ComEd
An Exelon Company

Commonwealth Edison Company's

Energy Efficiency / Demand Response Plan

Annual Report

Plan Year 1

June 1, 2008 – May 31, 2009

smart ideas℠

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TABLE OF CONTENTS

I. EXECUTIVE SUMMARY 3

PLAN YEAR 1 RESULTS 4

KEY CHALLENGES IN PLAN YEAR 1 6

II. A NOTE ON REPORTED ENERGY AND PEAK DEMAND SAVINGS 8

III. SMART IDEAS FOR YOUR HOME℠ 13

RESIDENTIAL ENERGY STAR® LIGHTING 14

ALL-ELECTRIC EFFICIENCY UPGRADE 23

CENTRAL AIR CONDITIONING CYCLING 27

IV. SMART IDEAS FOR YOUR BUSINESS℠ 30

PRESCRIPTIVE AND CUSTOM INCENTIVES 31

SMALL COMMERCIAL AND INDUSTRIAL CFL INTRO KIT 36

COMMERCIAL & INDUSTRIAL RETRO-COMMISSIONING 39

EIO INTERVAL DATA PROFILER 41

ENERGY USAGE DATA TOOL 44

V. R&D / EMERGING TECHNOLOGIES 47

HOME ENERGY REPORT PILOT 48

COMED COMMUNITY ENERGY CHALLENGE 51

VI. COMED SUMMARY 54

VII. DCEO SUMMARY- COMED SERVICE TERRITORY 55

VIII. DATA TABLES 56

I. Executive Summary

This report provides a comprehensive update on the first year[1] performance of ComEd's Energy Efficiency / Demand Response Portfolio. It is intended to provide an outline of the successes and challenges encountered during Plan Year 1 (PY1), as well as highlight adjustments and changes that will be implemented to improve overall portfolio performance in Plan Year 2 (PY2).[2] A brief summary of PY1 DCEO-sponsored programs in ComEd's service territory is also provided.

ComEd's Plan proposed a portfolio of initiatives that targeted both residential and business customers. Collectively, these initiatives ensured that program opportunities were available to all ComEd's customers. The ComEd portfolio included several other activities considered as development and educational initiatives. The resultant portfolio of initiatives was collectively packaged under *the Smart Ideas* banner.

Residential Initiatives:
- *Residential ENERGY STAR® Lighting*
- *Appliance Recycling*
- *All-Electric Efficiency Upgrade*
- *Central Air Conditioning Cycling*

Business Initiatives:
- *Prescriptive and Custom Incentives*
- *Small C&I CFL Intro Kit offer*
- *Retro-Commissioning (pilot)*

ComEd's Plan was designed to address several key objectives –

- Create value for customers through a range of customer energy efficiency initiatives
- Meet statutory goals specified in the law while adhering to the spending screens
- Lay a solid foundation for demand-side management programs going forward by investing in the program infrastructure needed to support comprehensive and integrated approaches to energy efficiency and demand response
- Develop a diverse portfolio of programs that minimizes portfolio risk while offering numerous energy efficiency opportunities across all customer groups
- Lay the groundwork for demand-side innovation in technology, practice and the integration of energy efficiency and demand response
- Create easy ways for our customers to participate in the programs

[1] The first plan year runs from June 1st, 2008 through May 31st, 2009.
[2] Evaluation reports for Plan Year 1 programs are attached at the end of this report.

In accordance with the provisions of Section 12-103 of the Public Utilities Act ("Act"), 220 ILCS 5/12-103, that took effect August 28th, 2007, ComEd was prescribed first-program-year annual energy efficiency and demand reduction targets of 148,842 MWh and 11.7 MW, respectively.

ComEd set a MWh target of 166,430 MWh for Plan Year 1. The higher target was set due to the uncertainty surrounding how the savings target should be interpreted and how independent evaluation would impact our reported results.

The overall portfolio budget for PY1 was $39.4M, of which ComEd's portion was $29.9M.[3] The legislation required ComEd to allocate a portion of the portfolio's funding and energy efficiency and demand response (EEDR) targets to the Department of Commerce and Economic Opportunity (DCEO) for the administering of EEDR programs to public sector and low-income customers[4], performance data related to these areas are included in Section VII of this report.

Plan Year 1 Results

ComEd launched the *Smart Ideas* portfolio of energy efficiency incentives on June 1, 2008, and by May 31, 2009 had exceeded its statutory targets for energy efficiency and demand response. Table ES-1 represents energy efficiency savings achieved for PY1. This data is sourced from independent evaluator Summit Blue's final report.

[3] $9.5 (25%) of the total portfolio budget was designated for the Department of Commerce and Economic Opportunity ("DCEO") consistent with the Act to support programs for governmental facilities, public schools and low income customers.

[4] DCEO programs are as follows:

- Public Sector Solutions - Public Sector Prescriptive/Custom Incentives, New Construction, Retro-commissioning and Lighting for Learning
- Low-Income Solutions - New Construction and Gut Rehab, Energy Efficient Moderate Rehab, Energy Efficient Single-Family Remodeling, Energy Efficiency Direct Install
- Market-Transformation and Educational Programs - Smart Energy Design Assistance Program, Large-Customer Energy Assistance Program (LEAP) and Building Industry Training & Education Program

Table ES-1

Energy Efficiency Initiative	Net MWH Savings Achieved
Residential ENERGY STAR Lighting	60,789
Appliance Recycling	11,478
All-Electric Efficiency Upgrade	1,852
C&I Prescriptive and Custom Incentives	85,693
Small C&I CFL Intro Kit	2,815
C&I Retro-Commissioning	1,090
Total Net MWH Saved	**163,717**

Smart Ideas also delivered 14.4 MW of demand response through its Central Air Conditioning Cycling initiative by adding over 9,800 new participants, exceeding its statutory goal of 11.7 MW.

Highlights of ComEd *Smart Ideas'* PY1 include:

- Both the ***Smart Ideas for Your Home***[sm] and ***Smart Ideas for Your Business***[sm] umbrella programs were launched in an accelerated timeframe. This quick launch was instrumental in enabling ComEd to achieve its first year goals.
- ComEd conducted multiple competitive bid processes for *Smart Ideas* program implementation contractors to provide program implementation services. The portfolio brought **54 direct jobs to the ComEd service territory** and helped to lay a foundation for a robust energy efficiency implementation industry in Northern Illinois.
- **More than 3 million compact fluorescent lamps** (CFLs) were **sold** through 10 participating retailers and approximately 500 individual store locations
- **Nearly 12,000 inefficient appliances (i.e., refrigerators, freezers, room air conditioners) removed from the ComEd system** and recycled in an environmentally friendly manner
- **A new, state-of-the-art appliance recycling facility** opened in the ComEd service territory to support activities of the Appliance Recycling initiative

- **Approximately 4,100 homes in multi-family buildings** received low-cost energy efficiency product upgrades as part of the All-Electric Efficiency Upgrade initiative
- **More than 200 trade allies enrolled** in *Smart Ideas'* Commercial and Industrial (C&I) Prescriptive and Custom Incentives initiative
    - **All incentive funds were obligated within the first three months** resulting in ComEd implementing a wait list early in PY1
    - **More than $7.7 million were paid in incentives for 542 projects**, resulting in $37.3 million invested in energy efficiency upgrades in the business sector
- **A 22 percent direct mail response rate was achieved** among ComEd's small business customers who chose to take advantage of *Smart Ideas'* Small C&I CFL Intro Kit offer
- **The successful pilot deployment of *Smart Ideas* Retrocommissioning** in anticipation of its formal launch in PY2
- The successful pilot deployments of two research initiatives to investigate new potential energy efficiency resources (the Home Energy Report and the ComEd Community Energy Challenge)

Key Challenges in Plan Year 1

The lack of a meaningful energy efficiency program history in Illinois, coupled with the short lead time for program development, presented ComEd with significant uncertainty regarding anticipated program performance and interpretation of results by the independent evaluator. As a result, the *Smart Ideas* portfolio was designed to over-achieve its first-year goals to ensure statutory targets would be met.

All programs were designed and implemented without the benefit of Illinois-specific evaluation data, particularly with respect to Free-ridership, Spillover effects and their impacts on net energy savings. As a result, the portfolio was designed to over-achieve its goals to mitigate any downside risk associated with these uncertainties.

Other challenges occurred during the course of the plan year and included:

- Managing business customer and trade ally expectations and concerns after strong demand resulted in all allocated funds being committed only 90 days into PY1 for the Prescriptive and Custom Incentive initiative.
- Unexpectedly sluggish participation at the start of the Appliance Recycling initiative despite the deployment of “proven” communication tactics which caught even the program’s experienced implementation contractor by surprise.
- Modifying the All-Electric Efficiency Upgrade initiative program design which originally targeted cost-effective measures for multi-family buildings with electric space heat and electric hot water. The challenge was there are less all-electric buildings than originally thought. The program was modified to include buildings with gas heat and electric hot water.

