt and payment status. Each student receives an order form to track their total bulb sales. In PY2 a single order form was provided to students which combined both standard and specialty bulbs. A secondary order form was still used for holiday specialty bulbs.

At the conclusion of the fundraiser, school representatives (e.g., teachers, fundraising coordinators, etc) calculate the total bulb-orders on a spreadsheet provided by APT and mails/emails it to EFI for processing. APT then reimburses EFI after receiving payment from schools participating in the fundraiser. EFI maintains warehouses in Wisconsin and Massachusetts. Because of the proximity of the Wisconsin warehouse, bulb orders could be delivered within one week. As in PY1, the program continues to advertise a wait time of 14 days for schools to receive their orders.

Similar to PY1, teachers receive a survey to gauge if they found the program to be effective, knowledgeable, and overall a positive learning experience for their students. In PY2, 23 teachers responded to the survey, but in PY3 implementers hope to increase the response rate by asking teachers to complete the survey immediately after they have participated.

Curriculum for Classroom Instruction

The program also provides teachers a curriculum to help implement environmental and energy-related lessons. This curriculum was developed by MEEA and APT with input from the

program's sponsoring utilities. As with the presentations, the curriculum can be customized to meet the requirements of participating classes' age and grade level.

Program educational materials, or "toolkits," that are provided to K-5 grades were modified in PY2 to include multimedia CDs and more comprehensive books and activities on environmental and energy-related issues for teachers to use in their social science or science curriculum. APT staff believes that these materials are being used with greater frequency by teachers in PY2. The main barrier to usage continues to be the available time the teachers have to incorporate the curriculum into their lesson plans.

Marketing Strategy

Responsibility for the marketing and promotion of the Lights for Learning program is shared by MEEA and APT. APT facilitates most of the communication between the program and the participating schools or organizations. This includes both direct customer communication such as fulfilling information requests, signing up participants to the program, helping with questions and issues, and more indirect communication including mailings, newsletters and feedback survey.

MEEA and APT work together to design the marketing collateral and revise materials including the sponsor-branded order form and sell sheet. Schools and organizations also often create their own materials to promote the program. Online contests, press releases in newspapers, banners and signage continue to serve as promotional collateral. In PY2 the program began to utilize a CD Rom that includes a video explaining the program, its goals, and how it functions. All marketing materials contain a toll-free number, the cell number and email address of the program coordinator and program website. The program website remains largely unchanged since its overhaul in PY1, with the exception that new contest information and CFL disposal guidance has been added to the website.

The program emphasizes marketing at conferences, workshops, and nature parks, citing a higher interest level from face-to-face marketing than other methods (mostly effective during Earth Day). At these events, potential participants receive information on how the program operates, how to sign up, answers to frequently asked questions, information on CFL recycling and disposal and energy saving tips.

The program uses promotional incentives as a way to increase participation and reward success in the fundraiser. In PY2, schools and organizations participating in the program received 60% of the sale proceeds from the fundraiser, up from 50% in PY1. All schools who participate in the fundraiser receive recognition with a certificate of appreciation —in PY2 this was provided along with an engraved glass orb. In PY2, the program also presented the two top-selling schools/organizations with commemorative globes, as well as conducted recognition ceremonies for the top-performing school in each sponsor territory.

In PY2, the program offered various incentives to motivate and reward students. All students who participated received a Lights for Learning string/sling backpack. Students who sold 20 or more items received a t-shirt and a backpack, while students who sold 40 or more items received a t-shirt, a backpack and $10 bookstore gift card.

1.2 Evaluation Questions

The evaluation sought to answer the following key researchable questions.

Impact Questions:

1. What are the gross impacts from this program?
2. What are the net impacts from this program?
3. Did the program meet its energy and demand goals? If not, why not?

Process questions:

1. Has the program design changed from the previous year? If so, how, why, and was this an advantageous change?
2. Is PY2 implementation on track and meeting goals? Has the PY2 program been implemented in a manner consistent with program design?
3. How effective is the program implementation, design and processes, and marketing efforts in PY2?
4. What type(s) of market effects are associated with program activities?
5. Are lighting product purchasers satisfied with their experience with the program?
6. What areas could the program improve to create a more effective program for school participants, and/or program partners?

Section 2. Evaluation Methods

2.1 Analytical Methods

This section describes the methods used by the evaluation team to develop program impact and process evaluation findings and recommendations.

2.1.1 Impact Evaluation Methods

This section briefly describes changes to the evaluation team's PY2 impact evaluation methodology for PY2.

Gross Impact Parameters

For PY2 reporting of energy and peak demand impacts, DCEO implemented the default savings assumptions recommended in the PY1 Lights for Learning impact evaluation report for delta watts, hours of use, mean coincident load factor, and indoor HVAC interaction factor. The evaluation team made no modifications to these gross impact parameters between PY1 and PY2, except that the delta watts for baseline to efficient product conversion for each product type was taken from the ComEd PY2 Residential Lighting evaluation report where possible. The PY2 ex ante and evaluation adjusted parameters are provided in Section 3.

Installation Rate

In order for a program unit to contribute energy savings to the L4L program, it must be installed within the program year. The evaluation team chose to continue to apply an installation rate of 0.90 for PY2, a default rate based on results from DEER.[11] For PY2 reporting of energy and peak demand impacts, DCEO also uses an installation rate of 0.90.

It is important to note that interview results from a small sample of participants indicate that adjustments may be forthcoming to the installation rate for future years. Preliminary findings from other residential lighting program evaluations indicate a downward adjustment to the current assumed installation rate.

For example, the evaluation team interviewed ten (10) participants during the PY2 evaluation and found that 36 of 78 products were installed by the participants. The evaluation team determined that the sample size of completed interviews was too small to extrapolate the interview results to the entire program. Despite the small sample size, the installation rate from

[11] California Public Utilities Commission (CPUC) and the California Energy Commission (CEC), *Database for Energy Efficiency Resources (DEER)*. The data is accessible on the DEER website (http://eega.cpuc.ca.gov/deer/) through a database search tool.

the participant surveys would indicate that the actual installation rate for the program is much lower than the current assumed installation rate from the DEER database. This is an issue of significant concern for the evaluation team.[12] During PY3, the evaluation team will attempt to establish an installation rate that more accurately reflects the program's performance through additional market research and completing a greater number of participant surveys.

Purchased Units

The number of units distributed through the program is a key parameter in the calculation of total gross and net program savings and is derived from the PY2 L4L tracking data provided to the evaluation team by MEEA.

Net Program Savings

The primary objective of net savings analysis is to determine a program's net effect on customers' electricity usage, accounting for free-ridership and spillover. This requires estimating what would have happened in the absence of the program. Thus, after gross program impacts have been assessed, net program impacts are derived by estimating a Net-to-Gross (NTG) ratio that quantifies the percentage of the gross program impacts that can reliably be attributed to the program. Once free-ridership and spillover have been estimated, the Net-to-Gross (NTG) ratio is calculated as follows:

NTG Ratio = 1 – Free-ridership Rate + Spillover Rate

The PY2 evaluation used a NTG ratio equal to 0.80, matching the ComEd program planning assumption.[13] The evaluation team used the ComEd program planning assumption for purposes of the PY2 evaluation report because there was not enough data available to the evaluation team to be able to calculate a meaningful NTG Ratio for this PY2 program. During PY3, the evaluation team proposes to collect additional information to enable the evaluation team to calculate a NTG Ratio for the PY3 program year.

