



Ohio Edison Company

**Energy Efficiency & Peak Demand Reduction
Program Portfolio**

And Initial Benchmark Report

(For the Period January 1, 2010 through December 31, 2012)

December 15, 2009

Docket No. 09-1948-EL-POR

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Docket No. 09-581-EL-EEC

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1.1. *Summary describing the electric utility's Energy Efficiency and Peak Demand ("EE&PDR") Reduction Program Portfolio Plan ("Plan") to meet or exceed the statutory benchmarks for EE &PDR reductions.*

On July 31, 2008, Am. Sub. S.B. 221 ("S.B. 221") was enacted to revise Chapter 4928 of the Ohio Revised Code ("R.C.") to, among other things, establish statutory benchmarks for energy efficiency ("EE") and peak demand reductions ("PDR"). These benchmarks are set forth in R.C. 4928.66(A)(1)(a) and (b) and require Ohio's electric utilities to reduce energy consumption and peak demands for the period 2009 through 2012 as follows:

OE Table 1: S.B. 221 Percentage EE&PDR Benchmarks

Year ¹	Energy Consumption MWh	Peak Demand KW
2009	.3%	1.0%
2010	.8%	1.8%
2011	1.5%	2.5%
2012	2.3%	3.3%

Based on specific data for Ohio Edison Company ("Ohio Edison" or "OE"), The Cleveland Electric Illuminating Company ("CEI" or "CE") and The Toledo Edison Company ("Toledo Edison" or "TE") (collectively, the "Companies"), the above benchmarks translate into the following kWh and KW reduction requirements for the Companies as a whole:

OE Table 2: Total FirstEnergy Ohio S.B. 221 Benchmarks

Year	Energy Efficiency Benchmarks	Required Energy Efficiency Savings	Peak Demand Reduction Benchmarks	Required Peak Demand Reductions
	Percentage	MWh	Percentage	Mw
2009	0.30%	166,310	1.0%	115
2010	0.80%	433,078	1.8%	197
2011	1.50%	797,932	2.5%	282
2012	2.30%	1,233,780	3.3%	378

The Public Utilities Commission of Ohio ("Commission") adopted rules that address, among other things, the measurement and reporting of a utility's results ("Rules").² Pursuant to R.C. § 4928.66 and the related Rules, FirstEnergy Corp.'s ("FirstEnergy") Ohio utilities, Ohio Edison, CEI and TE have each developed an energy efficiency and peak demand reduction ("EE&PDR") strategy that is designed to comply with their respective

¹ While Rule 4901:1-39-04 appears to require the Company to file a three year plan for the period January 1, 2010 through December 31, 2012 the Company, as part of its first report to the Commission is also including the results of its EE&PDR efforts for 2009. These results are summarized in Appendix G of this Plan.

² See *In re Adoption of Rules for Alternative and Renewable Energy Technology, Resources and Climate Regulations and Reviews of Chapters 4901:5-1, 4901:5-3, 4901:5-7 of the Ohio Administrative Code, Pursuant to Chapter 4928.66, Revised Code, as Amended by S.B. 221, Docket No. 08-0888-EL-ORD; and 09-0512-GE-UNC.*

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benchmarks.³ The first three years of this strategy (from January 1, 2010 through December 31, 2012 (“Reporting Period”)) are set forth in the Companies’ Plans, each of which contemplates a suite of EE&PDR programs for all major customer segments. Each of the Plans includes the following residential programs:

- Direct Load Control Program
- Appliance Turn-In Program
- Energy Efficient Products Program
- Efficient New Homes Program
- Comprehensive Residential Retrofit Program
- Online Audit Program
- Online Efficient Products Program
- CFL Program (for both low income and non-low income customers)
- Community Connections (for low income customers)

The following Small Enterprise programs:

- C/I New Construction Program
- Small Enterprise Audits & Equipment Program

The following large Commercial and Industrial (“C&I”) programs:

- C/I Equipment Program (Lighting)
- C/I Equipment Program (Industrial Motors)
- Efficient New Construction Program
- Technical Assessment Umbrella Program
- C/I Interruptible Demand Reduction Program

And the following Government Program:

- Street Lighting and Traffic/Pedestrian Lighting Program

In addition to the above, the Companies contemplate the continuation of their Mercantile Customer Self-Directed Project Program (“Mercantile Program”) and will continue to make transmission and distribution (“T&D”) improvements on their system.

The total annual costs for these programs for each of the Companies during the Reporting Period are as follows:

³ Although each of the Companies is submitting a separate plan, the program designs for each of the Companies are virtually identical.

OE Table 3: Total Portfolio Annual Budget

Total Portfolio Annual Budget			
Company	Program Year 2010 (\$)	Program Year 2011 (\$)	Program Year 2012 (\$)
OE	31,942,611	28,924,445	31,700,406
CEI	31,174,158	25,256,646	23,283,105
TE	13,341,787	11,117,154	17,590,698
Total Portfolio Annual Budget	76,458,556	65,298,245	72,574,210

These costs could be reduced by approximately \$51.2 million in 2010 if the Commission allowed annual, rather than prorated savings in the year in which a program is launched. This requirement to use only prorated instead of annualized savings, when coupled with the procedural schedule contemplated in the Commission’s Rules, makes it virtually impossible for the Companies to comply with 2010 energy efficiency benchmarks, absent either (i) an acceleration of the procedural schedule with an expedited ruling on the Plans; or (ii) the Commission’s early approval of a suite of four programs -- the Appliance Turn-in Program, the CFL Program, the C&I Equipment Program (Lighting), and the C&I Equipment Program (Motors) (collectively referred to as “the Fast Track Programs”) – so as to allow these programs to launch no later than April 1, 2010. Without either, there is a distinct possibility that the Companies would require an amendment to their 2010 benchmarks as allowed by R.C. 4918.66(A)(2)(b).

The successful implementation of this Plan will generate Total Discounted Lifetime Benefits through the three Companies’ Plans of approximately \$ 720.8 million. Further, each of the Companies’ portfolios of programs passes the Total Resource Cost (“TRC”) Test, with Ohio Edison’s portfolio achieving a TRC score of 1.38 CEI’s, a score of 1.24, and Toledo Edison’s, a score of 1.17.

The costs related to each of the Companies’ Plans will be recovered through their Riders DSE, which were approved in Case No. 08-0935-EL-SSO, and are being modified in this filing. Copies of these riders are included in attached Appendix F and reflect the rates that will be in effect for the period January 1, 2010 through December 31, 2010.

The Plan also includes in Appendix G a list of programs submitted to the Commission for approval as part of the Companies’ strategy for compliance with the 2009 statutory benchmarks. Also included in Appendix G are the estimated EE&PDR results for each program, along with the current status of each. As Appendix G indicates, if the programs listed thereon are approved, the Companies would be in a position to achieve their 2009 benchmarks.⁴

As a first step in the development of their EE&PDR strategy, the Companies developed their Assessment of Potential Report (“Market Potential Study”) as of September 1, 2009. Based on the results of this Study the Companies have coordinated EE&PDR development efforts across their respective service territories in order to achieve cost efficiencies and consistency among the various program offerings. Pursuant to §§ 4901:1-39-

⁴ Because the Commission has not yet ruled on most of the programs listed in Appendix G as of the date of the filing of the Plans, the Companies requested an amendment to their 2009 benchmarks in Case No. 09-0535-EL-EEC, 09-1004-EL-EEC *Et. Seq.*

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03, 4901:1-39-04, 4901:1-05 and Rule 4901:1-39-07 of the Ohio Administrative Code, Ohio Edison (hereinafter the “Company”) submits as part of this filing its Assessment of Potential Report (Market Potential Study) in Appendix D, its comprehensive EE&PDR program portfolio for the period January 1, 2010 through December 31, 2012 (“Plan”), its planning Benchmark Report (in OE Table 4) and its proposed cost recovery mechanism through Rider DSE, which is discussed in Section 7.0 of this Plan and attached as Appendix F. Pursuant to the Commission’s November 30, 2009 Entry in Docket No. 09-0580-EL-EEC *et seq.*, the Company has also included a description of its revised high efficiency compact fluorescent light bulb (“CFL”) program in Section 3.2 of this Plan.

The Company believes that it has prepared an EE&PDR strategy as reflected in this three year plan that balances near-term energy savings opportunities among all rate classes with longer-term programs that will create jobs and build capacity for delivering even greater energy and demand reduction impacts in the future. The result of these efforts is a comprehensive set of programs that, if approved as filed, will enable the Company to achieve its energy savings and peak demand reduction goals during the Reporting Period, which are set forth below in OE Table 4.

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OE Table 4: Ohio Edison S.B. 221 Benchmarks for the Period 2009 - 2012

Year	Energy Efficiency Benchmarks	Required Energy Efficiency Savings	Peak Demand Reduction Benchmarks	Required Peak Demand Reductions
	Percentage		Percentage	
		MWh		Mw
2009	0.30%	76,796	1.0%	53
2010	0.80%	200,126	1.8%	91
2011	1.50%	368,873	2.5%	130
2012	2.30%	570,852	3.3%	174

The figures in OE Table 4 represent the Company's planning benchmarks as required by Rule 4901:1-39-05. They have been calculated consistent with this Rule's requirements and the provisions of R.C. §4928.66(A)(2)(c). These benchmarks are based on information provided in the Company's April 15, 2009 Long-Term Forecast Report ("LTFR") in PUCO Form FE4-D1, adjusted for weather and the results of mercantile customer self-directed projects that have been filed with the Commission prior to December 1, 2009. These benchmarks have been established for planning purposes and will be adjusted, as necessary, in the Company's annual filings that are required by the Commission.

The programs outlined in this Plan were designed to achieve a balance of costs and end results, keeping in mind the Company's three primary goals: (i) comply with statutory requirements; (ii) provide at least one program for each of the major customer classes; and (iii) develop a portfolio that provides the greatest impact on a kWh reduction per dollar spent basis.

OE Table 5 shows the number of customers and sales or revenues that make up each of the Company's major customer segments addressed in this Plan.⁵

OE Table 5: FirstEnergy Ohio Company Characteristics

Ohio Edison 2010			
	# of Customers	MWH	KW
Residential-Other	868,485	8,806,290	2,544,063
Residential Low-Income	65,576	664,934	192,094
Small Enterprise	110,454	6,864,588	2,253,405
Mercantile-Utility (Large Enterprise)	219	8,062,963	1,015,782
Governmental	1,006	177,391	N/A
Total	1,045,740	24,576,165	6,005,344

⁵ Although the Commission has preliminarily indicated a preference for information to be provided for customer segments different from that set forth in OE Table 5, (*see* Docket No. 09-0714-EL-UNC), no final order has been issued in that docket. In light of this, as well as the fact that the Companies do not track data in a manner that would allow them to present the data in the format requested by the Commission, the Companies have attempted to present the data in a format that most closely resembles that requested by the Commission.

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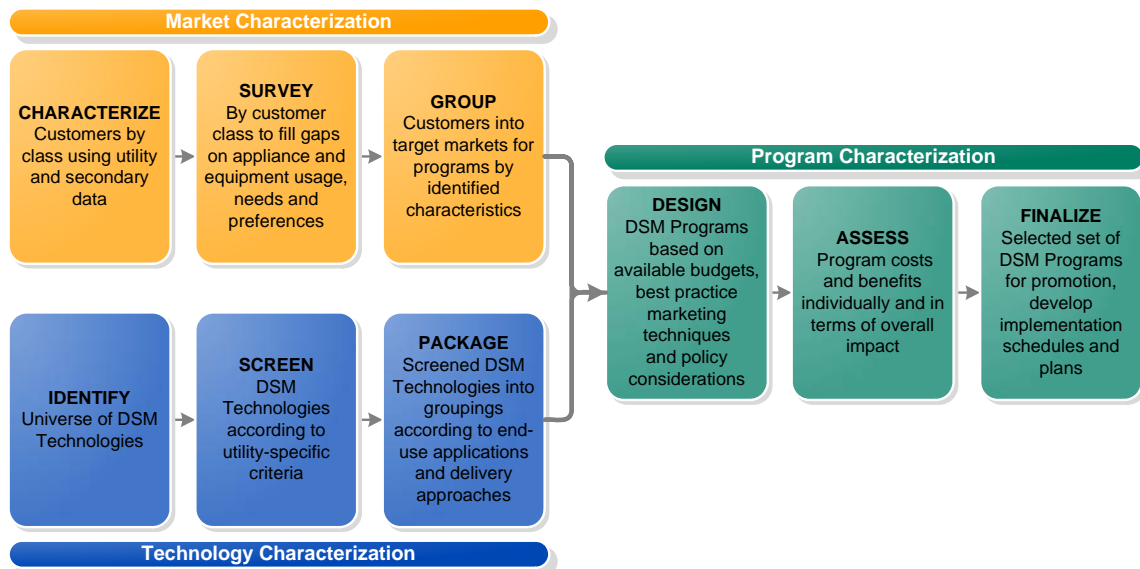
Forecasted 2010 usage from the LTFR has been assigned to five categories: (i) Residential-Other; (ii) Residential Low Income; (iii) General Service; (iv) Primary Service; and (v) Street Lighting and Traffic/Pedestrian Lighting. Residential Customers taking service under the RS tariff were split between “low income” and “other”. Because the Company currently has no way to determine which of its approximately 934,000 residential customers fit within the formal definition of “low income”, customers who were enrolled in the Percentage of Income Payment Program (“PIPP”) as of August 31, 2009 were used as a proxy for the low income category for program design and tracking purposes. For purposes of this plan, the General Service group comprises the Company’s Small Enterprise plan sector. The Primary Service group consists of large C&I customers taking service on the General Service Primary (“GP”), General Service Sub-transmission (“GSU”), and General Service Transmission (“GT”) rate schedules. For purposes of this Plan, the Primary Service group comprises the Company’s Mercantile Utility plan sector. Customers were assigned to these categories based on available information in the billing systems.

1.2. Summary of the process used and key assumptions to develop the Plan

Process

Figure 1, below illustrates the process undertaken in the Market Potential Study (Appendix D) by the planning team to develop the EE&PDR Plan

Figure 1: FirstEnergy EE&PDR Plan Development Process



The Company’s approach balances four key sources of information:

- External stakeholder experience and opinions captured through a collaborative process⁶
- Implementation vendor experience in delivering programs captured in a Request for Information survey;

⁶ The Companies’ established a collaborative process in which interested parties met with the Companies to discuss the development of the Programs included in the Companies’ Plans (“Collaborative Group”). This Collaborative Group process is discussed in Section 3.1.4 of the Plans.

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- Industry experience as reflected in the literature and in previous contractor evaluation studies; and
- Customer attitudes and preferences through mail and telephone surveys and interviews.

Collaborative Group members' input was obtained through a series of meetings, followed by conference calls and e-mail communications with interested organizations. Further, written comments to the proposed portfolio of programs were received from Collaborative Group member organizations.

To capture customer data, FirstEnergy commissioned primary market research for the three Companies, including 300 C&I phone surveys, and over 1,200 residential mail surveys; with 100 completed surveys of C&I customers, and more than 400 mail surveys of residential customers analyzed for this study. Interviews were held with Ohio Edison Managed Account representatives, National Account representatives and Area Managers to capture needed information on the Company's largest customers and local governments.

On a parallel track, the team evaluated more than 100 EE&PDR measures, along with additional energy efficiency measures suggested by the Companies' consultant, Black & Veatch Corp. ("Black & Veatch"). To support that modeling effort, the Companies solicited direct input from energy efficiency and demand response program vendors through a Request for Information ("RFI") to gather recommendations relative to the nature of program offerings as well as the recommended incentives and cost levels for various program elements to be used in program modeling. Program modeling was augmented with a significant amount of data obtained from 28 responses to the RFI. Other information was collected as part of the market research of retail stores in the Company's service territory that sought product availability and pricing for selected electric energy efficient appliances.

Using all of the data collected, the team developed models to be utilized to assess costs and benefits, based on the most current technical reference manual ("TRM") information submitted to the Commission by various parties in Docket No. 09-0512-GE-UNC.

Assumptions and Priorities

There are both universal and program specific assumptions that must be made when modeling the EE&PDR programs, including discount rates and avoided costs, as well as program specific assumptions involving customer participation levels, forecasted budgets for tasks such as marketing and program administration, and other start up costs. For purposes of the Plan, the Companies assumed a discount rate of 8.48%, and avoided costs as described in the Market Potential Study included as Appendix D. Customer participation levels and other program specific assumptions are contained in the Program Cost Detail Support information, included as Appendix B. In addition, when designing the Plan, the Company pursued the following priorities:

- Seek out near-term "shovel ready" opportunities;
- Focus on previously verified projects first (i.e., those with high confidence level related to the timing and quantity of results); and
- Continue or modify existing programs.

While modeling assumptions yielded results that appear to support program success within the required timeframe. The Company notes the conditions under which these programs will be implemented over the next 3 years, all of which have material risks associated with them. Some of these risks include:

- The economic impact of continued high unemployment rates. This causes concern that business and government accounts may not support the pace of investment required to achieve the goals, and slow the pace of mass market penetration;

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- With the exception of low-income programs, the programs presented herein will be new to the Company's customers with no historical basis for participation rates or experience. This may cause installation rates to be lower than modeled, particularly in the early years; and
- Being newly introduced, the programs presented may not provide adequate incentives to achieve targeted participants' penetration rates and energy/demand savings.

The Plan factors in these potential risks, mitigating their impact to the degree reasonably possible. Nevertheless, because of these uncertainties, and the fact that most of the programs contemplated in this Plan will be launched for the first time in the Company's service territory in 2010, the Company urges the Commission and other interested parties to remain flexible in their assessment of the programs and the implementation thereof.

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1.3. Summary tables of portfolio savings goals, budget & cost-effectiveness (PUCO Tables 1, 2 and 3)

PUCO Table 1 sets forth the lifetime costs and benefits of the programs being presented to the various customer segments. The Cost Benefit Ratio was calculated consistent with Commission directives. While certain programs within a segment do not pass the TRC, the portfolio as a whole does, as indicated at the bottom of PUCO Table 1.

PUCO Table 1: Portfolio Summary of Lifetime Costs and Benefits

Portfolio Summary of Lifetime Costs and Benefits Net Lifetime Benefits, and TRC per the California Standard Practice Manual					
Portfolio	Discount Rate	Total Discounted Lifetime Costs (\$)	Total Discounted Lifetime Benefits (\$)	Total Discounted Net Lifetime Benefits (\$)	Cost-Benefit Ratio (TRC)
Residential <i>(exclusive of Low-Income)</i>	8.48%	76,620,080	150,588,538	73,968,458	1.97
Residential Low- Income	8.48%	9,881,039	15,156,650	5,275,612	1.53
Small Enterprise	8.48%	99,722,020	78,787,644	(20,934,376)	0.79
Mercantile Self-Direct	8.48%	1,065,000	44,875,652	43,810,652	42.14
Mercantile-Utility (Large Enterprise)	8.48%	45,570,577	33,400,778	(12,169,799)	0.73
Governmental	8.48%	5,180,489	5,177,291	(3,198)	1.00
Transmission & Distribution*	8.48%	*	*	*	*
Total	8.48%	238,039,204	327,986,553	89,947,349	1.38

* The Company is not seeking Cost Recovery through Rider DSE for costs associated with T&D projects. These costs will be addressed in the future proceedings. T&D projects are further described in Section 2.7.

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PUCO Table 2 below sets forth the projected kWh and kW savings by customer segment to be achieved as a result of the programs being proposed in this Plan.

PUCO Table 2: Summary of Portfolio Energy and Demand Savings

Summary of Portfolio Energy and Demand Savings						
MWh Saved for Consumption Reductions kW Saved for Peak Load Reductions	Program Year 2010		Program Year 2011		Program Year 2012	
	MWh Saved	kW Saved	MWh Saved	kW Saved	MWh Saved	kW Saved
Baseline	25,015,720	5,207,790	24,591,525	5,213,171	24,819,632	5,355,200
Residential Sector <i>(exclusive of Low- Income)</i> - Cumulative Projected Portfolio Savings	36,887	18,858	173,075	41,427	266,841	64,260
Residential Low-Income Sector - Cumulative Projected Portfolio Savings	20,048	2,803	33,749	4,654	38,620	5,567
Small Enterprise - Cumulative Projected Portfolio Savings	11,873	9,499	57,305	17,569	97,946	28,331
Mercantile-Self Direct	123,577	31,349	145,089	36,806	155,741	39,508
Mercantile-Utility (Large Enterprise)- Cumulative Net Weather Adjusted Savings	4,029	35,808	18,360	38,401	30,997	41,860
Governmental- Cumulative Projected Portfolio Savings	698	223	4,191	446	7,450	743
Transmission & Distribution	14,594	3,860	22,609	5,828	30,624	7,796
Portfolio Plan Total - Cumulative Projected Savings	211,707	102,400	454,378	145,132	628,220	188,065
Percent Reduction From Baseline (MWh)	0.8%	2.0%	1.8%	2.8%	2.5%	3.5%
Percent Savings Due to Portfolio Above or Below Targets*	6%	12%	23%	11%	10%	8%

**The indicated amounts are estimates only and based on aggressive program implementation schedules. Any over compliance should be viewed solely as a contingency. In the event actual over-compliance occurs, the Company reserves the right to modify any program contributing to such over compliance to the degree necessary to bring actual results more in line with statutory benchmark requirements.*

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PUCO Table 3 below sets forth the costs of programs for each of the customer segments.

PUCO Table 3: Summary of Portfolio Costs

Summary of Portfolio Costs			
Program year is June 1 – May 31			
	Program Year 2010	Program Year 2011	Program Year 2012
	Portfolio Budget (\$)	Portfolio Budget (\$)	Portfolio Budget (\$)
Residential Portfolio Annual Budget (\$ and percent of Portfolio Budget)	13,334,663	12,197,042	11,840,122
Residential Low-Income Portfolio Annual Budget (\$ and percent of Portfolio Budget)	4,133,289	2,850,167	2,897,583
Small Enterprise Portfolio Annual Budget (\$ and percent of Portfolio Budget)	8,147,074	5,890,718	7,853,225
Mercantile-Self Direct Portfolio Annual Budget(\$ and percent of Portfolio Budget)	471,000	332,000	262,000
Mercantile-Utility (Large Enterprise) Portfolio Annual Budget (\$ and percent of Portfolio Budget)	4,326,475	6,140,082	6,828,504
Governmental Portfolio Annual Budget (\$ and percent of Portfolio Budget)	1,530,110	1,514,435	2,018,972
Transmission & Distribution Portfolio Annual Budget (\$ and percent of Portfolio Budget)*	*	*	*
Total Portfolio Annual Budget	31,942,611	28,924,445	31,700,406
* The Company is not seeking Cost Recovery through Rider DSE for costs associated with T&D projects. These costs will be addressed in future proceedings. T&D projects are further described in Section 2.7.			