II. A Note on Reported Energy and Peak Demand Savings

Gross and Net Savings

Energy and peak demand savings are reported in a variety of ways by utilities, evaluators and policy analysts. The two primary metrics represent savings as either *gross* or *net*.

Gross savings represent the energy or peak demand reduction calculated as the product of the number of measures installed and each respective measure's verified energy or peak demand reduction.

Net savings begin with the estimate of *gross* savings, and then adjust this estimate in an attempt to calculate the level of savings that is directly attributable to the program.

The difference between *gross* and *net* savings is accounted for by two factors: (1) Free riders, or those customers who took advantage of incentives to install specific energy efficiency measures but would have installed the measures even in the absence of the incentive; and (2) Spillover, which represents savings due to customers who were motivated to install measures because of the program but who did not actually receive an incentive.

Gross savings are estimated using well-understood and accepted methods for measuring per measure savings, and for statistically estimating the number of such measures actually installed.[5]

Calculations of net savings require that estimates of free riders and spillover be developed, and the evaluation community uses a variety of methods to produce these estimates.

The challenge facing estimation of free ridership and spillover is that both factors are behavioral. In other words, evaluators must attempt to divine the motivations of customers and, specifically, to estimate how much of that motivation came from the influence of an energy efficiency program. In some cases – for example, the installation of a major industrial efficiency project –

[5] Even though methods for estimating the number of measures installed are relatively well-accepted, the use of customer self-reporting to determine whether measures were installed is subject to considerable uncertainty.

this divination is reasonably straightforward, although the process is still susceptible to customers providing self-serving answers to evaluator questions. In other cases – often involving relatively small customer purchases like CFL bulbs that might have been purchased up to a year prior to the evaluation – the validity of the estimates rely almost exclusively on the memory of a customer.

The validity and appropriateness of any single method for estimating net savings is subject to considerable debate within the evaluation community. Just as important, the method employed by an evaluator is strongly affected by the funding available to the evaluator and the type of program being evaluated. Upstream mark-down initiatives like ComEd's Residential ENERGY STAR Lighting initiative do not track individual participants, severely complicating evaluation methods that require participant surveys. Surveys, interviews and store intercepts are considerably more expensive than use of secondary methods such as comparisons of product market share across regions with and without a program in question.

The legislation does not explicitly define utility savings targets as either *net* or *gross*. ComEd has assumed for planning and program administrative purposes that the goals are defined as *net* savings. This means that as part of its planning process, ComEd estimated both gross and net savings associated with its proposed programs. Net savings estimates were made using a factor known as the net-to-gross (NTG) ratio taken from the California Database of Energy Efficient Resources (DEER). These NTG ratios were based on years of program implementation and evaluation work in California. Recognizing the huge uncertainty and risk associated with the NTG ratio and net savings, ComEd planned its portfolio to exceed statutory targets.

Independent Evaluator's Assessment

The estimates of net savings produced by the Summit Blue evaluation team varied significantly from ComEd's planning assumptions. The savings that ComEd estimated for the Residential ENERGY STAR Lighting initiative and the Small C&I CFL Intro Kit Offer, indicated that ComEd had exceeded its planned net MWh target by a substantial amount. These internal estimates led to reduced spending on the Residential Lighting initiative, leaving approximately 30 percent of the initial budget for the initiative unspent. However, the net savings estimated by the Summit Blue team for these programs suggested that ComEd in fact missed its planned target by a

substantial amount due to a much higher estimated level of free ridership than originally assumed.

Table 1-1 illustrates the effect of the retroactive adjustment for the net savings estimates produced by the evaluation team. The second column shows the statutory portfolio goal. The statute did not specify targets for individual programs and thus only the portfolio total is shown. Column three shows the net savings targets established for each element of the portfolio in the plan filed by ComEd and approved by the ICC. The fourth column shows the *ex ante* or the savings estimated for each program element based on the same NTG ratio assumptions used to develop the plan. The final column shows the *ex post* net savings verified by the Summit Blue team.

Table 1-1
Savings Comparison

Initiative	Statutory Goal (MWh)	ComEd Planning Goal	ComEd *ex ante* savings	Summit Blue *ex post* savings
Residential ENERGY STAR Lighting	N/A	75,809	95,321	60,789
Appliance Recycling		8,159	8,528	11,478
All-Electric Efficiency Upgrade		2.369	2,045	1,852
C&I Prescriptive and Custom Incentives		62,187	79,614	85,693
Small C&I CFL Intro Kit		16,816	20,051	2,815
C&I Retro-Commissioning		1,090	1,207	1,090
TOTAL MWH SAVED	**148,842**	**166,430**	**206,766**	**163,717**

The table clearly highlights what ComEd believes is the most critical issue it faces in the successful implementation of this Plan. The Summit Blue evaluation results were not available to ComEd until roughly four months after the program year closed. Based on its estimated *ex ante* savings, ComEd ramped down spending and, in fact, returned $3.8 million to ratepayers through the annual reconciliation process as part of what was considered to be prudent portfolio management.[6] Even though ComEd had based its planning goals on a formal assessment of risk and had identified the NTG ratio associated with its Residential ENERGY STAR lighting program element as the greatest risk it faced in meeting its goals, the evaluation produced a

[6] Illinois policy is unclear as to whether utilities should spend only what is required to achieve the annual goal, or should maximize savings by spending the entire annual budget.

result that fell at the very low end of the range of assumed possible NTG ratios. Had ComEd planned for this result, it would have spent substantially more ratepayer funds.

Evaluated ex post net savings are not predictable, as changes in evaluation methods can have huge impacts that cannot be known until after the evaluation is complete. This creates substantial risk for ComEd and any other program administrator; a risk that is not necessarily symmetrical.

Prudent risk management typically would involve use of an expected value for net savings in planning and administration. However, there is no way to estimate what that expected value should be. Given that ComEd faces only downside risk if it misses its statutory goals, the only prudent course of action is to plan to meet a net savings target based on the net savings adjustments produced by the evaluation or our initial estimate of the net savings adjustment, whichever is most extreme.

Although, in theory, ComEd could redesign programs in a way intended to improve NTG ratios, the only redesign options for the program element most affected (Residential ENERGY STAR Lighting) involve either moving away from an upstream mark-down approach toward a direct rebate approach or significantly boosting marketing and advertising to increase consumer recognition of program influence. Either option is likely to be more expensive than simply boosting gross sales targets under the current design. Nevertheless, we estimate this option to cost approximately 30% more than our initial planning estimates (8 cents per first year KWh saved versus our initial estimate of approximately 6 cents per first year KWh).

Our experience with the first year evaluation confirms the position taken by ComEd in its application for approval of the first plan. Retroactive application of evaluated net savings creates unmanageable risk for the Company or any program administrator and will require a level of spending higher than would otherwise be needed if the Company's performance was assessed based on the net savings assumptions used in its approved plan.

Alternatively, ComEd believes that any given year's performance should be evaluated using NTG ratios estimated from prior years' evaluations. Although, this can lead to a higher level of spending than would be needed if performance was assessed based on verified gross savings or the net savings assumptions used by ComEd in its approved plan, it would improve program

planning and somewhat mitigate evaluation risk.

III. Smart Ideas for Your Home℠

Smart Ideas for Your Home℠ is comprised of a diverse set of residential incentives, each targeting either a specific energy end-use such as lighting or a high-consumption customer group such as homes with electric space heating. In Plan Year 1, *Smart Ideas for Your Home* achieved 74,119 MWh of energy savings, corresponding to 85% of its target.

The following sections discuss each of the program's initiatives in greater detail.

Residential ENERGY STAR® Lighting

Program Description

ComEd's Residential ENERGY STAR Lighting initiative *(originally known as Residential Lighting)* offered residential customers instant discounts on select ENERGY STAR CFLs and fixtures purchased at participating retailers.

The initiative offered discounts on both traditional spiral CFLs and specialty CFLs, such as bathroom globes, reflectors and dimmable lamps. Discounted fixtures included desk lamps, ceiling flush mounts and outdoor lamps.

Participating Retailers

Type of Store	No. of Stores	No. of CFL Bulbs Sold
Big Box / Do-It-Yourself	136	1,599,042
Warehouse	33	882,931
Small Hardware	166	403,730
Grocery	180	115,664

Discounts were designed to partially offset the higher cost of ENERGY STAR lighting products relative to comparable incandescent products and were administered primarily through a markdown on the price manufacturers charge to retailers. Point-of-sale coupons were used in the case of several small retailers.

ComEd selected Applied Proactive Technologies, Inc. (APT) to implement this program. Energy Federation Incorporated (EFI), an APT subcontractor, handled the program's data management and coupon redemption processing where applicable.

To compliment product availability, the initiative included an education element through the implementation of in-store point-of-sale material and product demonstrations conducted by *Smart Ideas* field representatives. The latter effort enabled consumers to directly discuss energy-efficient technologies with *Smart Ideas* representatives and receive information specific to their needs or concerns.

