

Commonwealth Edison Company's
2014 – 2016
Energy Efficiency and
Demand Response Plan

February 27, 2014



Table of Contents

1. Executive Summary	1
2. Introduction	4
3. Plan Overview	7
The Illinois Statewide Technical Reference Manual (“TRM”)	9
ComEd’s Energy Efficiency Portfolio Framework.....	10
Legislative Developments	10
Public Act 98-0090	10
Public Act 98-0586	11
Public Acts 97-0616 and 97-0824.....	11
Challenges / Opportunities.....	11
Statutory kWh Target vs. Spending Screen	12
Implementing the Triennial Evaluation Process – Fixed Values / Banking.....	12
Role of CFLs in the Portfolio / Impact of Federal Lighting Standards.....	13
Program Coordination and Natural Gas Portfolio Budgets	13
Demand Response.....	14
Building a Technology Pipeline	14
4. Portfolio Goals	16
5. ComEd’s Planning Process	18
Key Planning Enhancements	18
ComEd-Specific Data.....	18
DSMore Model	22
Stakeholder Input.....	23
Electric / Gas Integration	23
DCEO’s Role.....	24
6. The ComEd Portfolio	25
Portfolio Design	25
Portfolio Elements	27
Smart Ideas for Your Home - Residential Program Elements	27
Smart Ideas for Your Business - C&I Program Elements.....	67
DCEO Programs	93
Education & Outreach / Market Transformation.....	95
Cross-Cutting Activities	98
Portfolio Management.....	98
Market Research.....	100
Tracking & Reporting	101
R&D/Emerging Technologies	102
Risk Management.....	111
ComEd’s Risk Management Process.....	111
Portfolio Budget	113
Portfolio Evaluation.....	115

7. Cost Recovery	118
8. Glossary of Terms	119

Appendices

Appendix A: Industry Research / Model Inputs

Appendix B: List of Measures by Program

Appendix C: Illinois Statewide Technical Reference Manual

Appendix D: Energy Efficiency Potential Study

Appendix E: Residential End Use/Baseline Study

Appendix F: Commercial and Industrial End Use/Baseline Study

Appendix G: Program Logic Models

1. Executive Summary

Commonwealth Edison Company (“ComEd”) submits its 2014 – 2016 Energy Efficiency and Demand Response Plan (“Plan 3”) to the Illinois Commerce Commission (“Commission” or “ICC”) in compliance with Section 8-103 of the Public Utilities Act (“Act” or “PUA”). This is ComEd’s third Plan.¹ Since June 1, 2008, ComEd has offered two Plans to its residential and business customers. The first three-year Plan – ComEd’s 2008 – 2010 Energy Efficiency and Demand Response Plan (“Plan 1”) – saw dramatically increasing kilowatt-hour (“kWh”) savings goals each year with corresponding budget increases. ComEd’s implementation of Plan 1 was highly successful — the annual kWh and kilowatt (“kW”) savings goals were exceeded and the annual expenditures came in under the spending screen.

Like Plan 1, ComEd’s second three-year Plan – its 2011 – 2013 Energy Efficiency and Demand Response Plan (“Plan 2”) – faced increasing energy savings goals in each of the three years. Beginning with Plan Year 5, however, the budget no longer increased in step with the energy savings goals (*i.e.*, it essentially remained frozen at the Plan Year 4 budget). Participants in the proceeding to approve Plan 2 entered into a complex stipulation to address this budget shortfall, which included various proposals to mitigate the lack of funds, including a modified (*i.e.*, reduced) energy savings goal for Plan Year 6 (“PY6”). While the Commission has not reached a final determination regarding the amount of energy savings achieved for the now completed Plan Years 4 and 5 (“PY4” and “PY5”, respectively), ComEd’s own calculations of the estimated savings achieved for those years indicate that ComEd achieved the statutory goals for both PY4 and PY5 and is on track to achieve the modified kWh savings goal for PY6.

Plan 3 builds on Plans 1 and 2 while also addressing new challenges and incorporating recent legislative and regulatory changes. Like Plan 2, ComEd is again proposing modified energy savings goals. Indeed, the challenges are even more severe for Plan 3, with continued increases in energy savings goals while funding remains flat at the Plan Year 5 level (which was essentially the PY4 budget). Specifically, the statutory goal continues to increase in Plan Year 7 (“PY7”) to 1.8% and in Plan Years 8 (“PY8”) and 9 (“PY9”) to 2.0%.

The table below provides, for each Plan year, the statutory megawatt-hour (“MWh”) savings goal, ComEd’s proposed modified MWh savings goal, the proposed megawatt (“MW”) savings goal (which is the statutory goal), and the spending screen.

¹ The triennial energy efficiency and demand response plan filings required by Section 8-103 of the Act are generally referred to herein as “Plan” or “Plans.”

3 Year Goals / Spending Screen

	Yr. commencing June 1	PY7 2014	PY8 2015	PY9 2016	Total
Statutory MWh Goal	Energy Efficiency	1,605,000	1,803,000	1,811,000	5,219,000
Proposed MWh Goal	Energy Efficiency	745,654	640,793	624,383	2,010,830
Statutory (and proposed) MW Goal	Demand Response	2.8	2.7	2.6	8.1
Spending Screen Projection	\$Million	\$157.0	\$158.7	\$159.4	\$ 475.1

Relatedly, the following table shows the allocation of the proposed modified MWh savings goals to ComEd and the Department of Commerce and Economic Opportunity (“DCEO”).²

Allocation of Modified Savings Goals Between ComEd and DCEO

Modified MWh Savings Goals				
	PY7	PY8	PY9	Total
ComEd	648,029	541,983	517,369	1,707,380
DCEO	97,625	98,810	107,014	303,449
Total	745,654	640,793	624,383	2,010,829

As required, the portfolio as a whole is cost-effective with a Total Resource Cost (“TRC”) test benefit-cost ratio of 1.48. The portfolio is designed to achieve the modified kWh goals discussed above within the projected spending screens. The portfolio is also designed to meet the statutory demand response goals within the spending screen using the kW savings associated with the residential energy efficiency program elements.

Similar to Plans 1 and 2, ComEd’s portfolio is constructed from four building blocks. Three of these building blocks focus on specific customer groups or activities, while the last building block, Education & Outreach / Market Transformation, is more general in nature and cuts across all customer classes. The four building blocks are:

- Residential Programs (“*Smart Ideas for Your Home*”)
- Business Programs (“*Smart Ideas for Your Business*”)

² DCEO had not yet filed its final, Commission-approved goals as of the time ComEd finalized this Plan 3. As a result, the DCEO MWh goals reflected in this Plan 3 continue to reflect the values initially proposed by DCEO and reflected in ComEd’s originally filed Plan 3 on August 30, 2013, and are subject to change.

- DCEO Programs
- Education and Outreach / Market Transformation Activities

Like Plans 1 and 2, this portfolio will continue to offer two “umbrella” programs with a variety of program elements under each umbrella. We will continue to use the banner of “*Smart Ideas*” – the residential sector program elements will be marketed under the “*Smart Ideas for Your Home*” program and the commercial & industrial (“C&I”) program elements will be marketed under the “*Smart Ideas for Your Business*” program.



The table below shows the expected impacts and cost of the ComEd and DCEO programs.

Annual Net MWh Impact and Costs by Program

Programs	PY7		PY8		PY9		3 Yr Plan Total	
	Cost	Net MWhs						
C&I - EE Programs								
Incentives Program	\$ 36,421,141	215,277	\$ 34,414,531	196,742	\$ 35,953,141	195,831	\$ 106,788,813	607,850
Large C/I Pilot	\$ 5,150,000	-	\$ 5,150,000	-	\$ 5,150,000	-	\$ 15,450,000	-
Optimization	\$ 11,746,965	92,547	\$ 12,185,046	95,781	\$ 12,360,062	97,831	\$ 36,292,073	286,159
C&I New Construction	\$ 6,169,888	14,795	\$ 6,477,491	15,665	\$ 6,965,252	16,535	\$ 19,612,631	46,995
Industrial Systems	\$ 6,596,010	110,033	\$ 6,975,586	116,269	\$ 7,431,110	123,170	\$ 21,002,706	349,471
Midstream Incentives	\$ -	-	\$ -	-	\$ -	-	\$ -	-
C&I TOTAL	\$ 66,084,004	432,651	\$ 65,202,654	424,457	\$ 67,859,565	433,367	\$ 199,146,223	1,290,474
RESIDENTIAL - EE Programs								
Residential Lighting	\$ 17,571,083	92,045	\$ -	-	\$ -	-	\$ 17,571,083	92,045
Residential Products	\$ -	-	\$ 6,650,200	9,103	\$ 6,651,550	9,103	\$ 13,301,750	18,206
Appliance Recycling	\$ 7,677,341	26,178	\$ 8,599,829	29,450	\$ 8,604,554	29,450	\$ 24,881,724	85,078
Complete System Replacement	\$ 1,792,155	1,339	\$ 4,296,162	7,528	\$ 4,263,220	7,407	\$ 10,351,537	16,274
Multi-Family Comprehensive Energy Efficiency	\$ 4,531,533	9,512	\$ 4,191,113	9,014	\$ 3,773,691	8,838	\$ 12,496,337	27,364
Energy Education Kits Program	\$ 454,665	681	\$ 419,141	624	\$ 383,636	567	\$ 1,257,441	1,872
Direct to Consumer Kits	\$ -	-	\$ 6,183,186	6,996	\$ 4,364,632	4,930	\$ 10,547,818	11,926
Single-Family Home Performance	\$ 1,452,130	2,139	\$ 4,644,917	7,592	\$ 4,612,061	7,590	\$ 10,709,108	17,321
Residential New Construction	\$ 30,565	16	\$ 32,549	19	\$ 31,639	15	\$ 94,753	50
RESIDENTIAL TOTAL	\$ 33,509,471	131,910	\$ 35,017,097	70,326	\$ 32,684,982	67,900	\$ 101,211,551	270,136
Demand Response - AC Cycling Maint.	\$ 1,230,000	-	\$ 1,230,000	-	\$ 1,230,000	-	\$ 3,690,000	-
CFL Carryover	-	83,468	-	47,200	-	16,102	\$ -	146,770
Total ComEd EE	\$ 100,823,475	648,029	\$ 101,449,751	541,983	\$ 101,774,547	517,369	\$ 304,047,774	1,707,380
DCEO								
DCEO	\$ 39,250,000	97,625	\$ 39,675,000	98,810	\$ 39,850,000	107,014	\$ 118,775,000	303,449
Portfolio-Level Costs								
Total Portfolio-Level Costs TOTAL	\$ 16,926,525	-	\$ 17,575,253	-	\$ 17,775,451	-	\$ 52,277,229	-
PORTFOLIO TOTAL								
PORTFOLIO TOTAL	\$ 157,000,000	745,654	\$ 158,700,004	640,793	\$ 159,399,999	624,383	\$ 475,100,003	2,010,829
ComEd Portfolio Cost (less DCEO)	\$ 117,750,000	648,029	\$ 119,025,004	541,983	\$ 119,549,999	517,369	\$ 356,325,003	1,707,380

2. Introduction

ComEd is submitting its third plan – Plan 3 – to the Commission in compliance with Section 8-103 of the Act. Since June 1, 2008, ComEd has offered two Plans to its residential and business customers. Plan 1 saw dramatically increasing kWh savings goals each year with corresponding budget increases. Specifically, between Plan Years 1 and 2 (“PY1” and “PY2,” respectively), the budget doubled from \$40 million to \$80 million, and then increased again by another \$40 million to \$120 million in Plan Year 3 (“PY3”). This original portfolio was designed to lay a sound foundation of energy efficiency programs and take advantage of “low hanging fruit” in terms of energy efficiency measures in the marketplace. ComEd’s implementation of Plan 1 was highly successful – the annual kWh and kW savings goals were exceeded and the annual expenditures came in under the spending screens.

Plan 2 also faced increasing energy savings goals in each of the three Plan years. Beginning with Plan Year 5, however, the budget no longer increased in step with the energy savings goals, and remained virtually unchanged from PY4. Participants in the proceeding to approve Plan 2 entered into a complex stipulation to address this budget shortfall, which included various proposals to mitigate the lack of funds, including a modified (*i.e.*, reduced) energy savings goal for Plan Year 6. This Plan built upon the foundation established in Plan 1, confronted a dwindling supply of “low hanging fruit,” and addressed new laws (*e.g.*, Energy Independence and Security Act of 2007 (“EISA”)) that impacted critical energy efficiency measures (*e.g.*, compact fluorescent lamps (“CFLs”)). While the Commission has not reached a final determination regarding the amount of energy savings achieved for the now-completed Plan Years 4 and 5, ComEd’s own calculations of the estimated savings achieved for those years indicate that ComEd achieved the statutory goals for both PY4 and PY5 and is on track to achieve the modified kWh savings goal for PY6.

Plan 3 builds on ComEd’s energy efficiency efforts reflected in Plans 1 and 2, while also addressing new challenges and incorporating recent legislative and regulatory changes. The spending screen will be flat during each year of Plan 3, essentially unchanged from PY4. Accordingly, and consistent with Plan 2 and the statutory framework, ComEd is again proposing modified energy savings goals. Indeed, the challenges are even more severe for Plan 3, with continued increases in energy savings goals while funding remains flat at the Plan Year 5 level. Specifically, the statutory goal continues to increase in PY7 to 1.8% and in PY8 and PY9 to 2.0% while the budget remains frozen at an amount that was only adequate in PY4. As a result, the statutory goals for any of the three Plan years are not achievable under the current spending screens. In such cases, the statute provides that the measures must be reduced in order to stay within the spending screens: “the amount of energy efficiency and demand-response measures implemented for any single year shall be reduced by an amount necessary to limit the estimated average net increase due to the cost of these measures included in the amounts paid by eligible retail customers in connection with electric service to no more than the greater of 2.015% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007 or the incremental amount paid for

these measures in 2011.” 220 ILCS 5/8-103(d)(5). When compliance with Section 8-103(d) requires such a reduction in measures, Section 8-103(i) permits the “efficiency standard specified in subsection (b) [to be] modified.” 220 ILCS 5/8-103(i).

The General Assembly has also enacted new and amendatory provisions that impact energy efficiency offerings in Illinois since the Commission’s approval of Plan 2. Notably, electric utilities may now demonstrate compliance with a Plan’s energy savings goals at the end of the three-year Plan period, which eliminates the need for annual goal compliance proceedings under the prior version of Section 8-103. Also significant is the 2011 Energy Infrastructure Modernization Act’s addition of Section 16-111.5B of the Act, which establishes a separate energy efficiency procurement event as part of the electric utilities’ larger annual energy procurement proceedings that are coordinated by the Illinois Power Agency (“IPA”). This legislation requires ComEd to separately identify programs and measures that achieve all cost-effective energy efficiency that is practicable for the residential and small business customer classes, and, if approved by the Commission, to ultimately implement the proposed programs and measures. While independent of Plan 3 and the requirements of Section 8-103 of the Act, Section 16-111.5B has required us to rethink our portfolio construction because our overall energy efficiency portfolio must now address two separate sections of the PUA. Consistent with the statutory framework reflected in Sections 8-103 and 16-111.5B of the Act, ComEd addresses the requirements of these statutes through separate filings. Although this Plan 3 addresses only Section 8-103 of the PUA, ComEd is also including the analysis required by new Section 8-103A, which must accompany the Plan 3 filing.³

Key Features of Plan 3

ComEd has taken the mandate of Section 8-103 seriously, and worked diligently to put together a Plan that contains an energy efficiency portfolio that is designed to achieve the proposed energy savings goals within the spending screens set forth in the Act. The corresponding implementation/management and EM&V plans also meet the requirements of Section 8-103. Accordingly, the Commission should approve all elements of ComEd’s Plan 3, which include, but are not limited to, the following features:

- Modified energy savings goals for each of the three individual Plan years – PY7, PY8, and PY9, beginning on June 1, 2014, June 1, 2015, and June 1, 2016, respectively, which ComEd proposes be fixed for the entire three-year Plan period (*i.e.* the goals will not be recalculated or revised during such period).

³ References to ComEd’s filings under Section 8-103 will be referred to herein as “Plan,” “Plans” or “portfolio.” Where it is necessary to discuss program aspects as they relate to Section 16-111.5B, we will refer to those elements as “IPA” or “IPA programs” in this document.

- Spending screens for PY7, PY8, and PY9, which ComEd proposes be fixed for the entire three-year Plan period (*i.e.*, the screens will not be recalculated or revised during such period).
- Allocation of energy efficiency measures to be implemented by ComEd and DCEO, including allocations of the annual budget and annual energy savings goal.
- Proposed programs and program elements designed to achieve the proposed energy savings goals.
- Revised, triennial evaluation schedule consistent with the General Assembly's amendments to Section 8-103 of the Act, and which necessarily permits unlimited "banking" of energy savings within the three-year Plan period.
- Continuation of proposals and features previously approved by the Commission:
 - Maintenance of current demand response program; demand response goals would be met through the residential energy efficiency programs.⁴
 - Proposed net-to-gross ratio framework and overall EM&V process.⁵
 - Continued flexibility to modify program design and budgets and to add or discontinue programs.⁶
 - The ability to seek recovery of prudently and reasonably incurred costs that incidentally exceed the spending screen in a given Plan year.⁷
 - Calculation of the TRC test at the portfolio level.⁸

⁴ See, e.g., *Commonwealth Edison Co.*, ICC Docket No. 10-0570, Final Order (December 21, 2010) ("*Plan 2 Order*") at 23, 35-36.

⁵ See, e.g., *Id.* 18-20, 47, 49, 60, 73.

⁶ See, e.g., *Commonwealth Edison Co.*, ICC Docket No. 07-0540, Final Order (February 6, 2008) ("*Plan 1 Order*") at 35; *Plan 2 Order* at 37.

⁷ See, e.g., *Plan 1 Order* at 41; *Plan 2 Order* at 40.

⁸ *Plan 1 Order* at 28; *Plan 2 Order* at 42.

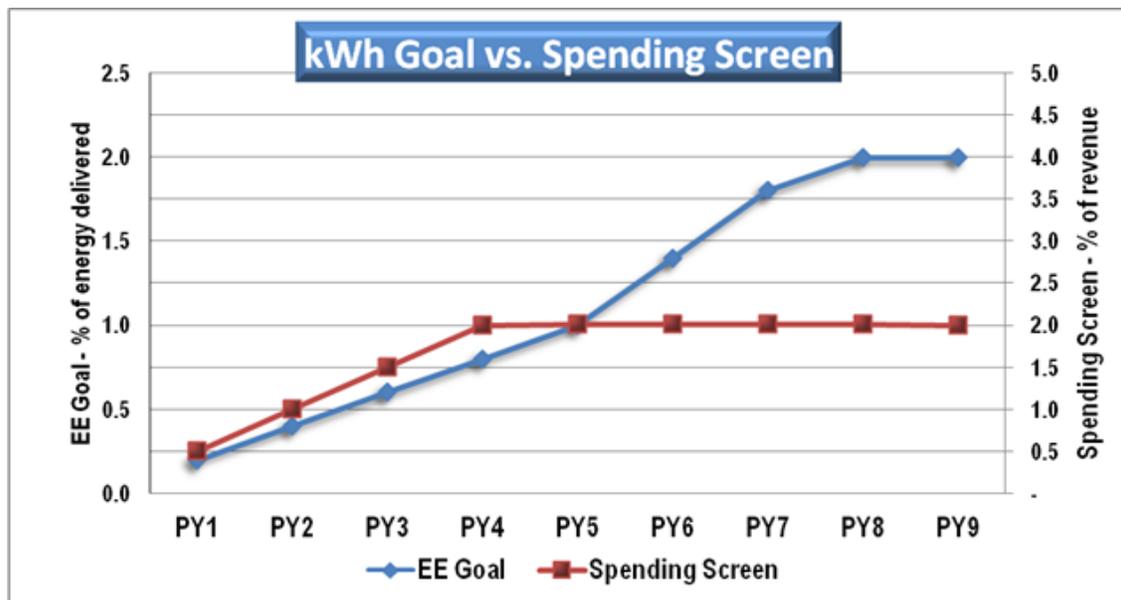
3. Plan Overview

Plan 3 is designed to address and balance the multiple requirements of Section 8-103 of the PUA, which include the following:

- Achieve an optimal amount of energy savings while not exceeding the statutory spending screens.
- Present proposals to address new building and appliance standards.
- Coordinate with DCEO to provide energy efficiency services to low-income households.
- Demonstrate that ComEd’s portfolio of programs and measures is cost-effective.
- Present a diverse portfolio that provides opportunities for customers of all rate classes to participate.
- Allocate no more than 3% of the budget for emerging technologies.
- Allocate up to 3% of the budget for independent program evaluation activities.

As the table below illustrates, beginning in PY5 the statutory framework created an incongruity between the increasing annual energy savings goals and flat spending screens (or budgets). This issue becomes even more pronounced in Plan 3 as the statutory goals continue to increase in both PY7 and PY8 while the spending screen essentially stays at the PY4 level.

Figure 1. Goal versus Spending Screen



Our analysis of the costs to acquire energy efficiency savings demonstrates that we will be unable to meet the statutory saving targets within the statutory spending screen. For this Plan, ComEd modeled each of its program elements to determine a reasonably achievable level of MWh savings for each program. Additionally, we balanced the program mix such that the entire cost of the portfolio was within the spending screen. DCEO undertook a similar process for their portion of the portfolio. The summation of all of ComEd’s and DCEO’s program savings projections led to the following proposed goals for Plan 3.

Table 1. 3 Year Goals / Spending Screen

	<i>Yr. commencing June 1</i>	PY7 2014	PY8 2015	PY9 2016	Total
Statutory MWh Goal	Energy Efficiency	1,605,000	1,803,000	1,811,000	5,219,000
Proposed MWh Goal	Energy Efficiency	745,654	640,793	624,383	2,010,830
Statutory (and proposed) MW Goal	Demand Response	2.8	2.7	2.6	8.1
Spending Screen Projection	\$Million	\$157.0	\$158.7	\$159.4	\$ 475.1

The statute also directs that ComEd and DCEO each implement a portion of the “energy efficiency measures” in ComEd’s Plan 3. Per the statute, ComEd is to implement 75% of the measures and DCEO is to implement the other 25% of the measures. During the development of Plan 1, ComEd and DCEO agreed that the “measures allocation” would be based on the spending screen such that ComEd retains 75% of the spending screen funds and the other 25% of the spending screen funds are allocated to DCEO. This same approach was proposed, and approved, for ComEd’s Plan 2.⁹

The statute also requires that at least 10% of the portfolio’s energy efficiency measures be procured from units of local government, municipal corporations, school districts and community college districts (together called “public sector”). DCEO is required to coordinate this effort with the public sector.

Finally, the statute directs ComEd to coordinate with DCEO in the implementation of programs targeted at households at or below 80% of area median income (“*Low Income Programs*”). These programs are sized at a level proportionate to the share of total annual utility revenues from households at or below 150% of the poverty level. As in Plans 1 and 2, ComEd and DCEO have agreed that DCEO will continue to administer the Low Income Programs.

⁹ *Plan 2 Order* at 40.

The following table shows the proposed allocation of funding and MWh savings between ComEd and DCEO, for programs directed at the public and low-income sectors.

Table 2. MWh & Budget Allocations

	PY7				PY8				PY9			
	MWh Savings	%	Cost (\$M)	%	MWh Savings	%	Cost (\$M)	%	MWh Savings	%	Cost (\$M)	%
Modified MWh Goal / Spending Screen	745,654		\$157.0		640,793		\$158.7		624,383		\$159.4	
Portfolio Plan Projections	745,654		\$157.0		640,793		\$158.7		624,383		\$159.4	
ComEd Share	648,029	87	\$117.8	75	541,983	85	\$119.0	75	517,369	83	\$119.6	75
DCEO Share	97,625	13	\$39.2	25	98,810	15	\$39.7	25	107,014	17	\$39.8	25
Municipal / School Share	85,221	11	\$20.8	13	86,452	13	\$21.0	13	94,646	15	\$21.1	13
Low Income Share	6,497	1	\$9.4	6	6,450	1	\$9.5	6	6,450	1	\$9.6	6

The Illinois Statewide Technical Reference Manual (“TRM”)

The ICC’s Final Order approving Plan 2, issued December 21, 2010, directed the Illinois utilities to work with the Stakeholder Advisory Group (“SAG”) to develop a statewide Technical Reference Manual (“TRM”), which would, among other things, establish measure-level energy savings values that could be use for planning and evaluation purposes.¹⁰ The same mandate was issued to Ameren, Nicor and the Integrys utilities in their respective Plan Orders. ComEd actively engaged the other utilities and participating SAG members in August 2011, to draft a scope of work and request for proposal (“RFP”) for development and administration of the initial TRM. After an extensive RFP review and interview process, all parties agreed to select Vermont Energy Investment Corporation (“VEIC”) to develop the first TRM, with oversight of the process being conducted by a Technical Advisory Committee (“TAC”), which is part of the SAG. The energy efficiency measure data was largely completed by May 2012 for use in PY5 tracking and reporting systems. The final TRM was completed in August 2012 and submitted to the ICC for approval in September 2012. The ICC approved this version on January 9, 2013 in Docket No. 12-0528.¹¹

¹⁰ See *Plan 2 Order* at 59-60.

¹¹ See *Commonwealth Edison Co.*, ICC Docket No. 12-0528, Final Order (January 9, 2013). Thereafter, the parties also filed TRM policies to address how the TRM would be implemented and applied, and the Commission approved these policies in Docket No. 13-0077. An order on rehearing was issued on October 2, 2013.

The Commission-approved TRM contains comprehensive measure data, including annual hours of use, baseline and efficient wattages, load factors, and other relevant values that have been extensively researched and determined to be the best available values. The TRM development and review process also identifies any gaps in data that should be considered by program evaluators or through other research and data collection activities. The TRM is subject to updating on an annual basis, and is an important new resource for energy efficiency in Illinois. Indeed, it served as the primary source of measure data for program design and cost-effectiveness analysis in Plan 3. Appendix C contains the TRM.

ComEd's Energy Efficiency Portfolio Framework

Plan 3 represents our long-term commitment to enhance value for our customers through implementation of a robust, innovative and flexible portfolio of demand-side solutions. Plan 3 builds upon our existing, successful portfolio of demand-side solutions, while expanding the portfolio's reach to address the continually changing regulatory and market environments. Plan 3 also reflects an increasingly collaborative process that engages stakeholders and other parties, addresses all customer markets, and embraces innovation.

Legislative Developments

A number of legislative initiatives have been enacted since Plan 2 was filed, and these initiatives impact our approach to portfolio planning, design and execution.

Public Act 98-0090

Public Act 98-0090 ("PA 98-0090") changed the definition of "Energy Efficiency" to also include "measures that reduce the total Btus of electricity and natural gas needed to meet the end use or uses." 20 ILCS 3855/1-10. This change in definition will enable certain technologies, such as ground source heat pumps that replace gas furnaces, as well as combined heat and power projects, to be included in an energy efficiency portfolio.

PA 98-0090 also modified the framework by which electric utilities demonstrate compliance with the annual energy goals. Section 8-103(b) now permits utilities to show at the end of the three-year Plan period that the cumulative energy savings achieved during that period equal the sum of the annual goals. This change effectively removes the need to achieve each year's energy savings goal independently, and it also permits unlimited banking of energy savings within a 3-year plan cycle (*i.e.*, all energy savings achieved in a given Plan year that are in excess of the Plan year's energy savings goal can be carried forward up through and including the third Plan year).

Public Act 98-0586

As this Plan was being prepared for filing, Public Act 98-0586 ("PA 98-0586") became law, which expands the eligibility requirements for the On-Bill Financing ("OBF") Program to include small businesses up to 100 kW. It also contains provisions relating to multi-family residential campuses with up to 50 units, and modifies the qualifying criteria for measures. PA 98-0586 also includes parallel provisions for natural gas utilities. The enactment of this legislation may result in future modifications of certain programs targeted at residential and small business customers; however, given the timing of this legislation with respect to our Plan development, these effects have not been fully evaluated.

Public Acts 97-0616 and 97-0824

Public Acts 97-0616 ("PA 97-0616") and 97-0824 ("PA 97-0824") created a new, incremental energy efficiency procurement requirement for customer classes that are eligible for energy supply via the Illinois Power Agency ("IPA") procurement process. For ComEd, these include all residential customers as well as small business customers with annual peak demand not exceeding 100 kW. This statute requires that ComEd identify cost-effective energy efficiency that can be acquired for these customer classes, and directs the IPA to include proposed programs in its annual procurement plan. The Commission then

determines whether to approve the incremental proposed energy efficiency. Based on the first procurement proceeding implementing these new provisions, the Commission approved proposals that acquire some of ComEd's residential and small business energy efficiency through a separate process, which means that certain programs have been transferred from the portfolio to the IPA programs and are not included in Plan 3.