1.4. Summary of program implementation schedule over the three-year plan period

The proposed time line for Plan implementation is set forth below in Figure 2. The Companies anticipate hiring one or more Program Implementers for the various programs identified in each of the Companies' Plans. These firm(s) will be responsible for the start-up of new programs, which will include at a minimum the identification of appropriate staffing skills and levels and the hiring of the same, and the development of website(s), promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. These firms' start-up phase will include communication and coordination with Company personnel so as to (i) present seamless processes for customers or allies that wish to participate in the programs; (ii) maximize process efficiency and controls; and (iii) leverage Company relationships and communications with customers.

The Company will contractually obligate the firm(s) to design a start-up phase that will be performed in an organized and efficient manner and that strives to maintain and strengthen constructive relationships with Company program management, customers, trade allies, contractors and other energy program partners when possible.

Due to the approval process contemplated in the Commission's Rules, this Plan assumes that, except for several Fast Track Programs, and absent an accelerated procedural schedule, all programs will launch after the Commission issues its Order, currently assumed to occur sometime in mid-2010. If the Commission issues its Order sooner than assumed, then the timelines set forth below will adjust accordingly.

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Figure 2: Summary Three-Year Timeline

FirstEnergy: Ohio Companies Program Implementaiton Schedule	2009				2010												2011				2012				2013						
	Qtr/Mo.	1	2	3	4	J	F	M	A	M	J	J	A	S	O	N	D	1	2	3	4	1	2	3	4	1	2	3	4		
Residential Portfolio																															
1. Direct Load Control Program																															
2. Appliance Turn-In Program*																															
3. Energy Efficient Products Program																															
4. Efficient New Homes Program																															
5. Comprehensive Residential Retrofit Program																															
6. Online Audit Program																															
7. Online Efficient Products Program																															
8. CFL Program*																															
Low Income Portfolio																															
9. CFL Program for Low Income*																															
10. Community Connections Program																															
Small C/I Portfolio																															
11. Small Enterprise Audits & Equipment Program																															
12. C/I Equipment Program*																															
Large C/I Portfolio																															
13. Technical Assessment Umbrella Program																															
14. C/I Equipment (Industrial Motors)*																															
15. C/I Interruptible Demand Reduction Program																															
16. C/I New Construction Program																															
Government Sector Portfolio																															
17. Government Lighting Program																															
Mercantile, Transmission & Distribution																															
Mercantile Self Directed Projects																															
Transmission & Distriubtion Efficiency																															

1.0 OVERVIEW OF PLAN

FirstEnergy: Ohio Companies Program Implementaiton Schedule	2009				2010												2011				2012				2013					
	Qtr/Mo.	1	2	3	4	J	F	M	A	M	J	J	A	S	O	N	D	1	2	3	4	1	2	3	4	1	2	3	4	
Program Management and Monitoring																														
Secure Program Implementation Vendors																														
C/I Rebate Audit Promo & Communication																														
Peak Load Management Coordination																														
Residential Rebates and Home Audits Support																														
Residential Direct Load Control																														
Appliance Turn-in Vendor																														
Online Efficient Products Fulfillment House																														
Online Audit																														
DSM /EE Program tracking system*																														
Marketing (Consumer Awareness and Cross Program Marketing)																														
EM&V Process																														

* Pending Commission pre-approval for fast tracking

KEY:

- Duration of program
- ◆ Program Launch
- ▲ Select Vendor and Start Program Costs (deferral)
- Ramp up activities and cross program tasks
- 📅 First Annual Report to Commission
- Annual Program Evaluation and Plan Update

1.5. Summary of the utility implementation strategy to manage the portfolio, engage customers and trade allies, encourage innovation and market access, transform markets, and align or coordinate with other utilities.

The Company intends to provide market access to the majority of its program services through a mix of third party vendors, administrators selected by the Company⁷ and community agencies, the latter of which will focus its efforts on certain residential programs. The Company envisions using the Administrators primarily to educate their respective customer segments and to “market” various programs being offered by the Company. The terms and conditions under which Administrators will work are set forth in the Administrator agreements approved by the Commission on December 2, 2009 in Docket No. 09-553-EL-EEC. The various program descriptions included later in this Plan will include a description of the anticipated delivery process.

During the approval process, the Company will solicit implementation vendors for programs that can be launched immediately after Commission approval. During this period, the Company will also develop and launch a general customer awareness campaign that will be designed to educate both customers and the media about energy efficiency and peak demand reduction benefits. After programs are approved, the Company will launch a more comprehensive media campaign, in which the programs and their benefits are promoted. The goal will be to leverage these early activities and build on their momentum in an effort to gain customer acceptance of broader and more comprehensive EE&PDR programs in the future.

Market access is discussed in the specific program descriptions set forth in Sections 3.2 through 3.5 of the Plan. Market transformation is discussed in Section 3.7.3 and program descriptions in Sections 3.2 through 3.5, while coordination with other utilities occurred during the development of the TRM and may occur when appropriate in specific program implementation activities.

1.6. Summary of the utility’s data management, quality assurance and internal evaluation processes, including how the Plan and individual programs will be updated or refined based on evaluation results.

The Company is committed to designing and implementing robust processes, organizations and systems that achieve the energy savings and demand reduction goals established in S.B. 221. It plans to use a two-fold approach to ensure the quality of its programs included in the Plan during both the design and implementation phases, first, by developing processes to clearly detail the steps to meet EE&PDR goals; and second, by devising and implementing controls at various stages of these processes to verify data integrity and maintain program quality.

Section 6.0 of this report presents detailed plans regarding the data management quality assurance and evaluation processes for the Plan. Each program description in Section 2 provides a brief description of the planned evaluation monitoring and verification (“EM&V”) steps intended for each program. Further, the Company is committed to working with the Commission’s Independent Program Evaluator to support its efforts in evaluating the programs. The Company will conduct initial process evaluations at the six to twelve month mark after launch as a way to gauge progress toward the achievement of goals and identify issues requiring mid-course correction. All programs will benefit from periodic feedback from vendor-conducted customer satisfaction surveys, as well as comments from the Company’s Administrators and Collaborative Group. In addition to making interim adjustments to programs as suggested by these feedback activities, the Company will propose any major changes it believes are necessary in its annual reporting to the Commission.

⁷ Pursuant to a stipulation entered into in Case No. 08-0935-EL-SSO (“ESP Stipulation”), the Companies committed to using specific organizations as “Administrators.” The administrator program is discussed in Section 5.1.1 of the Plan.

1.7. Summary of any cost recovery mechanisms.

The Company's proposed Demand Side Management and Energy Efficiency Rider (Rider DSE) is included as Appendix F, and reflects amendments to Rider DSE approved in the ESP Stipulation in Case No. 08-0935-EL-SSO. The purpose of this rider is to collect all Plan related costs. All charges in Rider DSE are expressed as a price per kilowatt-hour ("kWh") and will be billed on the same basis. The charges will be calculated and stated separately for the Residential Service (RS), General Service Secondary (GS), General Service Primary (GP), General Service Sub-transmission (GSU), General Service Transmission (GT), Street Lighting Service (STL), Traffic Lighting Service (TRF) and Private Outdoor Lighting Service (POL) rate schedules. The Company is proposing that the amended Rider DSE would become effective July 1, 2010 upon conclusion of this proceeding with service rendered on or after July 1, 2010. Rider DSE would remain in place until all costs are recovered. The charges in DSE1 and DSE2, with the exception of the first charge effective July 1, 2010, will be updated annually no later than December 1st of each year. The Company may request that the Commission approve interim revisions to Rider DSE to be effective thirty days from the date of filing. The proposed Rider DSE meets the requirements of Case No. 08-0888 EL-ORD.

2.0 ENERGY EFFICIENCY PORTFOLIO – PROGRAM SUMMARIES

2.1. *Residential program summaries – indicate which programs are new or continuing*

The Company has developed eight programs that are targeted at residential customers, all of which are summarized in Section 3.2 of the Plan:

- Direct Load Control Program (Continuing)
- Appliance Turn-In Program (New)
- Energy Efficient Products Program (New)
- Efficient New Homes Program (New)
- Comprehensive Residential Retrofit Program (New)
- Online Audit Program (New)
- Online Efficient Products Program (Continuing)
- CFL Program (New)

2.2. *Residential Low-Income program summaries – indicate which programs are new or continuing.*

In addition to the Residential Programs described above, there are two programs in this portfolio, both of which are summarized in Section 3.2.1 of this Plan, which will directly serve low income customers:

- CFL Program for Low-Income (New)
- Community Connections (Continuing)

2.3. *Small Enterprise program summaries –indicate which programs are new or continuing.*

The Company has no existing programs specifically targeted to the small business sector, which is comprised of customers taking service under rate schedule GS (Small Enterprise). In this portfolio, there are two programs that will provide specific benefits to all Small Enterprise customers, both of which are summarized in Section 3.2.2 of the Plan:

- C/I New Construction Program (New)
- Small Enterprise Audits & Equipment Program (New)⁸

Since many small businesses are operated out of facilities that have energy consumption patterns and load profiles more similar to residential customers, several of the programs for residential buildings may also apply to small business customers. The Online Efficient Products Program, and Online Audit Program, for example, may be ideal for such customers with limited energy savings opportunities and equipment needs who are seeking an easy way to obtain advice and products that they can install themselves. One program element of the CFL program will deliver three compact fluorescent light bulbs to approximately 14,000 small business customers identified by the Administrator representing the Council of Small Enterprises (COSE). Further, the C&I Audit and Equipment Rebates programs will be available to any non-residential customer,

⁸ The Small Enterprise Audits & Equipment Program is addressed with individual program descriptions in Section 3.2 as “C/I Audits” and “C/I Equipment Program.”

2.0 ENERGY EFFICIENCY PORTFOLIO – PROGRAM SUMMARIES

large or small, and will provide comprehensive facility audits and heavily discounted pricing for a wide range of measures. The details of each of these programs are included in the individual program descriptions set forth in Section 3.2

2.4. *Mercantile Self-Direct program summaries – provide estimates of number of participants, estimated savings, costs, and cost-effectiveness.*

The Company initiated its Mercantile Program in 2009. This program is targeted at customers within the Company's service territory that have, since January 1, 2006, implemented projects that resulted in energy efficiency and/or peak demand reductions. It was originally designed to utilize the Administrator group who, in conjunction with Company representatives, would educate customers about the program, convince the customer to commit its project to the Company for statutory compliance purposes, and gather all necessary supporting documentation. Because the Commission only approved, with modifications, the agreement between the Companies and the various administrators on December 02, 2009, the Companies have yet to fully launch the Administrator aspects of the program. Instead, during 2009, the Company, with limited exceptions, utilized only internal personnel who performed the tasks described above. It is the Company's intent to launch the Administrator portion of the program in 2010, consistent with the program description included in Section 3.3.

Through November 30, 2009, the Company, along with the applicable customers, filed with the Commission ten (10) joint applications for approval to include for compliance with 2009 EE&PDR statutory benchmarks the level of savings indicated in OE Table 6. The results included in the table below reflect all savings achieved (or expected to be achieved) from each mercantile customer project as reflected in either a third party engineering report or other supporting documentation that demonstrates savings based on a comparison between energy consumption both before and after the project was implemented. To date none of these applications have been addressed by the Commission and, accordingly, the levels of energy efficiency and peak demand reduction set forth in OE Table 6 are estimates.

2.0 ENERGY EFFICIENCY PORTFOLIO – PROGRAM SUMMARIES

EE&PDR Program Plan
Ohio Edison

OE Table 6: Mercantile Customer Applications Filed as of November 30, 2009

<u>Op Co</u>	<u>Customer Name</u>	<u>Docket Number</u>	<u>Energy Efficiency (GWh)</u>	<u>PDR (KW)</u>
OE	PCC Airfoils, Inc	09-1200-EL-EEC	1.8	203
OE	Heinz Frozen Foods (Weight Watchers)	09-1201-EL-EEC	11.5	0
OE	Automated Packaging Systems	09-1202-EL-EEC	0.6	87
OE	Cardington Yutaka	09-1203-EL-EEC	1.9	0
OE	Elyria Foundry	09-1205-EL-EEC	9.3	0
OE	Plastipak	09-1206-EL-EEC	8.6	0
OE	McGraw	09-1207-EL-EEC	2.3	418
OE	Sterling	09-1209-EL-EEC	1.3	192
OE	Whirlpool	09-1210-EL-EEC	7.4	840
OE	Republic Engineered Products-Massillon	09-1212-EL-EEC	2.1	329

OE Table 7, below indicates the number of additional applications the Company intends to file during the month of December, 2009, along with the incremental GWh and KW associated with such filings..

2.0 ENERGY EFFICIENCY PORTFOLIO – PROGRAM SUMMARIES

EE&PDR Program Plan
Ohio Edison

OE Table 7: 2009 EE&PDR Savings from Mercantile Self-Directed Committed Projects

Energy Efficiency Savings, GWh Filed as of November 30, 2009		Expected to File by Dec 31, 2009	Total , 2009
OE	47	6	53
CEI	9	15	24
TE	5	20	25
Total	61	41	102
Peak Demand Reduction, KW Filed as of November 30, 2009		Expected to File by Dec 31, 2009	Total , 2009
OE	2,069	1.5	2070
CEI	512	3.8	516
TE	840	5.1	845
Total	3,421	10.4	3,431

OE Table 8 demonstrates the results of the TRC test (which in essence is a Utility Cost Test as permitted by the Commission), calculated consistent with Commission directives.

OE Table 8: Cost Effectiveness Test Results for 2009 Mercantile Self-Directed Projects

2009 TRC Test <i>(This does not include participant costs, making the #s below equal to a Utility Cost Test).</i>	
OE	42
CEI	48
TE	67

For a projection of results during the Reporting Period, see Section 3.3.

2.5. *Mercantile-Utility program summaries – indicate which programs are new or continuing.*

For purposes of this Plan the Company has included as its Mercantile-Utility sector all customers taking service under its rate schedules GP, GSU, and GT. The programs designed for this group, which are summarized in Section 3.4 of this Plan, include:

- C/I Equipment Program (NEW)
- C/I Equipment Program (Lighting) – (New)
- C/I Equipment Program (Industrial Motors) – (New)
- Efficient New Construction Program (New)
- Technical Assessment Umbrella Program – (New)
- C/I Interruptible Demand Reduction Program – (Continuing)

2.0 ENERGY EFFICIENCY PORTFOLIO – PROGRAM SUMMARIES

EE&PDR Program Plan
Ohio Edison

2.6. Governmental program summaries – indicate which programs are new or continuing.

The Company's program for government sector customers which focuses on Street Lighting and Traffic/Pedestrian Lighting technology, is summarized in Section 3.5 of the Plan. The Company has specific rate codes that enable identification of municipal lighting accounts that qualify for this program. The opportunities are significant for cost-effective retrofitting of older standard technology to new more efficient lighting fixtures.

Municipal lighting is the only program that can be directed specifically to the government sector since no other identification currently exists in the Company's customer accounts system that would identify a customer as a governmental or non-profit entity. However, government and non-profit facilities qualify for all of the measures and services of the other programs for non-residential customers (such as the C/I Energy Audits and Efficient Equipment programs).

2.7. Transmission & Distribution (T&D) program summaries – indicate which programs are new or continuing.

The Company has developed a T&D program that accumulates the savings achieved through various T&D projects completed for the benefit of the Company. These projects involve various system improvements that, when made, reduce the amount of line losses, which in turn results in a more efficient delivery system. Examples of the types of projects included in the T&D program are (i) the re-conductoring of lines; (ii) substation improvements; (iii) the addition of capacitor banks; and (iv) the replacement of regulators. These projects are selected through a comprehensive project evaluation process that includes among other things, capital requirements and constraints, projected results, and financial paybacks.

In 2009, the Companies submitted to the Commission two applications related to T&D projects.⁹ These applications involved T&D projects implemented both for the period 2006 through 2008, and for the period January 1, 2009 through December 31, 2009. The Company intends to continue this program throughout the Reporting Period, however the costs associated with this program will not be included in Rider DSE, but rather will be addressed in a future proceeding.

⁹ See PUCO Case No. 09-384-EL-EEC *et seq.* and Case No. 09-951-EL-EEC *et seq.*

3.0 PROGRAM DESCRIPTIONS

3.1 *Discussion of criteria and process used for selection of programs:*

The program selection is part of the Market Potential Study that is dated September 1, 2009, and included as Appendix D in this plan. The process included the following steps:

1. A large list of EE technologies underwent an initial screening process carried out by a panel of EE experts using criteria that included elimination of natural gas and fuel switching measures, ranking of commercial availability, and meeting the Company's load reduction objectives. Technologies were ranked based on these criteria. Those technologies that scored the highest were further assessed based on economic criteria, including the TRC test.
2. Consumer research was conducted to identify the likelihood of customer participation/technology adoption, barriers to adoption and potential interest in specific services for overcoming those barriers. Current conservation behavior was also measured.
3. Program characteristics were developed at the technology level, including, for example, (on the cost side) incentive amounts, marketing, administration, vendor costs, incremental measure costs, and the availability of tax incentives or other benefits. On the benefits side, values were taken from the savings estimates that were included in the TRM currently being considered by the Commission for those measures covered, and were calculated using formulas identified in the TRM for weather-sensitive measures.
4. Technologies were grouped by sectors such as residential, and the end uses, such as lighting and HVAC, were considered in light of each of the program types (audits, rebate programs, direct load control) in which the measures might be implemented.
5. The economic modeling was then conducted and TRC values were determined for each grouping. The TRC results for each of the programs included in this Plan can be found in Section 8.0 in PUCO Tables 7A through 7G.
6. Program designs were then finalized and evaluated based on whether each:
 - Complies with laws and regulations;
 - Results in equity among customer classes, where at least one program is offered to each customer segment;
 - Promotes cost effective EE&PDR results;
 - Is simple, both for end user and trade ally participation;
 - Involves proven delivery strategies;
 - Includes programs that address prescriptive and custom measures; and
 - Leverages existing delivery channels that have proven to be successful.
7. Once all programs were designed, the Plan as a whole was evaluated to balance results and costs to ensure compliance in a cost effective manner. These results were then shared with the Collaborative Group, incorporating, when appropriate, suggestions from this group.

The Company believes that it has designed a suite of programs that move from the general to the specific, from providing customers with generic information about saving energy to customized information and

3.0 PROGRAM DESCRIPTIONS

services that will help them make energy efficiency changes in their own homes and facilities. In order to have an opportunity to comply with 2010 statutory benchmark requirements, the Company is asking the Commission to either approve the entire Plan or the Fast Track Programs so that they can be launched no later than April 1, 2010. During the approval process, the Company will initiate a basic customer awareness campaign through the local media. Upon approval of this Plan, the Company will utilize a FirstEnergy developed customer/media communication strategy that will launch a territory-wide customer awareness and education campaign so as to build consumer understanding and interest in saving energy. This campaign will also make people aware of the benefits of energy conservation and how participation in the various programs will defer FirstEnergy's need to build additional power plants, or procure additional wholesale power, thus resulting in customer savings and environmental benefits.

The second phase involves the launching of the more basic programs that provide quick savings to customers. Customers will be encouraged to have an energy audit as a starting point to help identify the opportunities that are available for increasing energy efficiency and lowering energy costs. These audits will serve a dual purpose of providing important "as-found" characteristics of homes and equipment before the installation of measures, and will offer the Company and its implementation vendors important information about the age of equipment being replaced. Audits for the residential sector will be accessed both on line through the Company's recently approved Online Audit tool¹⁰, or through Ohio Partners for Affordable Energy ("OPAE") who will implement the Company's Community Connections program. To help identify prescriptive measures for commercial and industrial customers, smaller businesses can have a walk-through audit performed for a fixed fee, and larger businesses would have an audit done by a certified contractor that is typically priced on a per square footage basis. Larger more complex businesses can have a comprehensive technical assessment of their facilities so as to identify custom or multi-year projects where incentives would be based upon the expected savings from the package of measures.

To facilitate implementation of recommended measures, the Company will offer a suite of fixed rebates and calculated incentives to help customers take action. Customers are also given incentives for removing second refrigerators, freezers and old inefficient room air conditioners from the system, and for replacing old inefficient appliances (e.g. central air conditioners, room air conditioners) with newer qualifying energy efficient models.

Finally, for select appliances and equipment, the Company will install communications devices that will enable customers to participate in demand response programs. For the residential sector the selected appliances are central air conditioning ("CAC"), pool pumps and electric water heaters.

¹⁰ See PUCO Case No. 09-0580-EL-EEC *et seq.*

3.0 PROGRAM DESCRIPTIONS

3.1.1. Describe portfolio design criteria, overall program objectives and logistics and metrics that define program success.

The portfolio design criteria and overall objectives are discussed in Section 3.1 above. General metrics for each program are discussed below, with individual program metrics descriptions set forth in Sections 3.2 through 3.5.

Fundamental metrics for program performance are the number of participants, kWh savings, kW peak load reductions, dollars spent, dollars per kWh saved, and dollars per kW of peak load reduction. Individual program metrics follow the three main metric designations common to Logic Modeling: Immediate (Near Term), Intermediate and Long-Term.

Immediate Metrics – These are mostly numeric counts such as the numbers of participants in a program, such as customers having an audit, inquiring about a program, registering for a program, or attending an educational event; and numbers of trade allies getting trained and or/certified (e.g., number of customers registering for a service, or the numbers of trade allies participating in EE equipment programs).

Intermediate Metrics – These typically involve a calculation or data collection such as customer surveys, follow up calls, documented kWh savings and application forms, all of which will be used to determine information such as the number of customers taking action via installing measure(s) and participating in programs, making behavioral changes, and the number of measures installed. Intermediate Metrics for this portfolio will generally be determined through calculations involving TRM savings estimates followed in subsequent years with actual EM&V research techniques used to determine information such as kWh savings, kW reductions observed, customer satisfaction levels, self-reported behaviors, perceptions of non-energy benefits such as increased comfort, customer health, home safety, improved bill payment histories, other outcomes; \$/kWh and \$/kW.

Long Term Metrics – These represent the ultimate goal(s) of EE&PDR programs, including measurable things such as greenhouse gas emissions reductions or improved low income customer payment behaviors, as well as broader goals such as deferral of a power plant, or mitigation of climate change. These metrics are often not observable during the tenure of a program and most often relate to market transformation goals (such as “high efficiency design elements become standard practice”).

3.1.2. Describe how programs were constructed for each portfolio to provide market coverage sufficient to reach overall energy and demand savings goals. Describe analyses and/or research that were performed (e.g., market, best-practices, market modeling).

The EE&PDR Program Portfolio was developed based on the market penetration and other market research results set forth in the Market Potential Study included in Appendix D. Using these results, the following steps were taken to develop the program portfolio included in this Plan:

1. The first step was to quantify the energy and demand savings from the Mercantile Program and the Company’s existing EE&PDR programs and compare it to the savings goals established by the Commission.
2. Additional EE&PDR programs that passed the TRC test were added to meet the savings goals.
3. The final step was to ensure that the portfolio represented a comprehensive range of programs (e.g., informational, rebates, audits) addressing the needs of each major customer group (e.g., low income, large C&I, Governmental).