CFL Recycling

ComEd partnered with two major hardware retailers to educate consumers on the proper techniques of CFL disposal and offer CFL recycling free of charge to customers. As a result, approximately 10,600 CFLs were recycled.

Plan Year 1 Activity

ComEd implemented the lighting program in three phases to ensure proper focus on the various stages of development.

Phase I, called the "Quick Program Launch," covered the first four months of the program (June to September 2008). This phase involved quickly securing partnerships with local retailers to promote the availability of 345,000 discounted specialty CFLs. Three northern Illinois retailers participated in this phase to bring the promotion to approximately 90 locations.

The second phase, which covered a three-and-a-half month period from September to December, increased the number and variety of available discounted bulbs, including specialty bulbs and standard CFL twists. The initiative introduced hardwired fixtures during this phase and increased the number of participating retailers to 10 and the number of available locations to 545.

Phase III encompassed the final months of the plan year during which ComEd strengthened consumer awareness of the incentive through increased use of ComEd customer communications channels (such as bill inserts, bill messaging and Web content). The remaining inventory of 500,000 discounted bulbs was also released through the same retailer network.

Table III-1 presents the initiative's accomplishments.

Table III-1
Program Metrics

Program Statistics	Quantity
Standard CFLs sold	2,026,706
Specialty CFLs sold	964,633
Total CFLs sold	2,991,339
Fixtures sold	10,028
Participating storefronts	515
Field reps hired	8
Field rep demonstrations	133
Retailers offering free recycling	2

Table III-2 compares Summit Blue's ex post estimates of savings with ComEd's initial goal and its ex ante estimate of MWh saved.

Table III-2

Program Results	ComEd Planning Goal (MWh)	ComEd Estimated *Ex Ante* Savings (MWh)	Summit Blue Estimated *Ex Post* Savings (MWh)	Pct. of Goal
Residential ENERGY STAR Lighting	75,809	95,321	60,789	80%

Key Accomplishments

- **Implementing a multi-channel campaign to reach business customers, residential customers and employees, ComEd collected the second-highest amount of pledges for greenhouse gas emissions reductions (98,416,895 lbs) among all the utilities participating in the "Change the World Start with ENERGY STAR" national campaign.**

Key Challenges in Plan Year 1

As the Plan was approved by the ICC in February 2008, ComEd was left with a very short timeframe to develop and implement the program by the June 2008 start date. Because of this short lead time, there were instances where purchase agreements could not be consummated between bulb manufacturers and smaller retail companies in time for the program launch. This was a key factor in the development of the three phase launch approach.

Several retailers could not handle the manufacturer markdown within their stores, so point of purchase coupons were used to ensure these retailers could participate in the program.

Additionally, because inventory for the anticipated 2.5 million CFLs that would be sold did not exist among the participating retailer base, securing manufacturing agreements with suppliers to obtain enough lighting products had to be undertaken immediately in order to have inventories arrive and make it to shelves during PY1.

Education and Awareness

ComEd implemented the following integrated communications tactics:

- Developed in-store retail point-of-sale material — brochures, price stickers, beam signs, banner stands, recycling signs/stickers, sales staff talking points and tip cards.
- Produced customer bill inserts and articles in ComEd's *Energy@Home* customer newsletters to highlight and promote components of the initiative, including the benefits of CFLs, the existence of the ENERGY STAR Pledge and the availability of recycling drop-off points for used CFLs.
- Conducted in-store retail demonstrations at participating retail locations hosted by *Smart Ideas* field representatives featuring ENERGY STAR literature, CFL recycling information, light bar demonstrations and energy use meters.
- Participated in the October 1st Change *a Light Day* event in Chicago to encourage customers to switch to energy-efficient ENERGY STAR lighting products and other energy-efficient technologies.
- Co-sponsored the Energy Story Laboratory — which offered an interactive, educational, Halloween-themed event for consumers to learn about energy-efficiency — during the "*Change the World, Start with ENERGY STAR"* event at Chicago's Navy Pier Oct. 18-19, 2008.
- Collected ENERGY STAR pledges — through which consumers pledged to take actions to reduce energy consumption in their homes — during in-store lighting demonstrations, community events and through in-store instant coupons at participating retailers.
- Participated in Employee Green Fairs to educate ComEd employees on the benefits of ENERGY STAR Lighting and to encourage them to become energy efficiency ambassadors to friends and family.

Key Activities for Plan Year 2

The PY2 net MWh target is 126,349 MWh — an increase of more than 65 percent from PY1. However, in light of Summit Blue's lower NTG ratio and realization rate, ComEd increased its gross MWh target to 299,000 MWh in December 2009. Several program enhancements were adopted to manage this more aggressive goal, including:

- Adding two new retailers to the program
- Hiring two additional field representatives to service additional retail locations
- Increasing the number of ENERGY STAR lighting products eligible for discount
- Adding significantly more ENERGY STAR lighting fixture products eligible for discount
- Tailoring retailers' in-store point-of-purchase materials to increase shopper awareness of the products while adhering to retailer's marketing requirements
- Increasing the number and frequency of in-store retail demonstrations
- Getting product displays and shelf inventories placed in more visible areas

Appliance Recycling

Program Description

The Appliance Recycling incentive promotes the retirement of inefficient second refrigerators and freezers, as well as room air conditioners, by offering ComEd residential customers a $25 bounty and free pickup. JACO Environmental, who administers the program, recycles the units in their new Illinois-based facility to ensure that CFCs and refrigerants in the old appliances are recycled in accordance with the Environmental Protection Agency's *Responsible Appliance Disposal (RAD) Program.*

Customers can receive $25 payments for up to two qualifying refrigerator and/or freezer units. The units must be between 10 and 30 cubic feet in size, empty and operational at the time of pickup. The unit also must be accessible with a clear path for removal.

Plan Year 1 Activity

The Appliance Recycling incentive surpassed its first-year MWh goal by more than 40 percent, while remaining 16 percent under its planned budget. Table III-3 details key measures of program performance.

Table III-3
Program Metrics

Program Statistics	Quantity
Refrigerators recycled	8,438
Freezers recycled	3,076
Room air conditioners recycled	465
Total appliances recycled	**11,979**
Number of Enrollments	17,812
Number of JACO employees	12
Number of JACO trucks	3
Estimated tons of CO2e destroyed	38,781
Harvest Rate	67%[7]

[7] Harvest rate is calculated as the ratio of units actually collected and recycled to the number of customer requests for a unit pick-up. Units are not picked-up for a multitude of reasons – customer not home, unit does not work, unit too small, unit cannot be safely removed from premise, etc.

Table III-4 shows the actual MWH saved compared to the initiative's plan:

Table III-4

Program Results	ComEd Planning Goal (MWh)	ComEd Estimated *Ex Ante* Savings (MWh)	Summit Blue Estimated *Ex Post* Savings (MWh)	Pct. of Goal
Appliance Recycling	8,159	8,528	11,478[8]	141%

Key Accomplishments

- **The program exceeded its MWh goal of 8,159 MWh by 41 percent, while under spending its budget by more than 16 percent**
- **A new, state-of-the-art recycling facility was opened within ComEd's service territory, bringing jobs to the area and avoiding the increased carbon footprint that would have resulted by having the units shipped out of state for recycling**
- **A pilot program to collect old, working fridges and freezers at the point-of-sale was successfully tested with Abt Appliance, a major Chicago area retailer**

Key Challenges in Plan Year 1

Although this program element exceeded its MWh target, it encountered a number of challenges over the course of the first year that required changes in implementation strategy. The program provided ample opportunity to test consumer based Marketing and Communication strategies. The robust tracking of performance data helped measure the impact of such strategies.

Initially, marketing the initiative through "proven" communications channels such as bill inserts and newspaper advertisements did not generate the anticipated response. To get back on track, marketing communications were temporarily and significantly increased, causing an increase in the cost of acquisition for units picked-up.

The harvest rate for participants remained consistently around 70 percent, in line with industry norms, but significant nonetheless in terms of missed unit volume and energy savings.

[8] The ex post savings were much higher than the ex ante savings due to a much larger NTG ratio realized by the Summit Blue evaluation (0.73 vs. 0.40).

The program did not officially launch on June 1, 2008, in order to allow JACO to address recycling facility and staffing requirements. Since summer is typically the peak season for the replacement of appliances, this delay resulted in lost units and lost opportunities to drive awareness among targeted audiences.