PA 97-0616 also created a new Section 8-103A of the Act, which requires ComEd to provide "an analysis of additional cost-effective energy efficiency measures that could be implemented, by customer class, absent the limitations set forth in subsection (d) of Section 8-103." ComEd is addressing this requirement by including an updated Energy Efficiency Potential Study as Appendix D to this Plan 3.

Challenges / Opportunities

Several critical planning and implementation challenges extend over the planning horizon. How these challenges are addressed will greatly affect the shape of the portfolio and our ability to execute against our Plan. ComEd believes that clear

IPA PROGRAMS

ComEd submitted two of its previous portfolio programs into the IPA process for the Plan 3 cycle:

- *Home Energy Reports*
- *Small Business Efficiency Services*

These programs were also significantly increased from their prior participation levels under the portfolio. Together, these two programs are projected to provide between 412 and 575 GWh/yr. of energy savings that are incremental to the portfolio goal each of the next three years.

Commission policy is necessary to resolve some of these issues. Each issue and our proposed approach are described below.

Statutory kWh Target vs. Spending Screen

Section 8-103 of the PUA requires electric utilities to achieve an annual kWh savings target that increases each year through 2015, when it levels off at 2.0% of energy delivered. However, the amount of money that utilities are allowed to spend to achieve these targets is subject to a statutorily set budget, or “spending screen.” The spending screen leveled off by the fifth Plan year at 2.015% of the amount paid by retail customers, while the savings goal has continued to increase in each Plan year. In the docket to approve Plan 2, the Commission-approved stipulation entered into by all parties recognized that the increasing statutory goals could no longer be achieved under the frozen spending screens. Although the Commission filed a report with the General Assembly that addressed these very constraints, the General Assembly has not modified the budgets and therefore left it to the utilities to file modified goals as permitted by Section 8-103(d) so as not to exceed the spending screens.¹²

Consistent with this understanding and the statutory framework, we have proposed a robust, cost-effective portfolio that achieves significant kWh savings and represents a diverse cross-section of opportunities for customers of all rate classes to participate in the program. We are proposing goals that are consistent with the projected savings of the individual program elements analyzed by both ComEd and DCEO. While the portfolio could be rebalanced in such a way that some additional kWh savings could be realized by heavy reliance on a small set of programs, ComEd would be sacrificing a diverse portfolio to do so. This approach is not only short-sighted, but its over-reliance on a few programs would create unacceptable performance, market, and evaluation risk. In addition, we do not believe that under any circumstance we could meet the statutory savings targets for PY7-PY9. We have set savings targets for the largest and least expensive elements of the portfolio at levels that we believe stretch our ability to scale those programs. Achieving greater scale would, we believe, require a significant increase in program delivery infrastructure, incentives and marketing costs.

Implementing the Triennial Evaluation Process – Fixed Values / Banking

As explained above, PA 98-0090 revised Section 8-103 to now provide that “[e]lectric utilities may comply with [the annual energy savings requirements] by meeting the annual incremental savings goal in the applicable year or by showing that the total cumulative annual savings within a 3-year planning period associated with measures implemented after May 31, 2014 was equal to the sum of each annual incremental

¹² The ICC published this report in compliance with 220 ILCS 5/8-103(d). See Illinois Commerce Commission, [Report to the General Assembly Concerning Spending Limits on Energy Efficiency and Demand-Response Measures](http://www.icc.illinois.gov/reports/report.aspx?rt=32) (June 30, 2011), <http://www.icc.illinois.gov/reports/report.aspx?rt=32>.

savings requirement from May 31, 2014 through the end of the applicable year.” 220 ILCS 5/8-103(b). Consistent with this new framework, ComEd proposes that the goal compliance schedule for Plan 3 be revised to set a single evaluation docket to commence subsequent to the close of PY9.

Because Section 8-103 permits compliance to be demonstrated at the end of the three-year Plan period, ComEd further proposes that its annual energy savings goals and spending screens be fixed at the values set forth in this Plan 3 and not be subject to revision or recalculation in future years of this Plan. Establishing fixed values will provide ComEd with the certainty it needs to manage a portfolio whose ultimate energy savings goal is the cumulative amount of the three annual energy savings goals.

Given the new three-year compliance period, ComEd further observes that the statute necessarily permits ComEd to measure the total amount of energy savings cumulatively achieved over the three-year Plan period. In other words, during each three-year period, the General Assembly has approved unlimited “banking” of energy savings to be applied through and including the third Plan year (*i.e.*, PY9).

Role of CFLs in the Portfolio / Impact of Federal Lighting Standards

The Energy Independence and Security Act of 2007 (“EISA”) established, among other things, a minimum efficacy requirement for commonly used light bulbs. While provisions of this law have been phased in starting in January 2012, to date there has been little to no change in the market in ComEd’s service territory. As of the filing date of Plan 3, the 100-watt incandescent lamp that was projected to be “phased out” over 18 months ago is still available through most retailers. Similar patterns have emerged for the 75-watt incandescent lamp that was expected to be phased out in January 2013.

Notwithstanding this lack of market evolution, we expect that the days of the incandescent light bulb are numbered, particularly as Light Emitting Diode (“LED”) technologies become more cost-competitive. Also, as more sockets are populated with either LED or CFL technologies (both of which far outlast any incandescent or halogen filament-based lamp), the number of bulbs that we expect to be able to incent will decrease. The PY7 Residential Lighting program reflects this general reduction in residential lighting opportunities as a result of these expected changes.

Program Coordination and Natural Gas Portfolio Budgets

Beginning in Plan 2, ComEd relied on our collaboration with the local gas utilities to offer certain energy efficiency measures that could not be offered cost-effectively in an all-electric energy efficiency portfolio. For example, we were able to offer our residential customers incentives for high efficiency central air-conditioners in concert with the gas utilities, as they provided incentives for high efficiency central furnaces. We engaged our residential customers in programs that provided whole-home assessments and home retrofit incentives that improved their home’s energy performance and generated both gas and electric savings. Clearly, those types of programs would not have been cost effective if delivered for electric savings only.

We also leveraged each other's delivery mechanisms to achieve implementation cost savings. The Multi-Family program prospered in Plan 2 because it combined the utilities' offerings.

However, ComEd understands that current gas utility plans will require a significant shift in strategy because our partner gas utilities must reduce their offerings as a result of their shrinking budgets. With that in mind, our ability to offer large-scale joint programs with the gas utilities will likely diminish. Moreover, the removal of the Residential Lighting program during Plan Years 8 and 9 requires expanded investment in new and existing residential programs, which could further limit, if not eliminate, gas utilities' participation if their budgets are constrained.

Demand Response

The statute defines demand response as “measures that decrease peak demand or shift demand from peak to off-peak periods.” In Plan 1, we expanded the implementation of our Air Conditioner (“A/C”) Cycling program to achieve the statutory goal for demand response through a stand-alone demand response program. For Plan 2, we satisfied the requirements of the demand response goal through the implementation of energy efficiency measures that also reduced peak demand while also maintaining the existing A/C Cycling program.¹³ This allowed us to maximize the amount of energy efficiency funding for energy efficiency measures by reducing investment in expensive load-control hardware from the portfolio budget. We propose to take the same approach for Plan 3.

Building a Technology Pipeline

For utilities, the energy efficiency landscape has changed dramatically over the last decade as many of the traditional demand-side management (“DSM”) or energy efficiency programs no longer pass the required cost-effectiveness tests. For example, as refrigerators on the market have become substantially more efficient over time, the difference in energy usage between a standard refrigerator and a high efficiency refrigerator has diminished. The additional cost of the latter appliance tends to exceed the incremental energy savings that it achieves, thus reducing the measure's cost-effectiveness. This has occurred in many products as the increase in minimum federal energy efficiency standards has eliminated many technologies, such as high efficiency refrigerators, from utility energy efficiency portfolios. Consumer electronic devices are also showing such improvement in their energy usage, so that they also do not pass cost-effectiveness tests. The EISA lighting standards¹⁴ will dramatically alter the role of

¹³ See, e.g., *Plan 2 Order* at 23, 35-36.

¹⁴ EISA is a federal law (Public Law 110-140, approved on December 19, 2007) that has broad-reaching implications aimed at reducing energy consumption. One significant part of EISA establishes minimum efficacy standards for screw-in light bulbs that effectively eliminate the manufacturing or importing of standard incandescent bulbs.

lighting in energy efficiency programs for both residential and business markets. Similar challenges exist due to more aggressive building efficiency codes, such as the recently adopted 2012 Illinois Energy Conservation Code (“2012 IECC Code”). The result is that utilities will need to find new, potentially more expensive opportunities to meet the energy efficiency savings goals that have been put in place.

4. Portfolio Goals

As reflected in Table 3 below, the constraints imposed by the spending screens plainly limit the amount of energy efficiency that can be achieved to less than the statutory goal. Specifically, ComEd is proposing modified goals of 745,654 MWh, 640,793 MWh and 624,383 MWh for PY7, PY8 and PY9, respectively. These goals are short of the statutory goals, but we believe that they are in line with what ComEd and DCEO can attain based on the program mix in Plan 3. As the table below shows, the “Projected MWh Attained Each Year” section shows the annual projected savings when ComEd and DCEO total their individual program elements. The total annual savings is well short of the statutory goal each year, but this is due to the lack of funding to achieve the unachievable statutory goals. We believe the proposed modified goals are in line with what can reasonably be achieved over the life of Plan 3 given the severely constrained budget. Because ComEd and DCEO are each responsible for their respective individual goals, the goal breakdown between the two entities is as follows:

ComEd proposes the following MWh targets for Plan 3 –

Table 3. Goals / Spending Screen Calculation

Goals / Spending Screen Summary				
	PY7	PY8	PY9	Total
Spending Screen Summary				
ComEd	\$ 117,750,000	\$ 119,025,004	\$ 119,549,999	\$ 356,325,003
DCEO	\$ 39,250,000	\$ 39,675,000	\$ 39,850,000	\$ 118,775,000
Total	\$ 157,000,000	\$ 158,700,004	\$ 159,399,999	\$ 475,100,003
Statutory Goals				
MWh target	1,605,201	1,803,142	1,811,811	5,220,154
MW target	2.8	2.7	2.6	8.1
Projected MWh Attained each Year				
ComEd	648,029	541,983	517,369	1,707,380
DCEO	97,625	98,810	107,014	303,449
Total	745,654	640,793	624,383	2,010,829
Comparison to Statutory Goal				
% of Goal	46%	36%	34%	39%
kWh Difference	(859,547)	(1,162,349)	(1,187,428)	(3,209,325)
	PY7	PY8	PY9	
MODIFIED MWH GOAL	745,654	640,793	624,383	2,010,829

Table 4. Allocation of Modified Savings Goals Between ComEd and DCEO

Modified MWh Savings Goals				
	PY7	PY8	PY9	Total
ComEd	648,029	541,983	517,369	1,707,380
DCEO	97,625	98,810	107,014	303,449
Total	745,654	640,793	624,383	2,010,829

5. ComEd's Planning Process

The portfolio we propose is the product of a multi-stage analysis intended to gather and process the information required to determine program and portfolio cost-effectiveness as defined by Illinois statute. At a high level, the analysis can be broken down into three stages.

The first stage is the measures analysis, where the cost-effectiveness of the individual energy efficiency measures is determined using the Total Resource Cost ("TRC") test. At the measure stage, the TRC test is only analyzing the cost of each measure, which means that program administration costs are not included because they are not yet relevant. Only the benefits associated with the measure are compared to the measure's costs. The second stage is the bundling of cost-effective energy efficiency measures into programs, and performing the cost-effectiveness analysis at the program level. The program administration costs are included in this TRC analysis. Lastly, the programs are bundled into the overall portfolio, which is also analyzed for cost-effectiveness. This step also includes the non-program specific, portfolio level costs in the cost-effectiveness test. It is also at this stage that the portfolio is balanced, with program participation levels being scaled up or down in an effort to satisfy multiple objectives, including, for example, cost-effectiveness, portfolio reach, the budget constraint, and ensuring some funding for emerging technologies and education and outreach. Consistent with the Commission orders approving Plans 1 and 2, ComEd again proposes that, for purposes of determining whether the Plan 3 portfolio is cost effective, the TRC test be calculated at the portfolio level only.¹⁵

Appendix A contains a further discussion of the planning process.

The following sections discuss changes in the process since Plan 2, DCEO's on-going role, and an overview of key aspects of ComEd's planning process.

Key Planning Enhancements

ComEd-Specific Data

ComEd commissioned an extensive End-Use Baseline and Energy Waste Study and Market Potential Study in 2012. The End-Use Baseline Study built upon the prior baseline study, while obtaining significantly more primary data. This study also included a first-of-its-kind energy waste analysis, the results of which can be used to inform behavioral program design, as well as educational and informational campaign development.

¹⁵ *Plan 1 Order at 28; Plan 2 Order at 42.*

End-Use Baseline Study

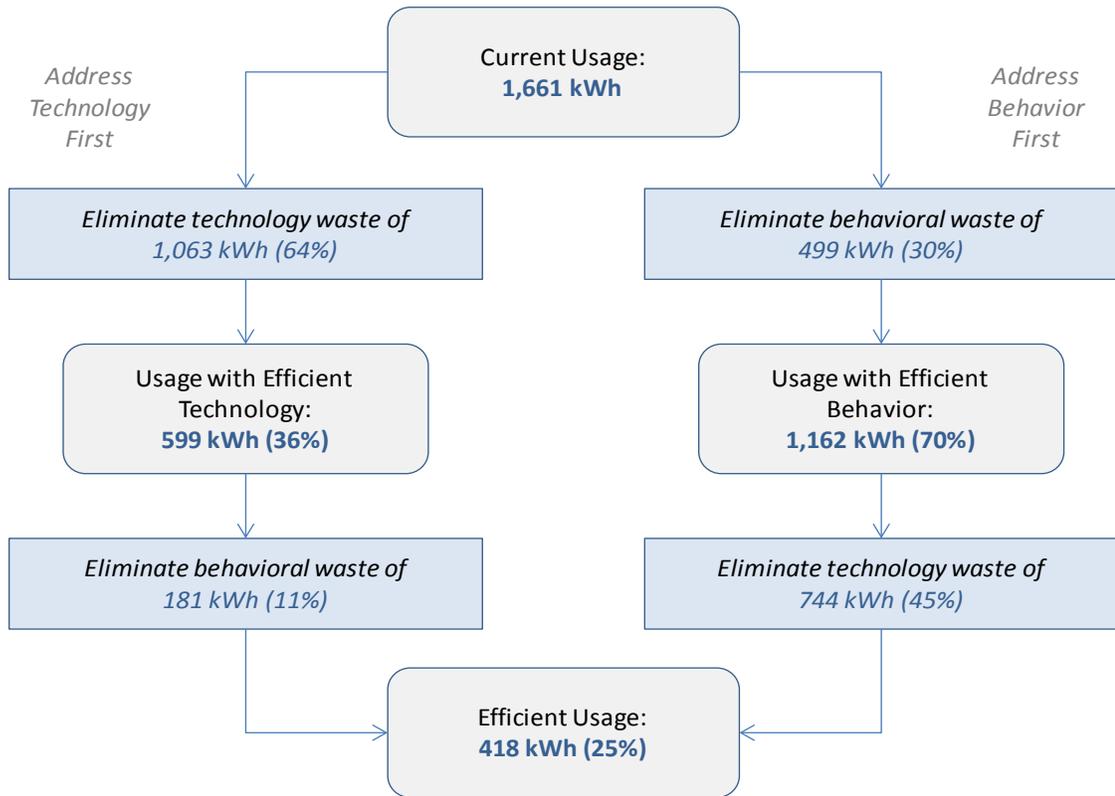
The End-Use Baseline Study (Appendices E and F) collected and analyzed ComEd-specific data for a variety of residential, commercial and industrial customer classes. The following data was obtained:

- ***Equipment saturation*** - the percentage of customers who own specific equipment.
- ***Efficiency penetration*** - the percentage of the installed equipment stock considered efficient.
- ***Market share*** - current sales percentages for efficient equipment.
- ***Energy consumption by end use*** - a number of residential and commercial end-uses were analyzed to obtain primary energy consumption data. This was done using a combination of data logging and engineering analyses.

Energy Waste Analysis

The Energy Waste Analysis (Appendices E and F) is a first-of-its-kind analysis of energy waste in homes and businesses. This analysis used a combination of data logging and engineering analyses to assess the behavioral and technological waste components by end use. The chart below illustrates how, for a specific end use, the energy waste is calculated into two components – technology waste and behavioral waste. Each type of waste leads to energy efficiency savings when the waste is eliminated, but the impacts of each type of waste differ as to whether the technology or behavioral waste is addressed first.

Figure 2. Typical Wasted Energy Analysis



Market Potential Study

The Market Potential Study was designed to estimate the potential for cost-effective energy efficiency in the ComEd market, and also satisfies the requirements of Section 8-103A of the Act. It is attached to Plan 3 as Appendix D. While subjective in nature, it provides directional information on key customer classes, customer segments or end-uses (energy efficiency opportunities). Figure 3 shows the distribution of total economic potential by customer type. As this figure shows, over half of the economic potential exists within the commercial business sector. Figure 4 takes a deeper dive into the commercial sector to disaggregate this potential by end-use. Commercial lighting is still the primary contributor to cost-effective energy savings potential. This data was important when sizing our business portfolio; for example, we sized the Midstream Incentives program in an effort to maximize our ability to capture lighting energy efficiency savings from the commercial market.

Figure 3. EE Potential by Customer Type

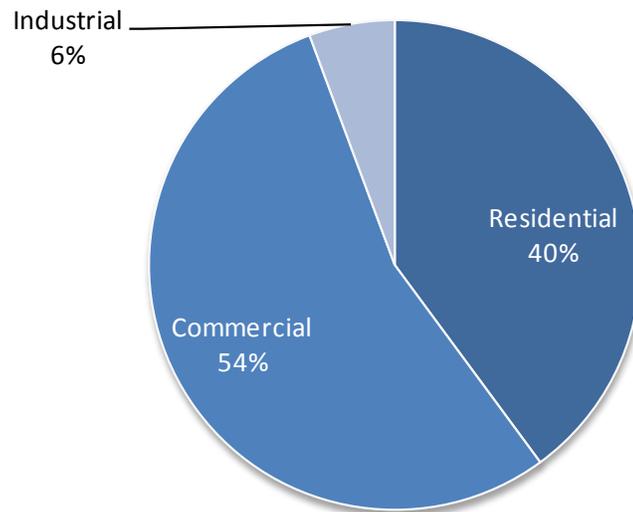
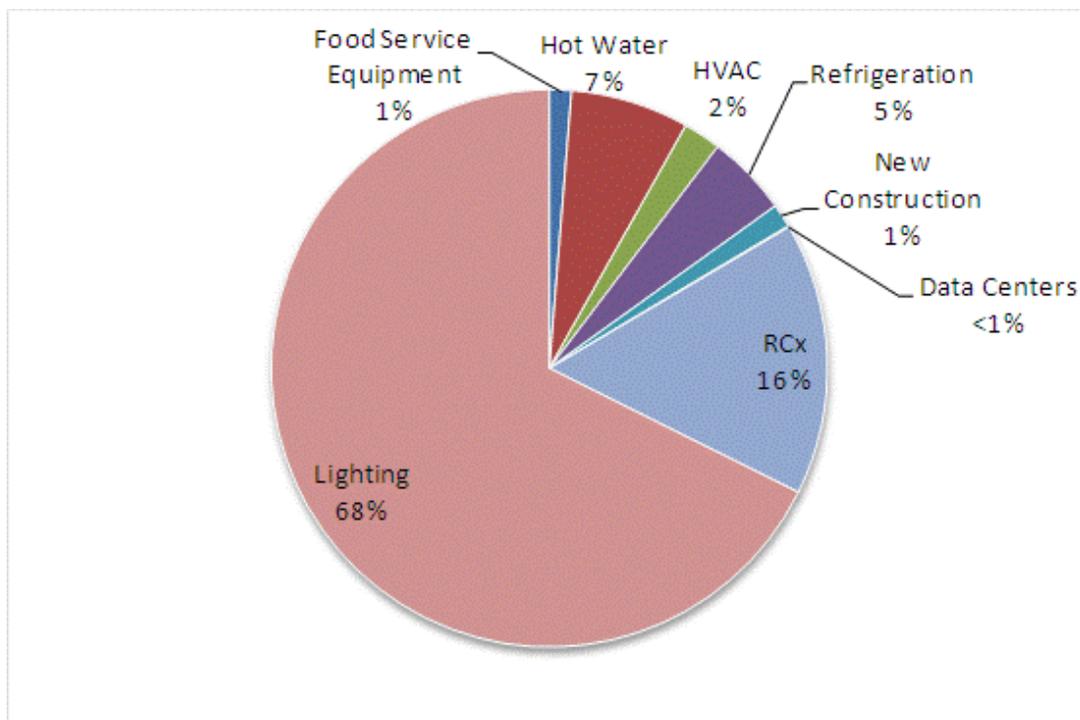


Figure 4. Commercial Economic Potential by End-Use



DSMore Model

ComEd licensed DSMore, an industry-standard demand-side management planning model, and has used the model to conduct the primary analysis for Plan 3, consistent with Plan 2. DSMore is a multi-scenario cost-effectiveness calculator that evaluates measure and program cost-effectiveness against 693 different price/weather scenarios. DSMore's cost-effectiveness tests are based on the methods prescribed by the California Standard Practice Manual and the National Action Plan for Energy Efficiency ("NAPEE") and are consistent with the Illinois version of the TRC test. DSMore's key feature (and what sets it apart from competing software) is its ability to correlate historic price and weather data to develop forward-looking avoided costs. In addition to a "best case" determination of energy savings and avoided costs, DSMore also provides outputs for nine different weather/price combinations, which allows us to consider the impact of price shift and weather extremes within the measure selection and program design process.

Appendix B contains the list of measures by program.

Stakeholder Input

In its order approving Plan 1, the ICC directed ComEd, along with DCEO and Ameren, to establish a Stakeholder Advisory Group (“SAG”). An independent facilitator was retained to manage the SAG Meetings for the utilities and DCEO. This group, consisting primarily of environmental and consumer groups, has been an additional information resource to us throughout the implementation of Plans 1 and 2 and the development of Plan 3. After the approval of Plan 2, the SAG was expanded to include natural gas utilities and programs. The SAG has been meeting for over five years, typically on a monthly basis.

This effort has been a success, with all parties having built a shared understanding of the process of program planning, implementation and evaluation. We intend to continue to use the SAG as a forum for review and discussion.

For Plan 3, SAG’s role has been critical.

SAG played a major role in the development of Illinois’ first TRM, which is the basis for energy efficiency measure data for Plan 3. SAG members offered new program ideas, worked on the continued refinement of the Net-to-Gross (“NTG”) framework and gave us the opportunity to preview our Plan 3 and solicit their feedback. Overall, we believe the SAG has been a tremendous resource for our energy efficiency portfolio and we thank its members for their continued input and support.

- Stakeholder Advisory Group Members*
- Ameren Illinois
 - Center for Neighborhood Technology (CNT)
 - Citizens Utility Board (CUB)
 - City of Chicago
 - ComEd
 - Department of Commerce & Economic Opportunity (DCEO)
 - Environmental Law and Policy Center (ELPC)
 - Future Energy Enterprise
 - ICC Staff
 - Illinois Attorney General’s Office
 - Midwest Energy Efficiency Alliance (MEEA)
 - Natural Resources Defense Council (NRDC)
 - Nicor
 - Peoples Gas / North Shore Gas

Electric / Gas Integration

The three northern Illinois utilities – ComEd, Integrys (Peoples Gas and North Shore Gas) and Nicor – have developed and implemented a variety of jointly delivered energy efficiency programs over ComEd’s Plan 2 cycle. We have held regular meetings over the past three years in support of this coordinated effort. The following programs are proposed to be co-delivered or coordinated by ComEd and the gas utilities as part of Plan 3. In addition, the utilities will coordinate efforts to enhance customer experience in several programs and outreach activities. Unless otherwise stated, the programs will be offered with both gas companies.

- **Smart Ideas for Your Home – Joint Program Elements**
 - Single-Family Home Performance
 - Multi-Family Home Performance
 - Complete System Replacement

- Energy Education Kits
- New Construction (*Nicor Gas only*)

- **Smart Ideas for Your Business - Joint Program Elements**
 - C&I Incentives
 - C&I New Construction (*Nicor Gas only*)
 - Retro-commissioning (*Nicor Gas only*)

ComEd believes this effort has been very successful and has added value to the portfolio from both the utilities' and customers' perspectives.

DCEO's Role

Section 8-103 of the PUA requires that the implementation of energy efficiency measures be split between ComEd and DCEO, with DCEO responsible for implementing 25% of the measures. As in Plans 1 and 2, ComEd and DCEO have agreed that 25% of the measures would translate into 25% of the spending screen.

DCEO's efforts will continue in three primary areas: Low Income Programs, Public Sector Programs and Market Transformation Programs. The DCEO programs are designed to meet specific portfolio requirements –

- The Public Sector Programs are designed such that 10% of the overall portfolio (or a minimum of 40% of DCEO's spending) is targeted at local governments, municipal corporations, school districts and community colleges.
- The Low Income Programs are designed such that their size is in proportion to low-income households' share of utility revenue.
- The Market Transformation Programs are designed to present specific proposals to implement new building and appliance standards that have been placed into effect.

6. The ComEd Portfolio

Portfolio Design

Like Plans 1 and 2, this portfolio will continue to offer two “umbrella” programs with a variety of program elements under each umbrella. We will continue to use the banner of *Smart Ideas* – the residential sector program elements will be marketed under the *Smart Ideas for Your Home* program, and the commercial & industrial (“C&I”) program elements will be marketed under the *Smart Ideas for Your Business* program.



As required, the portfolio as a whole is cost-effective with a Total Resource Cost (“TRC”) test benefit-cost ratio of 1.48. The portfolio is designed to achieve the kWh goals discussed above, while not exceeding the spending screens. The portfolio is also designed to meet the statutory demand response goals within the spending screens using the kW savings associated with the residential energy efficiency program elements.

The following tables (Tables 5, 6 & 7) present ComEd’s proposed portfolio. Table 5 summarizes each program element’s projected kWh savings and cost by year. The *Smart Ideas* programs will consist of 12 program elements. The program elements are designed to reach customers and incent energy efficiency improvements using a variety of technologies delivered through various channels. The delivery channel is chosen to maximize the program’s productivity (*i.e.*, minimize cost per kWh).

**TRC Results -
At the Portfolio level,
the TRC test produces a
1.48 benefit / cost ratio
for ComEd’s portion of
the portfolio.**

Table 6 presents the key cost-effectiveness data for each of the program elements. Finally, Table 7 provides a breakdown of the portfolio level costs.