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4. The Market Potential Study includes a detailed description of the methodology and modeling used to create the portfolio of programs.

3.1.3. *Describe available results for programs currently operated by the utility (continuing programs) and/or for similar programs operated by other program administrators in similar markets.*

There are five pre-existing EE or PDR programs that the Company currently offers to customers. Three programs are ongoing and appear as part of this portfolio in an enhanced fashion: (1) Community Connections; (2) the Online Efficient Products Catalog and (3) an Interruptible rate tariff for large C&I customers. Two other programs were offered in 2007, 2008, and 2009, but are not part of the Plan during the Reporting Period; (4) the Home Performance with ENERGY STAR® program; and (5) the Direct Load Control Thermostat Program.

Results from these previous program activities are provided below.

1) Community Connections

The Community Connections Program provides weatherization measures, energy efficient solutions, and client education to low-income customers taking electric service from one of the Companies. This program is administered by OPAE and includes working with subcontractors who perform weatherization measures, energy efficient solutions, and client education. Results from this program to date are shown in the following table in terms of MWh saved.

OE Table 9: Community Connections Program Energy Savings Summary

2009 Electric Energy Savings*				
Description	OE	CEI	TE	Total Ohio
Electric Energy Savings (MWh)	539	628	252	1,418
* Total 2009 savings is reported at year end.				

2) Online Efficient Products Catalog Program

FirstEnergy contracted with the Energy Federation Incorporated (EFI) to provide for the Companies' customers access to the FirstEnergy online store of energy efficiency and "green" products. These services have been available to the Company's customers since early 2009. The sales resulting from this program are shown below. The program will be expanded, offering additional products with subsidies paid by the Company, upon approval of this Portfolio by the Commission.

OE Table 10: Online Efficient Products Catalog Program Savings Summary

2009 Online Efficient Products Catalog Program				
Description	OE	CE	TE	Total Ohio
Total Customer Orders	41	34	4	79
Total Sales (\$)	2,759	2,223	192	5,174

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3) Interruptible Rate Tariff for C/I Customers

This program consists of two existing riders: ELR and OLR. The riders deliver peak load reduction opportunities from large businesses and industrial customers that can curtail load upon receiving a signal from the Company. These riders were approved under the Electric Security Plan (Case No. 08-0935-EL-SSO) and continue through May 31, 2011. As a component of the Market Rate Offer (Case No. 09-0906-EL-SSO) filed in the fall of 2009, the Company proposed to substitute a Request for Proposal process to secure customer commitments to reduce loads, rather than continue the provisions included in the ELR and OLR riders. This issue is currently the subject of litigation and, therefore, it is not yet known whether the Request for Proposal process will be incorporated in 2011 as currently contemplated. The Company will update as necessary the status of this program in its annual filings required by the Commission's Rules.

OE Table 11: Interruptible Curtailable Loads Savings Summary

2009 Interruptible Curtailable Loads*				
Description	OE	CE	TE	Total Ohio
Number of Customers	31	8	5	44
Total Curtailable Load (CL), in MW	31.7	33.4	81.9	147.0
<i>*The curtailable loads were calculated by subtracting the customer's contracted firm load from customer's hourly measure load in MW. The time period that was used was the weekday hours from 3 pm to 6 pm for the months of June through August 2009. Each customer's interruptible load was averaged over the 3-6 pm hours.</i>				

4) Home Performance with ENERGY STAR®

The Company implemented a program under the Home Performance with ENERGY STAR® model that was available to customers through the summer of 2009. This program began in 2007 under the terms of the Company's RCP Supplemental Stipulation (Case No. 05-1125-EL-ATA). The program was met with limited success, and was subsequently suspended. It is being replaced with a redesigned model in the Comprehensive Residential Retrofit Program that is included in the Company's portfolio of programs.

5) Existing Direct Load Control Thermostat Program

This program offers residential customers a programmable thermostat. The thermostat includes a two-way communications device that allows the Companies to curtail summer air conditioning load during peak periods and receive feedback on customer behavior. This program began in 2007 under the terms of the Companies' RCP Supplemental Stipulation (Case No. 05-1125-EL-ATA). Per the terms of the RCP Supplemental Stipulation, program approval, budget, and cost deferral continue through the end of 2009. As of November 2009, approximately 11,300 thermostats have been installed in residential customers' homes as part of the program. To date the 2009 results of the program are as follows:

OE Table 12: Existing DLC Thermostat Program Savings Summary

2009 Peak Demand Reduction and Electric Energy Savings Summary				
Description	OE	CE	TE	Total Ohio
Devices in Operation	5,126	4,631	1,626	11,383
Peak Demand Reduction (MW)	3.3	4.1	1.5	8.9
Electric Energy Savings (MWh)	727.7	811.8	260.5	1,800.1

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3.1.4. *Indicate number of customers and baseline kW and kWh consumption in each sector:*

Indicate number of customers and baseline kW and kWh consumption in each sector:

- 3.1.4.1. *Residential: See OE Table 4*
- 3.1.4.2. *Residential Low-Income: See OE Table 4*
- 3.1.4.3. *Small Enterprise: See OE Table 4*
- 3.1.4.4. *Mercantile Self-Direct: See OE Table 4*
- 3.1.4.5. *Mercantile-Utility: See OE Table 4*
- 3.1.4.6. *Governmental: See OE Table 4*

3.1.5. *Describe Stakeholder processes used for program development*

In accordance with the Stipulation entered into in Case No. 08-0935-EL-SSO (“ESP Stipulation”), the Companies created the Collaborative Group, comprised of ESP Stipulation Signatory Parties, to consider the EE&PDR opportunities identified in the Market Potential Study and to establish priorities that would offer the greatest potential for EE&PDR while cost effectively satisfying the requirements of R.C. § 4928.66.

The Collaborative Group was formed in May 2009, along with three subcommittees: (i) Residential and Low-Income; (ii) Commercial / Industrial; and (iii) Demand Response. The Collaborative Group and the related subcommittees formally met on the following dates:

Collaborative Group and Subcommittee Meeting Dates	
May 18, 2009	Full Collaborative Group
May 26, 2009	Residential/Low-Income Subcommittee
June 15, 2009	Full Collaborative Group, C/I and Demand Response Subcommittee
June 24, 2009	Residential/Low-Income Subcommittee
July 20, 2009	Full Collaborative Group
August 24, 2009	Full Collaborative Group
September 14, 2009	Residential/Low-Income and C/I and Demand Response Subcommittees
October 5, 2009	Residential/Low-Income Subcommittee
October 13, 2009	C/I and Demand Response Subcommittee
October 19, 2009	Full Collaborative Group
November 6, 2009	Residential/Low-Income Subcommittee
November 12, 2009	Residential/Low-Income Subcommittee
November 17, 2009	Residential/Low-Income and C/I and Demand Response Subcommittees
November 20, 2009	Residential/Low-Income Subcommittee Teleconference
November 23, 2009	Full Collaborative Group
December 10, 2009	Full Collaborative Group

The meetings have been held in Columbus or at CEI’s Brecksville offices, alternating when practical so as to allow as many groups to attend in person as possible. A telephone bridge line was available for those who could not attend. Positive discussions were held both at the meetings and in follow-up conference calls with

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the design team, with suggestions from the group incorporated by the Company into program designs when appropriate under the circumstances. After factoring in comments from the Collaborative Group, the Company selected the programs set forth in this Plan.

Due to the timing of the filing of this Plan, the Collaborative Group did not review the Plan in detail. Therefore, the Company intends to meet with the Collaborative Group and other interested parties on January 7, 2010 at 1:00 pm at the Commission's offices with the intent to address as many of the parties' concerns as possible so as to limit the scope of the evidentiary hearing should one become necessary. They also intend to host a technical conference the week of January 15, 2010 in the hopes of accelerating the procedural schedule, thus allowing an earlier than currently anticipated launch of some programs.¹¹

3.1.6. Describe alignment with other utility and non-utility programs

When practical, the Companies have coordinated EE&PDR program design efforts with other Ohio utilities. The Companies have participated in the development of a TRM, working closely with the other Ohio utilities and other interested stakeholders.¹² Through this work, the Companies have had the opportunity to discuss various aspects of EE&PDR programs with those utilities who have already implemented similar programs, factoring in the experience of these other utilities during the design of some of the Companies programs included in this Portfolio Plan. They have also discussed with a natural gas company the possibility of sponsoring a joint program. The discussions are preliminary and therefore, details are not included in this Plan.

The Company hired Black & Veatch, a leading global engineering, consulting and construction company, that has significant experience in the design and implementation of EE&PDR programs and knowledge of similar activities by other utilities throughout the country. As part of the Market Potential Study, The programs that Black & Veatch designed are consistent with the best practices of other utilities launching initial program portfolios. In addition, some of the programs represented in this Plan, such as the refrigerator pick up program, are similar to those that were filed and approved by the Pennsylvania Public Utility Commission.

And, finally, while not opposed to coordinating state-wide EE&PDR programs under the right circumstances and conditions, the Companies believes that any realistic probability of successfully developing and launching such a program will require support and guidance from the Commission. The Companies look forward to actively participating in such discussions.

¹¹ Rule 4901:1-39-04(D) and (E) provide for a sixty day comment period and an evidentiary hearing. According to Rule 4901:1-39-04 (E), the Commission shall thereafter set the matter for hearing. Therefore, for purposes of this Plan, and consistent with the ESP Stipulation (Section E.(6).f), the implementation schedule assumes that no program will be launched without Commission approval which, if litigation is necessary, is anticipated to be in mid-2010.

¹² See Docket No. 09-0512-GE-UNC

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Portfolio Overview

The Company has prepared a comprehensive portfolio of programs (which are listed in OE Table 13 below) that provides customers with a full range of services – from customized information identifying energy saving opportunities for their homes and facilities, to significant incentives for reducing the cost of implementing the recommendations. Low income customers can obtain some measures and services for free, and small enterprise customers similarly receive selected services at a significantly reduced cost. Comprehensive treatments are available to residential customers. Finally, in recognition of the substantial benefits of addressing energy efficiency at the time of building design, two new programs are offered that will work with builders and developers of residential and non-residential new construction to help move energy efficiency levels beyond current building codes. The programs are described in detail in Sections 3.2 through 3.6.

OE Table 13: EE&PDR Programs by Sector

Residential Programs	
1.	Direct Load Control Program
2.	Appliance Turn-In Program
3.	Energy Efficient Products Program
4.	Efficient New Homes Program
5.	Comprehensive Residential Retrofit Program
6.	Online Audit Program
7.	Online Efficient Products Program
8.	CFL Program
Residential Low-Income Sector Programs	
9.	CFL Program for Low Income
10.	Community Connections Program
Small Enterprise Programs	
11.	Small Enterprise Audits & Equipment Program
12.	C/I New Construction Program
Mercantile-Utility (Large Enterprise) Programs	
13.	C/I Equipment Program (Lighting)
14.	Technical Assessment Umbrella Program
15.	C/I Equipment (Industrial Motors)
16.	C/I Interruptible Demand Reduction Program
17.	C/I New Construction Program
Governmental Programs	
18.	Government Lighting Program
Other Programs	
19.	Mercantile Program
20.	T&D Improvements

Many of the programs being proposed in this Plan contemplate the use of rebates to incent behavioral changes by customers. OE Table 14 below lists all rebate schedules for each technology contemplated in this Plan.

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OE Table 14: Portfolio Rebate Schedule

Energy Efficiency Program	Technology	Rebate or Incentive Amount
Direct Load Control	Direct Load Control - CAC	Up to \$50 per Year
Direct Load Control	Direct Load Control – Pool Pumps	Up to \$75 per Year
Direct Load Control	Direct Load Control – Water Heat	Up to \$75 per Year
Residential Appliance Turn-In Program	Refrigerator/Freezer Recycling	\$75 the first 6 months, \$50 thereafter
Appliance Turn-In Program – Low Income	Refrigerator/Freezer Recycling	\$75 the first 6 months, \$50 thereafter
Residential Appliance Turn-In Program	Room Air Conditioners	Up to \$25 per Unit
Appliance Turn-In Program – Low Income	Room Air Conditioners	Up to \$25 per Unit
Energy Efficient Products Program	ASHP - SEER 15	\$400 per Unit
Energy Efficient Products Program	CAC - SEER 15	\$150 per Unit
Energy Efficient Products Program	CAC- Maintenance/Tune-up	\$25 offer Qualified Service
Energy Efficient Products Program	EE Ground Source Heat Pump	\$600 per Unit
Energy Efficient Products Program	Solar Water Heating	\$500 per Unit
Energy Efficient Products Program	HP Water Heater	\$300 per Unit
Energy Efficient Products Program	EE Water Heater	\$50 per Unit
Energy Efficient Products Program	Programmable Thermostat Central Electric Heat	Supplied Free to Qualified Customers
Energy Efficient Products Program - Low Income	Programmable Thermostat Central Electric Heat	Supplied Free to Qualified Customers
Energy Efficient Products Program	Programmable Thermostat, if CAC	\$30 per Unit
Energy Efficient Products Program	Clothes Washer ENERGY STAR®, if home uses Electric Water heater	\$50 per Unit
Energy Efficient Products Program	Dehumidifiers	\$25 per Unit
Energy Efficient Products Program	Pump and Motor Single Speed	\$20 per Unit
Energy Efficient Products Program	Refrigerators-Freezers ENERGY STAR® - Side by Side	\$25 per Unit
Energy Efficient Products Program	Refrigerators-Freezers ENERGY STAR® - Top Freezer	\$25 per Unit

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Energy Efficiency Program	Technology	Rebate or Incentive Amount
Energy Efficient Products Program	Room Air Conditioners	\$25 per Unit
Energy Efficient Products Program	Smart Strip plug outlet	\$10 per Unit
Energy Efficient Products Program	Torchiere Floor Lamps	\$10 per Unit
Energy Efficient New Construction	Residential New Construction - 15% better than energy code	70% of Incremental Costs up to \$600 per Year
Energy Efficient New Construction	Residential New Construction - 30% better than energy code	70% of Incremental Costs up to \$1200 per Year
Comprehensive Residential-Home Performance Program	Ceiling Fans	\$25 per Unit
Comprehensive Residential-Home Performance Program	ENERGY STAR® Windows	\$50 per Window
Comprehensive Residential-Home Performance Program	Duct sealing – 20 leakage base	Up to \$75 per Year
Comprehensive Residential-Home Performance Program	Low Flow Showerheads	\$23 per Unit
Comprehensive Residential-Home Performance Program	Kitchen Aerator	\$7 per Unit
Comprehensive Residential-Home Performance Program	Bathroom Aerator	\$7 per Unit
Comprehensive Residential-Home Performance Program	Pipe Wrap	Up to \$25
Comprehensive Residential-Home Performance Program	Roof Insulation	Up to \$50
Comprehensive Residential-Home Performance Program	Wall Insulation	Up to \$150
Comprehensive Residential-Home Performance Program	Whole Building	Up to \$300 per year
1-C/I Equipment (Comm Lighting) – Small C/I	Exterior HID replacement above 175W to 250W HID retrofit	\$0.50 a Watt Rebate base on the TRM Table
1-C/I Equipment (Comm Lighting) – Small C/I	HPT8 4ft 4 lamp, T12 to HPT8	\$0.80 a Watt Rebate base on the TRM Table the first 6 months, \$0.65 thereafter

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Energy Efficiency Program	Technology	Rebate or Incentive Amount
1-C/I Equipment (Comm Lighting) – Small C/I	LED Exit Signs Electronic Fixtures (Retrofit Only)	\$10 per Unit
1-C/I Equipment (Comm Lighting) – Small C/I	Occupancy Sensors under 500 W	\$25 per Unit
2-C/I Equipment (Comm Lighting) – Large C/I	Exterior HID replacement above 175W to 250W HID retrofit	\$0.50 a Watt Rebate base on the TRM Table
2-C/I Equipment (Comm Lighting) – Large C/I	HPT8 4ft 4 lamp, T12 to HPT8	\$0.80 a Watt Rebate base on the TRM Table the first 6 months, \$0.65 thereafter
2-C/I Equipment (Comm Lighting) – Large C/I	LED Exit Signs Electronic Fixtures (Retrofit Only)	\$10 per Unit
2-C/I Equipment (Comm Lighting) – Large C/I	Occupancy Sensors under 500 W	\$25 per Unit
Government Lighting Program	LED Auto Traffic Signals	\$45 per Unit
Government Lighting Program	LED Pedestrian Signals	\$25 per Unit
Government Lighting Program	Street Lighting - 175 Mercury to 100 HPS	\$50
C/I Audits & C/I Equipment Program (expanded) – Small C/I	AC 65,000 - 135,000	\$250 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Clothes Washer CEE Tier1, if Electric Water heater	\$50 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Efficient Refrigeration Condenser	\$10 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Commercial Solid Door Freezers less than 20ft3	\$50 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Commercial Solid Door Freezers 20 to 48 ft3	\$50 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Commercial Solid Door Refrigerators less than 20ft3	\$40 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Commercial Solid Door Refrigerators 20 to 48 ft3	\$40 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Ice Machines less than 500 lbs	\$50 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Ice Machines 500 to 1000 lbs	\$150 per Unit

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Energy Efficiency Program	Technology	Rebate or Incentive Amount
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Ice Machines more than 1000 lbs	\$200 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	ENERGY STAR® Steam Cookers or Other Cooking Equipment	Up to \$400 per Unit based on Equipment Savings at 3.5 cent per annual kWh Savings
C/I Audits & C/I Equipment Program (expanded) – Small C/I	EE Water Heater	Up to \$50
C/I Audits & C/I Equipment Program (expanded) – Small C/I	HP Water Heater (Base Usage 22831)	Up to \$500
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Plug Load Occupancy Sensors Document Stations	\$35 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Commercial Smart Strip Plug Outlet	\$10 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Pre Rinse Sprayers	\$35 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Strip curtains for walk-ins - freezer	\$50 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Vending Equipment Controller	\$25 per Unit
C/I Audits & C/I Equipment Program (expanded) – Small C/I	Window Film	\$25 per 100 square foot
C/I Audits & C/I Equipment Program (expanded) – Large C/I	AC 240,000 - 760,000	\$500 per Unit
C/I Audits & C/I Equipment Program (expanded) – Large C/I	Water-Cooled Centrifugal Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	\$2,500 per Unit
C/I Audits & C/I Equipment Program (expanded) – Large C/I	Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	\$2,500 per Unit
C/I Audits & C/I Equipment Program (expanded) – Large C/I	Window Film	\$25 per 100 square foot
C/I Audits & C/I Equipment Program (expanded) – Large C/I	Plug Load Occupancy Sensors Document Stations	\$35 per Unit

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Energy Efficiency Program	Technology	Rebate or Incentive Amount
C/I Audits & C/I Equipment Program (expanded) – Large C/I	Commercial Smart Strip plug outlet	\$10 per Unit
C/I Equipment (Industrial Motors)	Motors 1 HP 1200	\$25 for <=1 HP for the first 6 months, \$20 for <=1 HP thereafter
C/I Equipment (Industrial Motors)	Motors 5 HP 1200	\$60 for >2 <=5 HP for the first 6 months, \$54 for >2 <=5 HP thereafter
C/I Equipment (Industrial Motors)	Motors 10 HP 1200	\$80 for >6 <=10 HP for the first 6 months, \$70 for >6 <=10 HP thereafter
C/I Equipment (Industrial Motors)	Motors 20 HP 1200	\$125 for >11 <=20 HP Over 20 Based on Formula for the first 6 months, \$113 for >11 <=20 HP Over 20 Based on Formula thereafter
C/I Equipment (Industrial Motors)	Motors 1 HP 3600	\$25 for <=1 HP for the first 6 months, \$20 for <=1 HP thereafter
C/I Equipment (Industrial Motors)	Motors 5 HP 3600	\$60 for >2 <=5 HP for the first 6 months, \$54 for >2 <=5 HP thereafter
C/I Equipment (Industrial Motors)	Motors 10 HP 3600	\$80 for >6 <=10 HP for the first 6 months; \$70 for >6 <=10 HP thereafter
C/I Equipment (Industrial Motors)	Motors 20 HP 3600	\$125 for >11 <=20 HP Over 20 Based on Formula for the first 6 months, \$113 for >11 <=20 HP Over 20 Based on Formula thereafter
C/I Equipment (Industrial Motors)	Water Pumps with VFD's	\$35 per HP for the first 6 months, \$30 per HP thereafter
C/I Equipment (Industrial Motors)	HVAC Fans with VFD's	\$35 per HP for the first 6 months, \$30 per HP thereafter
C/I Equipment (Industrial Motors)	Air Compressors with VFD's	\$35 per HP for the first 6 months, \$30 per HP thereafter

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3.2. Residential Programs

Below is a summary of all programs being proposed in this Plan, with Residential programs discussed in this section; Residential- Low Income, in Section 3.2.1; Small Enterprise, in Section 3.2.2; Large Enterprise, including the Mercantile Program, in Section 3.4; and the Government programs, in Section 3.5. While the summaries indicate that the period in which the programs will be in effect ends in 2012, it is expected that many of these programs will continue beyond this timeframe. However, because this Plan only involves a three year period, it is this time frame that is reflected in these summaries.