Education and Awareness

ComEd implemented an integrated communications strategy that included the following tactics:

- Presenting Appliance Recycling information in ComEd customer bill inserts, ComEd's *Energy@Home* customer newsletter, and in ads placed in four area newspapers
- Wrapping JACO's collection trucks in Appliance Recycling art to, in effect, create giant, moving billboards for the program
- Using ComEd External Affairs Managers to promote the initiative with municipal officials, resulting in two cities (Fox Lake, Lake Zurich) agreeing to enclose ComEd's Appliance Recycling handbills into municipal water bill envelopes
- Utilizing direct mail and sophisticated demographic software to target customer segments that research indicated were best candidates.[9] (late Plan Year 1 / early Plan Year 2)

The Appliance Recycling Program was advertised in the following newspapers:

- **Aurora Beacon News**
- **Chicago Tribune**
- **Joliet Press**
- **Pioneer Press (Western Suburbs)**

Key Activities for Plan Year 2

The goal for PY2 is to achieve 18,358 MWh in savings which equates to a 60 percent increase over PY1's goal. This goal was increased to 22,627 MWh in December 2009 to support overall portfolio goals in response to lower expected *ex post* savings. To meet this challenge, a number of new marketing tactics are being deployed. They include:

[9] ComEd uses the Claritas' PRIZM database that contains demographic and behavioral data on over 890,000 households nationwide. This database allows ComEd to match current program participants with zip codes that contain similar type customers to allow for targeted marketing of the program.

- Appearing in Valpak, a direct mail advertising supplement that bundles several dozen local merchants' coupons and special offers into an envelope
- Appearing in *Clipper Magazine,* a magazine that showcases discounts, deals and special offers from local area merchants and is sent via US Post

Both communications are delivered to their organization's respective proprietary lists of single family homes throughout ComEd's service territory.

All-Electric Efficiency Upgrade

Program Description

Smart Ideas' All-Electric Efficiency Upgrade, originally known as the Multi-Family All-Electric Sweep, offered multi-family all-electric building residents free, direct installation of low-cost energy efficient products.[10]

Through ComEd's implementation contractor, Honeywell Utility Solutions, property owners and managers are also offered an analysis of their buildings' common areas. Results of the analysis are used to identify energy efficiency measures that may qualify for additional incentives through ComEd's *Smart Ideas for Your Business*[sm] program.

Low-cost, energy efficient products installed as part of the All-Electric Efficiency Upgrade:

- **CFLs**
- **Low-flow faucet aerators**
- **Low-flow showerheads**

A program design change was made at the mid-point of Plan Year 1 in recognition of the fact that the majority of the energy savings was a result of water usage/savings due to the electric water heating rather than electric space heating. In response, the initiative was expanded to include multi-family buildings that use gas space heating as long as electricity was used for domestic water heating.

Plan Year 1 Activity

Table III-5 summarizes the initiative's activities in terms of surveys and direct installs:

[10] This initiative does not focus on low-income housing, which is covered by the Illinois Department of Commerce and Economic Opportunity.

Table III-5
Program Metrics

Program Statistics	Quantity
Number of participating buildings	59
Number of units surveyed	8,668
Number of units upgraded	4,119
Completion rate	48%
CFLs installed	19,428
Faucet aerators installed	7,073
Showerheads installed	3,786

Table III-6 compares Summit Blue's ex post estimates of savings with ComEd's initial goal and its ex ante estimate of MWh saved.

Table III-6

Program Results	ComEd Planning Goal (MWh)	ComEd Estimated *Ex Ante* Savings (MWh)	Summit Blue Estimated *Ex Post* Savings (MWh)	Pct. of Goal
All-Electric Efficiency Upgrade	2,369	2,045	1,852	78%[11]

Key Accomplishments

- Used in-house customer data to identify apartment and condo management offices from a list of 175,000 customer accounts
- Effectively leveraged marketing communications and relationships that had been built by ComEd's External Affairs Managers to promote the incentive to this customer segment
- Educated landlords, owners and property management personnel regarding energy efficiency measures' money saving potential
- Conducted common area audit at each building, identifying potential energy efficiency measures from the *Smart Ideas for your Business* program
- Upgraded more than 4,100 units with energy efficient measures, including more than 19,400 CFLs, and left behind educational material to promote behavioral change and participation in other *Smart Ideas* offerings

[11] The ex post savings were less than the ex ante savings due to a lower realization rate (88%) than was used in program planning (95%). ComEd's default planning assumption was a single kWh savings for each aerator or showerhead, regardless of the number of measures installed in a dwelling unit. Savings per measure were adjusted to reflect fewer savings for measures that were installed multiple times in one dwelling unit.

Key Challenges in Plan Year 1

Initially, participation rates among eligible units within a building were lower than desired. After reviewing the initiative's delivery processes and value proposition, ComEd and Honeywell identified several barriers:

- Condo units were found to employ more light dimmers and lighting fixtures that could not accept standard twist CFLs and were more likely to have high-end plumbing fixtures that owners did not want retrofitted with low-flow aerators. As a result, eligible condominium owners were less likely to accept the direct install measures than was the rental community.
- The incentive required that someone -- the tenant, condo owner or building superintendent -- accompany the Honeywell technician to ensure that energy efficiency information could be communicated verbally. In addition, the program required the participating tenant to be home during the technician's visit. Despite the fact that evening and Saturday appointments were offered, the take rate was lower than projected.
- Honeywell discovered that installation of water heater tank wraps could void manufacturer warranties and, as a result, discontinued installation of this measure.
- ComEd realized that the majority of the energy savings achieved was not related to measures designed to increase the efficiency of electric space heating, but was instead heavily tied to water heating – the savings being derived from the installation of faucet and showerhead aerators. In response, the initiative expanded to include multi-family buildings with gas space heating as long as electricity was used for domestic water heating.

Education and Awareness

This initiative is applicable to fewer than five percent of ComEd's residential customer base, so a mass-marketing approach was not appropriate. Instead property managers and owners of eligible buildings were mailed a personalized letter describing the offer and its benefits. The mailing was followed by a phone call from Honeywell personnel who were trained to provide further information. Property managers and owners who took advantage of the offer were provided with signage to alert building tenants of the time and dates that the direct installs would be performed.

As the plan year unfolded, ComEd increased participation rates within each building by working closely with building management and landlords, whose active involvement and support of the incentive was crucial in recruiting participants.

Key Activities for Plan Year 2

The initiative's management and marketing approach, implemented during PY1, will remain relatively unchanged for PY2. One approach that was deemed successful in PY1 was when one management company with seven buildings dedicated one building superintendent to supervise the direct install activity across all buildings. ComEd plans to use this approach in PY2 when possible. . This should enable close to 100 percent penetration of units within a development.

Central Air Conditioning Cycling

Program Description

The Central Air Conditioning Cycling initiative (*formerly known as Nature First*) is a longstanding demand response program available to residential homeowners with central air conditioners. More than 54,000 customers are currently participating.

Customers can choose from two cycling options -

(1) ***50% option -*** *cycles the air conditioning unit off a maximum of 15 minutes every half hour, providing customers with a $5 bill credit each month from June to September.*

(2) ***The 100% option -*** *cycles the air conditioning unit off for up to one continuous three-hour period as needed; enrolled customers receive a $10 bill credit monthly from June to September.*

Participants earn summer bill credits by allowing ComEd to cycle their central air conditioner's compressor on-and-off during periods of high electrical demand. This is accomplished through the installation of a radio-enabled switch installed on the air conditioner compressor that is activated using a paging network. During cycling, the air conditioner's fan stays on to circulate already cooled air and keep the home comfortable.

Plan Year 1 Activity

Table III-7 compares Summit Blue's ex post estimates of savings with ComEd's initial goal and its ex ante estimate of MW saved.

Table III-7

Program Results	ComEd Planning Goal (MW)	ComEd Estimated *Ex Ante* Savings (MW)	Summit Blue Estimated *Ex Post* Savings (MW)	Pct. of Goal
Central Air Conditioning Cycling	11.7	14.4	14.4	123%

Key Accomplishments

- Added 9,810 new eligible participants exceeding the plan goal by 21 percent
- Achieved 14.4 MW of demand response, exceeding the plan goal by 2.7 MW, or 23 percent

Key Challenges in Plan Year 1

Expansion of the Central Air Conditioning Cycling initiative faced several challenges, including service coverage issues when one of ComEd's paging vendors unexpectedly went out of business. Coverage was quickly restored without consequence through another vendor.

Internal resources were also stressed by the need to manage the work processes and planning of a growing field workforce that installed and maintained the program's radio-enabled switches.

Education and Awareness

Low-cost and no-cost tactics were used whenever possible to promote this incentive. These tactics included:

- Having Central Air Conditioning Cycling materials and knowledgeable *Smart Ideas* personnel in attendance at more than 30 events — including city/county fairs, Chicago museum events, environmental fairs and ComEd employee meetings — where program promotional material was distributed
- Publishing articles in ComEd's residential customer newsletter, *Energy@Home,* during the relevant summer months (July, September, October)
- Placing promotional messages on the outside of ComEd's bill envelopes (August, April, May)
- Placing promotional messages directly on customer bills (August, April)
- Issuing press releases several times throughout the year to promote the initiative and increase awareness

Additionally, because enrollment volume targets could not be achieved without additional marketing communications, a highly sophisticated direct mail campaign with matching materials was employed and proved effective in increasing program participation.