[12] The draft PY2 evaluation report for the ComEd Residential ENERGY STAR Lighting Program (September 22, 2010) includes an installation rate of 74% across all bulb types.

[13] The value of 80% is drawn from the program plan presented in ComEd's 2008-2010 Energy Efficiency and Demand Response Plan (November 15, 2007). Page D-2 of the ComEd plan provides a footnote stating the net to gross ratio of 80% is drawn from the California Energy Efficiency Policy Manual, version 2 (2003). The draft version of the PY2 report for ComEd's Residential ENERGY STAR Lighting Program (September 22, 2010) uses a NTG ratio of 58%.

2.1.2 Process Evaluation Methods

The data collected for the evaluation of the Lights for Learning program was gathered during a number of primary and secondary research activities between June-August, 2010. Primary research consisted of in-depth phone interviews with program staff from DCEO, MEEA and APT. A short telephone survey with product purchasers from the fundraiser was also conducted.

The table below provides a summary of these data collection activities including the targeted population, the sample frame, and timing in which the data collection occurred.

Table 2-1. PY2 Data Collection Activities

Data Collection Type	Targeted Population	Sample Frame	Sample Design	Sample Size	Timing
Review of Program Materials	Lights for Learning Program Participants	Promotional Materials	-	-	May-June 2010
In-depth Phone Interviews	MEEA	Contact from MEEA	LFL Administrative Program Manager	1	May 2010
	Applied Proactive Technologies	Contact from APT	LFL Implementation Manager and Staff	2	June 2010
	DCEO	Contact from DCEO	LFL Program Manager	1	May 2010
Telephone Survey	Fundraiser Product Purchasers	Contacts from MEEA	PY2 Bulb Purchasers	10	June-July 2010

Source: Navigant evaluation team analysis.

2.2 *Data Sources*

Tracking Data

The evaluation team was provided program tracking databases from both MEEA and APT. While similar, the two databases contained different fields. The MEEA tracking file provided for the evaluation contained customer name, customer address, customer city, total bulbs, utility name, school type, e-mail address, and school/home phone number. The APT PY2 tracking file provided for the evaluation contained customer name, customer address, customer city, utility name, school type, email address, telephone number, and primary contact.

Program and Implementer Staff Interviews

Two in-depth interviews with program staff members were conducted as part of the PY2 process evaluation. The first interview was conducted with both the DCEO program manager and the MEEA program manager in May, 2010. The second interview was with the APT program manager and one of her staff members in June, 2010. The interviews with DCEO and MEEA were intended to learn about possible changes in program processes, program goals, and marketing activities. The interviews with APT representatives explored changes in the implementation of the program in PY2.

2.3 Sampling Plan for Telephone Survey

A short survey was conducted with 10 individuals who purchased bulbs from the fundraiser. The data collection instrument is provided in Appendix 5.2. The survey was conducted between June and July 2010 and focused on program awareness, satisfaction with the program and quality of the bulbs, barriers to bulb installation, and the effectiveness marketing outreach.

The evaluation initially planned to conduct a telephone survey with 70 purchasers of lighting products from the fundraiser in order to achieve a 90/10 confidence/precision level (or better) for the overall program. However, during the course of the evaluation, it was learned that contact information of purchasers from the fundraiser is not captured from the program's tracking database. As a result, the evaluation team contacted MEEA to facilitate the sample of purchasers from various schools willing to provide information. MEEA provided the evaluation team with the names and phone numbers of 24 purchasers from the fundraiser. All contacts were called or emailed at least twice to request an interview, except two contacts that did not include valid numbers or email addresses.

In PY3, the evaluation team proposes to collaborate with the program implementers to effectively capture necessary program participant information to deploy a telephone survey to achieve the desired confidence level and relative precision for program findings.

Section 3. Program Level Results

3.1 Impact Results

3.1.1 Verification and Due Diligence

Given modest changes in the program design, this topic was not revisited. Please refer to the PY1 report for more information.

3.1.2 Tracking System Review

The evaluation team understands that DCEO is currently in the process of updating its internal tracking system. Therefore, this topic was not revisited. Please refer to the PY1 report for more information.

3.1.3 Gross Program Impact Parameter Estimates

Program-reported and evaluation-adjusted energy and demand savings are calculated by summing the savings for each product type sold through the program, based on unit sales and savings per unit for each product type. For PY2 reporting of energy and peak demand impacts, DCEO implemented the default savings assumptions recommended in the PY1 Lights for Learning impact evaluation report for delta watts, hours of use, mean coincident load factor, and indoor HVAC interaction factor. The evaluation team made no modifications to these gross impact parameters between PY1 and PY2, except that the delta watts for baseline to efficient product conversion for each product type was taken from the ComEd PY2 Residential Lighting evaluation report where possible.[14] Tables 3-1, 3-2, and 3-3 below identify the per unit impact assumptions.

Table 3-1 below provides the product efficient wattage used to calculate non-coincident displaced watts for each product. The evaluation team applied delta watts consistent with other residential lighting evaluations for spiral CFL products. The L4L product efficient wattage and specifications were taken from the L4L annual report and from the Energy Federation Inc. web site (http://www.energyfederation.org). The evaluation team calculated delta watts for products not included in other residential lighting evaluations (e.g. specialty bulbs, etc.) based on product specifications from the program implementer.

[14] Navigant, Draft ComEd PY2 Residential ENERGY STAR Lighting Program Evaluation (Sept 22, 2010).

Table 3-1. Gross Impact Parameters – Delta Watts

Product Type	L4L Efficient Product Wattage[15]	Program Reported Delta Watts[16]	Evaluation-Adjusted Delta Watts[17]
13W Spiral	13	47.0	47.0
13W Capsule	13	47.0	47.0
14W 3 Pack	14	46.0	45.4
15W Reflector	15	45.0	45.0
15W R30 Dimmable	15	45.0	45.0
19W 3Pack	19	56.0	56.0
20W Spiral	20	55.0	54.4
23W Spiral	23	77.0	74.0
26W Dimmable	25	70.0	75.0
33W 3-Way	33	117.0	117.0
Sample Kit (13W, 20W, 23W Spiral)	18.7	60.0	58.5
LED Nightlight	0.8	3.2	3.2
Multicolor 24' LED Holiday Strand	3.4	89.6	88.6
White 24' LED Holiday Strand	3.4	89.6	88.6

Table 3-2 below provides the program-reported and evaluation-adjusted hours of use to calculate energy savings for each product. DCEO adopted recommendations made by the evaluation team in the PY1 evaluation report to adjust the estimated hours of use.

[15] Product Efficiency Wattage derived from Midwest Energy Efficiency Alliance, *ENERGY STAR® Lights for Learning™ Fundraiser: Summary Report, Results, and Lesson Learned, State of Illinois, 2009-2010 School Year*, July 12, 2010. Chicago, IL and from Energy Federation, Inc. website (www.energyfederation.org).

[16] Program Reported Delta Watts from PY2 Program Tracking Database.