<p>Program Title and Program years during which program will be implemented</p>	<p>1. Direct Load Control 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>This program has and will continue to offer to residential customers a programmable thermostat. The previous program achieved load shed using a set back thermostat with pager communication. This device affects a one-time 4 degree rise in household temperatures. In future deployments, the thermostat will include a two-way communications device that will cycle the compressors of central air conditioners using a 33 percent cycling strategy. This will allow the Company to cycle central air conditioning compressor load during summer peak periods and receive confirmation of cycling as well as feedback on customer behavior. The result of this equipment upgrade will provide the Company with a program result that will have the capability to reduce loads over more hours during the summer. Participating customers can also program the thermostat for their preferred day, night, and seasonal settings in order to achieve electric and gas energy savings throughout the year.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting thermostat; Number of customers. with additional electric loads to control; number of control events</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process; number of customers overriding the device on control days</p> <p><u>Long-Term Outcomes</u> – Development of a secure and reliable base of controllable load from the residential sector that can be treated as a resource for reducing coincident peak loads in a cost effective manner</p>
<p>Target market (including participation requirements)</p>	<p>The target market for this program is residential homeowners who meet the following criteria: (1) The customer must reside in a location that supports two-way communication. (2) The customer must have a working central air conditioner or heat pump, (3) The customer must use at least 1,000 kWh in any summer month (June, July, or August), and (4) The customer must not be in arrears in payments for greater than 60 days.</p>

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<p>Program approach, rationale and description</p>	<p>This existing program began in the summer of 2007 under the terms of the Company’s RCP Supplemental Stipulation. Per the terms of the RCP Supplemental Stipulation, funding for the program continues through the end of 2009. As of September 2009, approximately 11,300 thermostats have been installed across the FirstEnergy’s Ohio Operating Companies. The Company is currently reviewing an alternate thermostat that communicates including broadband Internet instead of using a paging signal.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>Total administration of the program, including installation of thermostat, marketing, call center, and general administration is provided by a third party vendor.</p> <p>During summer peak periods, the Company can currently curtail air conditioning usage by “setting back” the thermostat by four (4) degrees for up to four (4) hours during a critical peak day. Customers have the ability to override (i.e. opt out of) a curtailment event. With the new program, a compressor cycling process will be employed.</p>
<p>Program issues and risks and risk management strategy</p>	<p>Technology is rapidly developing for smart grid functionality, and the Company will remain flexible about testing and revising the type of equipment used for this program over time.</p>
<p>Ramp-Up strategy</p>	<p>The Company has an existing base of households that participated in the prior program and are available for re-activation once the program is approved. A second wave of participants will be sought once the final technology and program characteristics are determined.</p>
<p>Marketing strategy</p>	<p>This program will be launched with existing participants and expanded on an as needed basis.</p>
<p>Market Transformation Strategy (if applicable)</p>	<p>This program affords customers the opportunity to gain experience with energy management technology, which can also be used when Smart Metering becomes available.</p>
<p>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</p>	<p>The program offers customers a programmable thermostat that can be used to achieve year around electric savings for those with electric heat and/or central air cooling.</p> <p>See OE Table 14 for rebate/incentive amounts</p>
<p>Non-Energy Benefits</p>	<p>Increased consumer feeling of control over household energy consumption. Experience with technology that lends itself to Smart Metering programs. In addition, program kWh savings may result in reduced greenhouse gas emissions.</p>
<p>Other information deemed appropriate</p>	<p>None.</p>

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<p>Program Title and Program years during which program will be implemented</p>	<p>2. Appliance Turn-In Program April 2010 – 2012 (early launch assuming Commission approval)</p>
<p>Objective(s) and program metrics</p>	<p>To remove older inefficient appliances from the system by offering customers an incentive and free pick-up and disposal service for second refrigerators, freezers and room air conditioners.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting pick up; number and types of appliances removed</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; number of appliances removed from service in an environmentally responsible manner; customer satisfaction with process; cost effectiveness of the program</p> <p><u>Long-Term Outcomes</u> – Lower incidence of discretionary consumption by unused appliances; market transformation toward higher share of electric energy efficient appliances</p>
<p>Target market (including participation requirements)</p>	<p>The target market for this program is existing multi and single family households, renters and home owners. Equipment is to be working at the time of pick up.</p> <p><i>Low Income Program Version:</i></p> <p>There is a separate marketing strategy for low income customers. When income eligible households are served through other programs such as Community Connections, auditors will identify whether the household has a second refrigerator or other appliances eligible for the Appliance Turn-In Program.</p>
<p>Program approach, rationale and description</p>	<p>Provides a service and small incentive to households for turning in older inefficient appliances. Pick up of old second refrigerators involves a set dollar incentive to the customer. Large appliances will be picked up over an extended period where others may be turned in at periodic events. When a major appliance is removed, inquiry will be made regarding room air conditioning units or other unused appliances eligible for pick up.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>A vendor will be hired to deliver this program in coordination with other Ohio utilities if appropriate under the circumstances. Regional roll-out and community outreach will support the program. It is anticipated that this program will have a surge of activity when first introduced, and reduce to a steady-state production level with ongoing marketing as needed to maintain target levels.</p>
<p>Program issues and risks and risk</p>	<p>The key risk is that appliances will be turned in that were either not being used or are non-functional. Vendors will be required to</p>

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<p>management strategy</p>	<p>test a sample of appliances before issuing the incentive, or sample a percentage of appliances after pick up to determine the percent of units that are not generating energy savings. Customers will be asked to verify working order when they register for pick up.</p>
<p>Ramp-Up strategy</p>	<p>Vendors will be hired to start this program immediately; in conjunction with a marketing campaign. Due to the existence of experienced vendors, the Company does not anticipate a materially significant start up period before offering services to customers. Bonus rebates will be offered during the first calendar year to help accelerate program participation.</p>
<p>Marketing strategy</p>	<p>Customers will be alerted to this service through various media and marketing channels to facilitate targeted roll-out of the program, and efficient collection in targeted areas. A broad customer awareness campaign will include introduction of the program and the need for consumers to take energy efficiency actions. The marketing message may take advantage of the federal “cash for clunkers” concept recently applied to older cars by having a larger rebate for a short time on second refrigerator. For room a/c units pick up events will be staged at major regional big box stores such as Lowe’s, Sears and Home Depot to facilitate central drop of smaller appliances.</p>
<p>Market Transformation Strategy (if applicable)</p>	<p>Appliance removal programs help to accelerate market transformation by encouraging customers to remove older inefficient appliances, thereby making them aware of the higher consumption of these older units.</p>
<p>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</p>	<p>Equipment that will be removed through this program includes:</p> <ul style="list-style-type: none"> ➤ Refrigerators ➤ Freezers ➤ Room air conditioners <p>The customer receives a check following pick up or turn in of major appliances. Other equipment may be included in exchange events, where old units are swapped out for a coupon toward the purchase of a new high efficiency unit. The program may also include a coupon toward the purchase of a high efficient appliance through the Energy Efficient Products program.</p> <p>See OE Table 14 for rebate/incentive amounts.</p>
<p>Non-Energy Benefits</p>	<p>The removal of the appliances may result in avoided carbon emissions. Customer bills may also be lower as a result of lower energy consumption. The program should promote responsible disposal of hazardous materials.</p>
<p>Other information deemed appropriate</p>	<p>One vendor is likely to be selected to deliver this program for the Company, so as to achieve consistency and to obtain lowest cost volume pricing.</p>

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<p>Program Title and Program years during which program will be implemented</p>	<p>3. Energy Efficient Products Program 2009 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>The Energy Efficient Products Program provides rebates to consumers and financial incentives and support to retailers that sell energy efficient products, such as ENERGY STAR® qualified appliances, high efficiency lighting, and other electricity conservation products. The program includes promotional support, point-of-sale materials, training, promotional events and rebates for select appliances.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers applying for rebates; number of participating retailers; number and types of units rebated; amount of rebate dollars issued</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process; cost effectiveness of the program</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>Customers of the Company that purchase high-efficiency appliances or other qualifying products from retailers, including all residential and small commercial customers. Homeowners and renters in one to four family dwellings. Multifamily renters may also qualify for selected products.</p>
<p>Program approach, rationale and description</p>	<p>The approach to this program is to provide an avenue for customers to take advantage of the information gained from energy efficiency messages and energy audits and make the changes recommended. A key barrier to implementation of energy efficiency measures remains their higher first cost over less efficiency models. While federal tax credits and other programs have increased awareness in recent years, rebates and other discounts are still needed to move people to act in areas of the country where the market has had limited exposure to energy efficiency concepts. This program involves consumer education and dealer marketing and incentives for selling appliances with ENERGY STAR® brand labels and other qualifying equipment and measures.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>The Company will work with retailers for point of purchase rebates and consider other methods for providing coupons for rebates and other rebate application processes. A vendor will be secured to take applications, process documentation regarding purchased products and mail the rebate checks. A separate</p>

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	activity will involve implementation of the retailer program.
Program issues and risks and risk management strategy	Current economic conditions are the main potential threat to program success. High unemployment levels and other economic conditions may limit the customer's ability to purchase energy efficient equipment and technology. Educational materials will need to highlight the lower operating costs of high efficiency equipment and the quick payback customers will enjoy from making the higher efficiency choice. Evaluations will monitor the extent of uptake on each product and determine whether rebate levels need to be adjusted.
Ramp-Up strategy	Dealer incentives and special promotional "events" will then be launched to encourage sales of high efficiency products,
Marketing strategy	The program will use dealer incentives and special promotional “events” to encourage sales of high efficiency products, and/or retirement of less efficient equipment. The program will be marketed in conjunction with the online audit and comprehensive residential audit as the “next step” toward achievement of the identified energy savings. Mass marketing will target this program as a cornerstone of the various other programs and services available to residential customers under the overall portfolio.
Market Transformation Strategy (if applicable)	The objective of the program is to promote the installation of energy efficient equipment which will increase market demand for those measures, thereby increasing availability and lowering prices. The market evaluation will determine the impact that the program had on the inventory and sales practices of retailers and distributors in the Company’s service territory.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>For the proposed program, the minimum qualifying efficiency ratings are based on current ENERGY STAR® Qualified Appliances published by the US EPA. Equipment would include:</p> <ul style="list-style-type: none"> ➤ Electric Energy savings products ➤ Electric Water heaters ➤ Pool Pumps ➤ Smart Strips ➤ Refrigerators ➤ Clothes Washers ➤ Dehumidifiers ➤ Room Air Conditioners ➤ Thermostats ➤ Torchiere Lamps

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	Dealer incentives and special promotional “events” will also be used to encourage sales of high efficiency products. See OE Table 14 for rebate/incentive amounts.
Non-Energy Benefits	The installation of high efficiency measures may result in lower carbon emissions. The impact evaluation will quantify the avoided emissions. In addition, program kWh savings may result in reduced greenhouse gas emissions.
Other information deemed appropriate	This program focuses on electric energy using equipment. Building shell and weatherization measures are covered under the Online Efficient Products Catalog Program and, for electric heat customers, the Comprehensive Residential Retrofit Program.

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<p>Program Title and Program years during which program will be implemented</p>	<p>4. Efficient New Homes Program 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>The objective of this program is to increase the energy efficiency of new residential construction by taking advantage of the best opportunity for capturing savings during the design and build phase. The program provides a rebate to local builders for achieving energy efficiency targets through a combination of building shell and appliance upgrades. To qualify for this program, the house must exceed the standard building code by 15 percent or 30 percent consistent with energy efficiency standards as published by the Department of Energy under the ENERGY STAR® program.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of builders and contractors inquiring about the program; number of builders participating, number of housing units qualifying for incentives under each level; amount of incentives paid at each level</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; builder satisfaction with process; new homeowner satisfaction; number of program homes sold</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>The target market for this program is builders of new residential home construction.</p>
<p>Program approach, rationale and description</p>	<p>Provides incentives to builders for achieving ENERGY STAR® Homes status, or HERS rating associated with a highly energy efficient home. The program supports implementation of contractor-installed HVAC, solar, or other eligible systems in existing or new residential buildings, as well as measures addressing building shell, appliances and other energy consuming features.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>Program services would be delivered to customers by qualified local builders and contractors who can demonstrate (through a HERS or other rating) that the house meets minimum performance energy savings criteria.</p>
<p>Program issues and risks and risk management strategy</p>	<p>Unless a building will be owner-occupied, builders and developers most often seek low cost designs, particularly when they are constructing space to be leased. Program marketing will have to promote the concept of low building operating costs and the increased attractiveness of the green message in seeking tenants.</p>

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<p>Ramp-Up strategy</p>	<p>There is typically a significant ramp up required for efficient design programs due to the fact that most builder/developers have limited experience with above-code energy efficient construction practices. One or two flagship developers will be sought to jump-start the program and help identify some early projects to pursue.</p>
<p>Marketing strategy</p>	<p>This program will be marketed to builders and residential developers through targeted communications and outreach. A realtor component will be developed to make sure that this important group understands the benefits of high efficiency rated homes and can market them to consumers.</p>
<p>Market Transformation Strategy (if applicable)</p>	<p>The goal of programs that deal with new construction is to move the construction community to build higher efficiency buildings as standard practice. Increasing the experience of builders with these practices, combined with helping to create a more educated public around the issues of energy efficiency, will likely have transformative effects over time.</p>
<p>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</p>	<p>The contractors or builders would receive one of two levels of rebates for achieving high energy efficiency standards of 15 percent or 30 percent above code. It is up to the builder/contractor whether they pass on these savings to the homeowner. The incentive level is designed to cover 50 and 70 percent of the incremental costs for the higher efficiency design features respectively. See OE Table 14 for rebate/incentive amounts.</p>
<p>Non-Energy Benefits</p>	<p>Lower operating costs for tenants and building occupants is a primary benefit, along with increased comfort and lower maintenance costs by not having to change out lights and other features as often. In addition, program kWh savings may result in reduced greenhouse gas emissions.</p>
<p>Other information deemed appropriate</p>	<p>None.</p>

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<p>Program Title and Program years during which program will be implemented</p>	<p>5. Comprehensive Residential Retrofit Program 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>Other programs in the portfolio encourage households to take actions to change out light bulbs or purchase higher efficiency appliances, but there is no service available for obtaining a comprehensive analysis of a home’s energy performance including both building shell and end use measures. The objective of this program is to fill that need. This program offers residential customers a comprehensive home energy audit with air infiltration testing through the use of blower door technology or other diagnostic tools for improving the integrity of the building shell. It also examines appliance efficiency, lighting and HVAC systems. The cost of the comprehensive audit is subsidized by the Company (\$250), with the customer paying a discounted fee of \$100. After completing a home energy audit, customers are provided with a list of energy savings projects and measures applicable to their home and the associated energy savings impacts. Customers who implement eligible energy savings measures are entitled to rebates from the Company.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers registering for the service; number of audits completed; number of jobs that proceed; number and types of recommendations completed. Number of contractors trained and participating in the program; rate of jobs completed by each contractor</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process; number of customers that access the rebates and services available from other entities; costs of the projects; cost effectiveness of the program</p> <p><u>Long-Term Outcomes</u> – Transformation of the housing stock toward improved efficiency levels; increased capacity of contractors to delivery energy efficiency services in Ohio; increased number of green jobs</p>
<p>Target market (including participation requirements)</p>	<p>The target market for this program is residential single-family homeowners.</p>
<p>Program approach, rationale and description</p>	<p>Local contractors are recruited that have the capability to perform comprehensive audits and to employ diagnostic testing tools. Certified contractors perform diagnostic tests on customers’ homes, such as blower door tests and infrared scans. After the audit is completed, the contractor produces a report of recommended improvements the customer can install to achieve energy savings. The recommendations are matched with incentives available from the Company through other programs,</p>

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	<p>financing from local banks, and/or federal tax credits. Customers can then choose which energy savings projects and measures they wish to install and proceed with the Contractor to do the work.</p>
Implementation strategy (including expected changes that may occur in different program years)	<p>Total administration of the program, including the actual home audits and the attendant training, marketing, call center, quality assurance, and general administration will be provided by a third party vendor. Independent contractors can become part of the program for conducting the comprehensive audits, do the diagnostic testing and install the energy savings home improvements. A few experienced contractors will be engaged early to launch the program, while more contractors will be recruited over time as demand for the program increases.</p>
Program issues and risks and risk management strategy	<p>Contractors will be required to be trained in, and to purchase or otherwise have available to them, diagnostic testing equipment (e.g. blower door testing equipment; infrared scanning equipment, etc.). If an insufficient number of contractors can be found meeting these criteria, the Company may need to provide incentives for the purchase of such equipment by contractors.</p>
Ramp-Up strategy	<p>It is anticipated that this program will take at least six months to launch due to the need to identify and train local contractors to deliver high quality services.</p>
Marketing strategy	<p>This program will be marketed through the overall portfolio marketing campaign as the “Cadillac” comprehensive service among the suite of residential program offerings. Households completing the Online audit that show significant potential will be recommended to the Comprehensive program.</p>
Market Transformation Strategy (if applicable)	<p>This program will transform the contractor base by providing a funnel of business through qualified leads of households interested in pursuing comprehensive energy efficiency projects. A key objective of comprehensive home performance programs is to build local capacity and infrastructure for delivery of energy efficiency services long- term.</p>
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>There is a range of equipment available under this program – all home systems such as heating, water heating and air conditioning, as well as building shell measures such as insulation, weatherization. The program offers residential customers a home energy audit at a subsidized cost and additional rebates for energy efficient improvements. Appliances and lightings can be rebated under the Efficient Products program See OE Table 14 for rebate/incentive amounts.</p>
Non-Energy Benefits	<p>Improved condition of housing stock, improved homeowner comfort, increased number of green jobs, and improved capacity</p>

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	<p>of the local contractor base to deliver comprehensive services. In addition, program kWh savings may result in reduced greenhouse gas emissions.</p>
<p>Other information deemed appropriate</p>	<p>ENERGY STAR[®] Home Performance certification may be sought as the program is developed over time and the criteria for such designation can be met. As contractors are identified for the program, expanded training may be set up with the Building Performance Institute, affiliated trade schools, community colleges and other institutes of higher learning.</p>

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<p>Program Title and Program years during which program will be implemented</p>	<p>6. Online Audit Program 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>The Online Home Energy Audit Tool is a software program that will provide the Company with the necessary tools and equipment needed to properly supply customers with the information and education required to lower their energy costs through energy efficiency program participation and other actions. This tool provides an approach that increases the efficiency and effectiveness of the Company’s customer service by helping the residential customers better understand and manage their bills. The tool converts the customers’ input of their energy usage characteristics into information customers can understand and act upon, including such things as the cost of heating and cooling their homes, the reasons their bills may have changed, and whether the customer takes service under the most favorable rate schedule.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers inquiring about online audits, number completing an online audit; amount of energy savings identified; number and types of recommendations made; estimated costs of implementing recommendations</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of efficient electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>Residential customers.</p>
<p>Program approach, rationale and description</p>	<p>Helping customers use electricity more efficiently is only one piece of the goal. Educating consumers on what is possible and changing their lifestyles and buying habits is the ultimate goal to achieve sustainable energy savings in years to come. Customer education will be mass marketed through both traditional utility channels as well as through channels such as electronic communications and program awareness campaigns with third parties. Based on prior experience of other utilities, it is anticipated that approximately 15 percent of the total residential customer base will use the tool.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>The Online Home Energy Audit Tool is a software application, accessible at no cost to customers through the Company’s Website that customers use on their own computers. Customers who do not have computer access may call the Company’s</p>

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	<p>contact center and have a customer service representative (“CSR”) walk them through the application, inputting the customer’s data for them. Once entry of the customer’s data is complete, the CSR can provide the conservation and savings findings over the telephone or print and mail the comprehensive report to the customer. Repeated customer use of the tool will be strongly encouraged.</p>
Program issues and risks and risk management strategy	<p>No risks are foreseen for this program.</p>
Ramp-Up strategy	<p>The launch of this program will focus on residential customers.</p>
Marketing strategy	<p>Marketing of the tool will be accomplished through a comprehensive educational campaign folding all aspects of changing customer usage behavior and giving them the ability to more fully understand and better control their electrical consumption.</p>
Market Transformation Strategy (if applicable)	<p>By providing easily accessible ways for customers to obtain customized information about energy savings opportunities in their homes, this program seeks to provide the knowledge necessary for increased levels of energy efficiency to take place. It serves as a portal to all other programs in this portfolio that facilitate implementation of the measures recommended in the audits.</p>
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>The Online Home Energy Audit Tool is available to the customers at no cost. Surveys conducted in other states demonstrate that customers who take advantage of this service show an immediate change in their behavior, including implementation of measures such as replacement of air conditioning and space and water heating systems, weatherization of homes by replacing windows and adding insulation, and installing programmable thermostats.</p>
Non-Energy Benefits	<p>Improved customer service. Educational benefits surrounding use of equipment and systems in general. In addition, program kWh savings may result in reduced greenhouse gas emissions.</p>
Other information deemed appropriate	<p>The Online Home Energy Audit Tool helps residential customers better understand and manage their energy usage. It provides customers with information on how their energy bill is impacted by choices on control of appliances (including heat and air conditioning) as well as choices on purchases of new appliances.</p>

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<p>Program Title and Program years during which program will be implemented</p>	<p>7. Online Energy Efficient Products Program 2009 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>Provides customers with a way to quickly and directly purchase energy efficiency measures and products via a sponsored link to the Energy Federation Institute (EFI) energy efficient products on-line catalog.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers purchasing products from EFI on line, number and types of products that they have purchased; value of items purchased.</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>The target market for this program is residential customers but the catalog may be accessed by any customer of the Company. (For purposes of program design, participation assumptions are based on residential customer participation only.)</p>
<p>Program approach, rationale and description</p>	<p>Provides a suite of energy efficiency products through an online (computer based) catalog services that customers can use to place an order, purchase desired items, and have them mailed directly to the customer’s home or business.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>This program is implemented by a third party vendor through a contractual agreement with the Company that makes its product line accessible to the Company’s customers.</p>
<p>Program issues and risks and risk management strategy</p>	<p>None are anticipated</p>
<p>Ramp-Up strategy</p>	<p>This program is already available to the Company’s customers as of early 2009.</p>
<p>Marketing strategy</p>	<p>The program is delivered to customers by a web-based online store on behalf of the Company that will establish a link from the Company’s website to the catalog website.</p>
<p>Market Transformation Strategy (if</p>	<p>Until such time that measures are widely available, providing access to energy efficient products through the</p>

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applicable)	web is a powerful, easy to use, strategy.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	A range of smaller energy efficient equipment and related measures, including weatherization and water conservation measures, is offered through the catalog service. The Company's customers receive immediate discounts on popular products when purchasing through the online catalog store. See OE Table 14 for rebate/incentive amounts.
Non-Energy Benefits	Experience with new technologies is a side benefit of this program. In addition, program kWh savings may result in reduced greenhouse gas emissions. .
Other information deemed appropriate	None.