Table 5. Portfolio Overview - Energy Impacts & Costs

Programs	PY7		PY8		PY9		3 Yr Plan Total	
	Cost	Net MWHs						
C&I - EE Programs								
Incentives Program	\$ 36,421,141	215,277	\$ 34,414,531	196,742	\$ 35,953,141	195,831	\$ 106,788,813	607,850
Large C/I Pilot	\$ 5,150,000	-	\$ 5,150,000	-	\$ 5,150,000	-	\$ 15,450,000	-
Optimization	\$ 11,746,965	92,547	\$ 12,185,046	95,781	\$ 12,360,062	97,831	\$ 36,292,073	286,159
C&I New Construction	\$ 6,169,888	14,795	\$ 6,477,491	15,665	\$ 6,965,252	16,535	\$ 19,612,631	46,995
Industrial Systems	\$ 6,596,010	110,033	\$ 6,975,586	116,269	\$ 7,431,110	123,170	\$ 21,002,706	349,471
Midstream Incentives	\$ -	-	\$ -	-	\$ -	-	\$ -	-
C&I TOTAL	\$ 66,084,004	432,651	\$ 65,202,654	424,457	\$ 67,859,565	433,367	\$ 199,146,223	1,290,474
RESIDENTIAL - EE Programs								
Residential Lighting	\$ 17,571,083	92,045	\$ -	-	\$ -	-	\$ 17,571,083	92,045
Residential Products	\$ -	-	\$ 6,650,200	9,103	\$ 6,651,550	9,103	\$ 13,301,750	18,206
Appliance Recycling	\$ 7,677,341	26,178	\$ 8,599,829	29,450	\$ 8,604,554	29,450	\$ 24,881,724	85,078
Complete System Replacement	\$ 1,792,155	1,339	\$ 4,296,162	7,528	\$ 4,263,220	7,407	\$ 10,351,537	16,274
Multi-Family Comprehensive Energy Efficiency	\$ 4,531,533	9,512	\$ 4,191,113	9,014	\$ 3,773,691	8,838	\$ 12,496,337	27,364
Energy Education Kits Program	\$ 454,665	681	\$ 419,141	624	\$ 383,636	567	\$ 1,257,441	1,872
Direct to Consumer Kits	\$ -	-	\$ 6,183,186	6,996	\$ 4,364,632	4,930	\$ 10,547,818	11,926
Single-Family Home Performance	\$ 1,452,130	2,139	\$ 4,644,917	7,592	\$ 4,612,061	7,590	\$ 10,709,108	17,321
Residential New Construction	\$ 30,565	16	\$ 32,549	19	\$ 31,639	15	\$ 94,753	50
RESIDENTIAL TOTAL	\$ 33,509,471	131,910	\$ 35,017,097	70,326	\$ 32,684,982	67,900	\$ 101,211,551	270,136
Demand Response - AC Cycling Maint.	\$ 1,230,000	-	\$ 1,230,000	-	\$ 1,230,000	-	\$ 3,690,000	-
CFL Carryover	-	83,468	-	47,200	-	16,102	\$ -	146,770
Total ComEd EE	\$ 100,823,475	648,029	\$ 101,449,751	541,983	\$ 101,774,547	517,369	\$ 304,047,774	1,707,380
DCEO								
DCEO	\$ 39,250,000	97,625	\$ 39,675,000	98,810	\$ 39,850,000	107,014	\$ 118,775,000	303,449
Portfolio-Level Costs								
Total Portfolio-Level Costs TOTAL	\$ 16,926,525	-	\$ 17,575,253	-	\$ 17,775,451	-	\$ 52,277,229	-
PORTFOLIO TOTAL								
PORTFOLIO TOTAL	\$ 157,000,000	745,654	\$ 158,700,004	640,793	\$ 159,399,999	624,383	\$ 475,100,003	2,010,829
ComEd Portfolio Cost (less DCEO)	\$ 117,750,000	648,029	\$ 119,025,004	541,983	\$ 119,549,999	517,369	\$ 356,325,003	1,707,380

Note: The Large C&I Pilot will be a designated component of the Incentives Program. All energy savings from this pilot will be incorporated into the Incentives Program.

Table 6. Key Cost-Effectiveness Results

Programs	First Year Costs (\$/kWh)			Lifetime Costs ¢/kWh	TRC Test	Utility Test
	PY7	PY8	PY9			
C&I - EE Programs						
Incentives Program	\$ 0.17	\$ 0.17	\$ 0.18	\$ 0.013	1.70	3.21
Large C/I Pilot						-
Optimization	\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.027	1.97	1.41
C&I New Construction	\$ 0.42	\$ 0.41	\$ 0.42	\$ 0.018	1.78	2.27
Midstream Incentives	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.010	3.03	6.48
RESIDENTIAL - EE Programs						
Residential Lighting	\$ 0.19			\$ 0.025	16.09	4.34
Residential Products		\$ 0.73	\$ 0.73	\$ 0.061	1.17	2.13
Appliance Recycling	\$ 0.29	\$ 0.29	\$ 0.29	\$ 0.032	2.20	2.01
Complete System Replacement	\$ 1.34	\$ 0.57	\$ 0.58	\$ 0.034	1.71	1.83
Multi-Family Comprehensive Energy Efficiency	\$ 0.48	\$ 0.46	\$ 0.43	\$ 0.067	1.23	1.02
Energy Education Kits Program	\$ 0.67	\$ 0.67	\$ 0.68	\$ 0.116	0.97	0.72
Direct to Consumer Kits		\$ 0.88	\$ 0.89	\$ 0.188	1.20	0.55
Single-Family Home Performance	\$ 0.68	\$ 0.61	\$ 0.61	\$ 0.114	1.11	1.16
Residential New Construction	\$ 1.91	\$ 1.71	\$ 2.11	\$ 0.085	0.57	0.61

Table 7. ComEd Portfolio-Level Costs

	Annual Costs			3 Yr Plan Total
	PY7	PY8	PY9	
Portfolio-Level Costs				
Education / Outreach	\$ -	\$ -	\$ -	\$ -
General Education and Awareness	\$ 3,639,728	\$ 4,245,802	\$ 4,294,862	\$ 12,180,392
Market Transform. - EIO / EDS	\$ 400,000	\$ 400,000	\$ 400,000	\$ 1,200,000
M&V (3% of Spending Screen less DCEO)	\$ 3,532,500	\$ 3,570,750	\$ 3,586,500	\$ 10,689,750
R&D	\$ 3,532,500	\$ 3,570,750	\$ 3,586,500	\$ 10,689,750
Market Research	\$ 850,000	\$ 1,000,000	\$ 1,000,000	\$ 2,850,000
Legal	\$ 600,000	\$ 300,000	\$ 300,000	\$ 1,200,000
Tracking System	\$ 500,000	\$ 500,000	\$ 500,000	\$ 1,500,000
Labor (Non-program specific)	\$ 3,871,797	\$ 3,987,951	\$ 4,107,589	\$ 11,967,337
Total Portfolio-Level Costs TOTAL	\$ 16,926,525	\$ 17,575,253	\$ 17,775,451	\$ 52,277,229

Portfolio Elements

ComEd's portfolio is constructed from four building blocks. Three of these building blocks are focused on specific customer groups / activities, while the last building block, Education & Outreach / Market Transformation, is more general in nature, and cuts across all customer classes. The four building blocks are:

- **Residential Programs (*Smart Ideas for Your Home*)**
- **Business Programs (*Smart Ideas for Your Business*)**
- **DCEO Programs**
- **Education and Outreach / Market Transformation Activities**

Smart Ideas for Your Home - Residential Program Elements

ComEd's Residential Program – *Smart Ideas for Your Home* – is targeted at our residential customer segment. Residential customers total 3.5 million customers, accounting for 90% of our customers and approximately 35% of the overall kWh usage.

Smart Ideas for Your Home includes 9 programs, which are projected to reduce energy usage by over 270,000 MWhs during the three-year planning horizon. This program is expected to attain 18% of ComEd's total incremental energy savings in PY7, 11% in

Current Joint Efforts

ComEd relied on our collaboration with the local gas utilities to offer certain energy efficiency programs that could not be cost-effectively offered in an electric-only energy efficiency portfolio. Current gas utility plans appear to require a significant shift in strategy because our partner gas utilities must reduce their offerings in response to low natural gas prices and corresponding reductions in energy efficiency funding budgets. As a result, proposed gas utility program participation levels have been reduced sharply. With that in mind, our ability to offer large-scale joint programs has diminished.

PY8, and 11% in PY9. The decreases associated with PY8 and PY9 are due to the removal of the Residential Lighting program from the portfolio for those years.

Smart Ideas for Your Home will continue to offer a wide range of options for residential customer energy management, and is intended to reach all key market segments. For example, the Appliance Recycling program element has reached its maximum scale absent a fundamental change in technology, incentive levels or delivery model. As this occurs across programs, we increasingly need to explore technology and program options that typically will be more expensive or produce a lower yield per dollar. This is an evolution that every efficiency portfolio experiences, although in our case it is occurring at an accelerated rate in light of new federal efficiency standards and the rapid ramp-up in program activity we face.

The table below summarizes the residential program elements¹⁶, listing their current status in the portfolio, implementation date, and involvement of the natural gas companies.

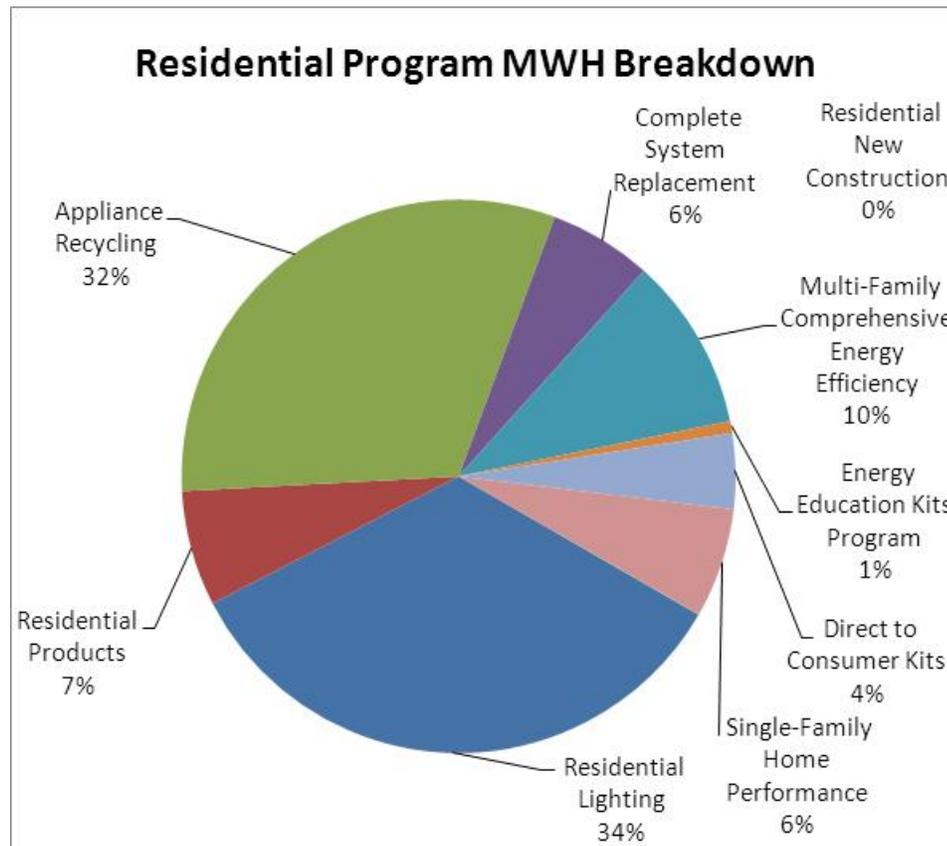
Table 8. List of Residential Programs

Residential Programs				
Programs	Program Status	Start Date	Electric Only or Electric / Gas	Program Snapshot
Residential Lighting	Continuing	on-going	Electric Only	Continuation of current program through PY7
Residential Products	New	6/1/15	Electric Only	New mass market program offers incentives and discounts on ENERGY STAR and CEE Tier 2 white goods and products
Appliance Recycling	Continuing	on-going	Electric Only	Continuation of current program
Complete System Replacement	Continuing	on-going	Electric/Gas	Continuation of current program, expanded to include new prescriptive measures to be offered through contractor network.
Multi-family Comprehensive EE	Continuing	on-going	Electric / Gas	Continuation of current program, increased emphasis on common areas and deeper retrofits
Single-Family Home Performance	Modified	on-going	Electric / Gas	Added joint direct-install component with Integrys; program significantly expanded for PY8 and PY9.
Energy Education Kits	Modified	on-going	Electric / Gas	Provides energy-saving products as kits to K-12 students, plus energy efficiency curriculum for teachers
Direct-to-Consumer Kits	New	6/1/15	Electric Only	Provides energy-saving products plus educational materials and program information in kits; expect to strategically target customer segments to focus on current non-participants.
New Construction	Continuing	on-going	Electric / Gas	New Program offered jointly with Integrys for residential new construction that begins PY5

¹⁶ Throughout this document, the terms “program” and “program element” are used interchangeably to simplify the presentation and discussion of the program elements.

While there are nine programs within the Residential portfolio, two programs drive the overall 3-year MWh impact. The Residential Lighting program will provide the greatest savings over the Plan 3 horizon, despite it only being offered during PY7. The Appliance Recycling program will continue to produce significant savings through Plan 3.¹⁷ The Residential Products and Direct-to-Consumer Kit programs will be new offerings for PY8 and PY9. While the Residential Products program is a new mass-market offering, the Direct-to-Consumer Kits program will be offered as a means to reach customers who may not otherwise participate in Smart Ideas programs. The remaining programs are jointly delivered with the gas utilities in northern Illinois.

Figure 5. Residential Program MWh Breakdown



The following pages provide a detailed description of each of these program elements.

¹⁷ Home Energy Reports, a significant contributor of energy savings in Plan 2, will be greatly expanded and offered via the IPA process.

Program Name	Residential Lighting Program
Program Description	<p>The Residential Lighting Program is an existing program that was also a part of Plans 1 and 2. The program is designed to increase the market share of ENERGY STAR lighting products sold through retail sales channels by providing incentives to decrease customer costs, as well as information and education to increase consumer awareness and acceptance of energy efficient lighting technology.</p> <p>We will continue to partner with an implementation contractor who will establish partnerships with midstream channel actors (retailers and their suppliers) to provide customers with instant discounts for qualifying products.</p> <p>A midstream program approach leverages the normal retail sales channels for Compact Fluorescent Lamps (“CFLs”) and Light Emitting Diode lamps (“LEDs”), creating opportunities for cooperative promotions with retailers and manufacturers, and supporting long-term market transformation goals. Instant discounts minimize the burden on consumers by lowering barriers to participation. A midstream approach also facilitates quick program ramp-up and provides detailed data to support evaluation of program impacts.</p> <p>The program currently employs the following rebate delivery mechanism:</p> <ul style="list-style-type: none"> • Markdowns: This rebate approach offers instant discounts on qualifying products that are sold. Qualifying products are listed at a lower retail price on the store shelves. In the markdown approach, retailers must provide store-level sales data for qualifying products, while also providing the consumers with some indication that the product is discounted (e.g., point-of-purchase marketing). Our participating retailers currently post program-identifying stickers by each product’s shelf display in addition to other point-of-sale materials.
Program Duration	June 2014 through May 2015
Collaboration	None
Delivery Strategy	<p>We will work with a residential lighting implementation contractor to provide services as described in this Plan.</p> <p>Key elements of the implementation strategy include:</p> <ul style="list-style-type: none"> • Retailer/Manufacturer Recruitment: As practiced in its current program design, we will issue an RFP during Plan Year 7 to solicit participation by retailers and manufacturers in our service territory. The RFP will specify program requirements,

Program Name	Residential Lighting Program
	<p>such as product specifications and performance criteria, product stocking objectives based on anticipated rebate volume, and data sharing requirements. A Memorandum of Understanding (“MOU”) will be signed with selected retailers and manufacturers that delineates roles and responsibilities and each party’s commitments in support of programmatic objectives.</p> <ul style="list-style-type: none"> • Retailer Education and Outreach: Throughout current program implementation, field staff maintain regular contact with participating retailers to ensure the following: (1) retail sales staff are informed about the program offering, rebate process, and benefits of ENERGY STAR lighting products; (2) the instant discounts are ringing up correctly at the cash registers; (3) point-of-purchase (“POP”) displays are displayed properly and qualifying products are stocked in accordance with retailer commitments; (4) program staff are responsive to retailer concerns and issues can be addressed promptly (the program will also keep retailers informed well in advance of planned promotional activities and cooperative advertising opportunities, keeping in mind that retailers typically require at least six months of advanced planning for advertising buys and other promotional activities); and (5) field staff schedule periodic in-store product demonstrations. • Incentive Processing: Consistent with the current program practice, a fulfillment agent will be retained to ensure prompt processing of vendor incentive payments. We will negotiate with retailers to determine how frequently store-level sales data will be submitted to the fulfillment house for processing. Since prompt incentive payment is essential to retailer satisfaction and ongoing program engagement, we will work with the fulfillment agent to establish processes and procedures that expedite incentive payments.
Target Market	<p>The Residential Lighting Program targets residential customers purchasing lighting products through retail sales channels. All customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.</p>
Marketing Strategy	<p>The overall marketing strategy will be to modify customer behavior to both purchase and install ENERGY STAR lighting products in their residences. Opportunity exists to leverage customer interactions and deliver information about lighting, the benefits of energy efficiency, cost savings, and to obtain customer preferences and contact information for ongoing and future targeted initiatives.</p>

Program Name	Residential Lighting Program
	<p>The marketing strategy will continue to increase awareness on the availability and viability of ENERGY STAR lighting products. Marketing will utilize specific messaging, targeted campaigns, measurable sales comparisons and behavioral marketing tactics.</p> <p>Tactics will focus on point-of-purchase communications, such as in-store demos and product placement/special displays/end caps at select retail partners. Other general marketing collateral will leverage internal resourcing and use web communications to reach less penetrated customer segments. Other tactics may include: bill inserts, general consumer education and awareness, mass marketing, direct mail and electronic marketing. Wherever possible, tactics will include feedback mechanisms such as business reply cards and email collection for future messaging about energy efficiency and meaningful/actionable consumer offers. In future collateral, marketing will address issues discovered in previous Plan years including:</p> <ul style="list-style-type: none"> • Customers purchasing CFLs but waiting for incandescent bulbs to burn out before installing them • Long-term energy and cost savings of CFLs and LEDs • Understanding lumens and color so that customers can choose the right bulb for the application • Proper disposal of CFLs and available recycling locations <p>Marketing materials will continue to include the ENERGY STAR brand as a trusted source of quality products.</p> <p>Key marketing messaging for this program are: (1) ENERGY STAR lighting (CFLs, LEDs and fixtures) generally use about 75% less electricity than incandescent bulbs and last up to 10 times longer, and they are available in a wide range of styles & sizes; (2) switch and save; (3) don't wait for your old light bulb to burn out – replace it today and start saving; (4) look for ComEd's "Lower Price" sticker at participating retailers to identify instant discounts; (5) find participating retailers at www.ComEd.com/lightingretailers or call 855-433-2700; and (6) recycle used CFLs at participating retailers.</p>
Eligible Measures	<p>The eligible measures under this program are standard CFLs, specialty CFLs, standard LEDs, specialty LEDs, and LED lighting fixtures; however, we may revise eligible measures as needed in accordance with current market conditions, technology development, EM&V results and program implementation experience. Also, educational materials on how to safely recycle CFLs will continue to be a part of this program.</p>

Program Name	Residential Lighting Program				
Program Targets	Participation Levels				
		PY7	PY8	PY9	Total
	Total (Bulbs/ Fixtures)	8,303,000	0	0	8,303,000
	Annual Savings Targets				
		PY7	PY8	PY9	Total
	Gross MWh	171,282	0	0	171,282
	Net MWh	92,045	0	0	92,045
	Gross MW	117	0	0	117
	Net MW	63	0	0	63
	Program Budget				
	PY7	PY8	PY9	Total	
Administration	\$174,761	\$0	\$0	\$174,761	
Implementation	\$2,631,322	\$0	\$0	\$2,631,322	
Incentives	\$14,560,000	\$0	\$0	\$14,560,000	
Marketing and Other	\$205,000	\$0	\$0	\$205,000	
Total	\$17,571,083	\$0	\$0	\$17,571,083	
Cost-Effectiveness Results					
	Test Results				
TRC	16.09				
UCT ¹⁸	4.34				
CCE ¹⁹	0.025				

¹⁸ Utility Cost Test ("UCT")

¹⁹ Cost of Conserved Energy ("CCE")

Program Name	Residential Products Program
Program Description	<p>The Residential Products program is designed to increase the market share of ENERGY STAR appliances sold through retail sales channels by providing rebates to decrease customer costs, as well as information and education to increase customer awareness and acceptance of energy efficient appliances.</p> <p>We will partner with an implementation contractor who will establish partnerships with midstream channel actors (retailers and their suppliers) to provide customers with rebates on qualifying ENERGY STAR appliances.</p> <p>A midstream program approach leverages the normal retail sales channels for ENERGY STAR appliances, creating opportunities for cooperative promotions with retailers and manufacturers, and supporting long-term market transformation goals. A midstream approach also facilitates quick program ramp-up and provides detailed data to support evaluation of program impacts.</p> <p>Replacing an inefficient appliance with an ENERGY STAR brand can greatly impact both water usage and electric consumption. Customers will be encouraged to purchase one of the qualifying ENERGY STAR appliances instead of less energy-efficient appliances.</p>
Program Duration	June 2015 through May 2017
Collaboration	None
Delivery Strategy	<p>It is our intent to partner with our current residential lighting implementation contractor to implement this program and to leverage the existing field staff who may already be servicing common retail partners. If negotiations do not produce desired results, an RFP will be conducted.</p> <p>Key elements of the implementation strategy include:</p> <ul style="list-style-type: none"> • Retailer/manufacturing recruitment: As practiced in our current residential lighting program, we will issue an RFP during each respective program year to solicit participation by retailers and manufacturers in our service territory. The RFP will specify program requirements such as product specifications and performance criteria, product stocking

Program Name	Residential Products Program
	<p>objectives based on anticipated rebate volume, and data sharing requirements. Memoranda of Understanding (“MOU”) will be signed with selected retailers and manufacturers delineating roles and responsibilities and each party’s commitments in support of programmatic objectives.</p> <ul style="list-style-type: none"> • Retailer education and outreach: During program implementation, field staff will maintain regular contact with participating retailers to ensure the following: (1) retail sales staff are informed about the program offering, rebate process, and benefits of ENERGY STAR appliances; (2) retailers have an adequate supply of rebate forms at the cash registers, if appropriate; (3) point-of-purchase (“POP”) displays are displayed properly and that qualifying products are stocked in accordance with retailer commitments; and (4) program staff are responsive to retailer concerns and issues can be addressed promptly. The program will also keep retailers informed well in advance of planned promotional activities and cooperative advertising opportunities, keeping in mind that retailers typically require at least six months of advanced planning for advertising buys and other promotional activities. • Incentive processing: As in the current residential lighting program practice, a fulfillment agent will be retained to ensure prompt processing of incentive payments. We will negotiate with retailers to determine how frequently store-level sales data and batched rebates will be submitted to the fulfillment house for processing. Since prompt incentive payment is essential to retailer and customer satisfaction and ongoing program engagement, we will work with the fulfillment agent to establish processes and procedures that expedite incentive payments. Should some retailers offer mail-in rebates, the fulfillment agent will expedite prompt payments directly to the customer.
Target Market	<p>The Residential Products program targets residential customers purchasing new or replacement appliances through retail channels. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.</p>

Program Name Residential Products Program

Marketing Strategy

The overall marketing strategy will be to leverage customer interactions at the point-of-sale to deliver information about ENERGY STAR appliances and available program rebates. We will also use that customer touch-point to obtain customers’ preferences and contact information to maximize future communications about energy efficiency education and awareness. Marketing will utilize specific messaging, targeted campaigns, measurable sales comparisons, and behavioral marketing tactics.

Tactics will focus on point of purchase communications such as in store product placement and special displays. Messaging about the availability of this program will reach all residential customers, and may be targeted or modified depending on market segmentation and any propensity data we have to indicate purchase preferences. Other general marketing collateral will leverage our corporate advertising and use web communications to reach lightly penetrated customer segments.

Other tactics may include: bill inserts, general consumer education and awareness, mass media, direct mail and electronic marketing. Where possible, tactics will include feedback mechanisms such as business reply cards and email collection for future messaging about energy efficiency. We will work closely with the implementation contractor to develop and coordinate the timing of promotional campaigns.

Eligible Measures

The eligible measures under this program are a variety of select ENERGY STAR appliances. The program will provide a rebate for the purchase of these ENERGY STAR appliances. The rebate will vary upon the appliance being purchased. We may revise eligible measures and incentive levels as needed in accordance with current market conditions, technology development, EM&V results and program implementation experience.

Program Targets **Participation Levels**

	PY7	PY8	PY9	Total
Total (Appliances)	0	39,000	39,000	78,000

Program Name	Residential Products Program
---------------------	-------------------------------------

Annual Savings Targets

	PY7	PY8	PY9	Total
Gross MWh	0	13,387	13,387	26,774
Net MWh	0	9,103	9,103	18,206
Gross MW	0	1	1	2
Net MW	0	1	1	2

Program Budget

	PY7	PY8	PY9	Total
Administration	\$0	\$45,001	\$46,351	\$91,352
Implementation	\$0	\$990,199	\$990,199	\$1,980,398
Incentives	\$0	\$4,615,000	\$4,615,000	\$9,230,000
Marketing and Other	\$0	\$1,000,000	\$1,000,000	\$2,000,000
Total	\$0	\$6,650,200	\$6,651,550	\$13,301,750

Cost-Effectiveness Results

	Test Results
TRC	1.17
UCT	2.13
CCE	\$.061

Program Description The Residential Products program is designed to increase the market share of ENERGY STAR appliances sold through retail sales channels by providing rebates to decrease customer costs, as well as information and education to increase customer awareness

Program Name	Residential Products Program
	<p>and acceptance of energy efficient appliances.</p> <p>ComEd will partner with an implementation contractor who will establish partnerships with midstream channel actors (retailers and their suppliers) to provide customers with rebates on qualifying ENERGY STAR appliances.</p> <p>A midstream program approach leverages the normal retail sales channels for ENERGY STAR appliances, creating opportunities for cooperative promotions with retailers and manufacturers, and supporting long-term market transformation goals. A midstream approach also facilitates quick program ramp-up and provides detailed data to support evaluation of program impacts.</p> <p>Replacing an inefficient appliance with an ENERGY STAR brand can greatly impact both water usage and electric consumption. Customers will be encouraged to purchase one of the qualifying ENERGY STAR appliances instead of less energy-efficient appliances.</p>
Program Duration	June 2015 through May 2017
Collaboration	None
Delivery Strategy	<p>It is our intent to partner with our current residential lighting implementation contractor to implement this program and to leverage the existing field staff who may already be servicing common retail partners. If negotiations do not produce desired results, an RFP will be conducted.</p> <p>Key elements of the implementation strategy include:</p> <ul style="list-style-type: none"> • Retailer/manufacturer recruitment: As practiced in our current residential lighting program, ComEd will issue an RFP during each respective program year to solicit participation by retailers and manufacturers in our service territory. The RFP will specify program requirements such as product specifications and performance criteria, product stocking objectives based on anticipated rebate volume, and data sharing requirements. Memoranda of Understanding (“MOU”) will be signed with selected retailers and manufacturers delineating roles and responsibilities and each

Program Name	Residential Products Program
	<p>party's commitments in support of programmatic objectives.</p> <ul style="list-style-type: none"> • Retailer education and outreach: During program implementation, field staff will maintain regular contact with participating retailers to ensure the following: (1) retail sales staff are informed about the program offering, rebate process, and benefits of ENERGY STAR appliances; (2) retailers have an adequate supply of rebate forms at the cash registers, if appropriate; (3) point-of-purchase ("POP") displays are displayed properly and that qualifying products are stocked in accordance with retailer commitments; and (4) program staff are responsive to retailer concerns and issues can be addressed promptly. The program will also keep retailers informed well in advance of planned promotional activities and cooperative advertising opportunities, keeping in mind that retailers typically require at least six months of advanced planning for advertising buys and other promotional activities. • Incentive processing: As in the current residential lighting program practice, a fulfillment agent will be retained to ensure prompt processing of incentive payments. ComEd will negotiate with retailers to determine how frequently store-level sales data and batched rebates will be submitted to the fulfillment house for processing. Since prompt incentive payment is essential to retailer and customer satisfaction and ongoing program engagement, ComEd will work with the fulfillment agent to establish processes and procedures that expedite incentive payments. Should some retailers offer mail-in rebates, the fulfillment agent will expedite prompt payments directly to the customer.
Target Market	The Residential Products program targets residential customers purchasing new or replacement appliances through retail channels. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
Marketing Strategy	The overall marketing strategy will be to leverage customer interactions at the point-of-sale to deliver information about ENERGY STAR appliances and available program rebates. ComEd will also use that customer touch-point to obtain customers' preferences and contact information to maximize future