[17] Evaluation-Adjusted Delta Watts are applied consistently with ComEd Residential ENERGY STAR Lighting Program PY2 Draft Evaluation Report (September 22, 2010). However, for specialty bulbs, Delta Watts are derived from Lights for Learning product information and the Energy Federation, Inc.

Table 3-2. Gross Impact Parameters—Hours of Use

Product Type	Hours/Day	Days/Yr	Hours/Yr	Data Source
CFLs	2.34	365	854	DEER
LED Nightlight	8	365	2920	Energy Federation Inc.
24' LED Holiday Strand			272	US DOE Report

Table 3-3 below provides the program-reported and evaluation-adjusted assumptions for installation rate and mean coincident load factor used to calculate energy and peak demand savings for each L4L product. The PY2 evaluation does not address HVAC system interactive effects. Data sources are noted in the table.

Table 3-3. Gross Impact Parameters – Other

Gross Impact Parameter	PY2 Evaluation Value	Source
Installation Rate	0.90	DEER
Mean Load Coincidence Factor (CFLs)	0.081	DEER
Mean Load Coincidence Factor (LEDs)	0	Evaluation Assumption for PY2
HVAC Energy Interactive Effects	1.0	Evaluation Assumption for PY2

Lights for Learning PY2 Program Participation

Program-reported and evaluation-adjusted energy and demand savings are calculated by summing the savings for each product type sold through the program, based on unit sales and savings per unit for each product type. Program participation is based on sales of individual products, as reported in the L4L annual report. The evaluation did not adjust the unit sales figures provided by the program.

Table 3-4. L4L PY2 Program Participation Units

Product Type	DCEO- EEPS Units	Non-EEPS Units
13W Spiral	5,224	444
14W 3 Pack (3 units each pack)	108	--
15W R30 Dimmable*	9	--
19W 3 Pack (3 units each pack)*	3,162	315
20W Spiral	2,329	211
23W Spiral	2,434	295
26W Dimmable	--	35
33W 3-Way	953	83
13W CFL Desk Lamp*	361	16
13W Capsule	1,392	81
15W Reflector	1,530	152
Sample Kit (13W, 20W, 23W Spiral)	2,772	159
LED Nightlight	3,032	118
Multicolor 25' LED Holiday Strand	909	96
White 25' LED Holiday Strand	441	49
TOTAL CFLs	20,274	1,791
TOTAL LED Lights	4,382	263
TOTAL All Units	24,656	2,054

Source: Midwest Energy Efficiency Alliance, ENERGY STAR® Lights for Learning™ Fundraiser, Summary Report, Results, and Lesson Learned, State of Illinois, 2009-2010 School Year, July 12, 2010. Chicago, IL
**indicates that the product is a new offering for PY2.*
^The L4L program did not claim energy savings associated with these products for PY2. Therefore, they were removed from the total unit count.

3.1.4 Gross Program Impact Results

The Navigant evaluation team calculated L4L program savings by summing the savings for each product type sold through the program, based on unit sales and savings per unit for each product type. The savings for each product was calculated following standard algorithms, using

the evaluation-adjusted impact parameters of Tables 3-1, 3-2, and 3-3 combined with the unit sales figures provided in Table 3-4. The evaluation savings calculation is compared with the DCEO calculation method and results in Table 3-5.

Table 3-5. Lights for Learning PY2 Gross Savings Calculation Method and Results

First-Year Energy Savings	DCEO- EEPS	DCEO Non-EEPS
Program Reported Gross kWh Savings (ex ante)	956,435	85,599
Evaluation-Adjusted Gross kWh Savings (ex post)	946,171	84,710
kWh Realization Rate	99%	99%
Program Reported Gross Coincident kW savings (ex ante)	85.5	7.7
Evaluation-Adjusted Gross Coincident kW savings (ex post)	84.5	7.6
kW Realization Rate	99%	99%

Source: Navigant analysis of L4L program tracking data.

Bulb-by-bulb savings analyses are provided for evaluation adjusted gross kWh in Table 3-6 below, and gross coincident kW in Table 3-7.

Table 3-6. Lights for Learning PY2 Gross Annual kWh Savings (ex post)

Product Type	DCEO-EEPS	DCEO Non-EEPS
13W Spiral	188,735	16,041
13W Desk Lamp	13,042	578
14W 3 Pack	3,769	-
15W Reflector	52,924	5,258
19 W 3 Pack	136,113	13,560
20W Spiral	97,391	8,823
23W Spiral	138,453	16,781
26W Dimmable	-	1,991
33W 3-Way	85,710	7,465
13W Capsule	50,291	2,926
15W R30 Dimmable	311	-
Sample Kit (13W, 20W, 23W Spiral)	124,652	7,150
LED Nightlight	25,498	992
Multicolor LED Holiday Strand	19,716	2,082
White LED Holiday Strand	9,565	1,063
Total CFLs	891,393	80,572
Total Nightlights	25,498	992
Total LED Holiday	29,281	3,145
Total All kWh	946,171	84,710
CFL Impacts/Unit	44.0	45.0
LED Night Lights Impact/Unit	8.4	8.4
LED Holiday Impact/Unit	21.7	21.7
All Units Impact/Unit	38.4	41.2

Source: Navigant Analysis

Table 3-7. Lights for Learning PY2 Gross Coincident kW Savings (ex post)

Product Type	DCEO EEPS	DCEO Non-EEPS
13W Spiral	17.9	1.5
13W Desk Lamp	1.2	0.1
14W 3 Pack	0.4	-
15W Reflector	5.0	0.5
19 W 3 Pack	12.9	1.3
20W Spiral	9.2	0.8
23W Spiral	13.1	1.6
26W Dimmable	-	0.2
33W 3-Way	8.1	0.7
13W Capsule	4.8	0.3
15W R30 Dimmable	0.0	-
Sample Kit (13W, 20W, 23W Spiral)	11.8	0.7
LED Nightlight	-	-
Multicolor LED Holiday Strand	-	-
White LED Holiday Strand	-	-
Total CFLs	84.5	7.6
Total Night Lights	-	-
Total LED Holiday	-	-
Total kW	84.5	7.6
CFL Impacts/Unit	0.0042	0.0043
All Units Impact/Unit	0.0034	0.0037

Source: Navigant Analysis

The evaluation-adjusted per unit gross impact (ex post) for DCEO-EEPS territory is 38.4 kWh per unit averaged over all lighting products.

3.1.5 Net Program Impact Results

Once gross program impacts have been estimated, net program impacts are calculated by multiplying the gross impact estimate by the program Net-to-Gross (NTG) ratio.

NTG Ratio = 1 – Free-ridership + Spillover

NTG Ratio Assumption[18] = 0.80

The evaluation team applied the ComEd program planning assumption for purposes of the PY2 evaluation report because there was not enough data available to the evaluation team to be able to calculate a NTG Ratio for the L4L program. The evaluation team had intended to utilize telephone surveys to collect information about installation rates that would enable the calculation of a program NTG Ratio. However, at the end of the year, the evaluation team did not receive enough participant contact information to create a large enough sample size to calculate a meaningful NTG Ratio.