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<p>Program Title and Program years during which program will be implemented</p>	<p>8. CFL Program April 2010 –2012 (early launch assuming Commission approval)</p>
<p>Objective(s) and program metrics</p>	<p>The redesigned CFL distribution program is a two-year plan that gives customers the ability to choose to participate in the program through a variety of channels and supports their efforts to reduce their residential energy consumption. Distribution channels include, but are not limited to: direct home shipping and delivery; the Companies’ online store; supporting retailers that carry selected CFLs and community organizations. This program also includes working with retailers to develop promotional materials such as coupons, buy-downs, customer discounts, and use of the Companies’ online store.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting CFLs, number of agencies distributing bulbs, number of bulbs provided to agencies for distribution, number of bulbs distributed, number of CFLs installed by location</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency lighting</p>
<p>Target market (including participation requirements)</p>	<p>The target beneficiaries for this program are small business customers selected by COSE and residential customers, including both renters and homeowners. The Companies expect to deliver 1.8 million CFLs to customers in 2010 and 1.8 million in 2011. Market research indicates that 69 percent of households generally will use at least eight CFLs per household.</p>
<p>Program approach, rationale and description</p>	<p>This program involves developing educational materials on the proper use and selection of CFLs. Coupons and price buy-down information will be provided to customers to facilitate receipt of CFLs at a discount. Multiple manufacturers of CFLs are participating along with a large list of retailers. Measurement and verification will be tracked using direct delivery, online receipts, coupon redemption, surveys and other market verification information.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>Details of the Redesigned CFL Distribution Proposal are available as Appendix E.</p>
<p>Program issues and risks and risk management strategy</p>	<p>Customer acceptance due to perceived value of program and environmental hazards may limit participation, thus the need for</p>

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	effective educational materials.
Ramp-Up strategy	The CFLs will be distributed a number of ways, with full distribution details described in Appendix E. The primary distribution methods will be: 1) Select retailers, 2) Select public assistance agencies or affinity groups, and 3) Direct Company distribution via the Company’s call center or web site.
Marketing strategy	Information about the program may be delivered to customers through a variety of mass marketing tools including the Company’s call center, local newspaper circulars, direct mail, bill inserts, point of sale displays at retailers and the Companies’ web site and online store. Retailers and manufacturers will also be involved in cross promoting product offers in conjunction with national campaigns like Earth Day and “Change a Light, Change the World” programs.
Market Transformation Strategy (if applicable)	The objective of the program is to promote the installation of energy efficient equipment which will increase market demand for those measures. The market evaluation will determine the impact that the program had on affecting the inventory of retailers and distributors in the Company’s service territory.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>Participating retailers will offer the existing CFLs to customers for no more than \$1.00 each in a point-of-purchase display that will provide information on the offer and how CFLs can help them save on electricity usage. Structured like a traditional CFL buy-down or rebate campaign used by other utilities, customers may go to the retailer and choose to buy the discounted light bulbs. The first CFLs used in the retail program are the existing 23 watt light bulbs in stock.</p> <p>CFLs will also be offered to the Company’s customers as an incentive for buying energy efficiency products from the company’s online store.</p> <p>Special care will be taken to verify customer receipt of light bulbs and verify all measures used in collecting participation data.</p>
Non-Energy Benefits	Due to the longer life of CFL bulbs, customers do not need to maintain or change them out as often. Since they emit less heat, they also put less demand on cooling systems in the summer. In addition, program kWh savings may result in reduced greenhouse gas emissions.
Other information deemed appropriate	The original CFL distribution program was designed to deliver a package of two CFLs to each home. Going forward, the proposed plan would take full advantage of the materials developed for that program in an effort to control cost and speed

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the distribution of the CFLs. Prior negative publicity regarding a similar program may slow acceptance of this program. This will be mitigated through a marketing and education campaign that will be launched by the Companies.

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3.2.1. Residential Low-Income Programs

<p>Program Title and Program years during which program will be implemented</p>	<p>9. CFL Program - Low Income April 2010 – 2012 (early launch assuming Commission approval)</p>
<p>Objective(s) and program metrics</p>	<p>The objective of this program is to quickly distribute energy efficient product to low income eligible customers so that they may immediately start realizing energy savings and gain experience with compact fluorescent light bulbs. The program will provide customers with an opt-out option of receiving up to six CFLs along with educational materials concerning their proper placement and use for maximum energy savings. Literature about other programs and coupons for additional bulbs will be included.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers installing bulbs.</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>PIPP customers enrolled as of August, 2009 in the Company’s service territory.</p>
<p>Program description</p>	<p>Customers participating in the PIPP program will have the option of being sent up to 6 CFLs with the cooperation of the Ohio Department of Development. Participating PIPP customers will be sent the CFLs along with educational materials.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>The program may expand to other low income customers, provided that they can be accurately identified in the Company’s customer information system.</p>
<p>Program issues and risks and risk management strategy</p>	<p>There is a risk that customers will not install the lights, which will be addressed as described in the EM&V by program discussion that can be found in Section 6.4 of this Plan. Prior negative publicity regarding a similar program may slow acceptance of this program. This will be mitigated through a marketing and education campaign that will be launched by the Companies.</p>
<p>Ramp-Up strategy</p>	<p>This program will be implemented immediately upon Commission approval.</p>

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Marketing strategy	Information regarding the program will be communicated through the Ohio Department of Development to customers enrolled in PIPP.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	The program is restricted to 23 watt CFLs that are designed to replace 100 watt incandescent bulbs in non-dimmable fixtures.
Non-Energy Benefits	Due to the longer life times of CFL bulbs, customers do not need to maintain or change them out as often. In addition, since they emit less heat, they put less demand on cooling systems in the summer. The installation of high efficiency measures will result in lower carbon emissions. The impact evaluation will quantify the avoided emissions.
Incentives	Qualified customers will receive, at no cost, six CFLs as noted above.
Other information deemed appropriate	None.

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<p>Program Title and Program years during which program will be implemented</p>	<p>10. Community Connections Program 2010-2012</p>
<p>Objective(s) and program metrics</p>	<p>The Community Connections Program provides weatherization measures, energy efficient solutions, and client education to the Company’s low-income customers that receive electric service from the Company. This program is administered by OP&E and includes working with subcontractors to perform weatherization measures, energy efficient solutions, and customer education. Under the ESP stipulation in Case No. 08-0935-EL-SSO, the Company will provide funds to enhance the existing program’s attention to electric energy savings measures.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers participating, number and types of measures installed, customer satisfaction</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>The target beneficiaries of this program are residential customers and landlords of residents eligible for one of the following: (i) the Ohio Home Weatherization Assistance Program (HWAP); (ii) PIPP; or (iii) Home Energy Assistance Program (HEAP).</p>
<p>Program description</p>	<p>This program involves the Company providing funding to OP&E who provides weatherization measures, energy efficient solutions, and client education to the Company’s low-income residential customers. OP&E reserves the right to use subcontractor agencies in fulfilling work agreements. All work is done pursuant to appropriate government permits and inspected as required. All services use due care to assure that all services, materials and supplies are of good quality, reasonably priced, and installed in a professional workmanlike manner and all contractors are duly qualified to complete the work they have been assigned. The Company provides OP&E with the Community Connections Program funds for eligible services. Services are to be performed throughout the Company’s service territory.</p>
<p>Implementation strategy (including expected changes that may occur in</p>	<p>Program services will be delivered by OP&E.</p> <p>Participation by low-income customers in other programs will</p>

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different program years)	be tracked or estimated to support reporting and evaluation.
Program issues and risks and risk management strategy	The Company expects minimal risks as this program is already operational. OPAE will monitor program performance to mitigate emerging risks.
Ramp-Up strategy	N/A. This is an on-going program.
Marketing strategy	Information regarding the program will be communicated both through OPAE and its related community-based agencies and the Companies' call center.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	The Companies have included \$5 million annually in the portfolio plan. Weatherization measures, energy efficient solutions, and client education include but are not limited to: Home energy audits, installation of CFLs, weather stripping, roof repairs, sealing, appliance replacement, refrigerator coil cleaner kits, wiring upgrades, water heater wraps, blower door tests, insulation and ventilation, outlets, ground fault circuit interrupters, spool and socket wiring, replacement of older fuse boxes with electrical circuit breakers, pipe insulation, low-flow shower heads, and faucet aerators.
Non-Energy Benefits	The installation of high efficiency measures may result in lower carbon and other greenhouse gas emissions. Lower societal costs through reduced energy bills that are paid through a social program.
Incentives	Qualified customers will receive, at no cost, weatherization measures, energy efficient solutions, and client education. Landlords of qualified low-income residential customers will receive weatherization measures and energy efficiency solutions at 50 percent of cost. These improvements will result in more efficient electricity usage which will result in less electric consumption.
Other information deemed appropriate	Energy efficiency measures must meet the State of Ohio Weatherization Program standards and must satisfy the TRC test or its equivalent as well as necessary EM&V requirements.

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3.2.2. Small Enterprise Programs

<p>Program Title and Program years during which program will be implemented</p>	<p>11. C/I Equipment Program 2010 – 2012 (lighting component will seek an early launch in April 2010, assuming Commission approval)</p>
<p>Objective(s) and program metrics</p>	<p>This program offers a range of rebates for technologies applicable to business and other non-residential facilities. It is available to Small Enterprise as well as Large C/I customers.</p> <p>The first iteration of the program is a component of the C/I Efficient Equipment Program. The objective of this program is to quickly launch rebates to address the most common end use of electricity across all building types – lighting. This program provides rebates to customers for the purchase and installation of high efficiency lighting as an alternative to standard fixtures and bulbs. The savings to be gained remain significant, even as the market is transformed toward higher efficiency lighting technologies every few years.</p> <p>This program is targeted at businesses and other non-residential customers. Retailer, distributor and manufacturer (e.g., “upstream”) initiatives may be added in the later years as current technologies are retired from the market and new ones require promotion and encouragement.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting lighting (and other) product rebates; Number and types of lighting products obtained, older models removed</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency lighting (and other) products</p>
<p>Target market (including participation requirements)</p>	<p>All non-residential customers</p>
<p>Program approach, rationale and description</p>	<p>This program will provide rebates for a range of lighting (and in later years, other) products to provide immediate energy savings with a quick payback period for small and large businesses alike.</p>
<p>Implementation strategy (including expected changes that may occur in</p>	<p>A qualified vendor will conduct the marketing and rebate fulfillment aspects of this program. Program Administrators will be tapped to conduct outreach to their constituents</p>

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different program years)	regarding program availability.
Program issues and risks and risk management strategy	As a result of negative publicity about another lighting program recently offered by the Company, the ramp up period may be slower than otherwise expected. This will be mitigated through a customer education campaign that informs customers about the benefits of energy efficiency in general, as well as the specific benefits regarding efficient lighting.
Ramp-Up strategy	Lighting will be launched first since it has the widest market reach and provides near term opportunities that don't require an energy audit. All other measures will be available once the energy audits are launched.
Marketing strategy	Most of the program rebates will be marketed directly from the energy audits. Program Administrators will conduct outreach to their constituents and the remainder and bulk of marketing will be the responsibility of the implementation vendor.
Market Transformation Strategy (if applicable)	The rationale for rolling out the lighting component of the Equipment rebate program first is to capture near term immediate savings; and provide customers an opportunity to experience a tried-and-true technology while gaining confidence in making future energy savings retrofits.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	All C/I and other non-profit customers are available to participate in this program. For a full list of equipment and products available through this program, and their rebate amounts, see OE Table 14.
Non-Energy Benefits	Due to the longer life times of high efficiency lighting, customers do not need to maintain or change them out as often thus reducing maintenance costs for businesses. In addition, since high efficiency lighting emits less heat, it puts less demand on cooling systems in the summer. kWh savings may also result in reduced greenhouse gas emissions.
Other information deemed appropriate	None.

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<p>Program Title and Program years during which program will be implemented</p>	<p>12. C/I Audits 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>Provides two levels of energy audits for non-residential customers of the Company: 1) Small business customers may obtain a simple walk-through audit appropriate for small buildings or facilities with non-complex loads to help identify existing end uses of energy and find specific ways in which energy savings can be achieved. The audit helps to identify rebates and other incentives available from other programs. 2) Medium and large commercial customers may elect to obtain an audit that covers more complex equipment. A third type of custom audit is available as part of the Technical Assessment Umbrella Program for industrial, complex or multi-facility customers.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting and completing energy audits, number and types of measures recommended, energy savings estimated</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>All existing non-residential buildings are eligible for this program. Small businesses and offices in residential buildings (defined on a kWh, kW or square footage basis) would constitute a special target market.</p>
<p>Program approach, rationale and description</p>	<p>This program provides an energy audit/assessment to document the building’s existing equipment and efficiency opportunities prior to installation of energy efficiency measures.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>Energy audits will be provided by experienced organizations and private firms following established protocols. This program would be delivered in one of two ways: 1) through a private vendor using trained staff hired and certified by the vendor, or 2) through qualified Program Administrators and/or local contractors that agree to terms for participation. These groups would have to attend training in order to appear on a list of participating vendors. All delivery agents will use the same audit software and/or reporting format to ensure product standardization. Recommendations made through the audits will then be matched up against available rebates from the Efficient Equipment program and other portfolio programs where applicable as a way of encouraging customers to proceed with</p>

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	projects.
Program issues and risks and risk management strategy	In order to ensure a minimum level of quality across different audit organizations, the Company will require a standard format for audit reports.
Ramp-Up strategy	The energy audit program will be launched mid year 2010 to enable customers to start obtaining information about the energy saving opportunities they can pursue. The Company will work with Program Administrators that are interested and qualified to perform energy audits so that customers may have a variety of choices for pursuing this service.
Marketing strategy	General communications about the benefits of having an energy audit will be issued by FirstEnergy on a mass market basis. Marketing of program services will take place through all standard communications vehicles (bill inserts, radio ads, etc.) and will be the shared responsibility of the Company and the participating organizations. Program Administrators are expected to play a role in conducting outreach to their respective constituents and may elect to conduct audits, where qualified to perform the service.
Market Transformation Strategy (if applicable)	The first step in transformation of market behavior toward adoption of higher energy efficiency practices is education. Energy audits are a primary way to educate individual businesses about the opportunities available to them as well as the benefits they can reap by making recommended changes.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	All electricity consuming equipment will be considered in the audits. Secondly, those end uses that are operated using electricity will also be audited for other contingent benefits– for example water savings and water heat savings measures will be considered if the water heater is electric; infiltration reduction will be considered if the facility heats with electricity. Office equipment audits will be included for appropriate building types to ensure proper efficiency settings on equipment, and to identify savings potential for plug loads. There are no incentives associated with this program. The small business audits will be charged on a fixed fee basis; the larger audits on a per square footage basis. In both cases, fees may be reduced or waived for non-profits or local government buildings. The cost for small business audits that was used in the analysis is \$250, which is a significantly subsidized rate for this service, according to industry research.
Non-Energy Benefits	Program kWh savings may result in avoided greenhouse gas emissions.
Other information deemed appropriate	None.

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<p>Program Title and Program years during which program will be implemented</p>	<p>13. C/I New Construction Program 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>The objective of this program is to increase the energy efficiency of new commercial buildings by taking advantage of the best opportunity for capturing savings – i.e., during the design and build phase. The program provides incentive of up to \$15,000 to building owners and developers for achieving energy efficiency targets through a combination of building shell and equipment upgrades. To qualify for this program, the facility must exceed the standard building code by 15 percent consistent with energy efficiency standards as published by the Department of Energy under the ENERGY STAR® program.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of builders and contractors inquiring about the program; number of builders participating, no of buildings/sq. feet qualifying for incentives under each level; amount of incentives paid at each level; no. of jobs completed</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; building owner satisfaction with process; occupant satisfaction; number of program buildings leased/sold</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher proportion of high efficiency non-commercial square footage</p>
<p>Target market (including participation requirements)</p>	<p>The target market for this program is building owners and developers of non-residential construction.</p>
<p>Program approach, rationale and description</p>	<p>Provides incentives to builders/developers/building owners for achieving Energy STAR construction status, or 15 percent above the energy efficiency components building code. The rationale of this program is to capture major efficiency improvements at the time when it is most cost effective to do so, at the design and build phase.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>Program services would be operated by the Company’s large customer account service representatives supported by design/build specialists.</p>
<p>Program issues and risks and</p>	<p>Incentive levels may not be enough to move the market toward higher efficiency levels, but this will be monitored</p>

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risk management strategy	over time and amounts reevaluated as needed.
Ramp-Up strategy	This program is anticipated to require an educational phase to alert the construction community to the requirements and benefits of high energy efficiency construction practices. One or two high profile projects will be sought to produce early examples of successful new construction that meets the standards of the program.
Marketing strategy	Testimonials are one of the best ways to encourage participation among business customers. This program will require targeted marketing to the building design and construction community.
Market Transformation Strategy (if applicable)	This program attempts to educate those in the local building community of the value of high efficiency construction by providing incentives toward the increased adoption of high energy efficiency building design practices, systems and equipment.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	The contractors or builders would receive one level of rebate for achieving high energy efficiency standard of 15 percent above code. It is up to the builder/contractor whether they pass on these savings to the building owner.
Non-Energy Benefits	Program kWh savings may result in avoided greenhouse gas emissions.
Other information deemed appropriate	While not a requirement, some projects may elect to expand their targets toward LEED certification status. This program also seeks to move construction to ASHRAE 90.1 standards.

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3.3. *Mercantile Self-Direct Programs*

3.3.1. *Explain overall strategy for compliance with mercantile customer energy efficiency integration requirements.*

All customers that meet the definition of “mercantile customer”, as defined in R.C. § 4928.01 (A) (19) are eligible for this program. The Companies are currently proactively working with a group of approximately 300 customers across their respective service territories to jointly file applications to commit the customer’s EE&PDR programs, pursuant to division R.C. § 4928.66(A)(2)(c). These 300 customers were selected based on highest annual consumption and the potential to find qualifying projects in an effort to obtain the greatest results at the least possible cost. Additional details about this program can be found in the program summary included in Section 3.4 below.

3.3.2. *Describe expectations for number of mercantile customers that will commit their demand reduction, demand response, or energy efficiency projects for integration with the utility’s programs. Include kWh and kW goals and expectations, as well as customer and utility costs.*

See Section 2.4 for a general discussion of the Mercantile Program offered by the Company and the results for 2009.

The Company intends to continue its Mercantile Program during the Reporting Period. OE Table 15 details the forecast of incremental EE&PDR results for this program during this time frame. All such projects will have been installed prior to 2009.

OE Table 15: Mercantile-Self-Directed Forecast

	2010	2011	2012	2010	2011	2012	2010	2011	2012
	<i>Incremental EE Savings, GWh (Note 1)</i>			<i>No. of Customers</i>			<i>Costs(\$)</i>		
OE	56	28	14	27	13	7	\$471,000	\$332,000	\$262,000
CEI	49	25	12	24	12	6	\$367,000	\$260,000	\$207,000
TE	26	13	6	21	11	5	\$120,000	\$ 99,000	\$ 89,000
Total	131	65	33	72	36	18	\$958,000	\$691,000	\$558,000
<i>Note: Projection of costs include marketing and education materials, any and all third party EM&V costs attributable to these applications, legal fees, and any incremental labor costs incurred by the Companies, whether internal or external, for the procurement, review and processing of these applications.</i>									

The following assumptions were incorporated into these projections:

- 1) In the future, with the roll-out of new programs, customers will have the option of participating in Company-sponsored programs for new investments, or utilizing the new investment as a self-directed project, but not both.
- 2) With the economic downturn of 2008, it was assumed that fewer investments in EE&PDR will be made in the immediate future, absent a significant turnaround in the economy, or Company provided incentives or rebates. As a result, the Company does not anticipate significant future self-directed projects from mercantile customers during the Reporting Period.

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3) As the Company launches new EE&PDR programs, it will rely less on historic projects implemented by mercantile customers and more on new programs being launched consistent with this Plan as approved. Therefore, while this Mercantile Program is still a key component to the Company's compliance strategy in 2010, the Company assumes fewer projects in later years. As indicated in OE Table 16 below, the Mercantile Program easily passes the Utility Cost Test¹³, making it an extremely cost effective approach to compliance with S.B. 221.

OE Table 16: Mercantile Program TRC Results

TRC Test			
<i>(This does not include participant costs, making the #s below equal to a Utility Cost Test).</i>			
	2010	2011	2012
OE	62	29	23
CEI	71	33	27
TE	112	45	31

3.3.3. Define marketing strategy for integrating and coordinating mercantile customer efforts into overall program strategies

During the Reporting Period, the Companies intend to utilize their Customer Account Representatives and the Administrator Group to market the Mercantile Program to large C&I customers, which will include at a minimum the following activities:

1. Educating customers about the program. This step includes providing customers with background on S.B. 221 EE & PDR requirements for utilities, focusing on the exemption provision that allows a customer to avoid paying certain charges if its project qualifies.
2. Identifying for the Company customers who appear to qualify as a mercantile customer, who are interested in the program, who have projects that may qualify and who otherwise qualify under the Company's applicable rate schedules.
3. Providing estimates of potential EE and PDR savings.
4. Screening potential customer project(s) to determine if the project(s) appear to qualify under Commission Rules and Company rate schedules.
5. For those projects that qualify, complete all necessary forms provided by the Company and gather all supporting documentation required by the Company and/or the Commission.

Upon receipt of the customer information packet, the Company reviews it to ensure to the best of its knowledge that the customer has provided proof that the project has been installed and in-service, and has provided documentation supporting the calculation of energy efficiency and peak demand reduction savings. Customer methodologies used to measure energy and peak demand reduction savings are required to adhere to the protocols outlined in the International Performance and Measurement and Verification Protocols (IPMVP), or, when available, to the Ohio TRM being developed in PUCO Case No. 09-0512-GE-UNC. Once the customer has met these requirements, the Company and the customer file a joint application with the Commission, requesting approval of the customer's commitment of its project and requesting authorization to

¹³ Commission Rules allow for the use of a Utility Cost Test which, in essence, does not include the sunk costs incurred by the mercantile customer and not passed on to other customers.

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exempt the customer from paying the amounts due under the Company’s EE&PDR cost recovery mechanism as permitted in R.C. § 4928.66(A)(2) and the Company’s Rider DSE.

Once the application is approved, the customer must submit an annual report to the Company that includes all information as required by the Commission.

A summary of this program, along with other Utility- Mercantile programs for large C&I customers is set forth below.