Program Name	Residential Products Program														
	<p>communications about energy efficiency education and awareness. Marketing will utilize specific messaging, targeted campaigns, measurable sales comparisons, and behavioral marketing tactics.</p> <p>Tactics will focus on point of purchase communications such as in store product placement and special displays. Messaging about the availability of this program will reach all residential customers, and may be targeted or modified depending on market segmentation and any propensity data that indicates purchase preferences. Other general marketing collateral will leverage our corporate advertising and use web communications to reach lightly penetrated customer segments.</p> <p>Other tactics may include: bill inserts, general consumer education and awareness, mass media, direct mail and electronic marketing. Where possible, tactics will include feedback mechanisms such as business reply cards and email collection for future messaging about energy efficiency. ComEd will work closely with the implementation contractor to develop and coordinate the timing of promotional campaigns.</p>														
Eligible Measures	<p>The eligible measures under this program are a variety of select ENERGY STAR appliances. The program will provide a rebate for the purchase of these ENERGY STAR appliances. The rebate will vary upon the appliance being purchased. We may revise eligible measures and incentive levels as needed in accordance with current market conditions, technology development, EM&V results and program implementation experience.</p>														
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="444 1549 1404 1705"> <thead> <tr> <th data-bbox="444 1549 683 1608"></th> <th data-bbox="683 1549 857 1608">PY7</th> <th data-bbox="857 1549 1031 1608">PY8</th> <th data-bbox="1031 1549 1219 1608">PY9</th> <th data-bbox="1219 1549 1404 1608">Total</th> </tr> </thead> <tbody> <tr> <td data-bbox="444 1608 683 1705">Total (Appliances)</td> <td data-bbox="683 1608 857 1705">0</td> <td data-bbox="857 1608 1031 1705">39,000</td> <td data-bbox="1031 1608 1219 1705">39,000</td> <td data-bbox="1219 1608 1404 1705">78,000</td> </tr> </tbody> </table>						PY7	PY8	PY9	Total	Total (Appliances)	0	39,000	39,000	78,000
	PY7	PY8	PY9	Total											
Total (Appliances)	0	39,000	39,000	78,000											

Program Name	Residential Products Program
---------------------	-------------------------------------

Annual Savings Targets

	PY7	PY8	PY9	Total
Gross MWh	0	13,387	13,387	26,774
Net MWh	0	9,103	9,103	18,206
Gross MW	0	1	1	2
Net MW	0	1	1	2

Program Budget

	PY7	PY8	PY9	Total
Administration	\$0	\$45,001	\$46,351	\$91,352
Implementation	\$0	\$990,199	\$990,199	\$1,980,398
Incentives	\$0	\$4,615,000	\$4,615,000	\$9,230,000
Marketing and Other	\$0	\$1,000,000	\$1,000,000	\$2,000,000
Total	\$0	\$6,650,200	\$6,651,550	\$13,301,750

Cost-Effectiveness Results

	Test Results
TRC	1.17
UCT	2.13
CCE	\$0.061

Program Name	Appliance Recycling Program
Program Description	<p>The Appliance Recycling Program is an existing program that was also offered in Plans 1 and 2. The program is designed to promote the retirement and recycling of inefficient, working refrigerators and freezers, as well as room air conditioners, from households by offering a turn-in incentive and free pick up of the equipment. We will continue to partner with an appliance recycling contractor to provide implementation services that include verification of customer eligibility, scheduling of appointments, appliance pick-up, recycling and disposal activities, and incentive processing. ComEd will continue to directly perform the marketing activities for this program to drive participation levels.</p> <p>Program implementation through an appliance recycling contractor simplifies program delivery, reduces ComEd's administrative costs, and ensures a streamlined participation process. The program has been designed to minimize barriers to participation by offering incentives, convenient scheduling of appointments, and free collection of qualifying equipment.</p>
Program Duration	June 2014 through May 2017
Collaboration	None
Delivery Strategy	<p>The key element of the Appliance Recycling Program implementation strategy is:</p> <ul style="list-style-type: none"> • Customer Education and Recruitment: ComEd will continue to apply proven marketing tactics and strategies that have been utilized in prior customer recruitment campaigns for this program. There will be strong consumer messaging and educational components emphasizing how much it costs to operate an old refrigerator or freezer, as well as the availability of participating incentives and the free pick up service that is included.
Target Market	The Appliance Recycling Program is designed for residential customers with older working refrigerators, freezers, and room air conditioners. All targeted customers taking delivery service from

Program Name	Appliance Recycling Program
	ComEd are eligible for this program regardless of their choice of supplier.
Marketing Strategy	<p>The primary marketing strategy will be to utilize residential bill inserts to maintain awareness of the program. More extensive marketing campaigns will be developed and implemented at various times to help raise program awareness and drive participation levels. These campaigns will likely include mass media channels such as local radio and television.</p> <p>The marketing tactics will leverage customer interactions to deliver information about the Appliance Recycling Program, the benefits of recycling older working refrigerators and freezers, the ability to save on monthly electric bills, and the overarching message of energy efficiency. Continual review and analysis of all marketing efforts will allow for improved effectiveness and efficiency of future campaigns. The marketing strategy will also educate customers and continue to increase awareness of the positive effects of appliance recycling and responsible energy management.</p> <p>Tactics will include a variety of targeted marketing communications materials such as: bill inserts, direct mail, and ValPak. We will leverage customer interactions with behavioral marketing to enhance program promotion and effectiveness of campaigns. Such tactics may include contests, friend referrals and measurable feedback mechanisms, such as business reply cards and email, to determine which consumers have second refrigerators.</p> <p>Additional marketing tactics will be conducted through electronic channels, such as web content, paid search advertising, email campaigns, social media, and online videos.</p> <p>Key marketing messaging for this program are: (1) older, working refrigerators and freezers can cost homeowners up to \$150 a year in electricity; (2) ComEd will pick up eligible equipment for FREE; (3) ComEd will send participants an incentive for each unit (limit 2); and (4) ComEd will recycle the appliances in an environmentally responsible manner.</p>

Program Name	Appliance Recycling Program																																																																				
Eligible Measures	<p>In addition to free picking up of eligible equipment, this program will provide turn-in incentives for participating. In our experience with this program, customer participation rates tend to fluctuate at various times of the year. We may also adjust incentive amounts during limited-time special program promotions.</p> <p>It is not cost-effective to pick up a room air conditioner alone, so the program will only collect room air conditioners from customers who have a refrigerator or freezer picked up.</p>																																																																				
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="407 741 1373 856"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total (Units)</td> <td>40,000</td> <td>45,000</td> <td>45,000</td> <td>130,000</td> </tr> </tbody> </table> <p>Annual Savings Targets</p> <table border="1" data-bbox="407 972 1373 1272"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Gross MWh</td> <td>34,043</td> <td>38,298</td> <td>38,298</td> <td>110,639</td> </tr> <tr> <td>Net MWh</td> <td>26,178</td> <td>29,450</td> <td>29,450</td> <td>85,078</td> </tr> <tr> <td>Gross MW</td> <td>11</td> <td>12</td> <td>12</td> <td>35</td> </tr> <tr> <td>Net MW</td> <td>8</td> <td>9</td> <td>9</td> <td>26</td> </tr> </tbody> </table> <p>Program Budget</p> <table border="1" data-bbox="407 1388 1373 1772"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Administration</td> <td>\$152,916</td> <td>\$157,504</td> <td>\$162,229</td> <td>\$472,649</td> </tr> <tr> <td>Implementation</td> <td>\$2,478,825</td> <td>\$2,764,025</td> <td>\$2,764,025</td> <td>\$8,006,875</td> </tr> <tr> <td>Incentives</td> <td>\$3,545,600</td> <td>\$3,678,300</td> <td>\$3,678,300</td> <td>\$10,902,200</td> </tr> <tr> <td>Marketing and Other</td> <td>\$1,500,000</td> <td>\$2,000,000</td> <td>\$2,000,000</td> <td>\$5,500,000</td> </tr> <tr> <td>Total</td> <td>\$7,677,341</td> <td>\$8,599,829</td> <td>\$8,604,554</td> <td>\$24,881,724</td> </tr> </tbody> </table>					PY7	PY8	PY9	Total	Total (Units)	40,000	45,000	45,000	130,000		PY7	PY8	PY9	Total	Gross MWh	34,043	38,298	38,298	110,639	Net MWh	26,178	29,450	29,450	85,078	Gross MW	11	12	12	35	Net MW	8	9	9	26		PY7	PY8	PY9	Total	Administration	\$152,916	\$157,504	\$162,229	\$472,649	Implementation	\$2,478,825	\$2,764,025	\$2,764,025	\$8,006,875	Incentives	\$3,545,600	\$3,678,300	\$3,678,300	\$10,902,200	Marketing and Other	\$1,500,000	\$2,000,000	\$2,000,000	\$5,500,000	Total	\$7,677,341	\$8,599,829	\$8,604,554	\$24,881,724
	PY7	PY8	PY9	Total																																																																	
Total (Units)	40,000	45,000	45,000	130,000																																																																	
	PY7	PY8	PY9	Total																																																																	
Gross MWh	34,043	38,298	38,298	110,639																																																																	
Net MWh	26,178	29,450	29,450	85,078																																																																	
Gross MW	11	12	12	35																																																																	
Net MW	8	9	9	26																																																																	
	PY7	PY8	PY9	Total																																																																	
Administration	\$152,916	\$157,504	\$162,229	\$472,649																																																																	
Implementation	\$2,478,825	\$2,764,025	\$2,764,025	\$8,006,875																																																																	
Incentives	\$3,545,600	\$3,678,300	\$3,678,300	\$10,902,200																																																																	
Marketing and Other	\$1,500,000	\$2,000,000	\$2,000,000	\$5,500,000																																																																	
Total	\$7,677,341	\$8,599,829	\$8,604,554	\$24,881,724																																																																	

Program
Name

Appliance Recycling Program

Cost-Effectiveness Results

	Test Results
TRC	2.20
UCT	2.01
CCE	\$0.032

Program Name	Complete System Replacement / Residential Prescriptive Program
Program Description	<p>This program provides incentives for the purchase and installation of high efficiency central air conditioners, water heater heat pumps, ductless heat pumps, ECM motors, air sealing, attic insulation and other high efficiency electric residential end use equipment. This program was previously offered as the Complete System Replacement program, which focused on central air conditioners that were installed in conjunction with gas furnaces. The expanded offering of this program is expected to be fully in place for PY8.</p> <p>The program offers rebates to invest in long-term savings through more efficient technology. The dollar amount of the rebates may depend on the efficiency of the replacement measures. This program is also designed to make it easier for distributors and contractors to promote energy efficient equipment at the time of equipment replacement.</p>
Program Duration	June 2014 through May 2017
Collaboration	It is the intent of ComEd, to the extent possible, to offer this program in coordination with Nicor Gas, Peoples Gas and North Shore Gas. There is potential for this program to benefit both gas and electric utility customers through shared trade ally outreach or incentive bonuses for measure bundling.
Delivery Strategy	<p>An implementation contractor will implement this program and all of the program elements, which include:</p> <ul style="list-style-type: none"> • Contractor Recruitment and Training: The implementation contractor will recruit contractors to become independent participating contractors. • Customer Recruitment: The primary customer recruitment mechanism will be the direct marketing activities of independent participating contractors. Program information will also be posted on ComEd’s website, provided through a toll-free call center, and distributed in combination with various ComEd customer outreach and marketing tactics. • Project Implementation: The independent participating contractors will deliver services according to the program requirements. • Incentive Application: The independent participating contractors or customers will submit incentive applications for all qualifying equipment, and the implementation contractor will process all applications and incentive payments to ensure that required information and documentation has been provided.

Program Name	Complete System Replacement / Residential Prescriptive Program										
Target Market	This program is designed for residential customers seeking to install or replace residential electric equipment or appliances with those that result in the more efficient use of electricity. All residential customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.										
Marketing Strategy	<p>This prescriptive program will be marketed as a tool to take advantage of the market segment of residential customers who are seeking to replace or install electric end use equipment. This will be accomplished by marketing this program as a cost and energy-saving tactic to homeowners and incenting the customers by helping to cover associated upfront costs.</p> <p>ComEd will leverage existing product market channels to generate program awareness and develop strong partnerships with participating trade allies and other stakeholders.</p> <p>Marketing will utilize specific messaging, targeted campaigns, and behavioral tactics to drive installation of efficient equipment. Tactics will focus on bill inserts, collateral materials, and electronic channels. Messaging is intended to reach residential customers with older, inefficient equipment. Other general marketing collateral will leverage our advertising and use web communications to help reach lightly penetrated customer segments. ComEd marketing efforts, the program implementer and contractors participating in the program will deliver messaging to customers.</p>										
Eligible Measures	Eligible measures include the installation of high efficiency central air conditioners, water heater heat pumps, ductless heat pumps, ECM motors, air sealing, attic insulation, and other high efficiency electric residential end use equipment.										
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="402 1507 1369 1665"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total Units (Rebates)</td> <td>3,356</td> <td>8,865</td> <td>8,865</td> <td>21,086</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total Units (Rebates)	3,356	8,865	8,865	21,086
	PY7	PY8	PY9	Total							
Total Units (Rebates)	3,356	8,865	8,865	21,086							

Program Name

Complete System Replacement / Residential Prescriptive Program

Annual Savings Targets

	PY7	PY8	PY9	Total
Gross MWh	2,270	10,029	9,895	22,194
Net MWh	1,339	7,528	7,407	16,274
Gross MW	2	4	4	10
Net MW	1	3	3	7

Program Budget

	PY7	PY8	PY9	Total
Administration	\$87,381	\$90,002	\$92,702	\$270,085
Implementation	\$292,374	\$937,585	\$939,580	\$2,169,539
Incentives	\$1,342,400	\$2,696,475	\$2,656,675	\$6,695,550
Marketing and Other	\$70,000	\$572,100	\$574,263	\$1,216,363
Total	\$1,792,155	\$4,296,162	\$4,263,220	\$10,351,537

Cost-Effectiveness Results

	Test Results
TRC	1.71
UCT	1.83
CCE	\$0.034

<p>Program Name</p>	<p>Multi-Family Comprehensive Energy Efficiency Program</p>
<p>Program Description</p>	<p>The Multi-Family Comprehensive Energy Efficiency Program provides multi-family property owners/managers and tenants with a variety of ways to save electricity and natural gas. The program is designed to generate immediate energy savings by the direct installation of low-cost energy-efficient products. Additionally, the program will provide a network of trade allies that offer fixed-priced installation of incented energy-efficient products and services and rebates available through the program’s standard and custom rebate process. The program will also provide energy efficiency educational materials to participating tenants.</p> <p>The implementation contractor(s) will train and schedule equipment installers to retrofit living units and common areas in multi-family buildings. Contractors will install various low cost energy-efficient products, including CFLs, throughout the tenant and common area spaces. Educational information about the energy savings associated with these devices will be left in the units served. This service will be provided at no cost to property owners/managers and tenants.</p> <p>The implementation contractor(s) will also complete an energy assessment and custom report identifying additional opportunities for energy-saving products and services in the common areas and tenant spaces of multi-family buildings.</p>
<p>Program Duration</p>	<p>June 2014 through May 2017</p>
<p>Collaboration</p>	<p>It is the intent of ComEd, Nicor Gas, Peoples Gas and North Shore Gas to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility’s customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for participating utilities and their customers.</p>
<p>Delivery Strategy</p>	<p>The implementation contractor(s) selected jointly with the natural gas companies through an RFP process will deliver the program. The contractor(s) will work with ComEd and the gas utilities to develop marketing materials, conduct program marketing and outreach activities, provide energy assessments and direct installations in the target market, recruit and manage a network of trade allies and develop standard and custom incentive structures, applications and rebate processing procedures.</p> <p>Key elements of the Multi-Family Comprehensive Energy Efficiency Program implementation strategy include:</p> <ul style="list-style-type: none"> • Targeted Outreach to Property Owners and Managers: The implementation contractor(s) will work to build close relationships

Program Name	Multi-Family Comprehensive Energy Efficiency Program
	<p>with property management companies, owners, associations, and their members to recruit participation in the program.</p> <ul style="list-style-type: none"> • Trade Allies: The implementation contractor(s) will work to build a network of trade allies to complete and assist in the recruitment of participating property owners/managers. • Direct Installs: The implementation contractor(s) will schedule installation appointments with interested property owners/managers. The contractor(s) will install various low-cost measures, which may include low-flow water-saving devices, programmable thermostats, pipe insulation, and CFLs in tenant and common area spaces. The contractor(s) will leave behind educational materials in each unit describing the work performed and promoting energy-saving benefits. • Energy Assessments: The energy assessment will provide a custom report identifying incentives and services available through participating trade allies and/or rebates available through the standard and custom application process. For electric projects, we reserve the right to site-verify installations prior to approval and incentive payment. • Incentive and Rebate Processing: The implementation contractor(s) will develop a variety of measures applicable to both the tenant and common area spaces. The measures will include the various incentive structures available through the trade ally network and standard and custom applications. Processing will include project verification, QA/QC processes, rebate processing, and payments. <p>All installation work must meet rigid performance standards established by ComEd, the gas companies, and the program implementation contractor(s). A systematic approach to home improvement that addresses all aspects of building systems will be employed. ComEd will work with the gas companies to establish inspection protocols for this program, and will require that all work must meet or exceed the utilities' standards.</p>
Target Market	<p>Because this program will be operated jointly with Nicor Gas, Peoples Gas and North Shore Gas, ComEd will target property managers and owners of both gas and all-electric multi-family residential buildings. All such targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.</p>
Marketing Strategy	<p>This program's marketing strategy will be to employ highly targeted communication channels to building owners/managers. We will deliver information directly to building owners/managers about energy efficiency for their buildings, while obtaining customer preferences and contact</p>

Program Name	Multi-Family Comprehensive Energy Efficiency Program										
	<p>information to enable more efficient future interactions. The marketing strategy will also educate customers about energy efficiency and continue to raise program awareness.</p> <p>Tactics will focus on in-building signage communications, posters and flyers. Where possible, cross-selling opportunities will be utilized for other Smart Ideas offerings with a customer leave-behind, possibly including an email capture mechanism for ongoing energy efficiency communications.</p> <p>The implementation contractor and the trade ally network who will contact the building owners/managers directly will largely execute activities.</p> <p>Marketing materials will be co-branded with participating gas utilities and leverage customer interaction as an opportunity to deliver relevant information and obtain customer satisfaction feedback and contact information.</p> <p>Key messaging for this program is: (1) joint offering to help your building become more energy efficient; (2) it's easy - participate in a turnkey program that delivers immediate and ongoing energy savings; (3) FREE energy efficient products to keep energy costs down; (4) FREE installation by qualified technicians; and (5) FREE assessment to uncover additional incentives and rebates available through the program.</p>										
Eligible Measures	<p>This program provides a free energy assessment, free installation of instant energy-savings measures, a custom report identifying additional rebates, incentives and services available through the program, and energy efficiency educational materials for participating tenants.</p> <p>A crew of technicians will install CFLs and other low-cost measures, which might include low-flow water-saving devices, programmable thermostats and pipe insulation in tenant and common area spaces. The energy savings for the CFLs accrue to ComEd. The other energy-savings devices will accrue to the gas utilities unless these devices are installed in all-electric buildings, in which case the electric savings will then accrue to ComEd. ComEd and the gas utilities may adjust provided measures in accordance with current market conditions.</p>										
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="407 1688 1377 1850"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total (Site Visits)</td> <td>33,689</td> <td>32,594</td> <td>31,591</td> <td>97,874</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total (Site Visits)	33,689	32,594	31,591	97,874
	PY7	PY8	PY9	Total							
Total (Site Visits)	33,689	32,594	31,591	97,874							

Program
Name

Multi-Family Comprehensive Energy Efficiency Program

Annual Savings Targets

	PY7	PY8	PY9	Total
Gross MWh	10,971	10,351	10,172	31,494
Net MWh	9,512	9,014	8,838	27,364
Gross MW	5	5	5	15
Net MW	5	4	4	13

Program Budget

	PY7	PY8	PY9	Total
Administration	\$152,916	\$90,002	\$92,702	\$335,620
Implementation	\$1,625,603	\$1,610,824	\$1,601,762	\$4,838,189
Incentives	\$2,573,014	\$2,310,287	\$1,899,227	\$6,782,528
Marketing and Other	\$180,000	\$180,000	\$180,000	\$540,000
Total	\$4,531,533	\$4,191,113	\$3,773,691	\$12,496,337

Cost-Effectiveness Results

	Test Results
TRC	1.23
UCT	1.02
CCE	\$0.067

Program Name	Energy Education Kits Program
Program Description	<p>The Energy Education Kits Program will target mostly fifth grade students in schools that are customers of the sponsoring utilities. As part of the program, an energy efficiency educational curriculum will be provided with take-home kits that raise awareness about how individual actions and low-cost measures can provide significant energy savings. The program's take-home kit will include CFLs, a high-efficiency showerhead and aerators.</p> <p>The objective of the Energy Education Kits Program is to encourage students and their families to take actions that can reduce their home energy usage and increase their energy efficiency.</p>
Program Duration	June 2014 through May 2017
Collaboration	<p>It is the intent of ComEd, Nicor Gas, Peoples Gas and North Shore Gas to offer this program jointly. This program will benefit both gas and electric utility customers. In addition, the utilities will collaborate in raising awareness of, and educating participants on, the benefits of energy efficiency.</p> <p>The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for participating utilities and their customers.</p>
Delivery Strategy	<p>The implementation contractor selected jointly with the gas utilities through an RFP process will deliver the program. The implementation contractor will work with the schools to introduce the program to classrooms throughout the utilities' service territory through letters and electronic communication utilized specifically by teachers and education administrators. The implementation contractor will be responsible for school recruitment, program delivery, and tabulation of results. Implementation-related administrative requirements will include:</p> <ul style="list-style-type: none"> • Developing age appropriate curricula; • Developing, assembling, distributing and tracking the kits and their components; • Creating and managing marketing, outreach and public relations; • Data tracking and reporting; and • Customer satisfaction / complaint resolution. <p>Generally, schools will receive an invitation to participate and register to receive the kits and program curriculum. After the curriculum is</p>

Program Name	Energy Education Kits Program													
	presented, students and teachers will receive a take-home energy efficiency kit that includes CFLs, a high-efficiency showerhead and aerators. It is the implementation contractor's responsibility to establish and implement a process, agreeable to the utilities, for measuring and tracking energy savings and participant data.													
Target Market	Because this program will be operated jointly with Nicor Gas, Peoples Gas and North Shore Gas, ComEd will target both gas and all-electric customers. All such targeted schools taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.													
Marketing Strategy	ComEd believes it is vital to reach out to schoolchildren with important and timely energy efficiency messages. Today's students are not only our future customers, but they also have an influence on current energy usage in their homes and in their schools. Marketing will be directed mostly to elementary schools (primarily fifth grade students) within the utilities' service territories through letters and electronic communications utilized specifically by teachers and education administrators. All educational materials and take-home efficiency kits will be free of charge to the schools and the students. The primary focus is to produce energy efficiency savings in the residential sector by motivating students and their families to take steps through reducing energy consumption for water heating and lighting in their home. Additionally, the program also aims to increase awareness and participation in the utilities' other programs via cross-marketing and increased customer awareness of energy-efficiency behaviors.													
Eligible Measures	<p>This program's eligible measures will consist of a take-home kit that includes three CFLs, a high-efficiency showerhead, and aerators.</p> <p>The energy savings for the CFLs will accrue to ComEd. The energy savings for the water-saving devices will accrue to the gas utilities unless these devices are installed in all-electric homes, whereby the electric savings will then accrue to ComEd.</p>													
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="418 1623 1383 1833"> <thead> <tr> <th data-bbox="418 1623 651 1686"></th> <th data-bbox="651 1623 833 1686">PY7</th> <th data-bbox="833 1623 998 1686">PY8</th> <th data-bbox="998 1623 1187 1686">PY9</th> <th data-bbox="1187 1623 1383 1686">Total</th> </tr> </thead> <tbody> <tr> <td data-bbox="418 1686 651 1833">Total (Energy Education Kits)</td> <td data-bbox="651 1686 833 1833">12,920</td> <td data-bbox="833 1686 998 1833">11,840</td> <td data-bbox="998 1686 1187 1833">10,760</td> <td data-bbox="1187 1686 1383 1833">35,520</td> </tr> </tbody> </table>					PY7	PY8	PY9	Total	Total (Energy Education Kits)	12,920	11,840	10,760	35,520
	PY7	PY8	PY9	Total										
Total (Energy Education Kits)	12,920	11,840	10,760	35,520										

Program Name

Energy Education Kits Program

Annual Savings Targets

	PY7	PY8	PY9	Total
Gross MWh	896	821	746	2,463
Net MWh	681	624	567	1,872
Gross MW	1	0	0	1
Net MW	0	0	0	0

Program Budget

	PY7	PY8	PY9	Total
Administration	\$21,845	\$22,501	\$23,176	\$67,522
Implementation	\$0	\$0	\$0	\$0
Incentives	\$432,820	\$396,640	\$360,460	\$1,189,920
Marketing and Other	\$0	\$0	\$0	\$0
Total	\$454,665	\$419,141	\$383,636	\$1,257,442

Cost-Effectiveness Results

	Test Results
TRC	0.97
UCT	0.72
CCE	\$0.116

Program Name	Direct-to-Consumer Kits Program
Program Description	<p>The Direct-to-Consumer Kits Program will target residential customers through a variety of channels, including but not limited to, former Smart Ideas program participants and new ComEd customers. As part of the program, energy efficiency information will be provided with the kits to raise awareness about how individual actions and low-cost energy saving measures can provide significant energy savings. The program’s kit will include a combination of CFLs and LEDs.</p> <p>The objective of the Direct-to-Consumer Kits Program is to encourage household family members to take actions that can reduce their home energy usage and increase their energy efficiency.</p>
Program Duration	June 2015 through May 2017
Collaboration	None
Delivery Strategy	<p>The implementation contractor will deliver the program through direct mail. Customers will have the option to respond and request a kit by mail or electronically (preferred method). Implementation-related administrative requirements will include:</p> <ul style="list-style-type: none"> • Developing, assembling, distributing and tracking the kits and their components; • Creating and managing marketing, outreach and public relations; • Data tracking and reporting; and • Customer satisfaction / complaint resolution. <p>It is the implementation contractor’s responsibility to establish and implement a process, agreeable to ComEd, for measuring and tracking energy savings and participant data.</p>
Target Market	This program will target residential customers through a variety of cross-company channels. All such targeted customers taking delivery service from ComEd are eligible for the program regardless of their choice of suppliers.
Marketing Strategy	ComEd believes the items included in the kits will create market transformation interest, foster innovation, and allow for the integration of energy efficiency messages. Marketing will be directed through direct mail and electronic communications. The primary focus is to produce energy efficiency savings in the residential sector by

Program Name	Direct-to-Consumer Kits Program																																			
	motivating customers to take steps through reducing energy consumption for lighting in their home. Additionally, the program also aims to increase awareness and participation in the utility's other programs via cross-marketing, web tools and increased customer awareness of energy-efficiency behaviors through ongoing communication.																																			
Eligible Measures	This program's eligible measures will consist of a consumer's kit mailed to residential customers that includes a combination of CFLs and LEDs. The kits will also include energy efficiency information that will raise awareness about how individual actions and low-cost energy saving measures can provide significant energy savings. Eligible measures may be revised as needed in accordance with current market conditions, technology development, EM&V results and program implementation experience.																																			
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="418 926 1385 1041"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total (Kits)</td> <td>0</td> <td>130,137</td> <td>91,708</td> <td>221,845</td> </tr> </tbody> </table> <p>Annual Savings Targets</p> <table border="1" data-bbox="418 1157 1385 1461"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Gross MWh</td> <td>0</td> <td>9,584</td> <td>6,754</td> <td>16,338</td> </tr> <tr> <td>Net MWh</td> <td>0</td> <td>6,996</td> <td>4,930</td> <td>11,926</td> </tr> <tr> <td>Gross MW</td> <td>0</td> <td>7</td> <td>5</td> <td>12</td> </tr> <tr> <td>Net MW</td> <td>0</td> <td>5</td> <td>3</td> <td>8</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total (Kits)	0	130,137	91,708	221,845		PY7	PY8	PY9	Total	Gross MWh	0	9,584	6,754	16,338	Net MWh	0	6,996	4,930	11,926	Gross MW	0	7	5	12	Net MW	0	5	3	8
	PY7	PY8	PY9	Total																																
Total (Kits)	0	130,137	91,708	221,845																																
	PY7	PY8	PY9	Total																																
Gross MWh	0	9,584	6,754	16,338																																
Net MWh	0	6,996	4,930	11,926																																
Gross MW	0	7	5	12																																
Net MW	0	5	3	8																																