The evaluation team has noted that other residential lighting evaluations that have conducted larger sample surveys have applied a NTG Ratio of 0.58, based on the average of the two customer self-report NTGR results for the ComEd Residential ENERGY STAR Lighting program. However, the evaluation team has determined that the Lights for Learning program includes enough significant differences in program design (e.g. education and outreach, delivery methods, implementation) to warrant a different NTG Ratio than that of the ComEd Residential ENERGY STAR Lighting program.

The evaluation team proposes to collect additional information during PY3 to enable the evaluation team to calculate a NTG Ratio specific for the Lights for Learning program. The evaluation team proposes to review the information collected from customer surveys during PY3, compare the results to those found in other residential lighting surveys and make adjustments to the Lights for Learning NTG Ratio, as necessary.

[18] The NTG Ratio value of 80% is drawn from the program plan presented in ComEd's 2008-2010 Energy Efficiency and Demand Response Plan (November 15, 2007). Page D-2 of the ComEd plan provides a footnote stating the net to gross ratio of 80% is drawn from the California Energy Efficiency Policy Manual, version 2 (2003).

Table 3-8 below provides the program-level evaluation-adjusted (ex post) net impact results for the PY2 L4L program.

Table 3-8. PY2 Net Parameter and Savings Estimates (ex post)

Net Parameter and Savings Estimates	DCEO-EEPS	DCEO Non-EEPS
Total First-Year Gross kWh Savings (ex post)	946,171	84,710
Total First-Year Gross Coincident kW Savings (ex post)	84.5	7.6
Net-to-Gross Ratio	0.80	0.80
Total First-Year Net kWh Savings	756,937	67,768
Total First-Year Net Coincident kW Savings	67.6	6.1

Source: Navigant Analysis of L4L program tracking data.

3.2 Process Evaluation Results

The PY2 process evaluation component of the Lights for Learning evaluation focused on changes to the program design, marketing and implementation strategy, and PY2 program and purchaser experience and satisfaction with the fundraiser. Data sources for the process evaluation include program documentation and databases, and telephone interviews conducted with program staff and implementers (n=3), and fundraiser product purchasers (n=10).

In terms of performance, the Lights for Learning program experienced a successful PY2 on some educational program metrics compared to PY1 levels. For example, the program completed 178 fundraisers for 165 schools and organizations in PY2 compared to 161 fundraisers for 139 schools and organizations in PY1. Therefore, the number of schools and organizations participating in the fundraiser grew by nearly 19% in PY2.

The number of total students participating in the fundraiser also increased in PY2 – albeit by a modest 6% (2,527 students in PY2 vs. 2,394 students in PY1). However, in PY2 the number of total products sold through the fundraiser decreased. In PY2, the program sold 26,920 products, compared to 37,018 products in PY1 resulting in a 27% decline in total products sold. Despite the decline in unit sales, actual fundraiser proceeds grew by 31% in PY2 to a total of $57,574.10 vs. $43,902.25 in PY1.

The table below presents PY2 sponsor goals and program achievements, as well as the change from PY1. It is clear that the program achieved far greater performance in PY2 than the specific sponsor goals.

Table 3-9. PY2 Program Goals, Achievements, and Annual Change

Metric*	ComEd PY2 Goal†	Ameren PY2 Goal†	PY2 Achievement	PY1 Achievement	Change from PY1
# of Schools Participating in Fundraiser	18	8	165	139	18.7%
# of Students Participating in Fundraiser	600	350	2,527	2,394	5.5%
# of Products Sold	6,750	5,200	26,920	37,018	-27.3%

Source: Lights for Learning PY2 Summary Report (State of Illinois, July 12, 2010)
† Source in these columns: MEEA Program Manager (September, 2010)
**Note, DCEO does not set firm metric goals for these outputs.*

The table below shows other program achievements in PY2. Neither DCEO nor the utility companies set specific goals for these metrics, although they are a strong indicator of the program's success.

Table 3-10. Secondary Program Metrics, Achievements, and Annual Change

Metric*	PY2 Achievement	PY1 Achievement	Change from PY1
# of Presentations	219	202	8.4%
# of Fundraisers	178	161	10.5%
Fundraiser Proceeds	$57,574.10	$43,902.25	31%

Source: Lights for Learning PY2 Summary Report (State of Illinois, July 12, 2010)

3.2.1 Process Themes

Program Marketing and Outreach

The evaluation team conducted a content review of the print materials and found them to be attractive and easy to use. Similar to PY1, print and digital materials presented consistent messaging in PY2, and includes energy-saving tips, contests, photos, news and links on its website. A review of the order forms, both the standard and the holiday order form, show that one product, the Kill-A-Watt meter is not included on the order form. It is unclear to the evaluation team why this was omitted. Notably, this product accounted for less than one percent of sales in PY2. In order to increase consistency and possibly sales, the program should include all products on ordering forms.

Furthermore, a review of the Lights for Learning website (L4Lprogram.org) shows consistent messages with the print materials, and presents more information on weekly energy-saving tips, contests, photos, news and links. In PY2, more information about contests became available on the website. One purchaser from the fundraiser indicated that the website did not have product details or ordering information that she was seeking. The evaluation team believes the website may benefit from a more up-to-date design that also includes the products list and ordering forms.

Moreover, the CD-ROM video of the Lights for Learning in-school presentations included in the marketing pamphlet should be uploaded to the website. However, the video needs to be updated to reflect the updated 60% of proceeds that schools receive, instead of 50% which is currently shown.

Program staff continues to view direct face-to-face meetings at events, workshops and fairs as a very effective approach for building awareness of and participation in the program. APT suggests that Earth Day events proved to be an excellent channel for effectively making presentations as they report that during this time of year, bulb sales increased dramatically. In addition to in-school presentations, nature parks and zoos were added as Lights for Learning marketing venues in PY2. APT believes the presentations were well-received in these locations. They used the Energy Bike at these venues to develop the link between environmental awareness and energy consumption. The program should continue this strategy – attending key state events which blend energy and education stakeholders. Marketing the program at an Earth Day event has proven to be successful and should continue.

Implementation Strategy

The PY2 implementation strategy is effective and allows the program to exceed its goals with high satisfaction among a sample of product purchasers from the fundraiser. The roles, relationships and operating procedures between the stakeholders, MEEA, APT, and EFI remain unchanged and are operating effectively for the program to meet its goals.

Educational Presentations and School Assemblies

In PY2, a total of 219 marketing educational presentations (up from 202 presentations in PY1) were conducted by either MEEA or APT to a total of 19,815 students (up 20% from 16,500 students in PY1). In PY2, most of the presentations were conducted as in-school assemblies, while some presentations were conducted at nature parks and zoos. In-school presentations continue to be very popular among schools and successful in educating students about the benefits of energy efficiency and energy conservation. Utilizing an Energy Bike during in-school presentations became standard practice of APT in PY2 for energy demonstrations, unless teachers specifically requested that it not be used. APT believes that the Energy Bike is

successful at generating high-levels of f enthusiasm and engagement of the presentations among students. School Fundraiser

In PY2 the program increased the share of proceeds schools received from the fundraiser from 50% in PY1 to 60% in PY2. While PY1 research revealed that schools were satisfied with the percent of proceeds they received, program staff increased the levels to attract even more schools to the fundraiser. In PY2, there were 10.5% more fundraisers than in PY1 (178 in PY2 vs. 161 in PY1), and 18.7% more schools and organizations participating in fundraisers (165 in PY2 vs. 139 in PY1). It is recommended that the program continues to offer this level of incentive to schools in PY3.