Project name(s) (a unique identifier)	Mercantile Self-Directed
Program Objective	To obtain a commitment from mercantile customers that will allow the Company to include EE&PDR savings from the customer’s self directed EE&PDR projects.
Project start and completion date	The Program started in 2009 and will remain in effect indefinitely. Although, the Company expects that it will devote less resources to this program as other programs included in this plan ramp up.
Project baseline demand and energy consumption	Customers’ individual baseline usages are adjusted similar to that of the Company, thus requiring adjustment for weather and for savings add-backs.
Project description	Eligible customers who have achieved EE&PDR savings independent of utility programs or incentives may file joint applications with the Company to the Commission for commitment of these savings to the Company and a request to exempt the customer from paying the certain of the charges included in the Company’s Rider DSE.
Project justification as an allowable efficiency activity	R.C. § 4928.66, Section (A) (2) (c) allows for “including the effects of all demand-response programs for mercantile customers of the subject electric distribution utility and all such mercantile customer-sited energy efficiency and peak demand reduction programs, adjusted upward by the appropriate loss factors.”
Target Market	All customers that meet the definition of “mercantile customer”, as defined in R.C. § 4928.01 (A) (19) are eligible for this program.
Program approach, rationale and description	Customers must demonstrate verification of savings and that these savings are sustainable. The Companies will review all documentation and determine that customers have met this requirement to the Company’s satisfaction before filing an application. The Company will assist customers with compliance with the latest Commission orders pertaining to the measurement and verification of these savings. See Section 3.3 for a more detailed description of this Program.
Program issues and risks and risk management strategy	Risks associated with this program primarily relate to verification documentation and finalization of the TRM and EM&V protocols. Until these become known, there is uncertainty surrounding the

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	<p>amount of savings that can actually be included for compliance purposes. The Company is working with the Commission to resolve outstanding issues.</p>
Marketing and Implementation Strategy	<p>See Section 3.3 for a more detailed description of the implementation strategy.</p>
Incentive Strategy	<p>Upon Commission approval of the joint applications, the customer will be exempt from paying Rider DSE2 charges consistent with the Commission's Order.</p>
Non-Energy Benefits	<p>Rewards customers that took a proactive approach to energy efficiency, thus encouraging more such actions in the future.</p>
Additional Information	<p>This program includes costs for marketing assistance through outside third parties. The Company believes that its compensation structure included in the Administrator agreements that include both a monthly fee plus an incentive of one cent per kWh is the most cost effective solution. The program included during the Reporting Period contemplates this compensation structure and the Company asks the Commission to approve such a structure as part of its approval of this Plan.</p>

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3.4. Mercantile-Utility Programs (Large Enterprise)

<p>Program Title and Program years during which program will be implemented</p>	<p>14. C/I Equipment Program 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>This program provides rebates for high efficiency electric equipment and building shell related measures for non-residential customers. Rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less. Participants are encouraged, but not required, to complete an energy audit prior to participating in this program.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting equipment, Number and types of equipment rebated</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>All existing and new construction for commercial, industrial, municipal and multifamily buildings that are customers of the Company.</p>
<p>Program approach, rationale and description</p>	<p>This program provides a range of incentives paid to customers for the reduction in the incremental technology costs (“capital costs”) of high efficiency units over standard efficiency units. The program would be promoted via the implementation vendor as well as to the following target markets by Program Administrator:</p> <ul style="list-style-type: none"> a. Health Services Customers b. Government Buildings
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>A qualified vendor will conduct the marketing and rebate fulfillment aspects of this program. Program Administrators will be tapped for conducting outreach to their constituents regarding program availability</p>
<p>Program issues and risks and risk management strategy</p>	<p>None are envisioned.</p>
<p>Ramp-Up strategy</p>	<p>Lighting measures will be available to the market first, since they represent the most significant and widely applicable end use, and since energy audits are not needed to pursue this retrofit opportunity. Measures will be available when energy</p>

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	audits are launched.
Marketing strategy	This program would be administered by a qualified national vendor under contract with the Companies. Program Administrators can perform services such as assistance in completing rebate applications, fulfilling required purchase documentation, or by serving as aggregators for selected equipment through a group purchase.
Market Transformation Strategy (if applicable)	The program will encourage the adoption of high efficiency technologies and therefore, increase the overall market demand for the equipment.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>Eligible equipment includes the following for which per unit rebate amounts will be established:</p> <p>HVAC</p> <ul style="list-style-type: none"> ➤ Rooftop End of Life Change-Out ➤ Rooftop Unitary Packaged AC Retrofit ➤ Packaged Terminal Air Conditioning (PTAC) End of Life Change-Out ➤ HVAC Chiller Retrofit ➤ HVAC Chiller End of Life Change-Out <p>Lighting</p> <ul style="list-style-type: none"> ➤ Lamp replacements lamp/ballast (T5SO, T8, HID) ➤ LED EXIT light replacement ➤ Stairwell Replacement with Occupancy Sensor System ➤ Lighting Controls/sensors ➤ Building lighting control systems ➤ CFL Replacement (of incandescent) <p>Plug Loads & Controls</p> <ul style="list-style-type: none"> ➤ Office equipment audits to ensure proper efficiency settings on equipment ➤ Control devices and power strips ➤ Lighting controls ➤ Occupancy sensors <p>Custom Measures and other measures such as building shell improvements not identified here or in the final rebate schedule will be considered on a case by case basis and an appropriate rebate amount calculated.</p> <p>Incentives will be set at levels to achieve approximately a 5 year payback. The incentives are targeted at reducing the incremental cost of the most advanced, commercially available technology for each equipment category, when compared to the commonly available replacement (not including installation costs).</p>

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Non-Energy Benefits	Lowering building maintenance costs are a side benefit of the installation of many energy efficiency products. In addition, program kWh savings will result in reduced greenhouse gas emissions.
Other information deemed appropriate	None.

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<p>Program Title and Program years during which program will be implemented</p>	<p>15. C/I Equipment (Industrial Motors) 2010 – 2012</p>
<p>Objective(s) and program metrics</p>	<p>This program is designed to encourage the Company’s commercial and industrial customers to upgrade their existing motors to NEMA Premium® motors when switching out old motors due to breakdowns and or programmed replacements. Customers will now have the option of purchasing new motors with significant buy downs of the first cost, or having their old motors rewound. The program also supports installation of variable speed drives on motors that do not always operate at the same speed.</p> <p>The variable speed drive program is designed for commercial and industrial customers whose motors are utilized for increased operating hours and have a higher variability of loads on the system (centrifugal pumps and fans) or the application of use includes mechanical throttling (valves, dampers, etc). This is because variable speed drives match the speed of the motor-driven equipment to the process requirement. Applications with low variability of loads such as vibrating conveyors, punch presses, rock crushers, machine tools and other applications where the motor runs at constant speed are not good candidates for a variable-speed drive.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of motors dealers participating in the program, number of customers obtaining rebates, numbers and types of equipment rebates, amount of product installed, amount of inefficient motors removed from stock.</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>The target market is all commercial and industrial customers with substantial motor loads. This would include, but not be limited to, the following business categories: industrial manufacturing, government facilities, office buildings, education, health care, retail and other commercial customers.</p>
<p>Program approach, rationale and description</p>	<p>This program seeks to provide an incentive for the Company's customers to recognize that energy savings and cost reductions are possible when motors are upgraded to NEMA Premium® motors rather than just being rewound. The relatively low cost of electric service and/or generation for these customers may have resulted in many customers not focusing on or considering upgrading their motors.</p>

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Implementation strategy (including expected changes that may occur in different program years)	A program vendor will conduct marketing and rebate fulfillment aspects of the program. Program administrators will be asked to reach out to their customers to promote the program and address any questions.
Program issues and risks and risk management strategy	None envisioned.
Ramp-Up strategy	It will be essential to work through motor dealers and rewind shops to implement this program. Thus, communications with this market will take place in advance of launching the program to encourage their active participation. Once they become available, Customers will be encouraged to have an energy audit. The program will be launched to coincide with the launch of the audit programs.
Marketing strategy	This program would be administered through regional motor distributors who would be incentivized to move the products. A dealer network will be developed by a qualified vendor to recruit members of the motors market to assist in outreach. It is also anticipated that Program Administrators will be tapped to promote the program to their membership.
Market Transformation Strategy (if applicable)	The promotion and awareness of high-efficiency equipment options help increase demand and influence the inventory patterns of distributors.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>The program addresses motors and related equipment such as Variable Speed Drives (“VFD/VSDs”). It covers motors purchased and installed after 4/1/10. Eligible equipment includes existing motors upgraded to new, three phase, induction motors, NEMA Design A & B, 1-200 HP, Open Drip Proof (ODP) or Totally Enclosed Fan Cooled (TEFC), 1200, 1800, or 3600 RPM.</p> <p>Incentives to customers and motors distributors will be in the form of a rebate per unit replaced.</p> <p>See OE Table 14 for rebate/incentive amounts.</p>
Non-Energy Benefits	Lower operating costs and less frequent need for replacement are side benefits of this program due to the longer life times of equipment, particularly when VSDs are installed. In addition, program kWh savings may result in reduced greenhouse gas emissions.
Other information deemed appropriate	None.

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<p>Program Title and Program years during which program will be implemented</p>	<p>16. Technical Assessment Umbrella Program 2010 - 2012</p>
<p>Objective(s) and program metrics</p>	<p>Business and manufacturing customers in Ohio have limited knowledge of the full spectrum of energy saving opportunities that may be available to them in their facilities. This program offers a combination of custom information and project arrangement through a customer-selected vendor with incentives toward the cost of the assessment paid by the Company. Coordination of available prescriptive rebates will be combined with calculation of customized rebates on a \$/kWh and \$/kW basis for performance based or custom projects.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of customers requesting information about the program, number of auditors/contractors participating, number of customers participating through the audit stage, number and types of recommendations made, amount of energy savings predicted if projects are implemented; no. and types of measures installed</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency electric appliances and products</p>
<p>Target market (including participation requirements)</p>	<p>This program is intended to assist larger non-residential customers with complex opportunities, custom measures and/or multi-year projects that they wish to pursue. There are no prerequisites for participation other than being a customer of record of the Company. While the program is targeted to large non-residential customers, it is available to any customer.</p>
<p>Program description</p>	<p>This program provides incentives toward the installation of measures identified in a comprehensive facility energy audit, where the incentives is based on the anticipated performance of a package of measures or an overall project rather than a series rebates for individual measures. As such, this program is targeted to complex, custom, staged or phased projects that do not readily fit into the C/I Equipment Rebate program.</p>
<p>Implementation strategy (including expected changes that may occur in different program years)</p>	<p>A reputable contractor would be hired by the customer to conduct a thorough energy audit review of the facility and propose a long-term strategy for capturing identified energy savings. The plan would be shared with the Company for approval of whatever portion of the plan the customer intends to pursue, and a rebate amount calculated based on the intended energy savings. Once the project is completed, a FirstEnergy QA/QC contractor would</p>

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	inspect the job to determine its acceptability and a rebate check issued. The customer can then pursue additional projects over time in the same manner. Once the rebate level (expressed as a \$/kWh payment for a percent of the anticipated energy saved) is determined, this value will carry forward for all subsequent projects conducted by the customer at the same facility.
Program issues and risks and risk management strategy	The customer may only take advantage of one program for any given project – either the C/I Equipment Rebate Program (prescriptive rebates) or the Technical Assessment Umbrella Program (performance rebates) – but not both.
Ramp-Up strategy	This program involves minimal oversight on the part of the Company and places the burden of effort on customers to select a reputable vendor, have an acceptable audit performed, demonstrate the proposed projects, and have the work completed. The Company will require development of a standardized format for the audit report, and the procedures whereby completed projects are to be inspected and a rebate issued. It is anticipated that the program would be launched in mid 2010.
Marketing strategy	This program would be marketed through the suite of audit programs as the most comprehensive assessment targeting customers with custom, complex and multi-year projects.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	This program is based on a package of measures and does not restrict what can be installed to any specific list. The requirement is that the documentation from the audit must show the overall project to save energy. This can be demonstrated by calculations supplied by the auditor, or building simulation modeling or other means to be determined.
Non-Energy Benefits	Secondary benefits of this program include providing customers with a long-term energy plan or roadmap for pursuit over a longer period of time than a standard audit; the ability of customers to work with vendors of their choice, and the lower operating costs that will accrue to businesses installation measures. In addition, program kWh savings may result in reduced greenhouse gas emissions.
Incentives	Incentives will be determined on a case by case basis on a set \$/kWh saved and /kW reduced for a portion of the claimed savings.
Other information deemed appropriate	None.

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Program Title and Program years during which program will be implemented	17. C/I Interruptible Load Program 2010–2012
Objective(s) and program metrics	The objective of the Economic Load Response Program is load curtailment. Metrics include calculating Curtailable Load (“CL”), which is calculated by the Company for each customer by subtracting the customer’s contract Firm Load from its monthly highest thirty (30) minute integrated kW load occurring during the non-holiday weekday hours of 11 a.m. to 5 p.m. Eastern Standard Time (equivalent to noon to 6 p.m. EDT). In no circumstance can the CL be negative nor can the CL be in excess of a contract amount determined based upon the customers 12 month history as of February 1, 2008.
Target market (including participation requirements)	This Economic Load Response Program Rider (“Program”) is available to customers taking service under the Company’s general service tariffs served at primary voltages or higher, provided that the customer meets all of the following five conditions at the time of initiation of service under this Rider and on a continuing basis thereafter: (i) the customer took service under an interruptible contract with the Company as of February 1, 2008; (ii) the customer can successfully demonstrate to the Company that it can reduce its instantaneous measured load to a pre-established contract Firm Load within ten minutes of notification provided by the Company without the need of a generator (A customer may intend to use a generator to reduce its usage to below its Firm Load, but if the generator does not operate, the customer must still reduce its usage to or below its Firm Load. Failure of a customer to reduce its usage to or below its Firm Load results in penalties); (iii) the customer executes the Company’s standard Program contract; (iv) the customer is taking generation service from the Company under the Generation Service Rider (GEN); and (v) the customer is not participating in any other load curtailment program, including without limitation a demand response program offered by any independent system operator.
Program approach, rationale and description	See above.
Implementation strategy (including expected changes that may occur in different program years)	For 2010 and the first five months of 2011, the current Economic Load Response Program (Rider ELR) will be used for peak demand reduction. For the balance of 2011, and 2012, as proposed in PUCO 09-0906-EL-SSO, the Company would issue an RFP in the first quarter of each

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	<p>year starting 2011 that would be based upon the forecasted number of MW needed to meet the demand reduction benchmark for that year. Because this proposal is currently in litigation, it is not yet known if this program will be used in 2011. The Company will update the status of this program through its reports to the Commission as more details become known.</p>
Program issues and risks and risk management strategy	<p>Interruptible customers may shop with an alternative generation supplier.</p>
Ramp-Up strategy	<p>Not applicable.</p>
Marketing strategy	<p>This program is only available to customers who qualified as interruptible as of February 2008.</p>
Market Transformation Strategy (if applicable)	<p>Not applicable.</p>
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	<p>Verification can be done through the Company's tracking systems.</p>
Non-Energy Benefits	<p>Reduces the need to build additional generating capacity which, in turn, may benefit the environment.</p>
Other information deemed appropriate	<p>Upon no less than ten minutes advance notification provided by the Company, a customer participating in the program must curtail all load above its Firm Load during an Emergency Curtailment Event consistent with the Company's instructions. An Emergency Curtailment Event is one in which the Company, a regional transmission organization and/or a transmission operator determines, in its respective sole discretion, that an emergency situation exists that may jeopardize the integrity of either the distribution or transmission system in the area. In the case of an economic interruption upon no less than a 90 minute advance notification provided to the customer, the Company is permitted to call an Economic Buy Through Option Event ("EBT") when a "Market Premium Condition" exists. A Market Premium Condition is defined as a point in time that the MISO LMP exceeds the product of 1.5 times the wholesale price resulting from the Company's competitive bid process held for generation service commencing on June 1, 2009. The number of</p>

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hours of EBT cannot exceed 10 percent of the hours in any twelve month period beginning in June of each calendar year.

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3.5. Governmental Programs

Program Title and Program years during which program will be implemented	18. Government Lighting Program 2010 - 2012
Objective(s) and program metrics	<p>The intent of this program is to target an easily addressed energy savings opportunity that will help local governments save money. This program provides local governments with rebates for replacing inefficient traffic signals and pedestrian light signals with high efficiency LED equipment. It also addresses upgrades to street lighting fixtures and lamps.</p> <p>Metrics:</p> <p><u>Immediate Outcomes</u> – Number of municipalities participating in the program, number of light fixtures retrofitted, repaired or replaced.</p> <p><u>Intermediate Outcomes</u> – Energy savings and peak demand reduction; customer satisfaction with process</p> <p><u>Long-Term Outcomes</u> – Transformation of markets toward higher market share of high efficiency municipal lighting</p>
Target market (including participation requirements)	Street and traffic lights
Program description	<p>A. The Street Lighting Program is offered to municipalities regardless of ownership of the street lights. This segment of the Government program will seek to convert street lights to high pressure sodium.</p> <p>B. The Traffic Signal Program is another program targeted at local governments. This component of the Government program will seek to convert traffic signals and pedestrian/cycling signals to LED technology.</p>
Implementation strategy (including expected changes that may occur in different program years)	These programs will interface with each other so that program participants can obtain full services as needed. They will also potentially leverage support from state-level initiatives.
Program issues and risks and risk management strategy	Inability of organizations to identify balance of funding for projects, in spite of incentives; competing priorities for capital improvements. Risk management includes assistance in helping identify federal Energy Efficiency Block Grant funding or other sources for balance of costs.
Ramp-Up strategy	These services offered to these sectors will launch in 2010 and upgrades will be performed by following the standard maintenance schedule for bulb replacements.

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Marketing strategy	The Company's Area Managers will be tapped to provide first line contacts to eligible customers within the target market segments. The C/I program vendor will be responsible for ultimate program marketing.
Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives & rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)	See OE Table 14 for rebate/incentive amounts.
Non-Energy Benefits	By savings money from reduced costs of municipal lighting, local governments will free up funds for other purposes. In addition, program kWh savings will result in reduced greenhouse gas emissions.
Other information deemed appropriate	None.

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3.6. *Transmission & Distribution infrastructure programs to reduce line losses.*

Project name(s) (a unique identifier)	Transmission & Distribution Programs: a. Re-conductoring of lines b. Substation improvements c. Adding capacitor banks d. Replacement of regulators
Program Objective	The use of T&D projects is a significant aspect of the Companies' overall energy efficiency compliance plan. It is the Companies' intent to submit past and future T&D improvement projects for compliance.
Project start and completion date	These projects will be filed with the Company's compliance plan that is required by Commission Rules.
Project baseline demand and energy consumption	The calculation of peak demand impact and energy efficiency savings associated with T&D infrastructure improvement projects is performed by modeling and documenting the pre-project and post-project electrical system parameters in a load flow analysis tool.
Project description	<p>a. Re-conductoring projects involve the replacement of existing wires with larger wires between either the transmission towers or distribution poles. Re-conductoring projects reduce line losses by lowering the resistance of the system through which energy flows, such that the power consumed to transmit that energy, or line loss, is lowered.</p> <p>b. Substation projects typically include tying together previously unconnected transmission or distribution lines, and/or the addition or upgrade of transformers and circuits in new or existing locations. These projects generally improve efficiency, and thus reduce line losses, by providing an additional energy transformation point closer to the load center. As a result, a greater portion of the energy flows across high-voltage lines instead of lower-voltage lines. The addition of new circuits on a distribution substation results in the transfer of load from one substation to another that is closer to the source, thus improving overall system operations.</p> <p>c. Transmission capacitor bank projects include the addition or expansion of large capacitor banks at a substation location. These projects involve reducing line losses by placing reactive sources at, or near, a load center. By doing so, a portion of the reactive load no longer travels across the entire transmission system, over which line losses occur. Distribution capacitor bank projects include the addition of capacitor banks, or a series of banks, in parallel at a substation location or on distribution poles along the circuit. These projects involve reducing line losses by placing reactive sources at or near a load center.</p>

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	d. Distribution voltage regulation projects involve the replacement of existing equipment with larger and/or more efficient equipment. These projects improve the energy efficiency of the distribution system by reducing the losses and heating associated with smaller equipment. As a result of the upgrades, the distribution system transfers electricity more efficiently to the customer.
Project justification as an allowable efficiency activity	R.C. 4928.66(A)(2)(d) permits a utility to include, for purposes of compliance with statutory EE&PDR benchmarks, “transmission and distribution infrastructure improvements that reduce line losses.”
T&D system impact	See Above
T&D system reinforcement, if any	See Above
T&D reliability, market and system losses enhancements	See Above
T&D energy, kWh savings expected/measured from project	Based on historical information and projects projected for 2010, the Company anticipates achieving approximately 25,000 MWh per year in savings due to these system improvements.
Economic benefit from energy savings	Less generation will be required to be purchased, thus reducing total generation costs that would be passed on to customers.
T&D demand, KW reduction expected/measured from project	Based on historical information and projects projected for 2010, the Company anticipates achieving approximately 10 MWs per year in peak demand reduction due to these system improvements.

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3.7. Other Programs

3.7.1. General Education

Essential to the success of these programs will be a concurrent marketing and educational campaign. Once Commission approval is obtained, the Company will immediately launch a major outreach effort to build awareness and interest in the programs, ways to participate, expected benefits and reasons for participating. Included in each program’s budget is a share of a first year marketing campaign for that sector; smaller amount of sustaining marketing resources are included for subsequent years of the Plan to ensure adequate outreach for achieving program goals. Third party program managers will be responsible for the development and execution of a program specific marketing plan that will include at a minimum, a requirement that the vendor’s team includes at least one member with educational expertise in social marketing and consumer behavior change.

3.7.2. Experimental/Special

As part of the economic stimulus package known as the American Recovery and Reinvestment Act of 2009, the Department of Energy (“DOE”) solicited applications for approximately \$3.4 billion of investment grants for the deployment of smart grid technologies. To take advantage of this opportunity, FirstEnergy proposed investing \$114 million to evaluate “smart grid” technologies intended to improve the reliability of its three-state service areas’ electric distribution infrastructure and to evaluate how the individual distribution systems interact with each other. The costs associated with this experimental program are being recovered under a separate rider. The details of the Ohio specific project are described below:

Program Title and Program years during which program will be implemented	Smart Grid Modernization Initiative
Objective(s)	The intent of the project is to produce an integrated system of protection, performance, efficiency and economy that extends across the energy delivery system for multiple stakeholder benefits. The initial deployment will allow the Company to conduct a controlled random test of approaches to Critical Peak Pricing and customer participation. Customers will be given the choice of enabling technologies to manage their participation. Information gathered from this initial stage will guide the deployment of smart grid integration in the Company’s diverse service territories. In addition to technical findings, critical non-technical issues such as cost, customer awareness and interaction, and regulatory cost recovery will be explored and understood. Insight will also be gained with respect to organizational and training requirements for operational support for the future smart grid.
Target market	The Ohio site deployment will be executed in a Cleveland suburban area serving a mix of residential and commercial customers on 34 distribution circuits, representing a demand of over 200 MVA. The circuits are serviced from 14 substations, six

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	of which exclusively serve the area.
Program description	AMI will support customer conservation and demand management in this specific project area. AMI will also include a front-end system that collects customer data and interfaces with a hosted meter data management system, providing detailed customer information regarding specific time of usage and the cost associated with such usage.
Implementation strategy (including expected changes that may occur in different program years)	Upon the success of an initial 5,000 meter deployment, the Company plans to install approximately 39,000 additional smart meters on residential and commercial customer premises within the same geographical boundary.
Program issues and risks and risk management strategy	The Companies are working with the Commission in order to obtain the regulatory support necessary to ensure customer participation in the initial 5,000 meter roll out, thereby mitigating participation risk and protecting the validity of the collected data.
Marketing strategy	A comprehensive communications program to educate consumers about program responsibilities and benefits will support program success and targeted impacts.
Program start date with key schedule milestones	This program is expected to be in place by the summer of 2010.
Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission’s statewide EE&PDR Plan Evaluator	The Company will be working within the guidelines of the DOE reporting requirements. The information reported to the DOE will be shared with the Commission.
Estimated participation – includes tables indicating metric(s) with target value(s) per year	Our anticipated savings from this program will be a 5 percent reduction in peak demand for this area.