Program
Name

Direct-to-Consumer Kits Program

Program Budget

	PY7	PY8	PY9	Total
Administration	\$0	\$22,501	\$23,175	\$45,676
Implementation	\$0	\$2,472,603	\$1,742,452	\$4,215,055
Incentives	\$0	\$3,688,082	\$2,599,005	\$6,287,087
Marketing and Other	\$0	\$0	\$0	\$0
Total	\$0	\$6,183,186	\$4,364,632	\$10,547,818

Cost-Effectiveness Results

	Test Results
TRC	1.20
UCT	0.55
CCE	\$0.188

Program Name	Single Family Home Performance
Program Description	<p>The Single Family Home Performance Program will obtain energy savings in existing residential homes by overcoming market barriers to the installation of energy efficiency measures. The program will also be used as an opportunity for customer acquisition to encourage customers to participate in other <i>Smart Ideas</i> programs. Energy-saving improvements will be promoted through a comprehensive whole house approach to energy efficiency, which includes a high-level assessment to identify other energy-saving opportunities and provide the customer with estimated cost, savings and incentives for these opportunities.</p> <p>A field technician will review the home's energy use and provide participants with information on additional energy-saving opportunities. The field technician will also install instant energy saving measures such as CFLs, faucet aerators, low-flow showerheads and other instant energy-saving measures. Participants will be educated on other <i>Smart Ideas</i> offerings that may provide benefits.</p>
Program Duration	June 2014 through May 2017
Collaboration	It is the intent of ComEd, to the extent possible, to offer this program in coordination with Nicor Gas, Peoples Gas and/or North Shore Gas. There is a high potential for this program to benefit both gas and electric utility customers.
Delivery Strategy	<p>An implementation contractor will deliver the program. The contractor will work with ComEd to finalize the program design, develop marketing materials, conduct program marketing and outreach activities, and provide energy assessments and direct installations in the target market.</p> <p>After a customer has expressed interest in the program, the implementation contractor will schedule a site visit to the home. During this visit, a field technician will conduct a high-level energy assessment, install energy-saving measures and provide the customer with information on other utility program offerings. The field technician will explain the assessment results and provide recommendations for energy savings opportunities. CFLs, water-saving devices, including low-flow showerheads, faucet aerators, and other energy-savings measures will be installed at no additional cost to the customer.</p>

Program Name	Single Family Home Performance										
	Inspection and installation protocols will be established for this program and will require that all work meet or exceed the utility's standards.										
Target Market	This program is designed for residential customers seeking to make their home more energy efficient. All residential electric customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.										
Marketing Strategy	<p>The marketing strategy will be to employ targeted communication channels to segments throughout the service territory. Community-based outreach and neighborhood organizations will be used to build awareness of the program and grow participation.</p> <p>We will leverage customer interactions to deliver information about energy efficiency for single family homes, and obtain customer preferences and contact information, including email addresses that can be used to make ongoing and future communications more efficient and effective.</p> <p>The marketing strategy will also educate customers about general energy efficiency and continue to increase awareness about the benefits of energy efficiency in their homes. Tactics will focus on direct mail, bill inserts, and possible local media, print and community outreach, leveraging a word-of-mouth strategy. To the extent ComEd employs a local marketing strategy to gather up constituents along the way who have had successful installation of energy savings measures, we may consider additional incentives and rewards for participating in other programs.</p>										
Eligible Measures	<p>The program will provide participants with free installation of CFLs, water-saving devices, other instant energy-saving measures and a high-level energy assessment.</p> <p>Participants will also be encouraged to participate in other <i>Smart Ideas</i> offerings by offering bonus and bundling incentives.</p>										
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="407 1766 1325 1913"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total (Assessments)</td> <td>7,325</td> <td>25,000</td> <td>25,000</td> <td>57,325</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total (Assessments)	7,325	25,000	25,000	57,325
	PY7	PY8	PY9	Total							
Total (Assessments)	7,325	25,000	25,000	57,325							

Program Name	Single Family Home Performance			
	Annual Savings Targets			
	PY7	PY8	PY9	Total
Gross MWh	2,604	9,473	9,472	21,549
Net MWh	2,139	7,592	7,590	17,321
Gross MW	2	6	6	14
Net MW	1	5	5	11
	Program Budget			
	PY7	PY8	PY9	Total
Administration	\$87,381	\$90,002	\$92,702	\$270,085
Implementation	\$522,839	\$3,237,500	\$3,237,500	\$6,997,839
Incentives	\$672,577	\$1,192,415	\$1,156,859	\$3,021,851
Marketing and Other	\$169,333	\$125,000	\$125,000	\$419,333
Total	\$1,452,130	\$4,644,917	\$4,612,061	\$10,709,108
	Cost-Effectiveness Results			
		Test Results		
	TRC	1.11		
	UCT	1.16		
	CCE	\$0.114		

Program Name	Residential New Construction Program
Program Description	<p>The Residential New Construction Program is designed to increase awareness and understanding among Home Energy Rating System (“HERS”) rating companies and home-builders of the benefits of energy-efficient building practices, with a focus on capturing energy efficiency opportunities that are available during the design and construction of new single family homes.</p> <p>Particular emphasis will be placed on (and incentives targeted at) building homes that exceed the 2012 Illinois Energy Conservation Code (“2012 IECC Code”) by at least 10%. To further ensure that energy efficiency opportunities are installed in new homes, the program will provide HERS rating companies and home-builders with incentives for installing certain ENERGY STAR qualified products (refrigerators and exhaust fans). The program will also provide incentives for installing Electronically Commutated Motors (“ECM”) furnace fans and central air conditioning units with a 14.5 or higher SEER.</p>
Program Duration	June 2014 through May 2017
Collaboration	<p>It is the intent of ComEd and Nicor Gas to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility’s customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for participating utilities and their customers.</p>
Delivery Strategy	<p>An implementation contractor selected jointly by Nicor Gas and ComEd will deliver the program. Key elements of the implementation strategy include:</p> <ul style="list-style-type: none"> • Rater & Builder Recruitment: The primary recruitment effort will target HERS rating companies and home-builders in our service territory, with recruitment occurring through individual contact, group outreach events and involvement in local industry organizations, publications, and training events. Raters and builders participating in the program will receive regular communications about program activities to ensure that they are informed and engaged participants. • Customer Recruitment: The primary customer messaging will be that homes built to higher energy efficiency standards can reduce overall energy use, cost less to operate, and provide greater comfort. • Technical Assistance: The implementation contractor will provide

Program Name	Residential New Construction Program
	<p>training and guidance regarding program offerings and participation processes to raters and builders as needed to minimize confusion and barriers to participation.</p> <ul style="list-style-type: none"> • Project Verification: Program verification will occur through the independent local HERS rating companies that participate in the program as they conduct site inspections and report on the efficiency level of each home enrolled in the program when construction is complete. Separate QA/QC requirements performed by the implementation contractor are also required. ComEd reserves the right to site-verify projects prior to payment of any incentive. <p>The implementation contractor is responsible for educating and training the primary trade allies (<i>i.e.</i>, home-builders and home raters). The implementation contractor will conduct periodic training sessions detailing the requirements and administrative functions for participating in the program. The implementation contractor may also plan sessions that focus on the fundamentals of building science for this same audience.</p>
Target Market	<p>This program will be operated jointly with Nicor Gas and will target new single family homes that are being built in areas that take delivery service from both ComEd and Nicor Gas regardless of their choice of suppliers.</p>
Marketing Strategy	<p>The marketing strategy will focus on raising awareness and creating action among both HERS rating companies and home-builders that are directly involved in the process of constructing new single family homes. Messaging will emphasize that there are distinct advantages to using energy-efficient building practices and installing energy-efficient components during the initial building construction.</p> <p>The program will be promoted to HERS rating companies and home-builders using various targeted marketing tactics, including direct outreach and involvement in local industry organizations, publications, and training events. The implementation contractor will provide all recruitment and training services for the program. The participating HERS rating companies are an integral actor in promoting the program to home-builders in addition to the efforts by the implementation contractor. This comprehensive effort is intended to communicate the benefits of the program and teach and motivate home-builders to differentiate themselves in the marketplace by building homes that exceed the current energy code. The implementation contractor is also responsible for leading the creation and development of all marketing materials, including webpage content, builder and rater fact sheet, and a homeowner’s certification letter.</p>

Program Name	Residential New Construction Program																																			
	<p>The marketing effort must deliver both knowledge about the benefits of energy efficiency and the availability of this program's elements. The program will provide a tangible benefit/incentive to influence the home builders to participate.</p> <p>Key messaging for this program is: (1) take advantage of ComEd's energy efficiency component programs right from the start; (2) reduce your future energy bills by installing energy efficient components in your new home; (3) our reliable and cost-effective energy efficiency programs help protect your new investment; and (4) building suppliers - be a trusted advisor and deliver value to your home purchasers by recommending energy efficient components right from the start.</p>																																			
Eligible Measures	<p>The eligible measures begin with the building of homes that exceed the 2012 IECC²⁰ by at least 10%. Other eligible measures include ECM furnace fans, 14.5 or higher SEER central air conditioning units, ENERGY STAR refrigerators, and ENERGY STAR exhaust fans. ComEd reserves the right to revise eligible measures and incentives as needed in accordance with current market conditions, technology development, EM&V results, the joint program operation with Nicor Gas, and implementation experience.</p>																																			
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="418 1119 1380 1239"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total (Units)</td> <td>374</td> <td>431</td> <td>363</td> <td>1,168</td> </tr> </tbody> </table> <p>Annual Savings Targets</p> <table border="1" data-bbox="418 1354 1380 1663"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Gross MWh</td> <td>19</td> <td>23</td> <td>19</td> <td>61</td> </tr> <tr> <td>Net MWh</td> <td>16</td> <td>19</td> <td>15</td> <td>50</td> </tr> <tr> <td>Gross MW</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Net MW</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total (Units)	374	431	363	1,168		PY7	PY8	PY9	Total	Gross MWh	19	23	19	61	Net MWh	16	19	15	50	Gross MW	0	0	0	0	Net MW	0	0	0	0
	PY7	PY8	PY9	Total																																
Total (Units)	374	431	363	1,168																																
	PY7	PY8	PY9	Total																																
Gross MWh	19	23	19	61																																
Net MWh	16	19	15	50																																
Gross MW	0	0	0	0																																
Net MW	0	0	0	0																																

²⁰ International Energy Conservation Code ("IECC")

Program Name	Residential New Construction Program
---------------------	---

Program Budget

	PY7	PY8	PY9	Total
Administration	\$21,846	\$22,501	\$23,176	\$67,523
Implementation	\$8,720	\$10,049	\$8,463	\$27,232
Incentives	\$0	\$0	\$0	\$0
Marketing and Other	\$0	\$0	\$0	\$0
Total	\$30,565	\$32,549	\$31,639	\$94,753

Cost-Effectiveness Results

	Test Results
TRC	0.57
UCT	0.61
CCE	\$0.085

Demand Response

Consistent with Plan 2, we do not intend to implement a standalone demand response program as an element of this Plan 3. Rather, we propose to maintain the existing demand response program. Even so, ComEd can still achieve the statutory demand response goal through the residential program elements. Moreover, as we increase our effort to maximize kWh savings, it does not make sense to invest in a program that has cumulative costs that could dramatically affect the spending screen in future years.

Accordingly, we propose to continue the AC Cycling program in maintenance mode. Because this program was offered as part of Plan 1, Plan 3 will continue to have the benefit of the curtailable load that was originally obtained under Plan 1. While this program will still be open for new participants, it will not be funded through the Plan.

In terms of achieving the statutory MW goal going forward, ComEd believes the MWs obtained through the residential energy efficiency program elements fully meet the statutory MW goal. In fact, we expect to greatly exceed the statutory MW goal through these residential programs.

We note that the statutory demand response goal only applies to those customers who are receiving bundled energy through ComEd. Because our programs are supplier-agnostic, we applied the same retention factors to our residential demand reductions as we provided to the IPA for the most recent draft procurement plan.

The above table projects the MW impact for all program elements across the three years. As the statutory MW target only applies to the residential and very small business classes, it is still apparent that the three-year residential totals of 76.0 MW,

Table 9. Net MW Reduction from Programs

Programs	Net MW			
	PY7	PY8	PY9	Total
C&I - EE Programs				
Incentives	28.4	24.1	23.6	76.1
Optimization	3.8	4.0	4.1	11.9
Mid-Stream	32.8	34.6	36.7	104.1
New Construction	2.7	2.8	3.0	8.5
C&I TOTAL	67.7	65.5	67.4	200.6
RESIDENTIAL - EE Programs				
Residential Lighting	60.4	13.3	11.7	85.4
Residential Products	0.0	0.9	0.9	1.8
Appliance Recycling	8.1	9.2	9.2	26.5
Complete System Replacement	1.0	3.1	3.0	7.1
Multi-family Comprehensive EE	4.6	4.4	4.3	13.3
Single-Family Home Performance	1.5	5.0	5.0	11.5
Energy Education Kits	0.4	0.4	0.3	1.1
Direct-to-Consumer Kits	0.0	4.8	3.4	8.2
New Construction	0.0	0.0	0.0	0.0
RESIDENTIAL TOTAL	76.0	36.3	37.8	150.1
IPA Retained Customer Percentage	24.5	23.7	23.6	
Residential Total (IPA Served Only)	18.6	8.6	8.9	36.1
Total ComEd EE Programs	143.7	101.8	105.2	350.7

36.3 MW, and 37.8 MW greatly exceed the statutory MW goals of 2.8 MW, 2.7 MW and 2.6 MW, respectively.

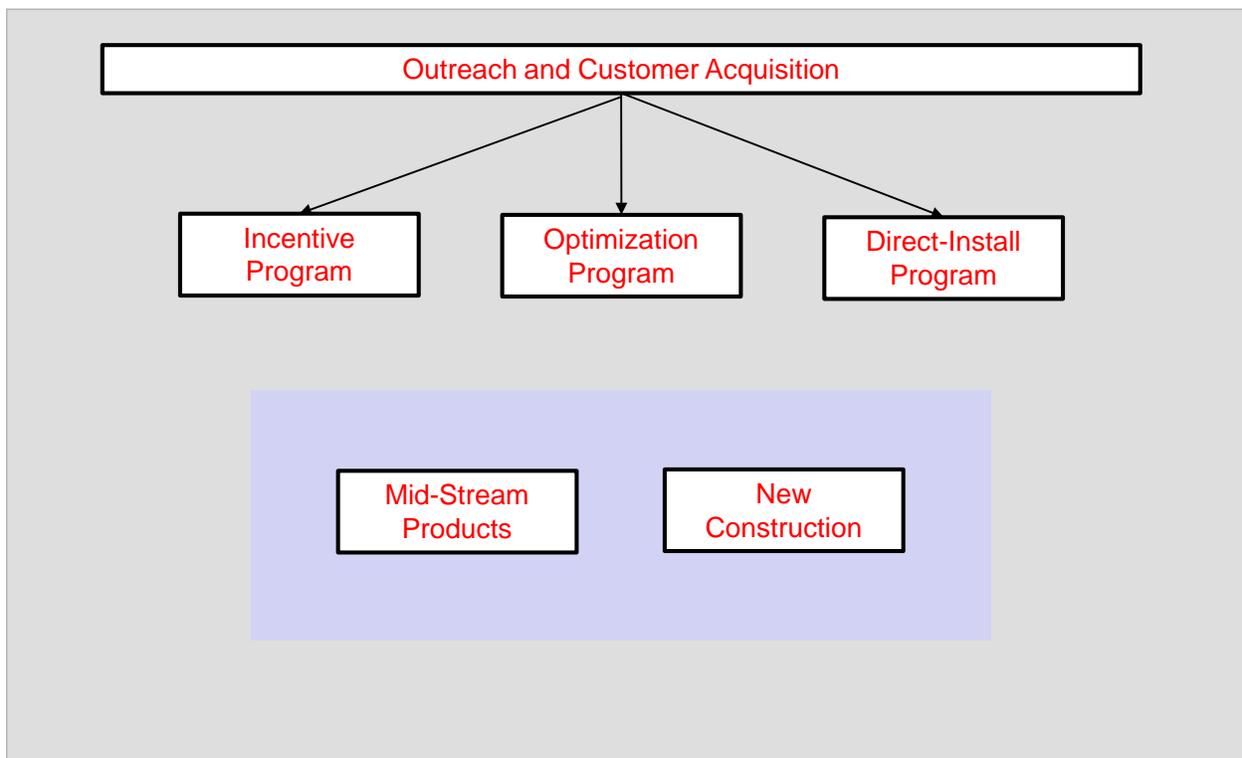
We believe this approach, given the spending screen limits, is the most appropriate approach to take at this juncture in the life of our portfolio.

Smart Ideas for Your Business - C&I Program Elements

ComEd's *Smart Ideas for Your Business* program is targeted at ComEd's commercial and industrial ("C&I") customer segment. C&I customers total approximately 375,000, accounting for 10% of ComEd's customers and approximately 65% of overall kWh usage.

The *Smart Ideas for Your Business* program consists of five core programs,²¹ with an overarching customer acquisition platform that ensures each interested participant is directed to the program that is most suited to its needs.

Figure 6. C & I Program Structure



²¹ The Small Business Direct Install Program, while still an important program in our portfolio, has been greatly expanded in scope and moved to ComEd's IPA program.

In Plan 2, a number of “boutique” programs were developed to target certain niche markets such as data centers and commercial real estate properties. While these programs were successful in addressing these niche markets, we have come to realize that they were really just strategic delivery mechanisms for our core set of programs. For Plan 3, we will continue to target additional sectors; however, these targeting activities will be addressed through the Outreach and Customer Acquisition process and the core programs rather than through separate carve-out programs. We believe this is a more straightforward and cleaner approach to the marketplace.

Over the next three years, four programs will drive energy efficiency in the business sector for Plan 3 – (1) Incentives, (2) Optimization, (3) Midstream, (4) New Construction. These programs are projected to produce energy savings of 1,290,000 MWh. This program segment is expected to attain 67% of the portfolio kWh target in PY7, 82% in PY8 and 80% in PY9. Additionally, we will be introducing a new pilot program that targets our largest C&I customers.

The *Smart Ideas for Your Business* programs will provide, to the extent practical, cooperative offerings with Nicor Gas’ and Integrys’ natural gas program offerings.

The table below summarizes the *Smart Ideas for Your Business* program elements, including their current status in the portfolio, implementation date, and involvement of gas companies.

Table 10. C & I Programs

Commercial & Industrial Programs				
Programs	Program Status	Start Date	Electric Only or Electric / Gas	Program Snapshot
Incentives	Continuing	on-going	Electric Only	Continuation of combined Standard and Custom Incentives
Optimization	Continuing	on-going	Electric/Gas	Combination of Retrocommissioning and Industrial Systems programs
Midstream	Continuing	on-going	Electric Only	Continuation of existing mid-stream incentives program, realigned to allow inclusion of non-lighting technologies
New Construction	Continuing	on-going	Electric/Gas	This program continues largely unchanged, excepting for consideration of IECC 2012 baseline adjustments
Large C/I Pilot	Pilot	6/1/14	Electric Only	Pilot program targeted at largest C/I customers.

C&I Outreach and Customer Acquisition

The Outreach and Acquisition Strategy organizes the *Smart Ideas for Your Business* program into five program elements that include Incentives, Optimization, Direct Install,²² Midstream and New Construction. This organization simplifies portfolio management by grouping programs with similar characteristics. A Customer Relationship Management (“CRM”) system was also developed via a network of databases, which enabled tracking and management of customer acquisition activities,

²² See fn 24 *supra*.

including outreach, trade ally and service provider training, marketing, facility opportunity assessments, and events. By having all program activity captured within this database system, program implementers and ComEd program managers have the ability to communicate with customers with minimum redundancy, determine the status of their program participation, assess customer need, and share customer information across all program elements.

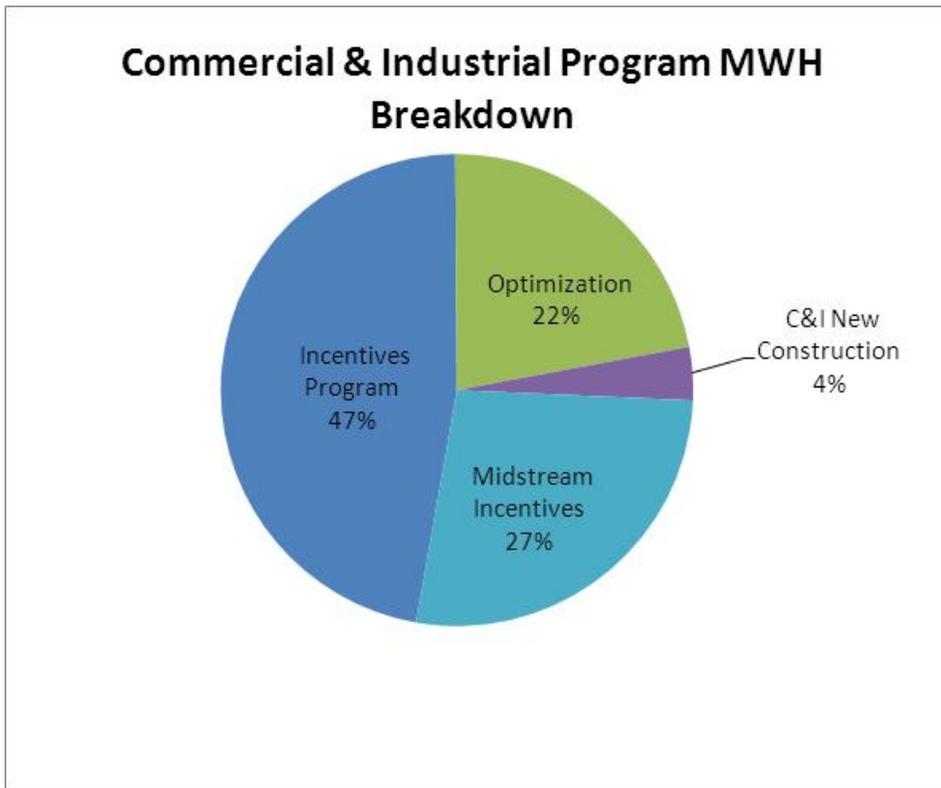
Customer acquisition begins with customer outreach. Various outreach strategies for *Smart Ideas for Your Business* increase program awareness and identify trade ally training opportunities, leading to higher performing trade allies, service providers and distributors. This, in turn, increases the identification of projects that feed the program sales channel and increases customer participation. Targeted email campaigns are used to communicate program updates and other information to small business trade allies, architectural and engineering firms, service providers, and distributors, as well as customers. Program events are also tracked and customer attendee information is captured. Targeted municipal Chamber of Commerce outreach activities are also tracked and shared across programs.

In addition to outreach efforts, Smart Ideas Opportunity Assessments (“SIOA”) and Commercial Building Incentive Assessments (“CBIA”) provide a source for customer leads and increase customer awareness. Project opportunities identified by these visits to customers’ facilities are captured within ComEd’s CRM system for follow-up by outreach staff. Remote Building Assessments (“RBA”) will be introduced as a new element within our outreach strategy to increase available customer information and assess needs. All of the collected data becomes available to program managers and implementers for use in quantifying customer opportunities and determining the appropriate program for customer engagement.

This strategy provides *Smart Ideas for Your Business* program managers and implementers with the ability to increase customer awareness of, and participation in, the programs and encourages customers to regard ComEd as a trusted energy advisor.

The chart below shows the expected breakdown of MWh savings by program element within the C&I segment. The C&I segment is still driven by the Incentives program because it is the biggest program in the overall portfolio and projected to account for 49% of the savings in the C&I segment.

Figure 7. C & I Program MWh Breakdown



It should be noted that the Small Business Direct Install Program, while not represented in Plan 3, is being offered under the IPA portfolio on a much larger scale when compared to Plan 2. However, in the event the Small Business Direct Install program achieves its IPA MWh goal and additional funding remains under Plan 3, ComEd intends to continue offering the program under this Plan with the energy savings inuring to this Plan.

The following pages give a detailed description of the *Smart Ideas for Your Business* program elements.

Program Name	C&I Incentives Program
Program Description	<p>The C&I Incentives program provides monetary incentives to customers who implement qualified energy efficiency improvements in their facilities. The incentive structure can be either on a “Standard” per-unit or per-fixture basis, which is the case with most lighting measures, or “Custom,” with the incentive based on the calculated energy savings for the customer. Within the Standard element, discrete retrofit opportunities are targeted, such as lighting and HVAC systems. Standard incentives also will target new system installation opportunities (e.g., lighting systems) by offering incentives that “bundle” equipment and controls technologies. Streamlined incentive application and verification and quality control processes will be employed to facilitate ease of participation and minimize the time required for incentive payment. Most Standard measures have savings algorithms and assumptions based on the Illinois TRM.</p> <p>The Custom element, on the other hand, will identify and implement site-specific and unique cost-effective energy efficiency opportunities that are not available via the Standard element. Many C&I projects involve multiple measures with interactive effects, process improvements, or complex measures for which deemed savings or simple saving algorithms are not appropriate. As a result, customized incentives based on calculated savings for specific customer projects will be offered. Technical assistance and funding (pre-approved study cost) for a limited number of feasibility and engineering studies will be provided to assist in the evaluation and implementation of energy efficiency projects.</p> <p>Relationships with Trade Allies (e.g., equipment vendors and installation contractors) are a key strategy for promoting the Standard element, while key segments of the Trade Ally market (e.g., specialized engineering firms, energy service providers) will be critical for promoting the Custom element to customers. Standard incentives marketing and outreach also will target high-potential customer segments, such as hospitals, office buildings, warehouses and colleges/universities. Additional leads are expected from <i>Smart Ideas</i> Opportunity Assessments (“SIOA”), Commercial Building Incentive Assessments (“CBIA”) and DCEO’s market transformation programs – Smart Energy Design Assistance Program and Large-customer Energy Analysis Program.</p>
Program Duration	June 2014 through May 2017
Collaboration	<p>Because this program offers primarily electric-only energy savings, it is not being offered as a coordinated program. However, measures that are incentivized by both ComEd and one or more of the gas companies are flagged as such in our application documents (e.g., “Your gas company may offer an additional prescriptive or custom rebate for this measure”). We also will continue to leverage opportunities from consumer education on this program and other joint gas program customer outreach and engagement activities.</p>

Program Name	C&I Incentives Program
Delivery Strategy	<p>We will utilize a variety of implementation contractors to fulfill this program. As part of our overarching solution provision strategy, we will utilize a variety of specialized implementers to support the wide variety of customer segments, including Commercial Real Estate, Hospitality, Health Care, and Industrial. We will also maintain a primary administrative implementer to manage back-office operations, Trade Ally management and general outreach.</p> <p>For the Standard Incentives, ComEd Account Managers will help to market the program and identify potential candidate customers for participation. Account Managers also will encourage their customers to request a SIOA -- an on-site facility assessment conducted by an engineer to identify energy-efficiency opportunities eligible for <i>Smart Ideas</i> incentives.</p> <p>ComEd Account Managers and direct outreach by ComEd and implementation contractors will be the primary drivers for the Custom element. Third-party engineering consultants will perform energy studies. Efficiency measure implementation and installation via either element will be the responsibility of the customer and trade ally.</p> <p>Key elements of the Standard element implementation strategy include:</p> <ul style="list-style-type: none"> • Trade Ally recruitment and training: Trade Allies and key segments such as specialized engineering firms and energy service providers will be the key delivery mechanism for promoting participation and available incentives to their customers. Trade allies will be recruited to participate in training sessions to inform them about program incentives, participation processes, and requirements. Trade allies actively participating in this element and other program offerings will receive regular communications about program activities and changes to ensure they are informed and engaged participants. • Customer recruitment: Customers will be recruited primarily through marketing and direct outreach activities. Special outreach and marketing efforts will be made to recruit high-potential customer segments, such as hospitals, office buildings, warehouses and colleges/universities. Account Manager referrals and Trade Allies will be key to customer recruitment, especially for our larger customers. To ensure that C&I customers perceive our energy efficiency programs as a seamless set of offerings, cross-referrals from other programs will also be provided, where appropriate. • Smart Ideas Opportunity Assessments: The program implementation contractor will follow up with customers who receive a SIOA to encourage them to implement recommendations made in the report and answer any questions they have about available incentives.