Specifically, ComEd developed a regression model that utilized customer usage data, demographics, lifestyle information, and local area census characteristics to predict a

customer's propensity for enrolling in the initiative. This model was used to select prospects for the direct mail campaign and resulted in generating more than half of all new signups.

Key Activities for Plan Year 2

Lowering the cost of customer acquisition without jeopardizing enrollment targets will continue to drive ComEd's marketing efforts in PY2. Additionally, technological and process improvements are planned that will improve paging coverage and help increase the amount of demand response acquired per customer through the continued transition from a third-party satellite paging provider to ComEd's own existing microwave-based paging system.

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IV. Smart Ideas for Your Business[sm]

Smart Ideas for Your Business[sm] is comprised of a diverse number of incentives and delivery channels to ensure relevance and reach among our different business customer segments. The portfolio achieved 89,598 MWh of net energy savings in PY1, corresponding to 112% of its goal.

The program implementation team combined the Commercial & Industrial (C&I) Prescriptive and C&I Custom initiatives into a single, cohesive offering to boost implementation – and marketing – effectiveness. This combined initiative is referred to as “Prescriptive and Custom Incentives” within this report, although separate performance metrics continue to be provided individually for each initiative.

Prescriptive and Custom Incentives

Program Description

ComEd provided business customers with two incentive offerings through the *Smart Ideas for Your Business*[sm] program: Prescriptive and Custom. Prescriptive incentives provided the customer with a menu of energy efficient measures that have been given pre-calculated incentive rebates based on their known energy efficiency performance. These incentives were available for common replacement or retrofit projects such as lighting, HVAC (heating, ventilation and air conditioning), motors and commercial refrigeration technologies.

Many commercial and industrial projects require unique process improvements or complex measures for which deemed savings or simple savings algorithms are not appropriate (or available), so ComEd offered a Custom incentive. Custom incentive amounts were based on a formal engineering estimate of the energy savings anticipated for specific customer projects, including process improvements or new technologies not offered in the Prescriptive menu. Each Custom incentive customer application and its energy efficiency merits were evaluated on a case-by-case basis.

ComEd contracted with KEMA to administer both initiatives.

Plan Year 1 Activity

The Prescriptive and Custom incentives were combined in PY1 to better manage funding and marketing. Pent up demand for the incentives caused its funds to be completely obligated just three months into PY1.

Program Satisfaction Metrics (Pct. Satisfied)

- *Overall Customer Satisfaction – 92%*
- *Satisfaction w/ Contractor - 97%*
- *Satisfaction w/Rebated Equipment – 98%*

Lighting and lighting-related projects proved to be the dominant measure for both incentives. The most common Prescriptive project involved the replacement of high-intensity discharge lighting with linear “high bay” fluorescent technologies.

As stated earlier, prescriptive projects are generally simpler and easier to implement. This, combined with a high volume of prescriptive applications, meant that some customers with custom projects did not have time to plan their projects and receive pre-approval before all funds were obligated. This is not unusual for the first two to three years of any new initiative, since time is needed to build awareness and educate key trade allies and targeted customer segments. The *Smart Ideas* team did not pursue any significant education or awareness-building activities once the incentive pool was obligated.

Table IV-1 describes key program metrics, including the number of applications received and processed, incentives requested and paid, and a breakdown of types of projects.

Table IV - 1
Program Metrics

Program Statistics	Quantity
Number of applications received	796
Number of applications completed	479
Amount of Incentives Paid	$7.7M
Amount of Incentives Requested	$12.5M
Total Cost of Projects Supported	$37.3M
Pct. Prescriptive Projects *(by MWh)*	90%
Pct. Custom Projects *(by MWh)*	10%
Pct. Lighting Projects *(by MWh)*	89%
Pct. HVAC Projects *(by MWh)*	9%
Pct. Refrigeration Projects *(by MWh)*	2%

Table IV-2 compares Summit Blue's ex post estimates of savings with ComEd's initial goal and its ex ante estimate of MWh saved.

Table IV-2

Program Results	ComEd Planning Goal (MWh)	ComEd Estimated *Ex Ante* Savings (MWh)	Summit Blue Estimated *Ex Post* Savings (MWh)	Pct. of Goal
Prescriptive and Custom Incentives	**62,187**	**79,614**	**85,693**	**138%**[12]

[12] The difference between the ex post and ex ante results are due to increased hours of usage found for many of the projects. Through use of data from phone surveys, engineering review and on-site visits, Summit Blue found many of the lighting measures hours of use needed to be increased relative to their default assumptions.

Key Accomplishments

- Incentives offered through this initiative proved popular with businesses across ComEd's service territory. After three months, funds were obligated and a wait list for prospective projects was developed
- Incentives were provided for 479 projects
- More than 200 product and service providers signed up to become trade allies and received training on the program's rules and regulations
- Despite a tight timeframe for designing an incentive structure, ComEd and KEMA completed final design in time to present to trade allies on May 19, 2008, and launch the initiative on June 9
- ComEd conducted four trade ally seminars, educating approximately 400 product and service trade allies in the Smart Ideas program; and hosted six "green ribbon" workshops across our service territory that educated 1,200 customers on the energy efficiency opportunities now available to them
- In addition to a significant number of lighting projects processed under the Custom portion of the initiative, ComEd provided incentives for 13 unique non-lighting projects, including:
    - Two guestroom controls projects
    - A compressed air management system
    - A chilled water industrial process improvement
- The $7.7M in incentives led to business investing over $37M in energy efficiency projects.

Key Challenges in Plan Year 1

Despite a very successful PY1, the *Smart Ideas for Your Business'* team faced several significant challenges.

The unexpectedly early wait listing of customer applications meant a significant amount of customer communication had to occur. Some customers with Custom project applications (or intentions) did not have time to plan their projects and receive pre-approval before all funds had been obligated. Other customers may have missed the opportunity as they worked through their own internal approval processes.

These customer concerns required some sort of dialogue, mostly via telephone with *Smart Ideas* personnel. But the *Smart Ideas* team did manage to drive wider awareness of the situation via customer newsletters, e-mail blasts and through ComEd Account Managers.

The implementation of the waitlist precipitated another unexpected challenge: numerous customer applications from customers who hoped that their projects would get the right of first

refusal should funds become available. This sudden increase caused a significant administrative challenge.

Perhaps most challenging was the fact that given the statute's requirement that the programs operate on a single-year basis, ComEd could not reserve funding for projects that would not close in PY1. This led to customers focusing on projects with short completion timelines. As a result, simple projects (such as turn-key lighting retrofits) or those projects further along in the planning process were more likely to be submitted early and receive funding. This situation also presented a significant challenge to ComEd's own internal target of achieving a certain amount of MWh savings from Custom projects.

Education and Awareness

Typically, programs targeted at medium-to-large C&I customers rely on trade allies to effectively bring the value proposition to market. Understanding this, ComEd spent considerable resources to recruit, assemble and strengthen a trade ally network in PY1. These efforts included:

- Conducting four trade ally seminars and six "green ribbon" workshops for business customers to launch the *Smart Ideas* program
- Developing a Web-based trade ally training program designed to educate trade allies on how to participate in the program, including information on how to apply for incentives on behalf of their customers
- Providing trade allies who completed the Web-based training or attendance at a trade ally seminar, the ability to be listed as a trade ally on the ComEd Web site
- Publishing of a monthly trade ally e-newsletter that featured upcoming news, program enhancements and other items of interest to the trade ally community
- Participating in numerous public speaking engagements at civic groups, trade associations and businesses to promote the program and energy efficiency
- Creating a *Smart Ideas* section on the ComEd.com Web site to more effectively and quickly disseminate information to customers and trade allies, as well as provide these audiences with tips and resources

Key Activities for Plan Year 2

ComEd will focus on strategies designed to boost non-lighting-related energy efficiency projects in the Custom incentive offering for PY2. Also, an increased effort will be made to strengthen the value proposition of the ComEd trade ally network. Specifics of these two aspirations include:

- Establishing quality standards to recognize and reward trade allies who provide the highest levels of customer service to our business customers
- Offering more training opportunities to allow trade allies to improve their skill sets and energy efficiency knowledge and take better advantage of Custom incentive opportunities
- Re-categorizing many specialty lighting technologies from Custom to Prescriptive to allow the Custom incentive offering to focus on industrial process improvements such as large motors and drive projects, compressed air systems and chilled water system efficiency improvements
- Adding new and emerging technologies to the Prescriptive incentive to introduce customers to new measures that will become more prevalent
- Re-designing incentive application forms to be by technology (lighting, motors, HVAC, and refrigeration) in order to reduce the application size and simplify the application process

Small Commercial and Industrial CFL Intro Kit

Program Description

The Small Commercial and Industrial (C&I) CFL Intro Kit initiative was designed to bring *Smart Ideas* energy efficiency incentives to a customer segment that may not otherwise take advantage of the Prescriptive or Custom incentives.