3.7.3. Market Transformation

Significant EE&PDR program initiatives such as the one called for through S.B. 221, and fostered by this Commission, will provide another, more long lived energy efficiency benefit that can be directly attributed to the Plans filed by the Companies. The phenomenon is known as the “Market Transformation” effect.

The Company’s Plan contemplates the expenditure of \$92.6 million over the 2010-2012 timeframe with additional significant expenditures expected thereafter. These spending levels over this relatively short period of time will have the effect of transforming the Ohio-specific retail and wholesale stock of electric consuming appliances, HVAC equipment, motors, lighting and other process equipment to a higher efficiency level since the programs promoted by the Company will have the effect of raising customer awareness of efficient alternatives, creating an increased level of demand for such equipment and causing manufacturers and distributors to increase the volume and market share that more energy efficient equipment comprises of the

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total Ohio market for all such subsidized equipment. This market transformation effect should have a positive cumulative effect on the ability of the Company’s programs to achieve greater and greater savings at lower costs per kWh and kW as time goes by.

The Company intends to institute specific EM&V processes that capture the effects of this phenomenon across all customer classes and program types. As market transformation occurs, the Company’s revenues will further erode. To the degree that such erosion can be demonstrated, the Company will seek cost recovery through its Rider DSE, until otherwise addressed in another proceeding.

3.8. Program Budgets and Data Tables

Tables must include the following per year:

- Number of participants (define participant) – **See Appendix C-2**
- Number of measures – **93 measures.**
- Dollar incentives – **See Appendix B1-B3**
- kWh savings – **See PUCO Tables 7A-7G**
- kW peak-demand reduced - **See PUCO Tables 7A-7G**
- Other metrics – **See individual program descriptions in Sections 3.2 through 3.5 of this Plan.**
- Estimated program budget (total) by year – include table with budget per year - **See Appendix B1-B3**
- Savings targets – include tables with MWh and MW goals per year and cumulative tables that document key assumptions of savings per measure or projects. **See PUCO Tables 7A-7G**
- Cost-effectiveness – include TRC test results for each program, including values for each benefit and cost component of TRC calculation - **See PUCO Tables 7A-7G**
- Anticipated costs to participating customers – **See OE Table 17 below.**

OE Table 17 – Participant Costs by Program

Residential Portfolio (excluding Low-Income) <i>*Participant Costs are not available for these programs</i>	
EE&PDR Program	<i>Total Cost (2010-2012)</i>
Peak Demand Reduction Programs	
Direct Load Control	0
Energy Efficiency Programs	
Appliance Turn-In Program	0
Energy Efficient Products Program	14,271,092
Efficient New Construction Program	663,446
Comprehensive Residential Retrofit Program	16,022,979
Online Audit Program	0
Online Energy Efficiency Products*	N/A
CFL Program*	N/A
Totals	30,957,517

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Residential Low-Income Portfolio	
EE&PDR Program	<i>Total Cost (2010-2012)</i>
Appliance Turn-In Program	0
Energy Efficient Products Program	0
Community Connections	0
CFL Program*	0
Totals	0
Small Enterprise	
EE&PDR Program	<i>Total Cost (2010-2012)</i>
Small Enterprise Audits & Equipment Program	8,912,939
C/I Equipment Program (Commercial Lighting)	70,917,062
C/I New Construction Program	204,399
Totals	80,034,400
Mercantile Self-Direct	
EE&PDR Program	<i>Total Cost (2010-2012)</i>
Mercantile EE Savings*	N/A
Totals	0
Mercantile Utility (Large Enterprise)	
EE&PDR Program	<i>Total Cost (2010-2012)</i>
<i>Peak Demand Reduction Programs</i>	
Interruptible Demand Reduction	0
<i>Energy Efficiency Programs</i>	
C/I Audits & Equipment Program	1,090,968
C/I Equipment Program (Commercial Lighting)	27,765,768
C/I Equipment Program (Industrial Motors)	281,464
EE Program Subtotal	29,138,199
Totals	58,276,399
Governmental	
EE&PDR Program	<i>Total Cost (2010-2012)</i>
Government Lighting	1,457,933
Totals	1,457,933

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Because of the relatively new introduction of programs such as those listed above into both the local and national marketplace, there is very little empirical data on which to base assumptions, and the above tables reflect only the Company's best estimates of those anticipated costs. In some instances, customer program costs cannot be determined. The Company will monitor customer activity and will gather such data over time, revising its calculations in future annual update filings to the Commission.

4.0 PLANNING, REPORTING AND TRACKING SYSTEMS

4.1. *Program Planning:*

4.1.1. *Describe utility strategy for updating program and overall portfolio plans*

On or before March 15 each year, the Company, as required by the Commission's Rules, will file a portfolio status report, addressing the performance of all approved EE&PDR programs in its program portfolio over the previous calendar year. Included in the filing will be a recommendation on whether each program should be continued, modified, or eliminated. The Company may propose alternative programs to replace eliminated programs, taking into account the overall balance of programming in its three year plan.

Additionally as noted in Section 1.6, the Company will conduct process evaluations at the six to twelve month mark as a way to gauge progress toward the achievement of goals and identify issues requiring mid-course correction. It will also seek input from its Administrators and the Collaborative Group, incorporating suggestions as appropriate under the circumstances.

Consistent with Commission directives, the Company may seek written staff approval to reallocate funds among programs serving the same customer class at any time, provided that the reallocation supports the goals of its approved program portfolio plan and is limited to no more than twenty-five percent of the funds available for programs serving that customer class. In addition, the Company may change its program mix or budget allocations at any time, as long as it provides notice to all parties in the proceeding in which this Plan is addressed.

4.1.2. *Define schedule for updating plans and for reporting such updates to Commission*

See the discussion in Section 4.1.1 above. Because it is unclear as to the exact launch date for many of the programs, specific evaluation dates cannot be provided. However, depending on the program, the Company will re-evaluate programs between six and twelve months after launch. Further, the Company will track individual program results, sharing them with the Collaborative Group as appropriate. Notification to the Commission of any changes to the Plan as approved by the Commission will be provided as required by the Commission's Rules.

4.2. *Project Management Tracking Systems:*

4.2.1. *Provide brief overview of the utility data tracking system for managing and reporting measure, project program and portfolio activities, status and performance as well as utility performance and expenditures.*

The Company intends to utilize a comprehensive system to report and track activities and results associated with EE&PDR programs across the FirstEnergy system. The reporting and tracking system will have the ability to track a customer through program-specific milestones. The system will provide standard status reports for individual participants and overall programs. The system will be configured to provide any required reports for varying jurisdictions and service territories. On May 15, 2009, the Company issued a Request for Information ("RFI") to ten potential bidders, receiving a response from seven. The purpose of the RFI was to gather information on available "packaged" applications already in the marketplace and to validate the list of potential suppliers. Prior to issuing the RFI, the selection team held meetings to develop the functional requirements for such a tracking and reporting system. Upon completion of the evaluation of the RFI responses and the additional information gathered from the industry, this team developed a Request for

4.0 PLANNING, REPORTING AND TRACKING SYSTEMS

Proposal ("RFP") with more defined requirements, and solicited proposals. The Company is currently evaluating proposals received from 9 suppliers, including several "off-the-shelf" DSM tracking computer packages to track the EE&PDR savings arising from the various programs. The Companies anticipate completion of the selection process and contract award sometime during the first quarter of 2010. The third party program managers and the Companies' EM&V Consultant will be responsible for tracking results until the Companies' system becomes operational.

4.2.2. Describe how the Utility will coordinate with the Commission on data tracking and transfer. Topics should include mechanism for access by Commission and statewide Independent Program Evaluator to program/project/measure data and proposed software format, data exchange format, and database structure the utility will use for tracking participant and savings data. Provide examples of data fields captured

The reporting and tracking system will be web-based, allowing for access from any internet connection. It will interface with existing systems wherever necessary to gather data, to insure data integrity and minimize duplicate data entry. The system will enable vendors to upload key metrics on a weekly or monthly basis. Not only will this reduce paperwork, but it should help maintain quality control over data entry and allow for quick status checks on, among other things, goal attainment and budget to actual costs. The selection team will recommend the structure of such a system. At present, the team is considering data fields such as:

- Customer name;
- Customer contact information (address, e-mail, phone);
- Customer type;
- Customer ID number;
- Account number;
- Premise number;
- Project/Program name;
- Contractor/Retailer;
- Measure;
- Costs;
- Service address;
- Job status;
- Completion date;
- NAICS;
- Heating system type;
- Square footage;
- kWh savings;
- Incentive;
- Enrollment method;
- Transaction results;
- Channel used;
- Measures recommended; and
- Measures implemented.

As a web based system, an internet connection for access will be necessary. The system will be designed to allow for varying levels of security-controlled access by Company staff, program contractors, trade allies, customers, and system administrators. Access for others, such as Commission staff and its state-wide Independent Program Evaluator, will be provided as required by the Commission.

4.3. *Quarterly reporting to be posted on PUCO website:*

As more fully discussed in Section 4.2, the Company is in the process of assessing potential reporting and tracking systems. Regardless of the system ultimately selected, it will have the ability to monitor the progress of the various programs being offered. Reports will be provided as required by the Commission.

4.0 PLANNING, REPORTING AND TRACKING SYSTEMS

4.3.1. List reports that would be provided to the Commission, the schedule for their delivery, and the intended contents. The focus should be on metrics identified in Section 3.1.1

Standard reports will be provided as necessary and required. The format and content will be consistent with that defined by the Commission. The Company currently anticipates that such reports will include at a minimum:

- The number of customer applications;
- Annualized rebates by program, utility, and operating company;
- Installed measures summary;
- Annualized impacts summary by measure type and by program;
- Program participation overview;
- Impacts versus goals;
- Rebates versus budget; and
- Other metrics as defined in section 3.1.1

Additionally the system will have the ability to perform ad-hoc reporting through a user friendly report writing tool, and more complex queries by system administrators. Dashboards and other reporting tools will be used to monitor program performance on an on-going basis.

4.3.2. Describe data that would be available (including format and timeframe of availability) for Commission review and audit.

As indicated in Section 4.3.1, the system will have the ability to provide reports as reasonably required by the Commission. Any data included within the system would be made available to Commission Staff through normal data request procedures. This information would be available for Commission review and audit.

5.0 PORTFOLIO MANAGEMENT AND IMPLEMENTATION STRATEGIES

5.1. *Overview of Utility Management and Implementation Strategies:*

5.1.1. *Describe the types of services to be provided by the utility as well as by any third-party providers, such as consultants and trade allies. Indicate which organizations will provide which services and the basis for such allocation. Reference reporting and information from Sections 5 and 6. Examples of services to be offered by the utility or others may include marketing, customer recruiting, demonstration projects, audits, direct installation of new efficiency measures, verifications and installation and or baseline usage, response to customer concerns, program tracking and program verification activities for payment..*

Generally the Company will assume overall administration and oversight of this Plan, and utilize third party vendors to perform various program implementation and support duties. Specific activities that the Company will oversee will include Plan development; the execution of marketing campaigns; EM&V activities and tracking and reporting activities. The Companies will use contractors to provide many program implementation services, including assistance with the Plan design and implementation, EM&V and the installation of the tracking and reporting tool.

The Company may also use Administrators for specific programs, class of customers or to accomplish the goals of a given program. The Companies have entered into agreements with this Administrator Group, which was approved with modifications in Docket No. 09-0553-EL-EEC. The Company will utilize the following administrators, all of whom have committed to a reasonable level of efficiency and peak demand reductions on behalf of their members; agreed to a reasonable administration fee; and agreed to track and provide documentation evidencing the incremental energy reduction and actual kWh savings achieved from certain programs:

1. Ohio Schools Council
2. Ohio Hospital Association
3. Council of Smaller Enterprises (“COSE”)
4. Ohio Manufacturer’s Association
5. Industrial Energy Users
6. FirstEnergy Solutions Corp. dba The E Group (“The E Group”)
7. The Ohio Energy Group¹⁴
8. Roth Bros Inc.
9. Association of Independent Colleges and Universities of Ohio
10. County Commissioners Association of Ohio Service Corporation (CCAOSC)

Unless otherwise expressly stated in this Plan, the compensation paid to these administrators is as approved by the Commission in Docket No. 09-0553-EL-EEC.

¹⁴ While the Companies entered into a contract with The Ohio Energy Group, this group recently notified the Companies of its intent to terminate the agreement.

5.0 PORTFOLIO MANAGEMENT & IMPLEMENTATION STRATEGIES

5.1.2. *Describe risks to program performance and any risk management strategies that will be employed to mitigate those risks. Examples of risks that can cause a program to not deliver expected savings including program design flaws, technologies targeted by a program failing to deliver the savings expected (or failing to prove that they have delivered the savings), and customers or other key market players (e.g. contractors) choosing not to participate in a program*

There are various risks associated with the implementation of this Plan, the more significant of which are described below:

1. Performance Risk is the risk that, due to design or implementation flaws, the program does not deliver expected savings.

While modeling assumptions yielded results that appear to support program success within budget, the Company notes the conditions under which these programs will be implemented during the Reporting Period. Below is a list of some of the more material risks the Company will face:

- With the statutory requirements becoming effective for the first time in 2009, there is very little history on which to base assumptions;
- Because the Commission's Rules underwent several iterations, only becoming effective in mid-December, 2009 (and still subject to Commission consideration of applications for rehearing) and because the TRM will not be completed until 2010, there was (and continues to be) a lack of direction in certain areas of program development;
- Given the procedural schedule outlined in the Commission's Rules (sixty day comment period and a mandatory hearing), the launch dates are uncertain, thus making it difficult to estimate definitive first year results.
- The economic impact of continued high unemployment rates causes concern that business and government accounts may not support the pace of investment required to achieve the goals, and slow the pace of mass market penetration;
- With the exception of several existing programs, the programs included in this Plan will be new with no historical basis for participation rates or experience. As a result, installation rates may be lower than modeled, particularly in the early years;
- Being newly introduced, the programs presented may not provide adequate incentives to achieve targeted participants' penetration rates and energy/demand savings.

The Company has taken steps to identify and manage risks as well as to prepare for contingencies that may be necessary during the Plan's implementation period. Those steps are as follows:

- The Company will continue to monitor and actively participate in the development of Commission Rules, complying therewith consistent with the law.
- The Company will continue seeking input from the Collaborative Group and its Administrator Group as circumstances dictate.

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- The Company intends to perform EM&V of its EE&PDR programs in order to ensure that all programs are on target in terms of dollars spent, participation rates achieved and kWh and kW savings realized.
- The Company will continue to address issues and remain committed to resolve: (i) important programmatic change requirements; (ii) potential additions that are found to be necessary and/or desirable as the Company, the Collaborative Group and the Administrator Group collect and assesses key program performance metrics over the course of each program's deployment and operation; and (iii) unforeseen events that may arise over the next several years.

Given the significant investment required to meet S.B. 221 EE&PDR targets, the Company believes that it is both prudent and necessary to have a robust evaluation process in place from the date of each program's inception, as well as the financial capability to make those changes that are either indicated by the program process evaluations and/or general economic conditions as they change over time. This ambitious EE&PDR undertaking is occurring at a time when economic conditions are in turmoil and it remains to be seen how customers will react to program offerings at the rebate levels prescribed—rebate levels that have been based upon successful programs in more favorable economic conditions.

The Company believes that its Plan contains the right mixture of incentives and measure offerings to meet the prescribed targets. Further, the Company's risk management strategies, as designed, should provide the flexibility necessary to maximize the potential for success.

2. Technology Risk is the risk that technologies targeted by a program fail to deliver the savings expected.

The Company plans to begin with tested technologies, with well-established energy savings performance results, and supplement them over time with programs targeted for specific market segments as appropriate. Less complicated programs will be launched first so as to (i) provide customers with "quick wins" that demonstrate the benefits of energy conservation and efficiency; (ii) allow the design and delivery channels to evolve over time; and (iii) create synergies for more complicated offerings in the future. The Plan also envisions comprehensive programs that will have an immediate impact on energy use and, in the long run, will help transform the market into one where customers seek energy efficient options on a regular basis no matter the incentives. In addition, design flexibility will be retained to enable the adjustment of specific designs as dictated by customer response and evaluation results, as well as to rebalance the portfolio based on individual program performance and emerging opportunities.

3. Market Risk is the risk that customers, or other key market players, such as contractors, choose not to participate in a program.

The Company will carefully evaluate various approaches to building awareness through communications in order to minimize market risk. It plans to raise customers' awareness of the benefits of energy efficiency and conservation, as well as the existence of its programs offered through this Plan through a company-wide educational campaign, community level outreach and program-specific marketing. In addition to a Company developed media campaign, the Company intends to utilize the relationships that its Administrator Group has with various target markets, providing them with educational tools as well. Further, each third party program manager will also support such efforts. The Company assumes that the Commission and other State agencies will conduct similar statewide educational and outreach initiatives as necessary under the circumstances.

Market risk will be assessed through program tracking and periodic surveys to gauge awareness of the programs and, for those not participating, barriers to participation. Market risk will also be assessed through process evaluations that will take place between six and twelve months after each program is launched. This

will enable the Company to identify issues related to market risk and implement mid-course corrections to enable the programs to stay on track.

4. **Evaluation Risk** is the risk that independent EM&V will, based on different measurement methodologies and assumptions, conclude that savings fall short of that which was estimated in this Plan. The Company minimized this risk by hiring as one of its consultants, Black & Veatch, an industry leader and expert in EE&PDR program design and evaluation, and by relying on the draft Ohio TRM and other industry guidelines to estimate program savings. The Company will also hire an industry expert to perform the EM&V services (“EM&V Consultant”) with the expectation that the consultant will be able to provide guidance on mid-course program changes to minimize this risk. The Company and its EM&V Consultant will also work with the Commission’s statewide Independent Program Evaluator, in an effort to perform EM&V activities consistent with Commission directives and the laws of the State of Ohio in a sufficiently robust manner so as to reliably capture all applicable direct and in-direct program-related savings.

5.1.2.1. Describe the utility’s approach and process for shifting goals and funds, as needed between programs and adding new measures/and or programs.

The Company has developed a contingency plan in the unlikely event that any of the following four issues arise:

What if the savings don’t materialize? Absent the Commission accelerating the procedural schedule currently contemplated in its Rules, the Company anticipates a ramp up of all programs other than the Fast Track Programs, starting in mid-2010. Monthly program kW/kWh TRM-based impacts and costs incurred will be tracked from the time at which each program is launched, with savings assumed to be prorated based on the date on which the program is launched. To the extent that program/measure market penetration lags behind the expected kW/kWh-cost forecasts, so should the rate at which budgeted costs are incurred. If it is found that one or more programs are not meeting expectations, the Company will take one or more of the following actions:

1. Shift the focus of underperforming programs to measures that have a higher adoption rate. The Company’s Plan utilizes over 90 measures that are rolled up into programs. This large number of measures incorporated into the programs allows flexibility to shift emphasis to incorporate successful measures as are required to achieve energy savings goals.
2. Alter the program delivery processes utilized in order to enhance market penetration. Options here may include having vendors add field staff to handle more inquiries or shorten response times, eliminating or adjusting project requirements if bottlenecks appear to be stalling progress, or other adjustments as dictated by process evaluations. Any changes made will take care not to compromise data tracking for evaluation purposes.
3. Investigate, through further surveys, the issues that customers have with problem programs and modify delivery based upon the results of these surveys.
4. Shift program delivery to more aggressively promoted and perhaps rebated versions.
5. In extreme cases, abandon non-performing programs and replace them with other programs that are enjoying greater success.

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6. Shift resources to higher performing programs that may have been under funded. Because the study assumes a low participation from industrial customers due to current economic conditions, the Plan may have to be rebalanced if there is a higher than expected response from the industrial class.¹⁵
7. Add delivery channels. The online audit program could be enhanced to open more channels to deliver conservation kits.
8. Shift resources among sectors as needed to address demand. For example, in the event that there is greater than expected participation in the C&I demand program, the Company may reduce the size of the Residential Direct Load Control program.
9. Increase rebate levels on a temporary or long term basis to increase market response.

The Company expects to have the ability to shift resources among programs and/or among customer sectors within the portfolio as needed to meet the goals, not only in an under-compliance situation, but also in an over-compliance situation.

What mid-course corrections could be implemented? The Company believes that CFL programs, energy efficient product and Direct Load Control programs are but three of the programs that could be ramped up through enhanced marketing efforts to achieve kWh and kW impacts greater than anticipated under the Company's proposed Plan. This may require a re-balancing of program goals and budgets. Notwithstanding, the EE&PDR program tracking system will provide near real-time intelligence for making such mid-course decisions and adjustments with enough time for such corrections to take effect. The Companies are putting in place an infrastructure for analysis of such intelligence and the development and resolution of recommendations arising from such analysis.

What would be communicated to regulators and others? The Company will provide to the Commission as required periodic updates concerning the success of its programs, issues encountered, and updated trajectories of impacts achieved vs. costs incurred. The Company will provide similar information as circumstances warrant to both the Collaborative and Administrator Groups, and will work with other Ohio utilities to develop an inter-utility process for sharing as appropriate information concerning various programs.

How will the appropriate mid-course corrections be identified? The Company anticipates using a process evaluation for a 6-to-12 month check following each program launch to determine progress and identify any necessary corrective actions. At the 6 to 12 month mark for each program, a program-by-program process evaluation will be performed using a combination of participant satisfaction and key customer perception surveys -- all performed using statistically significant samples along with a kWh/kW impact/cost analysis in which each program's targets are compared with Plan expectations. The Company will also meet periodically with the Collaborative Group and its Administrator Group, gathering intelligence learned from either of them.

5.1.2.2. *Describe the process for collecting and addressing participating customers, contractor and trade ally feedback (e.g. suggestions and complaints)*

During the design phase of the programs, the Companies sought and obtained feedback on proposed EE&PDR programs from customers, contractors, trade allies and members of the Collaborative Group through a variety of methods. Representatives from all customer segments were surveyed or interviewed to obtain their input into EE&PDR program design. Potential service vendors were

¹⁵ Similarly, if the Plan generates more savings than anticipated, the post-launch program evaluation will provide information to the Company so as to allow it to "back down" certain programs in *any* customer sector should there be an over-compliance situation that creates an imbalance between results and customer costs.

surveyed with respect to their capabilities to help the Company achieve the mandated EE&PDR targets. Collaborative Group meetings on different aspects of the EE&PDR program design were also held regularly. To the extent practical, responses from these Collaborative Group members have been factored in to the various program designs.

During the implementation phase of the Plan, the Company hopes to gain additional direct input from various sources, including (i) vendors that perform program management and implementation services, Collaborative Group members and results from other utilities; (ii) the Commission or its Independent Program Evaluator for insights into the evolution of the EM&V process; and (iii) the rulemaking process, where the Companies intend to actively participate in the development of solutions to issues as they arise. Customers will be surveyed to measure satisfaction with the programs and related services, and the efficiency of the EE&PDR measures being implemented. Further, the Companies will investigate program and measurement complaints and suggestions from customers, and intend to continue to participate in industry working groups. The Companies will also be hiring its EM&V Consultant who will assist the Companies with their program assessments and make recommendations for improvement. Program results and changes will be shared with the Collaborative Group and/or the Administrator Group as appropriate.