Program Name	C&I Incentives Program
	<ul style="list-style-type: none"> • Technical assistance: The program implementation contractor will provide guidance regarding program offerings and participation processes to customers and Trade Allies as needed to minimize confusion and barriers to participation. Engineering support will also be provided to identify and assess the cost-effectiveness of unique energy savings project opportunities (e.g., data centers and process efficiency) not covered by Standard Incentives. • Application submittal: Customers will submit incentive applications and required documentation after installation of qualifying energy efficiency measures has been completed. • QA/QC review: Incentive applications will be subject to a QA/QC review by technical staff to ensure all required forms and documentation have been submitted, and that calculation of incentive totals are correct. • Project verification: We will reserve the right to site-verify installations prior to approval and incentive payment. • Incentive payment: To minimize barriers to participation within the Standard element, we will seek to expedite incentive payments.
Target Market	<p>This program is designed for C&I customers seeking to improve the efficiency of existing facilities. All targeted customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.</p>
Marketing Strategy	<p>Trade Allies and ComEd account managers are the primary conduits for this program and we will leverage their direct relationships with their C&I customers to market this program. The following marketing strategies will help meet program goals:</p> <ul style="list-style-type: none"> • Segment incentive offerings (and associated marketing materials) by market sector to increase relevancy to Trade Allies and target audiences. Example segment offerings include hospitals, universities, grocery stores, car dealerships and industrial customers. • Segment customers by energy intensity usage and target marketing through industry associations, trade shows, direct mail and email marketing campaigns. • Educate and leverage existing resources (Trade Allies, ComEd Account and External Affairs Managers, and the ComEd call center) to their greatest potential to achieve broad-based awareness at the lowest possible cost. • Leverage, grow and diversify Trade Ally relationships to extend reach and cultivate increased awareness among different customer segments.

Program Name	<p>C&I Incentives Program</p>										
	<p>Tactics include: direct relationship marketing via personal sales visits to large C&I accounts and Trade Allies. Other tactics include targeted email communications, direct mail, newsletters and customer events.</p> <p><u>Key Messages</u></p> <p>When communicating with customers, ComEd uses a few overarching key messages including:</p> <ul style="list-style-type: none"> • <i>Energy efficiency reduces operating costs and improves the bottom line</i> • <i>Rebates and incentives shorten payback periods for energy-efficient equipment and systems</i> • <i>Investing in energy savings is a smart decision</i> <p>When communicating with Trade Allies, ComEd uses a few overarching key messages including:</p> <ul style="list-style-type: none"> • <i>Promoting energy efficiency can help you grow your business</i> 										
Eligible Measures	<p>C&I Incentives program element measures will include energy-efficient equipment that has broad application in nonresidential sectors, such as LED, T-8 and T-5 lighting and controls, building automation systems, air- and water-cooled chillers and variable speed drives, as well as equipment with niche or targeted market applications, such as laboratory, farm and commercial food service equipment and grocery refrigeration measures. Process efficiency improvements, system upgrades and those measures not covered by the Standard Incentive are also included.</p>										
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="402 1392 1369 1514"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total projects</td> <td>3,712</td> <td>3,392</td> <td>3,376</td> <td>10,480</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total projects	3,712	3,392	3,376	10,480
	PY7	PY8	PY9	Total							
Total projects	3,712	3,392	3,376	10,480							

Program Name

C&I Incentives Program

Annual Savings Targets

	PY7	PY8	PY9	Total
Gross MWh	327,649	302,272	301,683	931,604
Net MWh	215,277	196,742	195,831	607,850
Gross MW	42,914	36,832	36,283	116,028
Net MW	28,391	24,096	23,642	76,129

Program Budget

	PY7	PY8	PY9	Total
Administration	\$436,903	\$450,010	\$463,510	\$1,350,423
Implementation	\$12,712,487	\$11,641,171	\$11,820,724	\$36,174,382
Incentives	\$27,417,844	\$26,609,207	\$27,986,173	\$82,013,224
Marketing and Other	\$1,003,907	\$864,143	\$832,734	\$2,700,784
Total²³	\$41,571,141	\$39,564,531	\$41,103,141	\$122,238,813

Cost-Effectiveness Results

	Test Results
TRC	1.70
UCT	3.21
CCE	\$0.013

²³ The Total Budget for C&I Incentives includes the costs associated with the Large C&I Pilot.

Program Name	C&I Optimization Program
Program Description	<p>This program is designed to assist C&I customers in identifying low-cost and no-cost operational adjustments that will optimize the performance of energy-using systems in existing buildings. There are four optimization categories under this program:</p> <ul style="list-style-type: none"> • Retro-Commissioning (“RCx”) • Compressed Air • Industrial Refrigeration • Process Cooling <p>In addition, opportunities for capital investments to improve energy efficiency may be identified during the study. All studies will include:</p> <ul style="list-style-type: none"> • Required pre-approval for participation in the study and eligibility for incentives • Analysis of operating parameters and energy use for each system in the study • A written report that identifies opportunities for operational improvements, with associated project costs and energy savings • A list of system recommendations, paybacks, rebate opportunities and estimated savings on energy costs <p>RCx</p> <p>For large buildings, typically defined as over 400,000 square feet, the cost of a comprehensive RCx study will be paid by ComEd as an incentive (for joint gas-electric RCx projects, ComEd will share incentive and project administration costs with the customer’s natural gas utility). In exchange, customers sign a Program Agreement committing them to spend at least \$15,000 or \$30,000 (depending on project size) to implement agreed-upon energy-saving improvements resulting in a bundled estimated simple payback of 1.5 years or less.</p> <p>Large buildings will also have the option of pursuing monitoring-based commissioning (“MBCx”). Under MBCx, a cash incentive will be paid to assist customers with the costs of integrating monitoring software into their existing building automation system. In addition, a performance-based incentive of \$0.07 per kWh will be available for verified savings generated by implementation of improvements first identified by ongoing monitoring of building systems. To be eligible for these incentives, customers will be required to sign a contract with an approved service provider committing to at least 18 months of monitoring-based commissioning.</p>

Program
Name

C&I Optimization Program

For smaller buildings, RCx study costs will be limited to ensure cost-effective generation of energy savings. Two options for smaller buildings will be available. The first will offer a limited-scope, targeted assessment of systems and potential improvements likely to offer substantial energy savings opportunities. The second will use a whole-building model of interval energy usage data to identify opportunities for savings. To motivate these smaller buildings to participate, the utilities will pay the cost of the assessment or whole building modeling. In addition, in some cases a portion – or even all – of the implementation costs will be paid as an incentive.

Compressed Air, Industrial Refrigeration, and Process Cooling (Industrial Systems)

Studies will be offered based on the customer's existing system characteristics. Each study has requirements that must be met:

Compressed Air

- System must be at least 250 HP in installed capacity
- Customers are to repair at least 50% of the leak volume identified during the assessment of the compressed air systems

Industrial Refrigeration

- System must be at least 500 HP in installed capacity
- Customers are expected to implement at least \$15,000 of the improvements identified during the study

Process Cooling

- System must be at least 500 tons in installed capacity
- Customers are expected to implement at least \$15,000 of the improvements identified during the study

In addition, all accepted Industrial Systems customers will be eligible to receive a one-time incentive of \$0.07 per kWh (capped at 100% of project costs) for all measured and verified annual kWh savings that are achieved as a direct result of implementing the measures identified in the assessment.

To drive high participation and project completion rates in the C&I

Program Name	<p>C&I Optimization Program</p>
	<p>Optimization Program, the following tactics will be used:</p> <ul style="list-style-type: none"> • Market the program to customers occupying “good candidate” buildings through focused efforts of our C&I Account Managers, the program’s qualified service providers, and the program implementation team. • Implement a detailed application screening process including benchmarking of energy use to qualify candidates having the highest potential for successful project completion. • Ensure that the service provider will be available to support the customer during implementation of recommended measures, including estimating potential costs for each improvement. • Generate confidence in the program by operating in a highly controlled manner with significant technical and managerial oversight provided on each project. • Engage senior management decision-makers as well as facility operations and maintenance staff through program marketing activities and industry education and outreach, such as Building Operator Certification (“BOC”) training. • Promote participation through educational program components emphasizing the value of the program. • Help to ensure savings persistence by promoting improved operations and maintenance practices.
Program Duration	June 2014 – May 2017
Collaboration	<p>There is high potential for RCx to benefit both gas and electric customers, and it is the intent of ComEd to partner with Nicor Gas to the extent possible given their budgetary constraints. The level of involvement of the gas utilities in each individual approach to RCx and the mechanisms used to share program costs will be determined on a year-by-year basis.</p>
Delivery Strategy	<p>The implementation contractor will oversee all activities conducted by participating service providers, review submitted program documents, and provide independent evaluation of savings estimates and post-installation verification. Our Account Managers will help market this program element and identify potential customers for participation.</p> <p>Key elements of the C&I Optimization program implementation strategy include:</p> <ul style="list-style-type: none"> • Service Provider (“SP”) recruitment and training: SPs will be

Program Name	C&I Optimization Program
	<p>selected through competitive RFP processes. Once approved, SPs will be required to participate in training sessions to inform them about program element incentives, participation processes, study protocols and requirements. They will also receive regular communications about program element activities and changes to ensure they are informed and engaged participants.</p> <ul style="list-style-type: none"> • Customer recruitment: Program staff, as well as SPs, will recruit customers. Because the program element targets larger customers, referrals by our Account Managers will be a key step in customer recruitment. To ensure that C&I customers perceive our energy efficiency programs as a seamless set of offerings, cross-referrals from other program elements will also be provided where appropriate. • Commercial Building Incentive Assessments: The program implementation contractor will follow up with customers who receive a CBIA to encourage them to implement recommendations made in the report and answer any questions they have about available incentives. • Technical assistance: The program implementation contractor will provide guidance regarding program offerings and participation processes to customers and SPs as needed to minimize confusion and barriers to participation. • Pre-screening: To ensure that RCx efforts are focused on high-opportunity buildings, ComEd will promote benchmarking with the Environmental Protection Agency’s (“EPA”) Portfolio Manager rating system and other standard industry benchmarks as a pre-screening mechanism. For compressed air, industrial refrigeration, and process cooling studies, minimum system capacities are required as discussed above. • Project verification: All measures implemented by the customer will be verified to confirm expected performance. • QA/QC review: Incentive applications will be subject to QA/QC review to ensure all required forms and documentation have been submitted, and that calculation of incentive totals are correct. • Incentive payment: To minimize barriers to participation, the Program will seek to expedite incentive payment.
Target Market	<p>This program will be targeted to C&I customers. For RCx, customers suitable for the “smaller” category will typically have peak demand of 100-400 kW, while larger customers will have peak demand in excess of 400 kW. Industrial Systems customers that have high potential for energy savings in their compressed air, industrial refrigeration, and/or</p>

Program Name	C&I Optimization Program
	process cooling systems are also targeted, although all industrial customers will be evaluated for inclusion in the program. All targeted customers taking delivery service from ComEd are eligible for this program element regardless of their choice of supplier.
Marketing Strategy	<p>RCx and Industrial System Service Providers (“SPs”) are the primary conduit for this program and will market the program through their direct relationships with C&I customers. They will identify, communicate, and enroll customer participants through their own marketing initiatives, assisted by the efforts of our Account Managers, which may be supplemented by the program.</p> <p>The following are marketing strategies that will help meet program goals:</p> <ul style="list-style-type: none"> • Leverage, grow and diversify retro-commissioning and industrial system service provider relationships to achieve aggressive target. • Educate and leverage existing resources (e.g., Trade Allies and ComEd Account Managers) to their greatest potential to more effectively and economically reach customer segments. • Segment customers by their building type and industrial segment types and tailor communications and incentive offerings based on this information. <p>Tactics include co-branded marketing collateral from ComEd (and gas utilities where appropriate), direct mail, newsletters, trade shows, and email communications to market the program.</p> <p>Key Messages</p> <ul style="list-style-type: none"> • <i>Retro-commissioning and Industrial Systems examine energy use by your building’s various systems.</i> • <i>Specialized studies are available for compressed air, industrial refrigeration, and process cooling systems.</i> • <i>These studies help you identify no-cost and low-cost operational improvements that can reduce energy usage and save money, with quick payback on your investment.</i> • <i>Is your building out of shape?</i> • <i>Are your industrial systems running optimally?</i>

Program Name	C&I Optimization Program																																																																				
Eligible Measures	<p>RCx will obtain kWh savings through the identification and implementation of low-cost operational adjustments such as scheduling measures, Variable Air Volume (“VAV”) reset, air and coil balancing, temperature reset, thermostat control, and other strategies that improve the efficiency of existing buildings’ operating systems while also meeting the indoor environmental quality requirements of the building’s occupants.</p> <p>Industrial Systems studies will identify low cost and capital measures such as optimizing operating parameters, properly matching equipment to load and installing controls that improve system efficiency.</p>																																																																				
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="402 730 1388 846"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total Projects</td> <td>475</td> <td>491</td> <td>502</td> <td>1,468</td> </tr> </tbody> </table> <p>Annual Savings Targets</p> <table border="1" data-bbox="402 961 1388 1255"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Gross MWh</td> <td>96,810</td> <td>100,807</td> <td>103,216</td> <td>300,833</td> </tr> <tr> <td>Net MWh</td> <td>92,547</td> <td>95,781</td> <td>97,831</td> <td>286,159</td> </tr> <tr> <td>Gross MW</td> <td>4.3</td> <td>4.6</td> <td>4.7</td> <td>13.7</td> </tr> <tr> <td>Net MW</td> <td>3.8</td> <td>4.0</td> <td>4.1</td> <td>11.9</td> </tr> </tbody> </table> <p>Program Budget</p> <table border="1" data-bbox="402 1371 1388 1753"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Administration</td> <td>\$349,522</td> <td>\$360,008</td> <td>\$370,808</td> <td>\$1,080,338</td> </tr> <tr> <td>Implementation</td> <td>\$3,673,018</td> <td>\$3,833,421</td> <td>\$3,900,737</td> <td>\$11,407,176</td> </tr> <tr> <td>Incentives</td> <td>\$7,518,100</td> <td>\$7,813,100</td> <td>\$7,910,000</td> <td>\$23,241,200</td> </tr> <tr> <td>Marketing and Other</td> <td>\$206,325</td> <td>\$178,517</td> <td>\$178,517</td> <td>\$563,359</td> </tr> <tr> <td>Total</td> <td>\$11,746,965</td> <td>\$12,185,046</td> <td>\$12,360,062</td> <td>\$36,292,073</td> </tr> </tbody> </table>					PY7	PY8	PY9	Total	Total Projects	475	491	502	1,468		PY7	PY8	PY9	Total	Gross MWh	96,810	100,807	103,216	300,833	Net MWh	92,547	95,781	97,831	286,159	Gross MW	4.3	4.6	4.7	13.7	Net MW	3.8	4.0	4.1	11.9		PY7	PY8	PY9	Total	Administration	\$349,522	\$360,008	\$370,808	\$1,080,338	Implementation	\$3,673,018	\$3,833,421	\$3,900,737	\$11,407,176	Incentives	\$7,518,100	\$7,813,100	\$7,910,000	\$23,241,200	Marketing and Other	\$206,325	\$178,517	\$178,517	\$563,359	Total	\$11,746,965	\$12,185,046	\$12,360,062	\$36,292,073
	PY7	PY8	PY9	Total																																																																	
Total Projects	475	491	502	1,468																																																																	
	PY7	PY8	PY9	Total																																																																	
Gross MWh	96,810	100,807	103,216	300,833																																																																	
Net MWh	92,547	95,781	97,831	286,159																																																																	
Gross MW	4.3	4.6	4.7	13.7																																																																	
Net MW	3.8	4.0	4.1	11.9																																																																	
	PY7	PY8	PY9	Total																																																																	
Administration	\$349,522	\$360,008	\$370,808	\$1,080,338																																																																	
Implementation	\$3,673,018	\$3,833,421	\$3,900,737	\$11,407,176																																																																	
Incentives	\$7,518,100	\$7,813,100	\$7,910,000	\$23,241,200																																																																	
Marketing and Other	\$206,325	\$178,517	\$178,517	\$563,359																																																																	
Total	\$11,746,965	\$12,185,046	\$12,360,062	\$36,292,073																																																																	

Program Name	C&I Optimization Program	
	Cost-Effectiveness Results	
		Test Results
	TRC	1.97
	UCT	1.41
	CCE	\$0.0265

Program Name	C&I New Construction Program
Program Description	<p>This program element will promote energy efficiency through a comprehensive effort to influence building design practices during the design and construction of new buildings, major renovations of existing buildings, and tenant build-outs in the C&I market. To secure energy efficiency opportunities in new construction projects, it is necessary to overcome barriers such as design community resistance to adopting new ideas, increased first-cost for efficient options, and the common practice of designing for worst-case conditions rather than efficiency over the range of expected operating conditions. This program element will work to overcome these barriers through education and outreach to building owners, design professionals, building contractors and other trade allies, as well as by providing technical assistance, support for the Leadership in Energy and Environmental Design (“LEED”) rating system, and incentives for efficient designs and measure implementation.</p> <p>A key element for success in a new construction program is securing the involvement of the professional design community. To encourage participation of the design community and to offset the costs of considering multiple design options, this program element offers technical assistance, including whole building energy modeling and consultation, building owner incentives and design team incentives. The program element also offers workshops during each Plan year to share information on innovative technologies and energy efficiency building design approaches.</p>
Program Duration	June 2014 – May 2017
Collaboration	It is the intent of ComEd and Nicor to continue to offer this program jointly, with incentives for electric and natural gas savings, joint marketing and outreach, and technical assistance.
Delivery Strategy	<p>The implementation contractor will oversee all implementation activities related to program delivery, including technical assistance, consultation, whole building energy modeling, measure installation verification, outreach and education.</p> <p>The implementation contractor will drive participation through direct outreach. Referrals will also come through ComEd Account Managers, ComEd Energy Engineers and implementation contractors working on other program elements.</p>
Target Market	This program is designed for all business customers. All targeted customers taking delivery service from ComEd are eligible for the program regardless of their choice of supplier.

Program Name	C&I New Construction Program																																																																				
Marketing Strategy	<p>The implementation contractor will oversee all implementation activities related to program delivery, including technical assistance, consultation, whole building energy modeling, measure installation verification, outreach and education.</p> <p>The implementation contractor will drive participation through direct outreach. Referrals will also come through ComEd Account Managers, ComEd Energy Engineers and implementation contractors working on other program elements.</p>																																																																				
Eligible Measures	Incentives will be based on whole-building energy simulation and achievement of whole-building performance targets above baseline conditions.																																																																				
Program Targets	<p>Participation Levels</p> <table border="1"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total Sq. Ft.</td> <td>17,000,000</td> <td>18,000,000</td> <td>19,000,000</td> <td>54,000,000</td> </tr> </tbody> </table> <p>Annual Savings Targets</p> <table border="1"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Gross MWh</td> <td>28,451</td> <td>30,125</td> <td>31,798</td> <td>90,374</td> </tr> <tr> <td>Net MWh</td> <td>14,795</td> <td>15,665</td> <td>16,535</td> <td>46,995</td> </tr> <tr> <td>Gross MW</td> <td>5.1</td> <td>5.5</td> <td>5.8</td> <td>16.4</td> </tr> <tr> <td>Net MW</td> <td>2.7</td> <td>2.8</td> <td>3.0</td> <td>8.5</td> </tr> </tbody> </table> <p>Program Budget</p> <table border="1"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Administration</td> <td>\$174,761</td> <td>\$180,004</td> <td>\$185,404</td> <td>\$540,169</td> </tr> <tr> <td>Implementation</td> <td>\$2,280,000</td> <td>\$2,394,000</td> <td>\$2,660,000</td> <td>\$7,334,000</td> </tr> <tr> <td>Incentives</td> <td>\$3,295,127</td> <td>\$3,462,487</td> <td>\$3,629,848</td> <td>\$10,387,462</td> </tr> <tr> <td>Marketing and Other</td> <td>\$420,000</td> <td>\$441,000</td> <td>\$490,000</td> <td>\$1,351,000</td> </tr> <tr> <td>Total</td> <td>\$6,169,888</td> <td>\$6,477,491</td> <td>\$6,965,252</td> <td>\$19,612,631</td> </tr> </tbody> </table>					PY7	PY8	PY9	Total	Total Sq. Ft.	17,000,000	18,000,000	19,000,000	54,000,000		PY7	PY8	PY9	Total	Gross MWh	28,451	30,125	31,798	90,374	Net MWh	14,795	15,665	16,535	46,995	Gross MW	5.1	5.5	5.8	16.4	Net MW	2.7	2.8	3.0	8.5		PY7	PY8	PY9	Total	Administration	\$174,761	\$180,004	\$185,404	\$540,169	Implementation	\$2,280,000	\$2,394,000	\$2,660,000	\$7,334,000	Incentives	\$3,295,127	\$3,462,487	\$3,629,848	\$10,387,462	Marketing and Other	\$420,000	\$441,000	\$490,000	\$1,351,000	Total	\$6,169,888	\$6,477,491	\$6,965,252	\$19,612,631
	PY7	PY8	PY9	Total																																																																	
Total Sq. Ft.	17,000,000	18,000,000	19,000,000	54,000,000																																																																	
	PY7	PY8	PY9	Total																																																																	
Gross MWh	28,451	30,125	31,798	90,374																																																																	
Net MWh	14,795	15,665	16,535	46,995																																																																	
Gross MW	5.1	5.5	5.8	16.4																																																																	
Net MW	2.7	2.8	3.0	8.5																																																																	
	PY7	PY8	PY9	Total																																																																	
Administration	\$174,761	\$180,004	\$185,404	\$540,169																																																																	
Implementation	\$2,280,000	\$2,394,000	\$2,660,000	\$7,334,000																																																																	
Incentives	\$3,295,127	\$3,462,487	\$3,629,848	\$10,387,462																																																																	
Marketing and Other	\$420,000	\$441,000	\$490,000	\$1,351,000																																																																	
Total	\$6,169,888	\$6,477,491	\$6,965,252	\$19,612,631																																																																	

Program Name	C&I New Construction Program	
	Cost-Effectiveness Results	
		Test Results
	TRC	1.78
	UCT	2.27
CCE	\$0.018	

Program Name	Midstream Products Program
Program Description	This program element is designed to provide an expedited, simple solution for C&I customers interested in purchasing efficient lighting technologies in place of standard lighting products that can produce verifiable savings. Work is also being conducted to allow for future offerings such as HVAC and motor technologies to be offered to C&I customers expeditiously through this program. The program currently offers incentives on 5 energy efficient measures (LED, reduced wattage linear fluorescent, reduced wattage ceramic metal halide, screw based CFL, and high efficiency electronic ballasts). There is no application process for the customer to go through to receive the incentive; rather, the price of the item is reduced at the point of sale in a manner similar to the Residential Lighting program element. Creating a proactive relationship with participating midstream distributors is essential to the success of the program.
Program Duration	June 2014 – May 2017
Collaboration	Because this program offers electric-only energy savings, it will not be offered in coordination with the gas companies. However, ComEd will leverage opportunities for consumer education about this program via other joint gas program customer outreach and engagement activities.
Delivery Strategy	This program is designed to deliver technologies through a mid-stream model that will employ instant incentives through C&I lighting (and perhaps in the future, HVAC and motor distribution vendors) to increase the sale of energy efficient alternatives to C&I customers. The implementation contractor will work with these distributors and manufacturers to drive volume in the program. The implementer will formulate QA/QC processes and track the program savings.
Target Market	This program is designed for C&I customers seeking to improve the lighting efficiency of existing facilities. All C&I customers taking delivery service from ComEd are eligible for this program regardless of their choice of supplier.
Marketing Strategy	The marketing strategy will be primarily through the electrical distribution channel as we rely heavily on those businesses to spread the word in the marketplace regarding the Midstream program incentives. To support those efforts, ComEd will provide the following: point of sale signage for electrical distributor participants for counter sales areas; lamp efficiency guides; program overview guides for use by distributor sales people for internal and external use; program guide for distributor management; and bill inserts communicating directly with customer base.

Program Name	Midstream Products Program																																			
	<p>Key Message:</p> <ul style="list-style-type: none"> • Energy savings and payback delivered through simple lamp replacement is greater than perceived from simple lamp change out. • Selecting the correct lamp type is essential when pairing energy savings with customer experience. 																																			
Eligible Measures	<p>The Midstream Products Program element will offer the following measures: Standard and Specialty LEDs, reduced wattage linear fluorescent and ceramic metal halide, screw based, standard and specialty and high wattage CFLs, and high and efficiency electronic ballasts. Additional measures such as low-wattage T8 lamps are offered with HVAC and motor measures to be considered in the future. Incremental costs will be adjusted and based on implementation experience.</p>																																			
Program Targets	<p>Participation Levels</p> <table border="1" data-bbox="409 1010 1390 1131"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Total Lamps</td> <td>1,843,290</td> <td>1,947,757</td> <td>2,063,363</td> <td>5,854,410</td> </tr> </tbody> </table> <p>Annual Savings Targets</p> <table border="1" data-bbox="409 1247 1380 1556"> <thead> <tr> <th></th> <th>PY7</th> <th>PY8</th> <th>PY9</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Gross MWh</td> <td>175,771</td> <td>185,733</td> <td>196,757</td> <td>558,261</td> </tr> <tr> <td>Net MWh</td> <td>110,033</td> <td>116,269</td> <td>123,170</td> <td>349,472</td> </tr> <tr> <td>Gross MW</td> <td>52.4</td> <td>55.3</td> <td>58.6</td> <td>166.3</td> </tr> <tr> <td>Net MW</td> <td>32.8</td> <td>34.6</td> <td>36.7</td> <td>104.1</td> </tr> </tbody> </table>		PY7	PY8	PY9	Total	Total Lamps	1,843,290	1,947,757	2,063,363	5,854,410		PY7	PY8	PY9	Total	Gross MWh	175,771	185,733	196,757	558,261	Net MWh	110,033	116,269	123,170	349,472	Gross MW	52.4	55.3	58.6	166.3	Net MW	32.8	34.6	36.7	104.1
	PY7	PY8	PY9	Total																																
Total Lamps	1,843,290	1,947,757	2,063,363	5,854,410																																
	PY7	PY8	PY9	Total																																
Gross MWh	175,771	185,733	196,757	558,261																																
Net MWh	110,033	116,269	123,170	349,472																																
Gross MW	52.4	55.3	58.6	166.3																																
Net MW	32.8	34.6	36.7	104.1																																

Program Name Midstream Products Program

Program Budget

	PY7	PY8	PY9	Total
Administration	\$174,761	\$180,004	\$185,404	\$540,169
Implementation	\$895,522	\$899,829	\$905,209	\$2,700,560
Incentives	\$5,425,727	\$5,795,753	\$6,240,497	\$17,461,977
Marketing and Other	\$100,000	\$100,000	\$100,000	\$300,000
Total	\$6,596,010	\$6,975,586	\$7,431,110	\$21,002,706

Cost-Effectiveness Results

	Test Results
TRC	3.03
UCT	6.48
CCE	\$0.01

Program Name	Large C&I Pilot
Program Description	<p>The Pilot is intended to stimulate the implementation of large scale energy efficiency measures by ComEd's Largest (i.e., over 10 MW) customers, with a specific emphasis on increased and improved coordination between ComEd and program participants, increased flexibility to accommodate the complexity of large scale energy efficiency projects, expedited approval mechanisms, and increased certainty in funding availability. Pilot participants enroll for the three-year Plan 3 cycle. ComEd continues to collect Rider EDA charges from pilot participants, but tracks the amount of EDA charges paid by the participant during Plan Years 7 through 9. Subject to the parameters described below, the participant will be permitted to apply the amount of EDA charges it has paid as a credit to the cost of implementing energy efficiency measures. Specifically, participants are able to use their contributions to fund energy efficiency improvements on their sites, subject to the following:</p> <ul style="list-style-type: none"> • Projects must be cost-effective on TRC basis. ComEd will review the project application and, working with the pilot participant, will determine the project's cost-effectiveness. ComEd and the pilot participant will integrate the independent evaluator in the review process and will defer to them for final acceptance of savings methodology, savings estimates, and evaluation procedures. The parties will develop an agreed upon project review process and will make best effort to abide by this timeline. • Identified potential participants should submit notice of intent to participate in this pilot within the first three months of the plan cycle. Once accepted, tracking of participants' Rider EDA fund contributions will commence, and participant will no longer be eligible to participate in any other Smart Ideas programs funded under Rider EDA. A participant may withdraw from the pilot at any time, at which time the participant's funds will revert to the applicable EDA pool and the participant will regain eligibility to participate in other Smart Ideas program. Reapplying for the pilot will not be allowed. • Participants further acknowledge that 40% of their Rider EDA contribution shall be used to fund portfolio costs, including DCEO programs (25%), M&V (3%) and program administration (12%). A key component of this pilot will be to monitor and track program administration costs so that the cost allocation can be recalculated based on actual results for future implementation of this program.