The table below shows the types of products that are offered in the program and the number sold of each. The products representing the largest share of the total 26,920 products sold were 13 Watt CFLs (21.1%), 19 Watt 3-pack (12.9%), LED Nightlight (11.7%), and CFL Sample Pack (10.9%). Clearly, adding the 19 Watt 3-pack yielded considerable sales.

Table 3-11. PY2 Fundraiser Product List and Amounts Sold

Product	Amount Sold	% of Total Amount of Products Sold
13 Watt	5,668	21.1%
20 Watt	2,540	9.4%
23 Watt	2,729	10.1%
13 Watt Capsule	1,473	5.5%
15 Watt Reflector	1,682	6.2%
33 Watt 3-Way*	1,036	3.8%
19 Watt 3-pack*	3,477	12.9%
CFL Sample Pack	2,931	10.9%
CFL Desk Lamp*	377	1.4%
14 Watt 3-pack	108	0.4%
26W Dimmable	35	0.1%
15W R30 Dimmable*	9	0.0%
LED Nightlight	3,150	11.7%
LED Light Strand (warm white)	490	1.8%

Product	Amount Sold	% of Total Amount of Products Sold
LED Light Strand (multi color)	1,005	3.7%
BITs Power Strips*	201	0.7%
Kill-A-Watt Monitor*	9	0.0%
Total	**26,920**	**100%†**

Source: Lights for Learning PY2 Summary Report (State of Illinois, July 12, 2010)
** Denotes a product that was not offered in PY1*

The total number of products sold through the fundraiser reduced by 27.3% in PY2 (26,920 in PY2 vs. 37,018 in PY1). Program staff hypothesizes that product sales are down in PY2 due to a combination of factors, including but not limited to competing retail prices, market saturation, and low participation from students per school in comparison to PY1. Findings with the fundraiser bulb purchasers found all of the respondents are satisfied with the selection and quality of the products. The program should continue to work with EFI to offer these bulbs at competing market prices. The program should continue to market to students the incentives and rewards for participating in order to increase the level of student participation per school. Also, The APT Education Coordinator perceives the drop in bulb sales to be attributed partially to market saturation in the metropolitan areas.

In PY2 the prices for five products did increase by $0.25-1.00 from PY1 prices. The table below displays the prices and highlights those that have changed. Despite the price increase from PY1, the majority of fundraiser purchasers found the price points from the fundraiser to be less expensive than other retailers.

Table 3-12. PY2 and PY1 Product Prices

Product	PY1 Price	PY2 Price
13 Watt*	$1.50	$1.75
20 Watt	$2.00	$2.00
23 Watt*	$2.50	$2.25
13 Watt Capsule*	$3.50	$4.50
15 Watt Reflector*	$5.00	$6.00
33 Watt 3-Way	NO	$7.00
19 Watt 3-pack	NO	$5.75
CFL Sample Pack*	$5.00	$5.75
CFL Desk Lamp	NO	$10.00
14 Watt 3-pack*	$4.00	$5.75
LED Nightlight	$3.50	$3.50
LED Light Strand (warm white)	$12.00	$12.00
LED Light Strand (multi color)	$8.00	$8.00
BITs Power Strips	NO	$25.00
Kill-A-Watt Monitor	NO	$20.00

Source: Lights for Learning PY1 and PY2 Master, Normal, and Special Order Forms
"NO" indicates the product was not offered
** Highlights the change in price from PY1 to PY2*

Poetry and poster contests, along with video contests, are used in order to inspire student involvement. Additionally, in PY2 the program designed a school rivalry challenge, called "Battle of the Greenest," between neighboring schools to stimulate schools' and students' interest in participating.

In PY1, some coordinators expressed confusion between the standard and specialty bulb order forms. As a result, in PY2 the program addressed the issue by combining standard and specialty bulb products onto a single form. However, a second form was still needed for seasonal holiday items. Additionally in PY2, the ordering materials were placed in one cohesive packet so materials could be more easily distributed to students, and so students could more easily transport the materials.

In PY1, several schools expressed frustration that their order of bulbs arrived in bulk instead of by individual grade, class or student, since it required schools to supply additional resources to

manually sort each order. However, this approach is not unlike some other school fundraising program approaches. Program staff is cognizant of the concern among school coordinators. However, given the cost to move away from this approach, the program decided to continue with this approach PY2. According to program staff, returning school participants find the sorting process to be more manageable in PY2, given their experience in PY1.

An additional area of focus that program staff acknowledges is the challenge of offering program participants a method for disposing their CFLs in more remote locations that do not have depositories. Pursuing public libraries as a potential channel for disposal is a potential program goal for staff in PY3.

Fundraiser Purchaser Survey

The evaluation for PY2 seeks to learn the level of satisfaction among purchasers of products from the fundraiser. Given that the program does not include information of purchases at the buyer level (rather, the data is collected at the aggregated school level), interviews were conducted with only ten purchasers of bulbs from the fundraiser whose names and contact information were provided on an ad-hoc basis from only a handful of participating schools as requested by MEEA. Because the program involves children, certain privacy restrictions with regard to names and contact information are in place; thus making it quite difficult to institute a tracking system. Some ideas for future data collection include adding an "opt-in" box on the order form next to the purchaser contact information that will indicate a willingness to partake in a follow-up survey in PY3.

Fundraiser Awareness

All respondents are ComEd customers, none Ameren customers. Four out of the ten buyers interviewed are employees of a participating school and are somehow involved in the fundraisers. This group reported learning about the program either through assemblies or workshops. Another five out of 10 learned of the fundraiser directly from the student selling the products. The tenth person learned of the fundraiser from a teacher she knows from church.

In total, 7 out of the 10 purchasers had some level of awareness that ComEd is a sponsor of the program, while 3 had no awareness of this. No one mentioned DCEO or Ameren, although the latter is a function of the interviewees being ComEd customers. As such the opportunity still exists to increase the ComEd or Ameren brand with the program. This may include using brand stickers on the bulbs to include brand with program.

The survey asked purchasers how familiar they were with CFLs prior to purchasing products from the Lights for Learning fundraiser. Overall, purchasers' familiarity with CFLs prior to the fundraiser is varied, with 9 out of 10 having some familiarity with CFLs, having used or heard of them prior to the fundraiser.

Ordering Process

All buyers expressed satisfaction with the ordering process, feeling the process was easy. Six people report waiting two weeks or less for the bulbs to arrive after they place their order. Nevertheless, the order form does not specify the 14 day wait time, and should include it.

All of the interviewed purchasers received the correct type and number of bulbs they ordered. One purchaser mentioned that she received a broken CFL with their order, which was replaced immediately.