It began with an offer to small business owners (non-residential, private sector customers under 10 kW) to choose one of four different CFL kits comprised of: three 23-Watt spiral CFLs, three 14-Watt spiral CFLs, three 15-Watt reflectors or three 23-Watt reflectors. The offer was presented via direct mail and included a pre-paid business reply postcard that the customer simply had to fill out and drop in the mail.

The CFLs were then packaged and sent to the customer by ComEd's fulfillment contractor, EFI. The package included a catalog of additional energy efficiency products that had received special discounting through the *Smart Ideas* program and was available exclusively to small business customers.

A customized Web portal where customers could order these discounted products and learn more about *Smart Ideas* incentives further supplemented this effort.

Plan Year 1 Results

ComEd mailed approximately 140,000 CFL offers to its small business segment and received nearly 35,000 responses. This 22 percent response rate significantly eclipsed the industry average of 2.6%.[13]

Table IV-3 itemizes the responses by CFL kit requested:

[13] Direct Marketing Association 2003 Response Rate Study, www.the-dma.org/cgi/disppressrelease?article=519.

Table IV-3
Program Metrics

Kit type	No. of Kits Sent
14 W Spiral CFLs	7,987
15 W Reflector CFLs	14,451
23 W Reflector CFLs	5,224
23 W Spiral CFLs	7,058
TOTAL	**34,720**

Table IV-4 compares Summit Blue's ex post estimates of savings with ComEd's initial goal and its ex ante estimate of MWh saved.

Table IV-4

Program Results	ComEd Planning Goal (MWh)	ComEd Estimated *Ex Ante* Savings (MWh)	Summit Blue Estimated *Ex Post* Savings (MWh)	Pct. of Goal
Small C&I CFL Intro Kit	16,816	20,051	2,815	17%

It should be noted that this initiative missed its MWh savings goal due to a much lower installation rate determined by the independent evaluator, Summit Blue, than was originally anticipated. ComEd believes this is primarily due to the bulbs being distributed late in PY1, but expects these savings to still be realized in future years.

Key Challenges in Plan Year 1

The free CFL offer was designed to educate and attract small businesses to the Prescriptive and Custom incentive initiative. Since this initiative was quickly oversubscribed early in PY1 (see *Prescriptive and Custom Incentives* section), distribution of the CFL offer mailing was delayed until the end of PY1, so that catalog orders would be received in PY2, when incentives would again become available. Through the first several months of PY2, approximately 50 catalog orders have occurred.

Education and Awareness

Information concerning CFLs within the direct mail piece that was sent to customers – as well as the CFLs themselves when they arrived – provided customers with a rich educational opportunity to see and use this technology first-hand. The bulbs arrived with supporting material that encouraged the adoption of additional energy efficient measures, including the availability of obtaining further information and access to valuable resources online (www.ComEd.com/SmallBiz)[14].

Key Activities for Plan Year 2

The CFL Intro Kit offer was designed to be a one-time offer. However, ComEd will monitor catalog orders that result from this outreach and consider whether to expand catalog offerings in the future for small business customers.

[14] The Web site included links to many of ComEd's internal and external resources, including Energy Analyzer, the Online Energy Efficiency Catalog and the U.S. Small Business Association.

Commercial & Industrial Retro-Commissioning

Program Description

ComEd implemented a pilot retro-commissioning initiative in PY1. This pilot initiative was designed to improve the efficiency of the buildings' energy using systems with low and no cost operational measures. ComEd contracted with Nexant to implement this pilot.

The pilot required that facilities had to be at least five years old, have a peak demand of at least 500 kW, contain at least 150,000 square feet of conditioned floor space and possess a relatively high Energy Use Index (EUI) compared to the EUIs of similar buildings. Additionally, no major renovation or large capital investment for the facility could be pending.

Retro-Commissioning provides building owners with low-cost adjustments to energy-using equipment to improve the efficiency of the building's operating system with a focus on building controls and HVAC systems.

Participants had to commit to spend at least $10,000 to implement identified retro-commissioning measures, measures that would provide an estimated total project simple payback of less than 1½ years, based upon electric energy savings. Operations and maintenance staff had to express a commitment for active involvement in the process as well.

Plan Year 1 Activity

The pilot achieved its PY1 goal of 1,090 MWh of energy savings with four participants: a museum, two university campus buildings and a commercial office building.

Table IV-5 compares Summit Blue's ex post estimates of savings with ComEd's initial goal and its ex ante estimate of MWh saved.

Table IV-5

Program Results	ComEd Planning Goal (MWh)	ComEd Estimated *Ex Ante* Savings (MWh)	Summit Blue Estimated *Ex Post* Savings (MWh)	Pct. of Goal
Retro-commissioning	1,090	1,207	1,090	100%

Key Accomplishments

- Because the pilot launched in Plan Year 1, it allowed the delivery of the program to be tested and fine-tuned for its formal PY2 launch
- Piloting of the initiative also allowed Nexant to identify and train Retrocommissioning Service Providers (RSP) in anticipation of increased PY2 interest in the incentive
- Account managers underwent training on the Retro-Commissioning process, which resulted in a smooth enrollment process for participants

Key Challenges in Plan Year 1

No noteworthy challenges or issues were identified.

Education and Awareness

Similar to the strategy deployed in the Prescriptive and Custom incentives, customer education and awareness of retro-commissioning is achieved primarily through trade allies who in this case are Retrocommissioning service providers (RSPs).

To assist in the identification of potential candidate customers, ComEd did conduct a retro-commissioning training session for ComEd Account Managers. This training provided account managers with program materials and screening criteria that helped them determine which of their customers might be ideal participants.

Key Activities for Program Year 2

The PY1 pilot allowed ComEd to finalize its processes and marketing approach with Nexant, and it allowed Nexant to recruit a sufficient number of RSPs to manage anticipated demand for PY2.

Although customer recruitment and marketing is primarily the charge of Nexant and its RSPs, ComEd is planning on developing case histories for several PY2 retro-commissioning projects to augment their marketing efforts and further drive awareness of the offering among potential customers.

EIO Interval Data Profiler

Energy Insights Online (EIO)

Program Description

Energy Insights Online (EIO) is a Web-based energy analysis service that acquires data gathered from a customer's recording meters on a monthly or daily basis, and converts the data into easy-to-understand graphs and reports that profile the customer's electricity use. This service, once offered as a for-fee subscription by ComEd, is now offered at no charge through the *Smart Ideas* program to commercial and industrial customers.

Energy Insights Online provides customers with data to help them understand how and when their buildings use electricity.

Participating customers use EIO to develop strategies that can lower demand charges, quantify energy usage changes from production modifications, and even validate efficiency upgrades.

Plan Year 1 Activity

Table IV-6 provides a summary of the number of customers enrolled in Energy Insights Online.

Table IV-6
Program Metrics

Program Statistics	Total
New Enrollments	1,686
Increase of Enrollments	421%

** Note – Prior to June 1, 2008, there were 400 existing EIO subscribers.*

Key Accomplishments

- Achieved conversion to no fee access
- Grew subscriber base by more than 400%
- Established an online enrollment form for non-managed customers
- Contacted all existing customers by mail to explain changes to this offering
- Eliminated monthly subscription charges and billing to existing EIO customers

Key Challenges in Plan Year 1

The biggest challenge in introducing EIO to a larger audience was ensuring that interested customers had the necessary metering equipment. There are two versions of Energy Insights Online - monthly and daily. The daily version is only available for customers who have a meter that will accept daily readings.

Manpower constraints posed a challenge in providing the timely exchange of meters.

Education and Awareness

ComEd's marketing strategy in part was to "ride the carbon footprint's coattails" and position EIO as a necessary tool for organizations wishing to quantify their energy usage or carbon output. The service was also promoted as a "if you can't measure it, you can't improve it" companion tool for customers considering energy efficiency upgrades via the *Smart Ideas* program.

Most marketing was conducted either through in-person or Web-based presentations and demonstrations to business customers and business groups by the EIO administrator, or through ComEd's business customer communications channels (i.e., *Energy@Work* newsletter, ComEd Non-Residential Customer Bill buckslip advertisement, *Smart Ideas for Your Business e-Newsletter*, *Energy Essentials* e-newsletter).