Program Name	Large C&I Pilot
	<ul style="list-style-type: none">• The final number of participants shall be limited to ensure that total project incentive disbursements during the pilot do not exceed the Plan 3 budget over the three-year pilot window.• Participants may submit a project at any time within the 3 year planning period, provided that the project will be completed within the 3-year planning period. Upon submission of a project application, ComEd and its independent evaluator shall review the application to ensure it satisfies regulatory and statutory requirements. Best efforts shall be used to complete the review within 30 business days, subject to complete and sufficient data being provided by the participant on a timely basis. Funds associated with the proposed project shall be reserved upon the approval of a project application by ComEd.• Participants must co-fund projects at a minimum of 33% of total project costs. However, operational optimization projects may not require any co-funding by the participant, which is consistent with current Smart Ideas programs. This determination will be up to the discretion of ComEd.• Project funding comes from the tracked amount of EDA charges paid by the participant to date. Additionally, advanced funding may occur under the "grant" approach outlined in ComEd's Rebuttal Testimony (ComEd Ex. 3.0 at 51:1171-1180). In no event will actual cash disbursement exceed the cumulative tracked EDA charges for the participant.• No more than 20% of funds will be spent on non-project costs (e.g., engineering studies, design work).• Progress payments will be allowed with sufficient support documentation.• Approved projects must be completed by May 31, 2017.• Project savings are subject to ComEd's normal EM&V process that is lead by the independent evaluation.• Any changes to the scope of a project shall be brought to ComEd's attention immediately. Participants acknowledge that any scope change that would render a project as non-qualifying under the original scope approval criteria may result in a forfeiture of any incentives and repayment to

Program Name	Large C&I Pilot
	<p>ComEd of any progress payments already issued.</p> <ul style="list-style-type: none"> • Unused funds at end of three-year pilot are returned to the general pool.
Program Duration	June 2014 through May 2017. ComEd recognizes that large C&I energy efficiency projects often have extended planning and implementation periods. ComEd will make best efforts to accommodate those longer implementation periods within the three-year Plan period.
Collaboration	Because this program offers primarily electric-only energy savings, it is not being offered as a coordinated program. However, measures that are incentivized by both ComEd and one or more of the gas companies are flagged as such in our application documents (e.g., “Your gas company may offer an additional prescriptive or custom rebate for this measure”). Co-funding from both the program and other natural gas programs is permitted, subject to the total incentives can not exceed 100% of the project cost. We also will continue to leverage opportunities from consumer education on this program and other joint gas program customer outreach and engagement activities.
Delivery Strategy	As a pilot program, this is still under development.
Target Market	This program is designed for a limited number of the largest electric C&I customers in the ComEd service territory. ComEd expects to reach out to specific customers for participation in this pilot. This will not be open to the general population at this time. ComEd believes there must be a fair and equitable selection process and will work with other parties, including REACT and IIEC, to ensure a good representation of customers are included in the program.
Marketing Strategy	As a pilot program, this is still under development.
Eligible Measures	Any standard or custom projects that save electricity and otherwise comply with statutory requirements vis-à-vis cost-effectiveness and evaluated savings determinations.
Program Targets	As a pilot program, this is still under development. Energy savings from this pilot will be included in the Incentives Program for tracking and reporting purposes. Program costs for this pilot will be included in the Incentives Program costs.

Smart Ideas For Your Business - Market Transformation Program

In addition to the program elements described above, ComEd is offering two other program elements under the *Smart Ideas for Your Business* program - Energy Insights Online (“EIO”) and Energy Usage Data Systems (“EUDS”). Each of these elements is viewed as a market transformation program for the C&I sector. We believe the first step in customers taking control of their energy management is to better understand their energy usage. These program elements are designed to assist customers in this way. Each is described in more detail below.

Energy Insights Online

EIO is a web-based, energy consumption tracking tool that was developed to help energy managers monitor energy usage for their businesses and reduce energy costs. Such data can be used to analyze consumption trends and load profiles, which is useful in discovering energy saving opportunities. ComEd has made EIO available for free to C&I customers that have recording meters on their facility and access to the internet.

By providing free energy data information to our customers, we strive to be the industry leader in data availability, data transparency and data services to our C&I customers.

We will continue to build awareness of the program via marketing and training. The training emphasizes basic tool functionality, as well as data analysis and benchmarking. All marketing and training programs attempt to build a chain of action beginning with the use of the tools and continuing to the making of efficiency investments via participation in the *Smart Ideas for Your Business* incentive program elements.

EIO HIGHLIGHTS

Since 2008, ComEd has seen a significant increase in program awareness and participation in its Energy Insights Online program because of marketing / promotional campaigns. These marketing efforts included bill messaging, training sessions, web sites, brochures, newsletters and articles.

Energy Insights Online customer enrollments grew from 400 subscribers in 2008 to 4,117 subscribers in 2013, an increase of 1,029%. Site visits to the Energy Insights Online web page since 2008 increased from 5,511 to 35,762 in 2013. In addition, 6,110 customers accessed the online enrollment form in 2013.

Energy Usage Data System

EUDS is a web-based tool that provides customers with an automated system to obtain aggregated, whole building energy usage on a monthly basis.

Prior to June 2008, obtaining whole building energy data was a fee-based, manual process. As part of Plan 1, we developed a system that automated provision of this data and enabled an electronic link to the U.S. EPA's building energy benchmarking system known as Portfolio Manager. ComEd is one of the few utilities to automate this data retrieval process.

EUDS enables customers to rate building energy performance, set investment priorities, verify and track progress of improvement projects, and work towards gaining EPA ENERGY STAR recognition. Since inception, EUDS has provided over 32,000 months of whole building energy usage for use in ENERGY STAR's Portfolio Manager.

EUDS HIGHLIGHTS

ComEd saw a significant increase in program awareness and participation in its Energy Usage Data System as a result of recent marketing / promotional campaigns.

Buildings being benchmarked using the Energy Usage Data System increased from 70 in 2008 to 3,448 in 2013 - an increase of 4,825%. Additionally, the number of Building Managers using the tool has increased from 36 in 2008 to 647 in 2013, an increase of 1,697%.

We will continue to build awareness of the program via marketing as well as hands-on and web-based training. The training emphasizes basic tool functionality, as well as data analysis and benchmarking. All marketing and training programs emphasize ComEd Incentive programs for increased participation in the *Smart Ideas for Your Business* portfolio. Over Plan 3's timeframe, additional emphasis will be placed on integrating this tool with the *Smart Ideas for Your Business* program elements. For example, we now offer our commercial real estate customers assistance in benchmarking their buildings as a part of the Chicago Building Initiative. We also stand ready to assist these customers in the event the Chicago City Council passes the building energy use benchmarking ordinance.

We have budgeted \$1.2 million over the next three years for the continued implementation of these two programs.

DCEO Programs

As discussed previously, the DCEO portion of the portfolio will consist of three primary components – Public Sector Programs, Low Income Programs, and Market Transformation Programs. These programs are designed to be available across the entire State of Illinois and are funded through the electric and gas company portfolios.

Consistent with Plans 1 and 2, ComEd and DCEO again propose that the statutory requirement that DCEO implement 25% of the “energy efficiency measures” continue to result in DCEO receiving 25% of the overall portfolio budget for its programs.

Public Sector Programs

The Public Sector Programs are designed to meet the requirement that 10% of the portfolio is directed to public sector entities. DCEO will build on the portfolio of Public Sector Programs developed in its first two Plans with the intent that at least 40% of

DCEO's budget (10% of the total portfolio budget) be directed to local governments, municipal corporations, school districts and community colleges as required by law. DCEO will offer the following programs:

- **Standard Program**
- **Custom Program**
- **Retro-commissioning Program**
- **New Construction Program**
- **Municipal Aggregation / Key Accounts Program**
- **Targeted Large Project Program**
- **Direct Install Program**

Low Income Programs

The Low Income Programs are designed to meet the requirement that a percentage of the energy efficiency measures target low income households. DCEO will offer a portfolio of efficiency measures for low income households (<150% of the poverty level) that is proportionate to their share of utility revenues (6%). DCEO will continue the following five Low Income Programs:

- **Public Housing Authority Program**
- **Affordable Housing Construction**
- **Low Income Direct Install / Weatherization Program**
- **Residential Retrofit**
- **Energy Savers Multi-Family**

Market Transformation Programs

The Market Transformation Programs are designed to meet the statutory requirement to “present specific proposals to implement new building and appliance standards that have been placed into effect.” DCEO will provide technical assistance and education to support achievement of long-term efficiency goals in all market sectors. These programs are designed to educate energy professionals and strategic energy decision-makers so that they have the necessary skills and information to implement energy efficiency strategies.

- **Smart Energy Design Assistance Program**
- **Building Operator Certification**
- **Building Codes Training**
- **Energy Performance Contracting**

- **Lights for Learning**

The DCEO portfolio is discussed in detail in DCEO’s separate filing. The table below provides the overall impact of the DCEO programs in terms of MWh savings and cost projections.

Table 11. DCEO Portfolio Energy Impacts & Costs

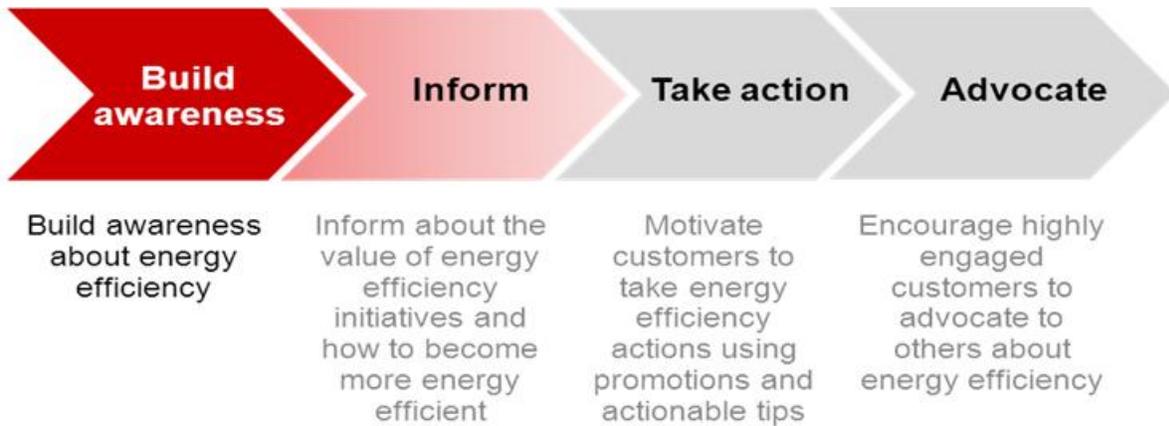
Programs	PY 7		PY 8		PY9		Total	
	Budget	MWh Savings	Budget	MWh Savings	Budget	MWh Savings	Budget	MWh Savings
Standard Program*	\$10,678,132	41,046	\$10,026,811	37,664	\$9,282,740	34,416	\$29,987,683	113,125
Custom Program*	\$3,014,889	13,465	\$2,735,751	11,773	\$2,416,863	10,147	\$8,167,503	35,385
Retro-Commissioning	\$1,561,454	12,056	\$1,561,454	12,056	\$1,561,454	12,056	\$4,684,362	36,168
New Construction	\$520,485	3,330	\$520,485	3,330	\$520,485	3,330	\$1,561,455	9,989
Boiler Tune-up	\$0	-	\$0	-	\$0	-	\$0	-
Targeted Large Projects**	\$4,767,299	14,055	\$5,923,007	20,360	\$7,078,716	33,438	\$17,769,022	67,852
Direct Install***	\$260,242	1,270	\$260,242	1,270	\$260,242	1,270	\$780,726	3,809
Breakthrough	\$1,177,500	2,583	\$1,190,250	2,583	\$1,195,500	2,583	\$3,563,250	7,750
Public Housing Authority	\$2,048,055	1,996	\$2,048,055	1,996	\$2,048,055	1,996	\$6,144,165	5,989
Affordable Housing	\$2,560,068	527	\$2,560,068	527	\$2,560,068	527	\$7,680,204	1,581
Residential Retrofit	\$3,787,850	2,793	\$3,889,850	2,747	\$3,931,850	2,747	\$11,609,550	8,287
Energy Savers Multi-family	\$1,024,027	1,180	\$1,024,027	1,180	\$1,024,027	1,180	\$3,072,081	3,540
Market Transformation	\$3,925,000	3,324	\$3,967,500	3,324	\$3,985,000	3,324	\$11,877,500	9,972
Administration & EM&V	\$3,925,000	-	\$3,967,500	-	\$3,985,000	-	\$11,877,500	-
TOTAL	\$39,250,001	97,625	\$39,675,000	98,810	\$39,850,000	107,014	\$118,775,001	303,449

Education & Outreach / Market Transformation

The last core component of ComEd’s portfolio is the Education & Outreach (“E&O”) / Market Transformation component. This component has a two prong function – (1) promote and educate customers on the value of energy efficiency, and (2) use this education and outreach to drive customers toward energy efficiency activities to help transform the market. These activities by themselves may not necessarily lead to kWh savings that can be counted towards the goal, but rather can lead to customer actions that will increase energy efficiency in the ComEd service territory.

It is not ComEd’s intent within Plan 3 to detail every education and outreach tactic that will be implemented over the next three years. Rather, we lay out our objectives and strategies going forward and some examples of tactics that we would expect to consider for implementation. ComEd believes its current approach is advantageous and will continue the implementation of the customer engagement process for energy efficiency that has been developed and utilized over the past few years. The diagram below illustrates the process.

Figure 8. Customer Engagement Process



Customer Engagement Process

The Customer Engagement Process that ComEd has begun over the past several years essentially consists of four steps. Step 1 is to **build awareness** of the value of energy efficiency. Step 2 is to **inform** the customer about the value of energy efficiency initiatives, whether it is participating in a ComEd program or making behavioral decisions. Step 3 is to motivate the customers to **take action** – make changes or decisions to increase their level of energy efficiency. Finally, Step 4 is to raise the customer to the level of **advocate** for energy efficiency. We understand that this is not a simple or quick process and that not all customers will be able to be moved across the entire spectrum. Each step must be implemented and success achieved before fully moving on to the next step. ComEd still believes there is much success to be gained by focusing its efforts on increasing the awareness of energy efficiency with customers.

Education and Outreach Objectives

Over the past several years, ComEd has made progress in increasing energy efficiency awareness and educating customers about energy efficiency. We have tested various audiences, messages and tactics to determine how best to engage and educate the customer. We will leverage these results and findings going forward with the key objectives to increase customers' awareness of ComEd's energy efficiency programs and increase the awareness of the value of ComEd's energy efficiency initiatives.

Awareness Strategy

Awareness initiatives will focus primarily on delivering the message of energy efficiency and overall consumer energy management to the general market. The awareness initiatives will include two facets: general communication and behavioral marketing. General communications will deliver consistent communications across a variety of marketing, media and advertising channels, while the behavioral marketing will attempt to “nudge” the customer to take actions to increase their energy efficiency.

Awareness initiatives will provide general market customers with knowledge about energy efficiency and the *Smart Ideas* programs, as well as how their energy usage affects their bills and the environment. These efforts may incorporate *Smart Ideas*, but will generally remain program non-specific. These marketing efforts will result in consumers being exposed to an ever-growing, additive knowledge base to facilitate market transformation.

General awareness initiatives and tactics to be implemented may include the following:

- Carefully timed, high impact awareness campaigns designed to “touch” a high percentage of customers multiple times over a pre-specified period.
- Earned media coverage for ComEd-sponsored exhibits, events and corporate sponsorships including press releases, radio mentions and news coverage.
- Promotion of event marketing to leverage Earth Day, Earth Hour and attendance and participation at community-sponsored events and energy efficiency fairs.
- Mobile event outreach programs highlighting general energy efficiency, *Smart Ideas* programs and offers with lighting and appliance manufacturers. These events will provide an opportunity for data collection, program tracking and actionable results.
- Further engage commercial customers who are using benchmarking tools online by linking them to appropriate *Smart Ideas* programs.
- Business Expo for C&I customers and trade allies to build awareness of *Smart Ideas* programs and overall energy efficiency.
- Videos posted on the website regarding top sources of energy waste in the home.

Behavioral Waste Focus

Embedded in the awareness strategy will be a focus on behavioral waste associated with energy efficiency. For purposes of Plan 3, behavior waste is confined to customer actions or inactions when using energy-consuming equipment, which leads to more energy being used than what is otherwise needed. Examples of this waste would include not turning off lights or televisions when no one is in the room. Essentially, behavioral waste can be reduced by a change in customers’ behavior.

Recently, ComEd completed one of the first studies of its kind in the country to quantify the potential of behavior waste or “wasted energy”. The vast majority of these behavior changes do not lend themselves to development of typical energy efficiency programs. ComEd will use this study to better define its messages to the marketplace to maximize the potential impact. It is worth noting that the most impactful behavior by far on the residential side is also one of the easiest messages to implement – turn off lights when not in the room.

ComEd will work to drive key messages such as this within our marketing campaigns. Simple messages like “*turn off your lights*” or “*replace your working incandescent bulbs with CFLs*” are behavioral messages that can lead to substantial energy savings if implemented on a large scale.

Cross-Cutting Activities

The portfolio described in Section 6 is integrated and managed through a series of activities that extend beyond the boundaries of any given program element. These activities are budgeted as common costs across the portfolio and include portfolio management, market research, tracking and reporting, research & development (“R&D”)/emerging technologies, risk management and program evaluation. Each activity, in turn, is discussed below.

Portfolio Management

Portfolio Management consists of several key activities required to properly manage the portfolio. These elements are Executive Management, Planning, Implementation and Administration, Market Research, and Tracking & Reporting. These elements are considered portfolio-level costs because they provide services across the entire portfolio. Each element is discussed further below.

Executive Management. This function is responsible for the development, communication and execution of ComEd’s portfolio strategy, and includes the following activities:

- **Portfolio Strategy:** Develop the strategy guiding the composition of the portfolio, including allocation of available resources across sectors and programs.
- **External Coordination:** Communicate our strategy and progress to the Commission and the SAG on a regular basis.
- **Internal Coordination:** Identify internal systems and functions that contribute to or are affected by program implementation and management. Coordinate activity to ensure internal tracking and reporting systems are in place and integrated as necessary. Ensure use of consistent messaging and provide general oversight of the planning and implementation.
- **Budgeting and Financial Management:** Set and manage the annual portfolio and individual program budgets consistent with the portfolio strategy and available resources. Track costs against budgets on a monthly basis.
- **QA/QC:** Manage overall portfolio quality assurance, reviewing data from individual programs and monitoring quality of internal systems and ComEd-provided services.
- **Communications and Marketing Strategy:** Coordinate development of the overall portfolio messaging, and ensure that program implementers meet ComEd-developed standards. Within this function, ComEd designs and executes its cross-cutting awareness-building and education elements.

- **ICC Docket Management:** Manage the various annual and triennial dockets before the ICC, including Three-Year Plan filings, Goal Compliance, Expense Reconciliation, and TRM-related dockets.

Planning. This function provides the analysis and ongoing market intelligence to support the Executive Management function. Key policy and planning activities include:

- **Program and Portfolio Analysis:** Analyze the energy savings and cost-effectiveness of the program elements and of the portfolio as a whole. The planning process is ongoing and includes continual dialogue with the SAG.
- **Program Metric Analysis:** Establish and periodically adjust portfolio and individual program performance metrics related to savings acquisition, cost-effectiveness, quality control and customer service.
- **Budget Analysis:** Develop and review annual program implementation budgets relative to program metrics and performance.
- **Program Design:** Develop programs using known best practices from existing programs, prior program experience, and input from key stakeholders. Refine program design in collaboration with implementation team and stakeholders.
- **Evaluation Management:** Manage the independent evaluator contract, in conjunction with the ICC Staff, which includes managing the evaluation work and incorporating results into ongoing program and portfolio reviews.
- **Technical Reference Manual:** Manage the process with the SAG, TRM administrator and other utilities. Represent ComEd during discussions and technology reviews. Provide technical expertise in support of TRM update process.
- **Emerging Technology / R&D Management:** Manage a formal R&D structure, which includes identifying key emerging technologies and program concepts, and designing and executing research or pilot projects to test feasibility for inclusion in ComEd's portfolio.
- **Reporting:** Coordinate preparation of annual reports to the Commission and quarterly reports to the SAG on portfolio performance.
- **Rider EDA Management:** Manage preparation of annual Rider EDA reconciliation filings and mid-year adjustment filings, if required.

Implementation and Administration. This function provides for the implementation and administration of the program elements within our portfolio. These activities also involve critical coordination between internal and external systems. Major activities include:

- **Implementation Planning:** Develop plans and processes to implement and integrate the overall portfolio management structure with individual program elements. Identify implementation critical paths and respond accordingly. Produce final program designs, including setting incentive levels. Provide program feedback to planning team.

- **Support Back Office System Design and Implementation:** Identify requirements for program customer relationship management, financial incentive fulfillment, and tracking and reporting. Identify required new systems/system enhancements and coordinate procurement/installation.
- **Procurement Support:** Deliver many program services through third party vendors or implementation contractors. RFPs will be developed for specific competitive services. Contracts for program element implementers will be developed and include performance provisions to mitigate ComEd's risk. ComEd will coordinate with appropriate internal departments to ensure best practices and that competitive pricing is realized.
- **Program Management:** Manage program implementation, including oversight of implementation contractors, through assigned *Smart Ideas for Your Business* and *Smart Ideas for Your Home* teams. These teams have responsibility for ensuring effective implementation processes are established and followed, as well as for regular reporting of program progress. All programs undergo regular performance reviews, and we retain the right to replace underperforming contractors.
- **Trade Ally Network Management.** Ensure that program implementers maintain appropriate levels of involvement and communication with trade allies. Communicate program changes with trade allies, and solicit feedback regarding program performance with respect to ease of customer acquisition, incentive levels, marketing, and collateral requirements.
- **Management of Program Tracking and Reporting:** Ensure program implementers, as well as internal staff, consistently use the program's tracking system. Responsibilities include monthly system downloads and preparation of status reports on program performance and cost.
- **Internal EM&V:** Conduct ongoing program evaluation as a check on overall program quality and an early-warning system to spot potential performance or customer service issues using the weekly performance scorecards, as well as on-site verification and customer surveys.

Market Research

Over the past several years, we have conducted various market research projects associated with energy efficiency. For Plan 3, we will continue our more formal set of market research projects that support the information needs associated with the design, implementation and evaluation of the portfolio. Key research activities will include:

- **Attitude, Awareness & Stated Behavior Research:** The primary objective is to measure and track customers' attitudes toward energy efficiency, awareness of our programs, and customers' stated behaviors relative to energy efficiency actions. We will conduct the research annually to quantify and assess the impact that our programs have on consumers' energy efficiency attitudes and behaviors over time.
- **Program Assessment Research:** The primary objective is to measure customer satisfaction with a given program and with key elements of program implementation.

This research will identify opportunities to adjust the management, delivery and marketing of a program to improve program performance.

- **New Program Potential Research:** The primary objectives are to assess customer interest in, and the appeal of, a prospective program concept and/or to evaluate alternative value propositions. This research will support customer-driven program design and implementation features, leading ultimately to greater customer interest, acceptance and adoption.

For market research activities, we have budgeted \$2.8 million over the next three years.

Tracking & Reporting

During Plans 1 and 2, ComEd commissioned the development and ongoing enhancement of a portfolio tracking and reporting database system. This system provides warehousing of all program data, and produces a variety of reports and data analysis for the program managers, evaluators and implementing contractors. Features include:

- Web-based software for the *Smart Ideas for Your Business* implementing contractors, with application entry, process flow tracking, automatic customer notification, letter generation, warehousing of project documents, report generation and automatic email subscription to key reports.
- A web services interface for the *Smart Ideas for Your Home* program implementers that facilitates querying of ComEd's master customer database, uploading of customer enrollments and completions, and measure-specific data to facilitate energy savings calculations and verifications.
- A Sharepoint portal with an ad-hoc report builder for use by the implementation team to develop and automatically receive custom reports, plus view an online scorecard and various tracking data graphs.
- Integration of other key business intelligence data from ComEd's marketing data warehouse, ComEd's accounting ledger, and other marketing tables of interest to program managers.
- Export capability of multiple tables for use by evaluation contractors in their EM&V efforts.

Planned enhancements to the system during PY7 through PY9 include:

- SQL Server Analysis Services, which will provide a greater ability to evaluate multiple program tables, develop and programmatically track certain Key Performance Indicators, provide business intelligence capabilities, and support ComEd's dashboard development with built-in forecasting and trend projection capabilities.
- Integration of program data tables with an online TRM, which will ensure consistency between documented savings values and savings tracked and reported in the database.

- Opening of the online system for use by key trade allies participating in our business programs, allowing them to submit applications electronically and track their projects.
- Development of batch load process for multiple projects, to simplify entry of applications by chain accounts with multiple locations.
- Integration of new program elements into the tracking system, including front-end costs for possible PY10 programs if needed.

For the tracking system, we have budgeted \$1.5 million over the three-year plan cycle to accommodate general maintenance and the enhancements discussed above.

ComEd will also file in ICC Docket No. 13-0495 semi-annual reports for each of Plan Years 7, 8 and 9. These reports will cover the periods June 1 through November 30 and December 1 through May 31 of each Plan Year, and will be filed within 60 days after the end of each semi-annual period. The semi-annual reports will describe program activities and implementation modifications for the prior six months. In addition, the semi-annual reports will estimate the spending for the prior 6 months as well as the estimated energy savings achieved during that time period. ComEd will also include in these reports the TRC test results for any new measures implemented during the preceding six months. Finally, with regard to ComEd’s Retro-Commissioning Program, ComEd will include the following information in its semi-annual reports to the extent such analysis has been completed and information is available for the prior six months: ex post cost-effectiveness results, any significant modifications to the program, and updated cost-effectiveness projections for the program. Because ComEd also files quarterly reports that contain some of the information required by the semi-annual reports, ComEd may combine the semi-annual report with the applicable quarterly report, which would result in the filing of a single report containing all information required by the quarterly and semi-annual reports.

R&D/Emerging Technologies

Section 8-103 of the PUA states that a maximum of 3% of the overall portfolio’s budget can be allocated towards emerging technologies / R&D efforts. As stated previously, we intend to allocate the full amount towards R&D for Plan 3. We believe the investment into new concepts in energy efficiency is critical to the future success of our energy efficiency portfolio.

One of the key new elements of this portfolio is the creation of our Emerging Technology Team, which is charged with identifying emerging technologies and, when necessary, leading pilot programs to determine verifiable savings. The findings for all pilots will then be written up in the technical document format as approved by the Consortium for Energy Efficiency (“CEE”) Emerging Technology Group. For Plan 3, we intend to

BEHAVIORAL SAVINGS IN BUSINESSES

ComEd is exploring the potential for engaging businesses in a meaningful behavioral energy savings program. Our latest end-use study included a “wasted energy” analysis that shows significant savings potential in the C&I sector. We are also developing two behavioral-based energy efficiency pilots for the C&I sector to assess the best mechanism for reaching these customers and influencing their energy use.

continue to implement a structured process that identifies opportunities within the portfolio and researches potential responses to these opportunities. Additionally, we propose that all R&D projects be evaluated for kWh savings such that those savings can be applied to the annual kWh goal. We would expect these evaluations to be conducted by the independent evaluator.

Besides specific R&D projects, we will also continue to invest R&D budget dollars in organizations that support energy efficiency (e.g., E-Source, New Buildings Institute, and CEE). Organizations such as these provide opportunities to take advantage of research being conducted at a national level, leveraging energy efficiency funds from across the country.

Within Plan 3, we do not intend to attempt to identify all the projects that will be funded over the course of its timeframe. We intend to monitor the energy efficiency landscape and identify opportunities when they arise in collaboration with the SAG. We also intend to monitor research on the national level. For example, to date much research on LEDs

NEW TECHNOLOGY REVIEW
During Plan 2, the R&D team reviewed over 100 technologies and processes and initiated two pilot programs – a residential AMI behavioral pilot and a digital rooftop unit control.

and rooftop unit controls have been conducted on the national level, and ComEd believes that this research is applicable to its service territory. With this national research underway, we have taken the position that the need to do additional LED research is not necessary at this time. Examples of R&D projects that we intend to investigate over this Plan's life include ductless mini-split heat pumps, rooftop unit controllers, other HVAC technologies, and energy savings that may be achieved from programmable smart thermostats.