Product and Price Satisfaction

All purchasers indicated they were satisfied with the selection of bulbs sold through the fundraiser. One person even said she was "amazed" with the selection of products. Four people were very enthusiastic about the LED Christmas lights, and one person suggested the program offer them year round. Eight respondents each provided suggestions for including other products in the fundraiser that would meet their needs:

- Specialized bulbs for antique fixtures
- Brighter bulbs for in-home construction spaces
- Mono-colored Christmas lights
- Flood lamps[19]
- Different varieties of nightlights
- Smaller bulbs for track lighting
- Dimmable CFLs[20]
- More Wattages selections for 3-packs and adding 4-packs

It should be noted that a couple of these products were offered in PY2. First, the 15 Watt reflector bulb that is offered in PY2 can be used in outdoor exposed lighting. In this case, either the purchaser had a problem with recall or was unaware of how the product can be used. Second, the dimmable CFLs (15 and 26 Watt) were briefly offered in PY2, and accounted for 0.16% of all sales. However they were removed from the product lists early in the year because of their poor quality. The program should review the selection of products against request made by purchasers to determine possible additions for PY3.

[19] It is assumed here that the respondent is referring to outdoor exposed lighting. The 15 Watt Reflector CFLs are included in the Lights for Learning PY2 Order Form. The form shows that these bulbs can be used for outdoor exposed lighting.

[20] Note that 26 Watt Dimmable CFLs are included in the Lights for Learning PY2 Summary Report's Total Sales, and account for 0.13% of PY2 sales.

All purchasers expressed satisfaction with the quality of the products they purchased. Furthermore, all purchasers expressed satisfaction with the price points of the bulbs. In fact, 4 out of 10 purchasers specifically mentioned how the prices were "cheaper" than other stores—specifically big box stores.

Product Installation

Eight purchasers were certain or were able to estimate about how many of the products they purchased were installed in their homes. A total of 78 products were purchased across the 10 individuals interviewed. Of the 78 purchased products, 36 are currently installed by purchasers; mainly in living rooms, bedrooms and hallways. All respondents have placed the uninstalled products in storage.[21]

Perhaps the program could emphasize the importance of saving energy by instituting a marketing campaign that highlights the energy savings and environmental benefits of installing the energy-efficient lighting products. This could be achieved through sales slogans or reminder slips packaged with the products to purchasers.

Overall Program Perception

Purchasers rate Lights for Learning on par with other fundraisers in terms of program clarity, product satisfaction, the ordering process, and the timing for receiving their order. The majority of interviewees (6 out of 10), expressed their satisfaction with the products in comparison to other school fundraiser products. In fact, four of out of these 6 purchasers mentioned how practical the product is in comparison to products such as wrapping paper and snack foods.

Purchasers see many benefits to the Lights for Learning fundraiser, including:

- Ability to reduce personal costs on electricity usage and on light bulbs (5 people)
- Increased financial benefits to the participating schools (5 people)
- Saving energy for the environment (5 people)
- Educational benefits received by students on energy conservation and the environment (2 people)

The most common reason individuals purchased bulbs from the fundraiser was to support the school (5 people). Reducing personal costs spent on energy and light bulbs (3 people), helping the environment (3 people) and satisfaction with the products (3 people) were mentioned as other motivators.

[21] For more information about the evaluation team's discussion of the Lights for Learning Installation Rate, please see section 2.1.

To better understand the impact of the fundraiser, purchasers were asked if they would have purchased the same products without the Lights for Learning fundraiser. The responses to this question varied. Four people were certain they would not have purchased the same products without the fundraiser, and only two people were certain they would have, and another said she probably would have. One person, who said she would not have bought the same products, explained that she would not have known about some of the products without the fundraiser (this person purchased LED nightlights, power strips, and capsule CFLs). All ten participants indicated that they plan to participate in the fundraiser again.[22]

Recommendations for Program Improvements by Participants

Suggestions for improving the Lights for Learning fundraiser are varied, but most participants are quite pleased with the fundraiser and do not think it needs any major changes. Five individuals each suggested five separate actions for improvement:

- Providing more information on the proper disposal of CFLs;
- Providing more description and images of power strips;
- Including product details online along with enabling year-round ordering;
- Adding more variety of the products (specifically, adding brighter bulbs); and
- Increasing the marketing so more schools participate

Market Effects of Fundraiser

We asked purchasers if they made other energy efficiency improvements in their home, and about the influence the fundraiser had on their action(s). In total, 9 out of 10 purchasers have made other energy efficiency improvements in their homes; mainly the purchase of more efficient household appliances and efficient lighting products. Among this group, four indicated that the fundraiser influenced their decision to take action.

3.2.2 Program Theory

The program theory logic model for the Lights for Learning program is unchanged from PY1. Please see PY1 evaluation report for the model and performance indicators.

3.3 Cost Effectiveness

This section addresses the cost effectiveness of the Lights for Learning program. Cost effectiveness is assessed through the use of the Total Resource Cost (TRC) test. The TRC test is defined in the Illinois Power Agency Act SB1592 as follows:

[22] For more information about the evaluation team's applied NTG Ratio for the Lights for Learning program, please see section 2.1.

> *" 'Total resource cost test' or 'TRC test' means a standard that is met if, for an investment in energy efficiency or demand-response measures, the benefit-cost ratio is greater than one. The benefit-cost ratio is the ratio of the net present value of the total benefits of the program to the net present value of the total costs as calculated over the lifetime of the measures. A total resource cost test compares the sum of avoided electric utility costs, representing the benefits that accrue to the system and the participant in the delivery of those efficiency measures, to the sum of all incremental costs of end-use measures that are implemented due to the program (including both utility and participant contributions), plus costs to administer, deliver, and evaluate each demand-side program, to quantify the net savings obtained by substituting the demand-side program for supply resources. In calculating avoided costs of power and energy that an electric utility would otherwise have had to acquire, reasonable estimates shall be included of financial costs likely to be imposed by future regulations and legislation on emissions of greenhouse gases."*[23]

Table 3-13 summarizes the unique inputs used in a spreadsheet model to assess the TRC ratio for the Lights for Learning program in PY2. Most of the unique inputs come directly from the evaluation results presented previously in this report. Incentive costs come from the DCEO program tracking data. Avoided costs for both demand and energy match what was used by ComEd in DSMore™ for assessing the TRC ratio of their own energy efficiency projects.

Table 3-13. Inputs to TRC Assessment for Lights for Learning Program

Item	ComEd	Ameren
Measure Life	10.3 to 20 years	10.3 to 20 years
Annual Gross Energy Savings	771 MWh	175 MWh
Gross Coincident Peak Savings	0.069 MW	0.016 MW
Net-to-Gross Ratio	80%	80%
DCEO Administration Costs	$0	$0
DCEO Implementation Costs	$154,248	$0
DCEO Other Costs	$0	$34,986
DCEO Incentive Costs	$0	$0
Participant Contribution to Incremental Measure Costs	$64,186	$13,078

Based on these inputs, the TRC for this program is 2.31 for ComEd and 1.83 for Ameren and the program passes the TRC test.

Environmental benefits have been quantified for CO_2 reductions using a value of $0.013875 per kWh.

[23] Illinois Power Agency Act SB1592, pages 7-8.

Section 4. Conclusions and Recommendations

4.1 Conclusions

This section highlights the findings and recommendations from the evaluation of the Lights for Learning program implemented by MEEA, APT and EFI on behalf of the Illinois DCEO.