Key Activities for Plan Year 2

The program will continue to use a variety of marketing communications channels in PY2 as ComEd continues to promote the adoption of the service. Tactics will include:

- Placing messages on non-residential customer bills (March and April)
- Authoring *Energy@Work* articles for our non-residential customer newsletter (March, April, July, August, October and December)
- Creating ComEd Bill insert advertisements for inclusion in non-residential customers' bills (May, June and November)

- Including subscription information in ComEd's *Smart Ideas for Your Business* and *Energy Essentials* business customer e-newsletters (May and November)
- Offering training webinars for customers and business organizations (September, October, December, February and April)
- Presenting program information at the Chicago Building Owners and Management Association (BOMA) Suburban Engineers Breakfast as well as the Clean Air Counts Energy Forum

Energy Usage Data Tool

Program Description

The Energy Usage Data tool provides customers with an automated system to obtain aggregated, whole building energy usage on a monthly basis. This allows owners of multi-tenant buildings to aggregate consumption within the building across all tenants. Customer receipt of this service may be linked to participation in other ComEd energy efficiency initiatives. Prior to PY1, obtaining whole building energy data was a fee-based, manual process which took 10-12 days to complete. Customers now obtain this data in 1-2 days, free-of-charge.

The Energy Usage Data can be used by customers as part of the ENERGY STAR benchmarking process in conjunction with the U.S. Environmental Protection Agency's Portfolio Manager. A building scoring 75 or higher qualifies for ENERGY STAR certification.

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ComEd is one of the few utilities to automate this data retrieval process which empowers customers to benchmark their facilities using ENERGY STAR's Portfolio Manager.

Plan Year 1 Activity

Table IV-7 summarizes the number of new enrollments in Energy Usage Data following automation:

Table IV-7

Program Statistic	Total
New Building Enrollments	363

** Note – Prior to June 1, 2008, 70 buildings received data via a manual process. The increase in enrollments compared to the manual process is 418 percent.*

Key Accomplishments

- Automation of the Energy Usage Data tool from a cumbersome, manual process
- Establishment of an online support mailbox for customer inquiries and issues
- Provision of training and support to ComEd account managers and customers to better understand the product and its application to energy efficiency initiatives

Key Challenges in Plan Year 1

Challenges were both resource and timeline constrained as ComEd strived to have the automated service ready coincident with *Smart Ideas'* PY1 launch date. Additional challenges surfaced around developing appropriate training materials and conducting efficient outreach to key audiences.

Education and Awareness

ComEd promoted the availability and the benefits of the automated Energy Usage Data tool through the following channels:

- Presentation at the BOMA/Chicago organization meeting
- Presentations to ComEd Account Managers
- Presentations to business customers at six Green Ribbon workshops
- Promotions to business customers in bill inserts and in ComEd's *Energy@Work* newsletter
- Training webinars for customers

Key Activities for Plan Year 2

ComEd has several program enhancements slated for PY2, including the implementation of a software enhancement that will provide automated, recurring, building energy usage data transfers to ENERGY STAR's Portfolio Manager (July '09).

ComEd will also implement more robust tracking of the service to gauge enrollment in other Smart Ideas programs and continuing usage levels.

Similar to PY1, ComEd intends to continue to use proven channels to create awareness of the offering and drive enrollments. These channels will include:

- Authoring articles in the *Energy@Work* non-residential customer newsletter (July, October and December)
- Creating non-residential customer Bill insert advertisements (May and June)
- Conducting Energy Usage Data Webinars (July, August and September)
- Presenting at business organizations and trade groups such as the BOMA Suburban Engineers Breakfast and the Chicago Energy Management seminar

V. R&D / Emerging Technologies

ComEd is allowed to spend up to 3 percent of its portfolio budget on R&D / emerging technologies. For PY1, ComEd allocated $1.0 million for these initiatives but spent just $0.6 million.

The primary activities for PY1 were the testing of two program concepts – the Home Energy Report and the ComEd Community Energy Challenge. Both of these activities are detailed below.

Home Energy Report Pilot

Program Description

The Home Energy Report pilot is designed to evaluate the impact that energy usage information can have on a customer's energy usage behavior. This pilot involves 50,000 residential customers who receive regular reports in the mail regarding their electricity usage and how they can become more energy efficient. ComEd hired OPower (formerly Positive Energy) to administer this pilot program.

The key behavior component that the report emphasizes is the comparison of the customer's energy usage to an "average neighbor" and "most efficient neighbor". In addition, the report contains a 12-month usage comparison to neighbors, a comparison of the customer's prior year's usage to this year's usage and potential action steps that the customer can implement to save energy.

The individualized reports are tailored to the customer.

The "neighbor group" is composed of customers with similar demographics (e.g., house square footage, type of heating) to ensure a "like for "like" comparison.

The action steps listed for the customer are tailored to the individual customer and are used to promote ComEd's residential energy efficiency initiatives.

The energy usage of the 50,000 customers in this pilot will be compared to a similarly sized control group over a three year period to determine whether or not this type of program is a cost-effective source of energy savings.

Plan Year 1 Activity

With the pilot program not launching until PY2, the activities in PY1 had to do with the set-up of the program. ComEd and OPOWER worked to identify the test and control groups of customers for the pilot. In addition, the Home Energy Reports were tailored to ComEd customers, including the ability to promote other residential energy efficiency initiatives on these reports. ComEd and OPOWER worked through the many data issues associated with a data intensive program of this nature, setting up the necessary monthly feeds of information that are required to produce the home energy reports.

Key Accomplishments

- Selected pilot participant group of 50,000 residential customers
- Worked through all internal and external data extraction issues to ensure accurate customer data was available
- Developed required education / marketing material and prepared internal call center personnel to field customer inquiries or complaints
- Fully integrated *Smart Ideas* incentives and energy efficient information into Home Energy Report and online portal

Key Challenges in Plan Year 1

No unusual challenges were identified prior to the PY2 launch.

Education and Awareness

Marketing communications were limited to the development of a customer welcome brochure that pilot program participants received along with their first energy report.

Further information about the report, as well as the action steps and energy efficiency ideas contained within it, were available through a Web portal designed and maintained by OPower.

Key Activities for Plan Year 2

The primary activities will be the launch and monitoring of the pilot program. The pilot will launch in August with customers receiving their first report for July usage. ComEd will closely monitor customer response to the program, with the goal to determine the pilot's potential as a full-scale, long-term energy efficiency initiative.

ComEd Community Energy Challenge

Program Description

The ComEd Community Energy Challenge (CEC) is a pilot to determine if municipalities can leverage their own resources to deliver cost-effective energy savings. ComEd approached 12 municipalities considered to be leaders in their approach towards energy efficiency. Ten municipalities have agreed to compete in the pilot Challenge. In PY1, each municipality submitted an energy efficiency plan to ComEd detailing how much energy they proposed to save in a twelve month period. In PY2, each municipality will implement its plan and ComEd will determine the energy savings (and at what cost) each municipality achieved. The "winning" municipality will receive a $100,000 cash award.

The 10 communities participating in this pilot are: Aurora, Carol Stream, Elgin, Evanston, Highland Park, Hoffman Estates, Oak Park, Orland Park, Schaumburg and Wilmette.

Communities are encouraged to include the promotion of the *Smart Ideas* incentives in their plans. In fact, $2.35 million of *Smart Ideas* incentives have been reserved for these municipalities in PY2.

ComEd contracted with Shaw Environmental to administer this program.

Plan Year 1 Activity

ComEd and Shaw Environmental focused on developing the CEC concept in PY1. This included developing criteria for identifying and recruiting potential participant communities, developing scoring guidelines, and deploying the program and its materials. ComEd and Shaw worked with the municipalities to develop their energy efficiency plans to ensure the program guidelines were properly followed.

Near the end of PY1, participating communities submitted their energy plans to ComEd, which utilized an independent review panel to evaluate and score them. Communities were then encouraged to begin implementation of their proposals during the beginning of PY2.

Key Accomplishments

- Development of Challenge design and guidelines
- Selection of 10 participating municipalities
- Development of individual energy plans for each municipality
- Creation of a Web site to provide information and Challenge materials to participating communities

Key Challenges in Plan Year 1

Considerable time and research was spent developing the Challenge model since this is a new approach to energy efficiency. ComEd and Shaw worked through many different concepts during the design phase, even inviting municipalities to comment on the various proposed elements and rules.

Education and Awareness

Plan development assistance and educational information were targeted to the municipal point of contact identified by each community. A Web site was constructed to house program materials and announcements. Generally speaking, ComEd and Shaw engaged in outreach and assistance on an “as needed” basis, as each community presented varying levels of expertise and enthusiasm.

Key Activities for Plan Year 2

The implementation of the individual municipality energy plans is the key activity for PY2. ComEd will be monitoring the progress of each municipality on an on-going basis, requiring each municipality to submit formal progress reports each quarter.

At the end of the plan year (May 2010), ComEd will score each municipality's activities to determine the winner of the $100,000 cash prize.

VI. ComEd Summary

ComEd's *Smart Ideas* portfolio is the product of a three-year plan developed by ComEd in response to Illinois Public Act 95-0481 the purpose of which is to encourage customers to reduce energy consumption.

In Plan Year 1 (June 1, 2008 through May 31, 2009), the *Smart Ideas* portfolio achieved over 163,000 MWh in energy savings, exceeding its statutory goal of 148,842 MWh.