Finally, ComEd will develop and implement a comprehensive plan, involving manufacturers, retailers, and other third parties, to enable smart devices to interact with ComEd's smart meters and to make it easy for customers to identify and purchase these smart devices. ComEd will seek input from the SAG as to the development of this program and will report its progress to the Commission by July 28, 2014. ComEd intends to fund this effort with its R&D/Emerging Technologies budget and may also use funds from its Education/Outreach budget.

One project that ComEd intends to fund is the Statewide Building Energy Codes Compliance pilot. ComEd, in conjunction with the other utilities and DCEO, views this as an important aspect of complying with Section 8-103(f)(2) of the PUA. A program description of this pilot follows on the next page.

Program Name	Residential and Commercial Building Energy Codes Compliance Enhancement
Program Description	<p>The goal of this new pilot program is to increase residential and commercial energy savings by improving designer and builder compliance with the existing 2012 Illinois Energy Conservation Code (“2012 IECC”). The program will apply to all permitted new construction, additions and renovations throughout the State of Illinois.</p> <p>The focus of this program is to support the existing code compliance infrastructure with additional resources in promoting and ensuring energy code compliance. The program will establish a statewide energy code compliance collaborative, provide support for administrative practice improvement, offer advanced energy code training and education, and implement a third-party energy code compliance system. To help cover the costs of participating in the third-party system, rebates will be available for builders or municipalities that utilize the services of energy code plan reviewers and inspectors trained through the program. The program will also establish an equipment leasing program for homebuilders, develop compliance tools and materials for use by all stakeholder groups and initiate a statewide circuit rider / code ambassador program. The initial phase of the program in PY7 will confirm the efficacy of the core concepts, to be followed by a full program launch in PY8. The program will provide commercial contractors, home builders, designers, code officials and related trade allies with the education and training, tools and materials, and code enforcement support needed to improve energy code compliance.</p>
Program Duration	June 2014 through May 2017
Collaboration	<p>It is the intent of all five Illinois Energy Efficiency Program Administrators (ComEd, Ameren, Nicor, DCEO and Integrys) to offer this program as a first-ever statewide coordinated program. This program is expected to benefit gas and electric utility customers across the entire State of Illinois. The program administrators have determined a cost-allocation formula to determine budget sharing based on savings/benefits to each utility’s customers. A fair and equitable framework for program management will be determined by the administrators that will address joint program governance, and establish roles and responsibilities and independent evaluation coordination strategy. The framework will ensure (1) each participating program administrator can meet its ongoing regulatory and financial obligations for overall prudent and cost-effective program management, and (2) an ongoing focus on program improvement and increasing the</p>

Program Name	Residential and Commercial Building Energy Codes Compliance Enhancement
	cost-effectiveness of both program management and implementation.
Delivery Strategy	<p>A contractor (or contractors) selected through an RFP process will implement the statewide program elements for the Illinois Energy Efficiency Program Administrators. The detailed structure of the program will emerge from a program design initiative undertaken by the Administrators prior to PY7. The program elements will address the primary market needs of inadequate resources, education and training. The program will streamline business processes for builder compliance, and for municipal inspection and approval. Certain concepts will be market-tested in Phase I (PY7). In Phase II (PY8-PY9), a full code compliance program will be launched that incorporates the results and findings of Phase I. Key elements of the implementation strategy include:</p> <p>Phase I Program</p> <ul style="list-style-type: none"> • Market Barrier and Strategy Study. The initial task in Phase I will include a separate study to independently determine market barriers and strategies for effectively increasing code compliance. This market study will cover all relevant stakeholders and inform Phase II program design. • Compliance Collaborative The collaborative brings all the major stakeholders together, both to discuss the issues that hamper higher levels of code compliance and to find ways to overcome the identified obstacles. Providing a venue for stakeholders to collectively address energy code compliance issues will help assure a consistent statewide understanding and enforcement of energy code requirements. • Administrative Practice Improvement. Existing processes for determining code compliance in the field and obtaining code official review and approval can be improved to increase compliance rates. Assistance can take many different forms such as helping to streamline the existing permit / inspection system, assisting in the adoption of software that processes permits and plan reviews more quickly, or establishing methods to allow quicker permits for specific items such as HVAC replacement. Under this program approximately 10-12 municipalities would receive administrative practice assistance each year. • Energy Code Training. The energy code trainings provided by DCEO will continue to be offered as part of this program. DCEO currently provides energy code training to approximately 1,000 people per year.

- **Third-Party Program.** A widespread market limitation is the availability of time to perform municipal code inspections and approvals. A third party plan review and inspection program aims to train a robust, geographically diverse group of individuals capable of providing energy code plan review and inspections services as a supplement to the existing code enforcement infrastructure. Third parties can reduce the burden on code officials with respect to enforcing the energy code. In this phase, a residential-only pilot program will be conducted.
- **Circuit Riders / Code Ambassadors.** Code Ambassadors are specially-trained, highly-qualified code officials who volunteer to act as resource and energy code mentors to other building officials and municipalities. They will act as a peer-to-peer resource for code officials seeking clarification on specific energy code issues or code enforcement requirements. Circuit Riders are highly-qualified individuals who will complement the work of Code Ambassadors by proactively reaching out to all building industry stakeholder groups on a regular basis. Circuit Riders will customize their resources to address specific issues or technical questions relevant to a given stakeholder group or project. Each Circuit Rider will cover a specific territory and visit individual municipalities, homebuilder associations or architect/engineer offices on a roughly semi-annual basis. Two Circuit Riders will be trained and assigned territories as part of Phase I. One Circuit Rider will be assigned an urban/suburban area and the other to a more rural territory.
- **Equipment Leasing.** Blower-door infiltration testing is a new requirement under the residential portion of the 2012 Illinois Energy Conservation Code. The lack of qualified blower-door testing service providers due to the up-front cost of acquiring the necessary equipment is an anticipated market barrier. Under this program, diagnostic equipment such as blower doors and duct leakage testers can be affordably leased by an appropriate party.

Phase II Program (in addition to the above):

- **Tools and Materials.** The development of tools and materials such as fact sheets, checklists and guides would complement and support all the other code enhancement work being done.
- **Advanced Training.** This would consist of a series of tightly-focused advanced training sessions for each member of the construction process, including architects, engineers, plan reviewers, builders, and inspectors.

Program Name	Residential and Commercial Building Energy Codes Compliance Enhancement
Target Market	This program will serve occupants of newly constructed, expanded or renovated commercial buildings and homes by (1) targeting homebuilders, commercial contractors, design professionals and code officials to promote increased compliance with the energy code, and (2) providing support to the existing code enforcement infrastructure.
Marketing Strategy	<p><u>Strategy</u></p> <p>The Residential and Commercial Energy Code Compliance Enhancement marketing strategy will focus on improving the market’s ability to comply cost-effectively with the 2012 IECC. This strategy will primarily focus on key decision-makers such as municipal code officials, home builders, architects/engineers, commercial contractors, and material suppliers. The marketing effort will seek to partner with State and local builder associations, design professional associations, lenders, and realtor and appraiser groups.</p> <p><u>Key messages</u></p> <ul style="list-style-type: none"> • Complying with the energy code is good business. • Improve the value of your building or home by ensuring compliance with the 2012 IECC.
Eligible Measures	The 2012 IECC requires upgrades from previous codes in lighting (interior and exterior), building shell construction, and heating and cooling equipment performance. These measures are modeled as lower lighting use, lower cooling and fan consumption (electric), and lower heating and service water consumption (gas). Their savings and costs are aggregated at the building level and shown below (annual average over Plan 3). These costs and savings have been used for planning purposes, but the Program Administrators may revise eligible measures and costs as needed in accordance with current market conditions, technology development, EM&V results, the joint program operation with other Illinois Administrators, and implementation experience.

Program Name	Residential and Commercial Building Energy Codes Compliance Enhancement		
	ComEd		
	Measure	Incremental Measure Cost	Gross Annual kWh Savings
	Residential	\$1,906 per Home	1.36 GWh
	Commercial	\$1.11 per Sq. Ft.	5.28 GWh
	Illinois Statewide		
	Residential	\$1,906 per Home	3.02 GWh + 546,851 therms
	Commercial	\$1.11 per Sq. Ft.	9.57 GWh + 531,251 therms

Program Name	Residential and Commercial Building Energy Codes Compliance Enhancement				
Program Targets	Participation Levels				
	<p>The following participation levels have been used for planning purposes. However, ComEd and the Program Administrators may adjust anticipated participation levels as necessary in accordance with current market conditions, EM&V results, and program implementation experience.</p>				
	No. of Participants	PY7	PY8	PY9	Total
	ComEd - Residential (Number of Homes)	1,000	2,000	3,000	6,000
	Illinois Statewide - Residential (Number of Homes)	1,500	3,000	4,500	9,000
	ComEd - Commercial (Square Feet)	1,000,000	2,000,000	3,000,000	6,000,000
	Illinois - Commercial (Square Feet)	1,695,000	3,390,000	5,085,000	10,170,000

Program Name	Residential and Commercial Building Energy Codes Compliance Enhancement				
---------------------	--	--	--	--	--

Annual Savings Targets	PY7	PY8	PY9	Total
ComEd MWh Savings	3,320	6,640	9,960	19,920
Illinois Statewide MWh Savings	6,293	12,586	18,879	37,758
Illinois Statewide Therm Savings	539,051	1,078,102	1,617,153	3,234,306

Program Budget	PY7	PY8	PY9	Total
Com Ed - Administration	\$64,600	\$64,600	\$64,600	\$193,800
ComEd - Implementation	\$795,622	\$1,146,682	\$1,480,616	\$3,422,920
ComEd – Total	\$860,222	\$1,211,282	\$1,545,216	\$3,616,720
Illinois - Administration	\$200,000	\$200,000	\$200,000	\$600,000
Illinois - Implementation	\$2,463,225	\$3,550,100	\$4,583,950	\$10,597,275
Illinois - Total	\$2,663,225	\$3,750,100	\$4,783,950	\$11,197,275

Cost-Effectiveness Results

	Test Results - ComEd
TRC	1.08
UCT	3.46
CCE	\$0.010

Risk Management

Inherent in any portfolio of energy efficiency is the uncertainty associated with program performance, evaluation outcomes and funding continuity. These uncertainties lead to risks for us. There are two primary risks that we must manage within our portfolio:

- **Achievement** – the risk that we do not achieve the annual MWh targets that are approved in our Plan.
- **Budget** – the risk that we exceed the applicable spending screen.

Since Plan 2 was approved, several potential risk-mitigating factors were introduced, including the Net-to-Gross (“NTG”) Framework and the development of the Illinois Statewide TRM.

For Plan 3, the risk scenario shifts somewhat:

- Statutory spending screens will make it impossible to reach unmodified statutory targets.
- Energy prices and forward capacity prices have continued to decline over recent years, although some price rebound has begun to surface in the forward markets.
- While an approved NTG framework and TRM exist, continued uncertainty in the interpretation of certain facets of these values adds a new layer of unpredictability, particularly in the application of ex-post reductions to energy savings.

ComEd’s Risk Management Process

Successful management of these risks depends on several factors:

- **Strong data tracking and reporting** – We currently collect implementation and tracking data on a daily or weekly basis for most programs. This allows us to monitor the progress and performance of our programs. Program managers can modify marketing tactics and incentive structures as needed to remediate program performance shortfalls.
- **Cross-program flexibility** – Occasionally a program will not respond to changes in marketing or incentives, and in those cases the program managers may decide it is best to shift funds to other programs in an effort to offset the savings shortfall. In the event that reallocation of funds among program elements within the *Smart Ideas for Your Home* and *Smart Ideas for Your Business* (excluding those elements managed by DCEO) results in a change in the program’s budget greater than 20% or discontinuation of a program element, ComEd will discuss this with the SAG as well as report to the Commission. Similarly, the addition of a new program element within the *Smart Ideas for Your Home* and *Smart Ideas for Your Business* programs will also be discussed with the SAG and reported to the Commission.

- **Evaluation mitigation** – The least controllable risk to portfolio performance is NTG, which is (a) determined after-the-fact and can be applied retrospectively in certain situations under the current framework, and (b) usually obtained through surveys because it cannot be metered or otherwise measured. We propose that a modified NTG framework be approved that clarifies the prospective application of NTG values in all instances. This is discussed further below in the Portfolio Evaluation Section.

Portfolio Budget

The following table presents the Portfolio budget for each program element or activity for each Plan year. Key highlights are reflected in the table below.

Table 12. Portfolio Budget

Programs	PY7	PY8	PY9	3 Yr Total
C&I - EE Programs				
Incentives Program	\$ 36,421,141	\$ 34,414,531	\$ 35,953,141	\$ 106,788,813
Large C&I Pilot	\$ 5,150,000	\$ 5,150,000	\$ 5,150,000	\$ 15,450,000
Optimization	\$ 11,746,965	\$ 12,185,046	\$ 12,360,062	\$ 36,292,073
C&I New Construction	\$ 6,169,888	\$ 6,477,491	\$ 6,965,252	\$ 19,612,631
Midstream Incentives	\$ 6,596,010	\$ 6,975,586	\$ 7,431,110	\$ 21,002,706
	\$ -	\$ -	\$ -	\$ -
C&I TOTAL	\$ 66,084,004	\$ 65,202,654	\$ 67,859,565	\$ 199,146,223
RESIDENTIAL - EE Programs				
Residential Lighting	\$ 17,571,083	\$ -	\$ -	\$ 17,571,083
Residential Products	\$ -	\$ 6,650,200	\$ 6,651,550	\$ 13,301,750
Appliance Recycling	\$ 7,677,341	\$ 8,599,829	\$ 8,604,554	\$ 24,881,724
Complete System Replacement	\$ 1,792,155	\$ 4,296,162	\$ 4,263,220	\$ 10,351,537
Multi-Family Comprehensive Energy Efficiency	\$ 4,531,533	\$ 4,191,113	\$ 3,773,691	\$ 12,496,337
Energy Education Kits Program	\$ 454,665	\$ 419,141	\$ 383,636	\$ 1,257,441
Direct to Consumer Kits	\$ -	\$ 6,183,186	\$ 4,364,632	\$ 10,547,818
Single-Family Home Performance	\$ 1,452,130	\$ 4,644,917	\$ 4,612,061	\$ 10,709,108
Residential New Construction	\$ 30,565	\$ 32,549	\$ 31,639	\$ 94,753
RESIDENTIAL TOTAL	\$ 33,509,471	\$ 35,017,097	\$ 32,684,982	\$ 101,211,551
Demand Response - AC Cycling Maint.	\$ 1,230,000	\$ 1,230,000	\$ 1,230,000	\$ 3,690,000
Total ComEd EE	\$ 100,823,475	\$ 101,449,751	\$ 101,774,547	\$ 304,047,774
DCEO				
DCEO	\$ 39,250,000	\$ 39,675,000	\$ 39,850,000	\$ 118,775,000
Portfolio-Level Costs				
Education / Outreach				
General Education and Awareness	\$ 3,639,728	\$ 4,245,802	\$ 4,294,862	\$ 12,180,392
Market Transform. - EIO / EDS	\$ 400,000	\$ 400,000	\$ 400,000	\$ 1,200,000
M&V (3% of Spending Screen less DCEO)	\$ 3,532,500	\$ 3,570,750	\$ 3,586,500	\$ 10,689,750
R&D	\$ 3,532,500	\$ 3,570,750	\$ 3,586,500	\$ 10,689,750
Market Research	\$ 850,000	\$ 1,000,000	\$ 1,000,000	\$ 2,850,000
Legal	\$ 600,000	\$ 300,000	\$ 300,000	\$ 1,200,000
Tracking System	\$ 500,000	\$ 500,000	\$ 500,000	\$ 1,500,000
Labor (Non-program specific)	\$ 3,871,797	\$ 3,987,951	\$ 4,107,589	\$ 11,967,337
Unallocated Funds	\$ -	\$ -	\$ -	\$ -
Total Portfolio-Level Costs TOTAL	\$ 16,926,525	\$ 17,575,253	\$ 17,775,451	\$ 52,277,229
PORTFOLIO TOTAL				
PORTFOLIO TOTAL	\$ 157,000,000	\$ 158,700,004	\$ 159,399,999	\$ 475,100,003
ComEd Portfolio Cost (less DCEO)	\$ 117,750,000	\$ 119,025,004	\$ 119,549,999	\$ 356,325,003

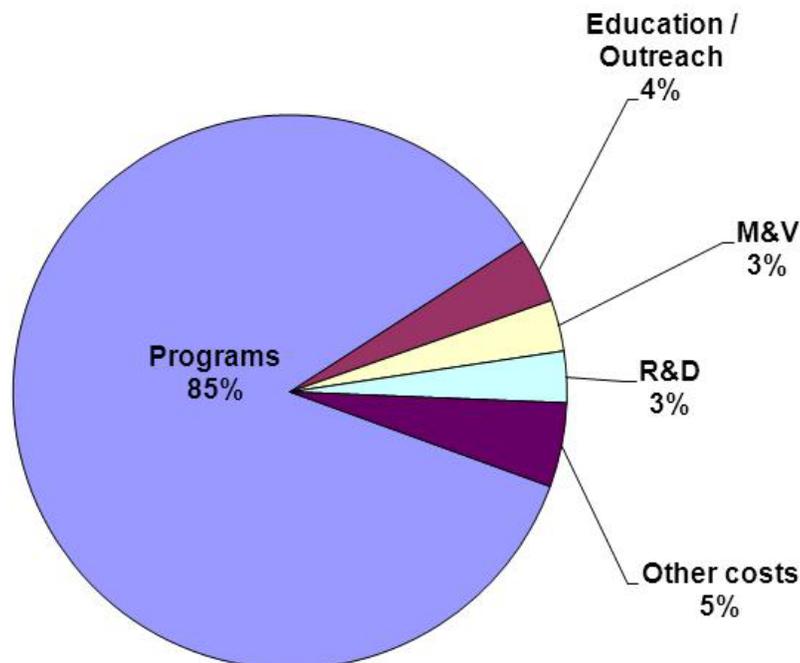
Key Budget Highlights

- Each annual budget equals the annual spending screen.
- Consistent with Section 8-103 and Plans 1 and 2, DCEO's budget is set at 25% of the total budget; details on the DCEO budget can be found in DCEO's plan filing.
- The evaluation, measurement and verification ("EM&V") component is set at 3% of the total budget, which is the maximum amount permitted by Section 8-103 of the PUA.
- The R&D component is set at 3% of the total budget, which is the maximum amount permitted by Section 8-103 of the PUA.
- 85% of ComEd's budget is directly tied to program implementation.

The graph below shows a high-level breakdown of ComEd's budget (*i.e.*, DCEO's budget is not included in the graph below).

Figure 9. Portfolio-Level Budget Breakdown

High-Level ComEd Budget Breakdown



The "Other Costs" include market research costs, legal costs, tracking system costs and non-program specific labor costs.

Portfolio Evaluation

Evaluation Overview

The objective of any portfolio evaluation is multi-faceted. Evaluation efforts ideally should support the program administrator's continuous improvement process by identifying the program's actual performance, showing how this performance differs from the planned performance, and identifying opportunities to improve the processes employed to deliver, incent, market and track program performance over time. Effective evaluation efforts are used to guide forward-looking program management decisions. Evaluation activities generally are classified in the following categories:

- **Impact evaluation** – determination of program annualized savings and cost-effectiveness
- **Process evaluation** – assessments of the effect of program structure and how program design, delivery, marketing and tracking affect program performance
- **Verification** – determination of the program participants' compliance with program terms, and of actual project savings for purposes of paying incentives
- **Market effects studies** – designed to determine the extent to which a program or portfolio has changed or transformed market behavior

Section 8-103 of the PUA addresses the first activity by requiring ComEd to provide for an annual independent evaluation of the cost-effectiveness of the portfolio. While Section 8-103 of the PUA is silent regarding process evaluations, it became clear during discussions with the SAG that process evaluations in the first several years of all programs, as well as broader impact evaluations, were critical to identifying opportunities for portfolio improvement.

Energy Savings Calculation

Energy savings. The key measurement, or outcome, of an energy efficiency program is the energy savings. Annualized Energy savings are reported in a variety of ways by utilities, evaluators and policy analysts. The two primary metrics represent savings at either the gross or net level, as defined below.

- **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:

- **Free riders** - 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.
- **Spillover** - 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. 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.

While risk management typically involves the use of an expected value for net savings in planning and administration, here there is no way to estimate what that expected value should be. Given that ComEd faces only downside risk if it misses its proposed goals, the only reasonable 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 larger.

Key Evaluation Issues

NTG Framework. For Plan 2, the Commission approved the agreed-to NTG framework that was reflected in the parties' Stipulation.²⁴ This framework has proved to be a highly valuable tool in managing ComEd's risk because, in many cases, it institutes a prospective application of revised NTG ratio values. This is important because it allows ComEd to manage its programs while having certainty regarding the application of one of the key inputs to the net savings calculation. Retroactive application of evaluated net savings creates unmanageable risk and may require a higher level of spending than would otherwise be necessary to ensure goals are achieved.

For Plan 3, the Plan 2 NTG framework has been refined to allow the SAG to review the evaluator's proposed NTG values. If consensus is reached by the SAG, then the SAG value will be used prospectively beginning June 1. If SAG consensus is not reached, then the evaluator's NTG value as of March 1 will be used prospectively beginning June 1.

Free Riders / Spillover. The NTG ratios include a combination of both free riders and spillover, as discussed above. To date, the evaluations have placed much more emphasis on the free rider component, which has been at the expense of considering the spillover effect. Starting with Plan 3, the evaluator will consider spillover in its NTG calculation while being mindful of any excessive costs required to measure spillover in relation to the predicted impacts of such measurements.

²⁴ See, e.g., *Plan 2 Order* at 47.

Independent Program Evaluation Contractor

The statute requires each utility to “[p]rovide for an annual independent evaluation of the performance of the cost-effectiveness of the utility’s portfolio of measures... as well as a full review of the 3-year results of the broader net program impacts and, to the extent practical, for adjustment of the measures on a going-forward basis as a result of the evaluations.” 220 ILCS 5/8-103(f)(7). To fulfill this obligation, we contracted with Navigant Consulting to provide all evaluation services for the Plan 1 and 2 cycles. Navigant provided annual process evaluations, and also provided annual impact evaluations for all of ComEd’s programs in response to stakeholder feedback that comprehensive evaluations be conducted early in the program cycle.

ComEd’s contract with Navigant provides the ICC with oversight authority as prescribed in the Commission’s Order on Rehearing in Docket No. 07-0540:

“[T]his Commission has the right to: approve or reject the contract; direct it to terminate the evaluator, if the Commission determines that the evaluator is unable or unwilling to provide an independent evaluation; and approve any action by the utility that would result in termination of the evaluator during the term of the contract period.”

Additionally, ICC Staff has been invited to, and has participated in, our biweekly calls with the Navigant team to discuss pertinent evaluation issues. As evaluation documents are received from Navigant, Staff receives copies of all draft reports contemporaneously with ComEd. ComEd proposes to continue this approach under Plan 3.

Finally, the next contract with the independent evaluator will indicate that TRM measure-level research should be given “high priority” in the evaluation process, and the contract shall be filed in ICC Docket 13-0495 within 14 days of its execution.

7. Cost Recovery

ComEd's Rider EDA – Energy Efficiency and Demand Response Adjustment (“Rider EDA”), which is the cost recovery mechanism authorized by Section 8-103 of the Act and approved by the Commission in Docket No. 07-0540, provides for the recovery of all incremental costs incurred by ComEd associated with energy efficiency and demand response plans approved by the Commission and implemented by ComEd. The rider also passes through the costs of such plans approved by the Commission and implemented by DCEO for ComEd customers. Rider EDA provides for annual reconciliation proceedings to true up the actual costs incurred with the revenues obtained through the application of the charge.

8. Glossary of Terms

Term	Definition
Back-Office Systems Development	Systems for managing the operation of an energy efficiency portfolio, including procurement of implementation services, incentives processing, tracking and reporting and budgeting.
Breakthrough Equipment and Devices	Equipment or devices that represent a major change in consumers' ability to manage their energy use.
Commissioning	A systematic process that results in the delivery of a building whose HVAC systems perform as intended.
Educational/Awareness/Market Transformation Activities	Activities that are undertaken to raise awareness of the benefits of energy efficiency among consumers, teach customers how to manage their energy consumption, and condition the market for energy efficiency by training efficiency providers in techniques for selling and delivering energy efficiency services.
EISA	The Energy Independence & Security Act 2007 is a federal law (Public Law 110-140, approved on December 19, 2007), that has broad-reaching implications aimed at the reduction of energy consumption.
EPACT	Energy Policy Act of 2005.
Energy Efficiency & Demand Response Portfolio	The combination of programs and program elements proposed by ComEd to meet its statutory or modified energy reduction goals within the spending screens.
Energy Efficiency Measure	A device or practice that, if installed or adopted, results in a reduction in energy consumption without any reduction in the level of services provided.
Energy Efficiency Program Element	A collection of energy efficiency measures that are promoted to a specific customer segment using a consistent delivery strategy.
ENERGY STAR Portfolio Manager	On online tool developed by the U.S. Environmental Protection Agency that calculates the economic benefits of using various ENERGY STAR energy

Term	Definition
	efficient measures.
Evaluation Contractor	A contractor hired to conduct program evaluations.
Evaluation, Measurement & Verification (“EM&V”)	The process for estimating the gross and net savings associated with program elements.
Free Riders	Customers who take advantage of program financial incentives but who would have adopted the energy efficient devices or practices promoted by the program even in the absence of financial incentives.
Impact Evaluations	An evaluation (estimate) of the energy savings associated with a measure, program element, program or portfolio.
Implementation Contractor	A contractor hired by ComEd to manage the direct implementation of a program element.
Manual J®	Manual J is the national standard for calculating heat gain and heat loss, and is produced by the Air Conditioning Contractors of America (ACCA), the nationwide non-profit association of heating, ventilation, air conditioning, and refrigeration contractors.
Market Effects Studies	An assessment of the extent to which program elements, programs or the portfolio have influenced the types and quantities of energy efficient measures sold in the market.
Measure Bundling	The processes by which measures are combined into logical groupings for purposes of program element design and program elements are grouped together into programs for effective delivery to customers.
Measure Savings Values	The amount of energy saved by a given energy efficiency measure when it replaces a less efficient device or practice.
Net-to-Gross (“NTG”) Ratios	The ratio of the net energy savings of a program to the gross savings. Gross savings are equal to the product of the number of measures installed under a program or program element and the per unit measure savings values. Net savings are the product of gross savings

Term	Definition
	and an adjustment for free riders and spillover effects.
Process Evaluations	An assessment of the quality of program design and implementation.
Program Realization Rates	The ratio of <i>ex post</i> program savings to <i>ex ante</i> estimates of savings.
QIV	Quality Installation Verification.
Retrocommissioning	The commissioning of an existing system that was never commissioned.
RFP	Request for Proposal.
Rider EDA	Rider EDA (“Energy Efficiency Demand Response Adjustment”) is ComEd’s cost-tracking rider that was designed to fulfill the requirements of Section 8-103 of the PUA.
RSP	Retrocommissioning Service Providers.
SAG	Stakeholder Advisory Group.
SEER	<i>Seasonal Energy Efficiency Ratio (SEER)</i> . The total heat removed from the conditioned space during the annual cooling season, expressed in BTUs, divided by the total electrical energy consumed by the air conditioner or heat pump during the same season, expressed in watt-hours.
Smart Ideas for Your Business	A grouping of energy efficiency program elements that are promoted to business customers.
Smart Ideas for Your Home	A grouping of energy efficiency program elements that are promoted to residential customers.
Spillover Effect	Related to freedrivers; a program’s or program element’s ability to encourage energy savings due to adoption of energy efficient devices and practices without having to pay financial incentives to all adopters of the devices or practices.

Term	Definition
SQL	Structured query language a standardized language that approximates the structure of natural English for obtaining information from databases.
Total Resource Cost (“TRC”) Test	A calculation comparing the benefits of an energy efficiency measure, program element, program or portfolio to the costs of that measure, program element, program or portfolio. A measure, program element or program or portfolio is considered to have passed this test if the ratio of benefits to costs exceeds 1.0 or the difference between benefits and costs is greater than \$0.
Trade Allies	Businesses and individuals engaged in the design, sales and installation of energy efficient devices and practices.
“Whole House” Solutions	A program design approach that promotes comprehensive improvements to residential dwellings.