4.1.1 Program Impacts

The evaluation-adjusted gross impact for CFLs in DCEO EEPS territory is 44.0 kWh per unit and the 38.4 kWh per unit averaged over all lighting products. The gross realization rates for energy and peak demand savings are 99%, with the minor difference being that the PY2 evaluation adjusted delta watts for some products based on findings from ComEd's PY2 residential lighting evaluation.

It is important to note that interview results from a small sample of participants indicate that adjustments may be forthcoming to the installation rate for future years. For example, the evaluation team interviewed ten (10) participants during the PY2 evaluation and found that only 36 of 78 products were installed by the participants. The evaluation team determined that the sample size of completed interviews was too small to extrapolate the interview results to the entire program. Despite the small sample size, the installation rate from the participant surveys would indicate that the actual installation rate for the program is much lower than the current assumed installation rate of 0.90 from the DEER database.

The evaluation team did not have access to a large enough sample size to accurately calculate an updated installation rate or NTG ratio for the PY2 program year. However, other residential lighting evaluations and interviews with a small sample of program participants indicate that the program's installation rate and NTG ratio will need to be reviewed in greater detail during PY3. Other residential lighting evaluations that have conducted larger sample surveys have applied a NTG Ratio of 0.58, based on the average of the two customer self-report NTGR results for the ComEd Residential ENERGY STAR Lighting program. However, the evaluation team has determined that the Lights for Learning program includes enough significant differences in program design (e.g. education and outreach, delivery methods, implementation) to warrant a different NTG Ratio than that of the ComEd Residential ENERGY STAR Lighting program.

The L4L NTG ratio estimate should examine participant spillover, as 9 out of the 10 purchasers interviewed have made other energy efficiency improvements in their homes; mainly the purchase of more efficient household appliances and efficient lighting products. Among this group, four indicated that the fundraiser influenced their decision to take action.

4.1.2 Program Processes

The design and implementation strategy of the Lights for Learning program is effective and allows the program to perform at a high level with high satisfaction among a sample of product purchasers from the fundraiser. The roles, relationships and operating procedures between the stakeholders, MEEA, APT, and EFI remain unchanged and are operating effectively for the program to meet its goals.

Marketing and outreach efforts and tools are working well and continue to increase and become more varied. The marketing materials that were evaluated in PY2 show the messages to be clear and actionable. Furthermore, purchasers reflect the marketing materials' central messages in their motivations to purchase, including the financial benefits for schools, the personal financial savings, and the environmental benefits. However, most buyers have limited awareness about the program sponsors.

Purchasers are satisfied with the quality and selection of the products. The majority (9 of 10) of fundraiser purchasers consider the price points from the fundraiser to be less expensive than other retailers. The majority of participants are most excited about the fundraiser because of the products' practicality and environmental benefits. Most participants are quite pleased with the fundraiser and do not think it needs any major changes.

4.2 Recommendations

4.2.1 Impact Recommendations

1. Provide product purchaser contact information to the evaluation team to allow an impact and process survey.

If adequate contact information can be made available, the evaluation for PY3 will plan to conduct a phone survey of a sample of lighting product purchasers to allow program-specific data collection on key gross impact parameters including installation rate, base wattage, hours of use, and daily operating profile. The participant survey can also include questions to allow calculation of a program-specific NTG ratio that accounts for free-ridership and spillover.

Because the program involves children, certain privacy restrictions with regard to names and contact information are in place; thus making it difficult to institute a tracking system. Some ideas for future data collection include adding an "opt-in/opt-out" box on the order form next to the purchaser contact information that will indicate a willingness to partake in a follow-up survey in PY3.

4.2.2 Process Recommendations

Although the Lights for Learning program met its fundraiser participation goals for PY2, there are some changes that could be made to the program processes to improve operations and ensure the program continues to meet its goals in the future.

Marketing

- All products should be included on order forms: One new product, the Kill-A-Watt meter, is not shown on any order form, but is available upon request. It is unclear how this product is marketed. To improve consistency the program should include all products on the ordering form.
- Include a message on order forms that participation in the program makes the participant eligible to be contacted by the program or evaluation team for purposes of evaluation. If necessary, add an "opt-out" box on the order form next to the purchaser contact information if the participant is not willing to participate in a follow-up survey in PY3.
- Consider adding a message on the order form about the 14 day wait time for orders.
- Consider including the products list and order forms on the website. Furthermore, the program should update the video, and place it on the website to reflect the updated 60% of proceeds that schools receive, instead of 50% which is currently shown.
- Continue marketing the program at key state events which blend energy and education stakeholders, as this has proven to be successful.
- Seek out additional opportunities for the program to partner with like-minded organizations and at key events.

Implementation

- Consider offering more unique products, as listed by purchasers, and/or offering them more often for purchase.
- To increase tracking efficiency of bulb sales from the fundraiser, the program should consider aggregating its quarterly sales tracking data into one central program tracking sales database. Furthermore, all products that are being sold should be included in the sales tracking data to provide the most accurate information, and column names should be more clearly labeled to reduce the chance of possible errors in data entry or interpretation.

- Consider developing a system for tracking customer satisfaction throughout the course of the program. This will allow the program managers to compare and contrast findings and make more informed decisions pertaining to product mixture, pricing and marketing.

Section 5. Appendices

5.1 Impact Reporting by Utility Sector

Table 5-1 includes data from ComEd public and private participation and Ameren public and private participation. Together, these totals comprise the DCEO-EEPS totals in the body of the report.

Table 5-1. Total Program Participation by Bulb Type and Utility Sector (Units)

Bulb Type	ComEd	Ameren
13W Spiral	4,063	1,161
13W Desk Lamp	316	45
14W 3 Pack	108	-
15W Reflector	1,249	281
19W 3 Pack	2,559	603
20W Spiral	1,923	406
23W Spiral	1,893	541
26W Dimmable	-	-
33W 3-Way	793	160
13W Capsule	1,194	198
15W R30 Dimmable	9	-
Sample Kit (13W, 20W, 23W Spiral)	2,337	435
LED Nightlight	2,522	510
Multicolor LED Holiday Strand	831	78
White LED Holiday Strand	402	39
Total CFLs	16,444	3,830
Total Nightlights	2,522	510
Total LED Holiday	1,233	117
Subtotal	20,199	4,457

Source: Midwest Energy Efficiency Alliance, ENERGY STAR® Lights for Learning™ Fundraiser, Summary Report, Results, and Lesson Learned, State of Illinois, 2009-2010 School Year, July 12, 2010. Chicago, IL.

Table 5-2. Total Gross Energy Savings Estimates by Utility Sector (ex post kWh)

Bulb Type	ComEd	Ameren
13W Spiral	146,790	41,945
13W Desk Lamp	11,417	1,626
14W 3 Pack	3,769	-
15W Reflector	43,204	9,720
19W 3 Pack	110,156	25,957
20W Spiral	80,414	16,978
23W Spiral	107,680	30,774
26W Dimmable	-	-
33W 3-Way	71,320	14,390
13W Capsule	43,137	7,153
15W R30 Dimmable	311	-
Sample Kit (13W, 20W, 23W Spiral)	105,091	19,561
LED Nightlight	21,209	4,289
Multicolor LED Holiday Strand	18,024	1,692
White LED Holiday Strand	8,719	846
Total CFLs	723,289	168,104
Total Nightlights	21,209	4,289
Total LED Holiday	26,743	2,538
Subtotal	771,241	174,931

Source: Navigant analysis of PY2 program tracking data.