By the end of its initial three-year plan, the *Smart Ideas* portfolio will put ComEd customers on track to save more than $155 million in energy costs (net savings after the costs of the program itself are accounted for plus the sum of the energy savings derived from the life of the measures implemented).

As a result of lessons learned during Plan Year 1, ComEd is well positioned to develop more innovative energy efficiency initiatives and achieve more aggressive energy savings goals in future years… and looks forward to doing so.

VII. DCEO Summary - ComEd Service Territory

Per the Act, DCEO was assigned 25% of the total portfolio spending screen. In addition, DCEO had specifics goals defined for the public sector and low income programs. The Act required 10% of the overall portfolio be dedicated for public sector customers. For low income customers, a target of 6% of the overall portfolio was set based on the number of households at or below 150% of the poverty level.

The results for DCEO are summarized in the table below. As the table shows, DCEO missed their portion of the ComEd Goal. They achieved 44% of the target, primarily due to the Public Sector Standard initiative program only achieving 27% of its goal. This program made up approximately 75% of the DCEO portfolio.

The Act requires that if DCEO does not achieve their goal, ComEd and DCEO are required to submit a modified filing to the Commission that explains the performance shortfall and recommend an appropriate course of action going forward. ComEd has had initial discussions with DCEO and is waiting on DCEO's proposed remediation strategy.

Table VII - 1

DCEO Programs	Plan	Summit Blue Results *(Ex Post)*	
	MWH Savings	MWH Savings	Pct. Of Plan
Low-Income			
Weatherization	0	3,567	*n/a*
Home Improvement	648	690	*106%*
Public Sector			
Lights for Learning	2,663	769	*29%*
Public Sector Custom incentives	4,443	4,092	*92%*
Public Sector Standard incentives	30,406	8,259	*27%*
Public Sector Retro-Commisioning	2,251	0	*0%*
DCEO Totals	**40,411**	**17,377**	*43%*
Statutory Goal	39,887	17,377	*44%*

VIII. Data Tables

Table VII-1 shows ComEd's performance, by program, for MWh saved. The table compares the Plan estimates with ComEd's ex ante results and Summit Blue's ex post results.

Table VIII-1

	ComEd Plan	ComEd Reported Results *(Ex Ante)*		Summit Blue Result *(Ex Post)*	
	MWH Savings	**MWH Savings**	***Pct. Of Plan***	**MWH Savings**	***Pct. Of Plan***
Residential					
Residential lighting	75,809	95,321	*126%*	60,789	*80%*
Appliance recycling	8,159	8,528	*105%*	11,478	*141%*
Multi-family all-electric sweep	2,369	2,045	*86%*	1,852	*78%*
Total Residential	**86,337**	**105,894**	***123%***	**74,119**	***86%***
C&I					
C&I Prescriptive	43,255	79,614	*128%*	85,693	*138%*
C&I Custom	18,932				
C&I Retrocommissioning	1,090	1,207	*111%*	1,090	*100%*
Small C&I CFL Intro Kit	16,816	20,051	*119%*	2,815	*17%*
Total C&I	**80,093**	**100,872**	***126%***	**89,598**	***112%***
Total Portfolio	**166,430**	**206,766**	***124%***	**163,717**	***98%***
Statutory Goal	**148,842**	**206,766**	***139%***	**163,717**	***110%***

Table VII-2 shows the comparison of the Plan budget versus Actual expenditures for PY1 for Rider EDA expenses. It should be noted that ComEd incurred additional internal labor costs that are not included as Rider EDA expenses.

Table VIII-2

	Plan Budget	Actual Expenditures
RESIDENTIAL EE PROGRAM COSTS		
Residential lighting	$ 7,200,000.00	$ 5,519,991.34
Appliance recycling	$ 2,100,000.00	$ 2,113,892.41
Multi-family all-electric sweep	$ 800,000.00	$ 707,405.44
CACES	$ 100,000.00	$ 467,351.77
Total Residential Programs	**$ 10,200,000.00**	**$ 8,808,640.96**
C&I EE PROGRAM COSTS		
C&I Prescriptive	$ 7,000,000.00	$ 8,655,569.88
C&I Custom	$ 2,500,000.00	$ 2,163,989.25
C&I Retrocommissioning	$ 400,000.00	$ 492,520.18
Small C&I CFL Intro Kit	$ 800,000.00	$ 681,470.55
C&I New Construction	$ 100,000.00	$ 100,000.00
Total C&I Programs	**$ 10,800,000.00**	**$ 12,093,549.86**
OTHER COSTS		
Demand Response	$ 800,000.00	$ 476,027.70
DCEO	$ 9,500,000.00	$ 6,949,809.14
R&D / Emerging Technologies	$ 1,000,000.00	$ 628,266.58
M&V	$ 1,200,000.00	$ 1,200,000.00
Educational / Outreach	$ 3,000,000.00	$ 1,685,306.55
Other Portfolio Costs	$ 2,900,000.00	$ 2,464,358.80
Total Other	**$ 18,400,000.00**	**$ 13,403,768.77**
Total Portfolio Costs	**$ 39,400,000.00**	**$ 34,305,959.59**

Table VII-3 shows the breakdown of PY1 by contractor, incentive, marketing and labor costs across the programs.

Table VIII-3
PY1 Rider EDA Expenses

	Rider EDA Expenses					TOTAL Rider EDA Expenses
	Contractor Costs	Incentive Costs	Marketing Costs	TOTAL Non-Labor Costs	ComEd Labor	
	a	*b*	*c*	*d*	*e*	*f*
				a+b+c		*d+e*
RESIDENTIAL EE PROGRAM COSTS						
Residential lighting	$ 1,879,027.34	$ 3,240,496.84	$ 147,616.62	**$ 5,267,140.80**	$ 252,850.54	**$ 5,519,991.34**
Appliance recycling	$ 1,301,348.30	$ 297,475.00	$ 422,301.66	**$ 2,021,124.96**	$ 92,767.45	**$ 2,113,892.41**
Multi-family all-electric sweep	$ 222,475.59	$ 411,494.25	$ 19,439.91	**$ 653,409.75**	$ 53,995.69	**$ 707,405.44**
CACES	$ 369,640.00	$ -	$ 38,629.85	**$ 408,269.85**	$ 59,081.92	**$ 467,351.77**
Total Residential Programs	**$ 3,772,491.23**	**$ 3,949,466.09**	**$ 627,988.04**	**$ 8,349,945.36**	**$ 458,695.60**	**$ 8,808,640.96**
C&I EE PROGRAM COSTS						
C&I Prescriptive	$ 2,120,927.77	$ 6,201,030.16	$ 50,960.91	**$ 8,372,918.84**	$ 282,651.04	**$ 8,655,569.88**
C&I Custom	$ 530,232.49	$ 1,550,257.64	$ 12,836.36	**$ 2,093,326.49**	$ 70,662.76	**$ 2,163,989.25**
C&I Retrocommissioning	$ 201,454.92	$ 213,360.00	$ 1,441.50	**$ 416,256.42**	$ 76,263.76	**$ 492,520.18**
Small C&I CFL Intro Kit	$ 300,148.76	$ 309,271.55	$ 1,000.00	**$ 610,420.31**	$ 71,050.24	**$ 681,470.55**
C&I New Construction	$ 100,000.00	$ -	$ -	**$ 100,000.00**	$ -	**$ 100,000.00**
Total C&I Programs	**$ 3,252,763.94**	**$ 8,273,919.35**	**$ 66,238.77**	**$ 11,592,922.06**	**$ 500,627.80**	**$ 12,093,549.86**
OTHER PORTFOLIO COSTS						
Demand Response	$ -	$ -	$ 476,027.70	**$ 476,027.70**	$ -	**$ 476,027.70**
DCEO	$ 6,949,809.14	$ -	$ -	**$ 6,949,809.14**	$ -	**$ 6,949,809.14**
R&D / Emerging Technologies	$ 627,286.58	$ -	$ 980.00	**$ 628,266.58**	$ -	**$ 628,266.58**
Measurement & Verification	$ 1,200,000.00	$ -	$ -	**$ 1,200,000.00**	$ -	**$ 1,200,000.00**
Educational Outreach	$ 423,378.47	$ -	$ 770,505.42	**$ 1,193,883.89**	$ -	**$ 1,193,883.89**
EIO / Energy Star	$ 477,763.75	$ -	$ 13,658.91	**$ 491,422.66**	$ -	**$ 491,422.66**
Portfolio Administration	$ 1,466,879.15	$ -	$ -	**$ 1,466,879.15**	$ 997,479.65	**$ 2,464,358.80**
Total Other	**$ 11,145,117.09**	**$ -**	**$ 1,261,172.03**	**$ 12,406,289.12**	**$ 997,479.65**	**$ 13,403,768.77**
Total Portfolio Costs	**$ 18,170,372.26**	**$ 12,223,385.44**	**$ 1,955,398.84**	**$ 32,349,156.54**	**$ 1,956,803.05**	**$ 34,305,959.59**