Table 5-3. Total Gross Coincident Demand Impacts by Utility Sector (ex post kW)

Bulb Type	ComEd	Ameren
13W Spiral	13.9	4.0
13W Desk Lamp	1.1	0.2
14W 3 Pack	0.4	-
15W Reflector	4.1	0.9
19W 3 Pack	10.4	2.5
20W Spiral	7.6	1.6
23W Spiral	10.2	2.9
26W Dimmable	-	-
33W 3-Way	6.8	1.4
13W Capsule	4.1	0.7
15W R30 Dimmable	0.0	-
Sample Kit (13W, 20W, 23W Spiral)	10.0	1.9
LED Nightlight	-	-
Multicolor LED Holiday Strand	-	-
White LED Holiday Strand	-	-
Total CFLs	68.6	15.9
Total Night Lights		-
Total LED Holiday		-
Subtotal	68.6	15.9

Source: Navigant analysis of PY2 program tracking data.

Table 5-4. Total Impacts by Utility Sector (ex post)

Impact	ComEd	Ameren
Gross kWh	771,241	174,931
Net kWh	616,993	139,945
Gross kW	68.6	15.9
Net kW	54.9	12.7

5.2 *Data Collection Instruments*

DCEO Lights for Learning Program
Lighting Purchaser Survey
Summer 2010

Hello, my name is _____ from Opinion Dynamics. I'm calling on behalf of the Lights for Learning program to ask you some questions about your purchase of energy-efficient lighting products from the Lights for Learning fundraiser. My questions are for research purposes only. Your opinions are important to improving the program.
[If respondent asks how long, say "Approximately 15 minutes."]
According to our records, someone in your household submitted an order form of energy efficient lighting products from the Lights for Learning fundraiser. Are you that person? (IF NO: Is that person available to speak with us?)

[Sample frame will consist of purchasers of lighting products from the fundraiser in PY2 (June 1, 2009 – May 31, 2010)

Is it ok if I record our conversation today, in order to playback any information I was not able to make note of?

(CONTINUE WITH CORRECT CONTACT)
1. To the best of your knowledge, how many energy efficient lighting products did you purchase through the Lights for Learning program and of what types?

2. What is your relationship with the student/person from whom you purchased the products? What is your relationship with the school?

3. How did you learn about the Lights for Learning fundraiser? [Do not read, probe for each below if necessary...]
    1. (Directly from the student/person selling the bulbs)
    2. (Directly from the school)
    3. (Newspaper)
    4. (Television)
    5. (Lights for Learning website)
    6. (Direct mail/brochure)
    7. (Other, _____)

4. Did you hear about the program through any other ways? Which ways? Did you see any additional marketing for the program and where?

5. Do you know who is sponsoring the Lights for Learning program? What utility? If so, who?

6. What is the MAIN reason you chose to purchase energy efficient lighting products from the Lights for Learning fundraiser?

7. Prior to purchasing energy efficient lighting products from the Lights for Learning fundraiser, how familiar were you about CFLs (Compact Florescent Light bulbs)?

8. Prior to purchasing energy efficient lighting products from the Lights for Learning fundraiser, had you previously purchased energy-efficient lighting products for your home?

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

9. Would you have purchased the same energy efficient lighting products without the program? If so, would you have purchased as many without the program?

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

10. When you placed your order who filled out the form? The student? Parent? Or did you? How easy was it to fill out the form and participate in the program? Did you have any difficulties with the process? If so, what did you do?

11. About how long did you have to wait to receive the bulbs after your order? Did you find the wait to be long? Did you follow-up with anyone?

12. Did you receive all the bulbs you ordered? Were any broken?

13. How satisfied were you with the selection of lighting products offered through the program and why? Would you like to see other types of lighting products offered through the fundraiser?

14. How satisfied were you with the price of the lighting products offered through the program and why?

15. Prior to purchasing energy efficient lighting products from the Lights for Learning fundraiser, had you previously purchased other products from a school fundraiser?

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

[ASK IF Q15=1]

16. Compared to other school fundraisers you have participated in, how does the Lights for Learning fundraiser compare ? Probe for…

a. The clarity of information
b. The ordering process
c. The timing for receiving your order

1. (Lights for Learning is better than other fundraisers)
2. (Lights for Learning is on par with other fundraisers)
3. (Lights for Learning is worst than other fundraisers)

17. How could the Lights for Learning fundraiser be improved?

INSTALLATION

18. How many of the energy efficient lighting products you purchased from the Lights for Learning fundraiser, are **currently installed inside your home**? [ASK THEM TO GIVE THEIR BEST GUESS EVEN IF NUMBER ISN'T PERFECT]

__ Enter #
0 None
98 (Don't know)
99 (Refused)

19. Where have you installed the bulbs in your home?

20. [Ask if they purchased SmartStrip] Are you using the SmartStrip(s) you purchased? Where is it installed? What kinds of appliances and technologies are you plugging into it?

21. How satisfied are you with the quality of the energy efficient lighting products that are installed in your home and why?

[ASK IF Q18# less than # of bulbs]

22. What did you do with the remaining energy efficient lighting products? (DO NOT READ) [ACCEPT UP TO 4 RESPONSES]

1. (In Storage) – FOLLOW UP INTENT TO INSTALL?
2. (Gave Away) – FOLLOW UP WHY?
3. (Lost)
4. (Broken)
5. (Installed in another home)

6. (Installed at work)
7. (Returned to fundraiser) – FOLLOW UP WHY?
8. (Installed but later removed) – FOLLOW UP WHY?

00. (Other_____

BENEFITS

23. What do you see as the main benefits to purchasing energy efficient lighting products from the Lights for Learning fundraiser? [MULTIPLE RESPONSE, UP TO 3]

24. Do you plan to purchase energy efficient lighting products from the Lights for Learning fundraiser again in the future?

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

[ASK IF Q24 = 2]

25. Why are you not planning to purchase energy efficient lighting products from the Lights for Learning fundraiser again in the future?

MARKET EFFECTS/SPILLOVER

26. Have you made other energy-efficiency improvements or purchases on your own?

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

[ASK IF Q26 =1]

27. What action(s) did you take? Or products have you purchased? [Do not prompt] [ALLOW MULTIPLE RESPONSE]

1. (Installed a high-efficiency dishwasher)
2. (Installed a high-efficiency washer)
3. (Installed a high-efficiency dryer)
4. (Installed a high-efficiency refrigerator)
5. (Installed a high-efficiency water heater)
6. (Installed new windows)
7. (Installed new thermostats)
8. (Installed new furnace)
9. (Added insulation (includes windows, attic and door insulation))
10. (Bought a new stove)

11. (Replaced a TV)
12. (New Central HVAC system)
13. (Installed new doors)
97. (Other, _____)
98. (Don't know)
99. (Refused)

28. How influential was your participation in the Lights for Learning fundraiser in your decision to take additional energy-efficiency action on your own?

DEMOGRAPHICS

Who is your electrical service provider?

1 ComEd
2 Ameren

END. Those are all of the questions I have for you; if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

1 Yes
2 No

Thank you again for your time.