5.1.2.3. Describe the procedures for measurement and project installation verification, quality assurance and control, and savings documentation.

The Companies will pursue state of the industry evaluations of each of the programs that will include features such as

- Verification of equipment installation and operation;
- Quality assurance and control of vendor-delivery of program services; and
- Documentation of energy savings and demand reductions claimed along with the methodologies, data and assumptions used in their development.

As more fully discussed in Section 5.2, FirstEnergy has devoted an entire department to energy efficiency and related matters. This group will hire an EM&V consultant who will assist the Companies in their EM&V efforts related to each program that is launched. The consultant will oversee third party vendor EM&V activities, accumulating and verifying their results on behalf of the Companies. A FirstEnergy employee will oversee the activities of the consultant.

The Company has included evaluation plans in Section 6.4, which addresses each program as outlined in the program summaries included in Sections 3.2 through 3.5 of the Plan. The Company recognizes that such evaluations will also be influenced by the statewide Independent Program Evaluator, whose team will articulate the Commission's EM&V expectations. The Companies envision their EM&V team working in tandem with the statewide Independent Program Evaluator to collect and provide data, address questions about their evaluation approach and findings, and assist the Commission's team in their role as advisors to the Commission.

The TRM being developed through the Commission is not final as of the date of this filing. The Companies will continue to support deliberations on the TRM values and their applicability in EM&V as part of the utility task force involved in its development. Once completed, the Company will utilize as appropriate the information provided for therein.

5.1.2.4. Describe any “early warning systems” that will be utilized to indicate a lack of progress towards the benchmarks and whether they are likely to be met.

Initial process evaluations will be conducted within the first 12 months after launch of each program so as to identify initial customer responses to marketing and outreach, any program roll out issues, effectiveness of procedures, data tracking and reporting and remaining barriers to participation. This work will be largely qualitative and rely on interviews and focus groups; however, there will be an extensive random check of program records, application forms and databases to determine if procedures are working well, and if adequate data is being captured for evaluation purposes. This interim evaluation will also estimate how well the programs are moving toward the achievement of goals, and will form the basis upon which any recommendations for adjustments to programs are made. The vast majority of this work will be done by the EM&V Consultant hired by the Companies.

5.1.2.5. Provide individual program implementation schedules with milestones in the form of Gantt charts or similar format. Chart should differentiate activities and include dates for the launch, close, and major milestones for the three following years for all seven programs.

Based upon provisions included in the ESP Stipulation, a program will not be launched until the Commission has approved the program and related cost recovery. Figure 2 in Section 1.4, sets forth the Company’s current roll out plan for the various programs proposed in this Plan. This chart is based on an assumption that (i) the procedural schedule contemplated in the Commission’s Rules is not accelerated; and (ii) this filing will be fully litigated with a Commission order will be issued in mid-2010; and the Commission will approve the Fast Track Programs within a time frame that allows them to launch no later than April 1, 2010. The Company intends to meet with the Collaborative Group and other interested parties in early January, 2010, in the hopes of addressing many of their concerns, thus narrowing the issues for litigation. Should this occur, and the Commission approves this plan earlier than contemplated, the launch dates, as well as the activities scheduled thereafter, could be accelerated.

5.2. Executive Management Structure:

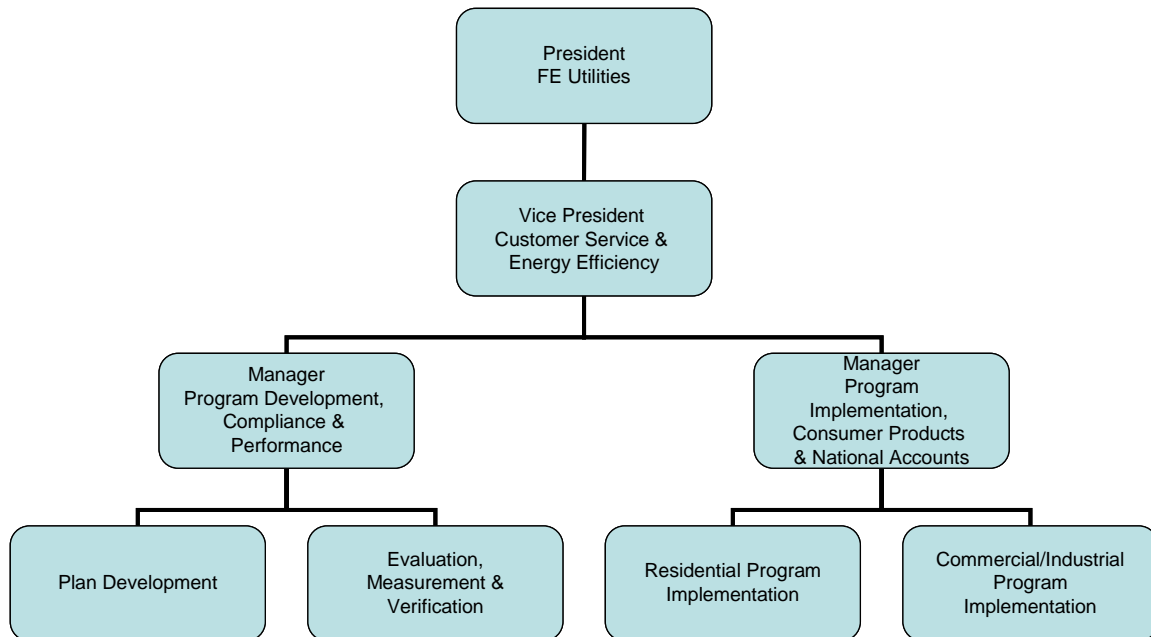
5.2.1. Describe Utility management structure for efficiency programs and include Utility organization chart for management team responsible for implementing this plan.

The Customer Service and Energy Efficiency Group are entrusted with statutory compliance with EE&PDR requirements and successful implementation of EE&PDR programs. The group reports to the Vice President, Customer Service and Energy Efficiency, who in turn, reports to the President, FE Utilities, and has a working relationship with the Company’s Regional President. This group also has responsibility for similar activities for FirstEnergy’s other Ohio utilities, as well as its Pennsylvania and New Jersey utilities. The organization chart set forth below depicts the Program Portfolio Plan management team and their primary areas of responsibility as they currently exist.

The Energy Efficiency Program Implementation, Consumer Products and National Accounts group is organized based on program management responsibilities across customer classes. Key activities include planning and executing marketing campaigns and acquiring and managing implementation vendors to ensure quality control and assurance over program implementation. The Energy Efficiency Program Development, Compliance and Performance group is organized based on support functions that are common to all programs such as plan development, program evaluation, measurement and verification, and compliance tracking and reporting. Members from this group also coordinate Collaborative Group activities and manage the

Administrator Group, both of which provide input and recommendations on program design and implementation, including customer communication/education.

Figure 3: Organization Chart



The above group also receives dedicated support from such areas as Rates and Regulatory Affairs, Legal, Customer Service, Customer Support, Information Technology (“IT”)and Communications. The group also received program and Plan design assistance from Black & Veatch. In the future, additional services will be provided by third party service providers and the EM&V Consultant.

The Companies believe that during the initial stages of energy efficiency program development and implementation, it is particularly important for senior management be visible in its oversight role and actively support the changes and adjustments needed in organizational structure, interdepartmental cooperation, staffing, and corporate-wide support for the EE&PDR initiatives. As a result, FirstEnergy has also created a steering committee that is comprised of senior management members from across the organization, including the President – FE Utilities, and Vice-Presidents representing Customer Service & Energy Efficiency, Energy Delivery, Legal, Rates and Regulatory Affairs, IT, Communications, and Energy Policy. The steering committee’s primary purpose is to:

- Define strategies and provide governance over initiatives relating to EE&PDR and smart grid;
- Assure initiatives support corporate objectives integrating customer solutions with operational efficiencies; and
- Assure optimum deployment of EE&PDR and smart grid resources for managing load growth in the FirstEnergy service territory.

To provide cross-functional support and coordination, the Company has also formed an Energy Efficiency Oversight Committee, which is comprised of middle-management representatives from each of the above described areas within FirstEnergy. Their primary responsibilities include:

- Providing direction, coordination and cross-functional support;
- Promoting consistency (where appropriate) and best practices among the seven FirstEnergy utilities doing business in three different states; and
- Assuring program milestones and requirements are met.

Due to the developing nature of EE&PDR in all three states in which FirstEnergy does business, both the steering and the oversight committees currently meet on a regular basis.

5.2.2. Describe administrative budget (i.e. those costs other than incentive payments to customers).

Explanation of Program Cost Elements: The model used for developing the EE&PDR programs involves a build-up of program costs based on shares of costs at the measure level, which are then aggregated to the program level based on all measures promoted times the numbers of participants assumed each year. Some program costs are fixed, one time expenses (such as marketing costs in the first year), whereas others are variable and are directly linked to the number of participants that will sign up each year. To develop the budgets, the study team assumed participation levels for each program that are reasonable and that combined will achieve the EE&PDR targets set for the Company. The following terms are used in the Budget Tables located in Appendix B1-B3.

Utility Program/Labor Costs - These include costs for FirstEnergy's previously filed programs and costs incurred by the utility for incremental employee labor to manage the portfolio, oversee vendors and perform duties associated with activities such as regulatory reporting or involvement in meetings involving the Collaborative Group. FirstEnergy's previously filed programs would include those incurred for the Online Audit Program, Online Efficient Products Program, CFL Program, Community Connections Program, Transmission & Distribution Efficiency Projects, C/I Interruptible Demand Reduction Program, and the Mercantile Self-Directed Projects. Costs included in this category would include expenses for such items as software costs, equipment purchases, payments to Administrators, and EM&V costs. It is assumed that utility managers may oversee more than one program within a sector, thus tapping a share of each program's utility labor budget. Administrator fees are also included in this cost component and include, during the Reporting Period both a fixed monthly fee and a one cent per kWh fee for the Mercantile Program.

Marketing Costs – These are costs associated with marketing each specific program and they may be allocated to the vendor or the utility, depending upon the terms of their arrangement. They do not include corporate communications funds for overall energy efficiency messaging and education campaigns but are intended to be program specific dollars. A larger budget is included in Year 1 for design and production of brochures and other marketing materials, whereas in subsequent years a lesser, steady-state budget is assumed.

EM&V– These are costs set aside for work performed by the EM&V Consultant. Each program includes a dollar amount associated with its evaluation, but in most cases EM&V funds are pooled by sector or in total in order to capture cost efficiencies across program studies. These funds are spent on external resources, however some portion may be retained by the utility to cover data transfer responsibilities or attending statewide Independent Program Evaluator meetings.

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Retailer Sales Incentive – If the program involves trade ally payments, then this cost category represents the amount of funds assumed to be required as payments to the trade allies, such as retail store managers, or HVAC contractors. It is calculated on a per unit basis and is based on assumed participation levels.

Rebate Processing – If the program involves incentive payments to customers (vouchers or coupons or rebates) this fund covers the costs associated with processing rebate application forms, verifying invoices, interacting with banks, and cutting and mailing of checks. The actual incentives are included under “Incentives for Rebates for Equip”, which is described below.

Retail Store Discount Tracking – If the program involves retailer promotion of energy efficient products, these funds are for payments to have them complete sales logs so that activity levels can be recorded.

Service Provider Costs – These are costs to vendors that implement the program where applicable.

Service Provider Equipment/Audit – These are costs associated with per unit delivery of energy audits and/or equipment as applicable.

Incentive Shipping & Other – Costs associated with issuing incentives, packing and shipping measures and measure kits as applicable.

Incentive Rebate for Equipment – This reflects costs for actual rebates for those programs that provide incentives for specific measures. This part of the budget is variable with the amount a function of how many applications are received.

Utility/Service Provider O&M – This reflects costs for operation and maintenance expenditures for the utility and/or service provider associated with program implementation.

6.0 UTILITY EVALUATION, MEASUREMENT AND VERIFICATION ACTIVITIES

6.1 Describe market evaluations and how results will be used to improve programs and update expected progress toward meeting the electric utility's benchmarks.

The EM&V plans for each of the Company's five customer sectors will include a market evaluation to assess existing and future practices supporting identification of program savings opportunities and program impacts. The general objective of market evaluation processes is to determine program impacts on the behavior of customers and others, including contractors, developers, equipment distributors and retailers. The EM&V plans have been designed and tailored to gather information and feedback from all stakeholders in the program and market place. The EM&V plans contained in this filing describe the specific market evaluation tasks that will be performed for each program.

The Companies will hire the EM&V Consultant, who will review existing studies, and develop specific market evaluation plans that document existing practices and support program impacts. In addition, the EM&V Consultant will establish measurement and verification processes to support program improvements, verify program reports, and ascertain whether the programs included in this Plan have achieved the desired energy savings and load reduction impacts. The EM&V Consultant will also verify and submit the results achieved from completed programs to the Company for inclusion in any reports to the Commission. For a description of the program assessment activities to be performed by the EM&V Consultant, see the discussion in Sections 5.1.2.1 and 5.1.2.4 above, and Section 6.2 through 6.4 below.

6.2 Describe process evaluations and how results will be used to improve programs.

For purposes of this Plan, *process evaluation* is viewed as providing the explanatory depth to improve program processes, better understand market barriers and opportunities, and support identification of opportunities for improving program implementation, including marketing and promotion, delivery, tracking and verification. *Impact evaluations* quantify and validate the extent of energy saved and demand reduced as a result of a program. Thus, impact evaluation identifies how much of an impact a program has, while process evaluation tells you why.

Process evaluations are useful as a management tool to help identify how well the procedures and features of programs are working, the extent to which the program elements support the programs' goals and what remaining barriers may exist toward the achievement of those goals. They involve review of program implementation processes, including interviews with program managers, review of forms, tracking systems, verification and delivery processes. Some process evaluations also include measures of customer satisfaction, non-energy benefits (such as increased comfort or reduced energy bills) and other metrics associated with program performance. Process evaluations also are used to gain an understanding of the perspective and experience of the various groups delivering and receiving program services, such as trade allies, implementation vendors and non-participating customers. The scope of process evaluations is wide whereas impact evaluation is narrowly focused on validating and quantifying energy savings and peak demand reduction consistent with supported and accepted impact evaluation plans.

The Companies will implement process evaluations within six to twelve months of each program's launch, and thereafter annually, as appropriate, pursuant to subsequent annual evaluation plans. Initial interim process evaluations will be conducted so as to identify early customer responses to (i) marketing and outreach activities; (ii) any program roll out issues; (iii) effectiveness of procedures, data tracking and reporting; and (iv) remaining barriers to participation. This work will be largely qualitative and rely on interviews and focus groups. However there will also be an extensive random check of program records, application forms and databases to determine if procedures are working well, and if adequate data is being captured for evaluation

6.0 UTILITY EVALUATION, MEASUREMENT & VERIFICATION ACTIVITIES

purposes. This interim evaluation will also estimate how well the programs are moving toward the achievement of goals, and will be used as the basis for any recommendations for adjustments to programs.

Process evaluations will be performed in coordination with impact evaluations.

The results of the process evaluations will be a critical tool in the development of the Company's annual update reports that must be filed with the Commission pursuant to Commission Rule 4901:1-39-05(C). The initial process evaluation will be of particular value in identifying near term issues that can be corrected through mid-course adjustments to the programs. Beyond first year activities, it is anticipated that changes to programs and evaluation plans would be made on a scheduled basis following Commission approval of the Company's annual filing.

6.3 Describe strategy for coordinating with the statewide Independent Program Evaluator.

Because the programs contemplated in this Plan have yet to be launched and the Commission's EM&V expert has yet to meet with the Ohio utilities to provide clarity as to the protocols, processes or procedures to be followed, the Company has not yet finalized this aspect of the implementation of this Plan. Moreover, it is expected that this area will continue to evolve as more information and experience with programs and evaluation techniques become available. Nevertheless, there will be an employee responsible for coordinating the efforts of the Companies' EM&V Consultant who, in turn, will oversee the individual EM&V efforts performed by third party and/or in-house EM&V experts. This individual will represent the Company in all EM&V matters. Other individuals within the Company with EM&V experience will support evaluation activities by providing input and review to the plans, processes, analyses and outcomes.

The EM&V Consultant will conduct evaluations on each program included in the approved Plan. It is envisioned that a representative from the Companies' evaluation team would attend regularly scheduled meetings with the statewide Independent Program Evaluator so as to ensure compliance with statewide EM&V directives, share ideas and suggestions regarding the approach being taken at the Companies, and otherwise assist the Company in shaping and performing a prudent and effective evaluation strategy in coordination with the statewide Independent Program Evaluator directives.

- 6.4 Describe program-by-program utility evaluation, measurement and verification activities. A suggested format for evaluation plans is contained in Chapter 7 of the Model Energy Efficiency Program Impact Evaluation Guide (Nov 2007) published by the U.S. Environmental Protection Agency at <http://www.epa.gov/eeactionplan>. Deviations from the suggested format should be identified with rationale for such deviation.**

Overview

This section presents the evaluation, measurement and verification (hereinafter referred to as “EM&V”) plans for the Company’s EE&PDR programs that are being proposed in this Plan.

As already discussed, the Companies will hire the EM&V Consultant who will develop and implement EM&V processes and procedures. Measurement of energy savings and peak load reductions will involve processes for documenting (through program applications, surveys and other market research techniques), verifying (through on-site inspections, samples of sites and other verification techniques), and tracking (through third party program managers and the Companies’ tracking system) information necessary to support the Companies’ EE&PDR results reported to the Commission and to assist the Companies in their assessment of the effectiveness of any given program.

While the EM&V plans outlined in this Section are presented on a program-by-program basis, the Companies will utilize synergies among programs to reduce redundant work. The EM&V plans are based upon the most current version of the TRM, which has been submitted for consideration by the Commission in Docket No. 09-0512-GE-UNC, and the outline specified in EPA’s Model Energy Efficiency Program Impact Evaluation Guide (November 2007). As most programs will be new to the Companies, EM&V plans may be refined over time to include best practices and lessons learned. EPA recommends that each of the following topics be contained in an EM&V plan:

- Program Description
- Overview of EM&V Approach and Methodology
- Process and Market Evaluation Tasks
- Impact Evaluation Tasks
- Data Collection and Verification Activities
- Discussion of Uncertainty of Results
- Schedule of Key Evaluation Milestones

Many of the evaluation activities will be similar across programs of a given type. For example, the evaluation of a rebate program will include general tasks that are performed regardless of the target market served by the program (e.g., residential versus commercial) or the end use (e.g., lighting versus motors). To ensure consistency in evaluation methodology across similar programs, each of the programs offered by the Company will be included within one of the following four categories, which will dictate the evaluation process to be employed:

- Rebate
- Audit
- Direct Installation

6.0 UTILITY EVALUATION, MEASUREMENT & VERIFICATION ACTIVITIES

EE& PDR Program Plan
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- Demand Response
- Other

OE Table 18 below lists the individual programs and their program type (or types, as some programs include more than one category):

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OE Table 18: Programs by Program Type

Program Type	Program
Rebate	
	Online Energy Efficiency Products Program
	Energy Efficient Products Program
	Residential Appliance Turn-In Program
	CFL Program (includes direct install component)*
	Efficiency New Homes Program
	C/I Equipment Program
	C/I New Construction Program
	Industrial Motors and Drives Program
	Government Lighting Program (includes direct install component)*
Audit	
	Comprehensive Residential Retrofit Program (includes incentives)
	Online Audit Program
	C&I Audit Program
	Technical Assessment Umbrella Program (includes incentives)
Direct Install*	
	Community Connections
Demand Response	
	Residential Direct Load Control Program (includes a direct install component)*
	C/I Interruptible Load Program

**Direct Install is a component of a number of programs above.*

Evaluation elements that will vary with each program are discussed below, along with preliminary data collection plans. Each program's EM&V discussion includes reference to the type of generic EM&V approach that applies to the program, for reader reference. Certain programs, such as the CFL Program will be delivered to customers in more than one way. In these instances, in order to capture the full primary and secondary impacts, subsets of the same overall program will be evaluated by their type and then combined for an overall EM&V program report.

EM&V processes are presented identifying activities to be performed for each program:

- **Interviews or focus groups:** involve a form of qualitative research in which a group of people are asked about their attitude towards a product, service, or concept.
- **Surveys** (phone, mail or web-based): involve qualitative or quantitative research in which information is obtained from a sample of a population. References to surveys of "non-participants" will generally be based on market surveys related to program awareness that may include participants and non-participants.
- **Billing histories:** involve use of historic energy usage as an input for energy savings or peak load reduction impacts
- **File Reviews:** involve processes associated with the collection and validation of application forms created by the Company and its program contractors in consultation with its EM&V Consultant for use by customers and their agents to document the energy efficiency measures performed in each program. Program applications document specific information required to estimate and verify program energy savings and peak demand reduction impacts.

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On-Site Verification: involves verification inspection processes (generally of samples of participants) to validate application information. Direct installation programs, in which a Company contractor delivers services, includes “on-site verification” by definition.

1. Direct Load Control (DLC) Program

EM&V Type: Demand Response (with a direct install component)

- **Program Description.** This residential program achieves load shed using a set back thermostat. The previous program implemented by the Company involved two way pager controls, and enrolled over 5,000 points; new participants may receive an alternative technology that is currently being tested, but the program objectives remain the same.
- **Overview of EM&V Approach and Methodology.** Impacts associated with direct load control programs will utilize the protocols contained in the proposed TRM.¹⁶ If new technologies are adopted that support a new protocol, the Company's EM&V Consultant will work with the statewide Independent Program Evaluator to improve impact assessments. Two-way communications offers direct assessment of operability, and evolving technologies may offer more direct assessments of impacts. Savings will be reported in terms of kW reduced and percentage of load reduction potential that was actually realized. Since these programs also provide a load reduction "resource" regardless of the actual calling of an event, the total potential for peak load reduction is also an important measure to be reported.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** – Process evaluations will assess the effectiveness of the marketing, customer communications and procedures for recruiting customers and getting their cooperation during control events. Customers that qualify for the program (electric heat, electric water heat and/or central air conditioning) and declined participation will be surveyed to understand program awareness, intentions and reasons for nonparticipation. The technical procedures for calling and recording events will be examined for operational effectiveness. This program is not a market transformation program, however, the non-participant study will seek to estimate the amount of the eligible market that the program might be expected to ultimately capture based upon a survey of perceived customer benefits and the percentage of customers reporting discomfort issues.
- **Impact Evaluation Tasks** - The determination of program impacts for the Direct Load Control program will primarily involve the assessment of impacts using the Ohio TRM. If new technologies are adopted, the Company's EM&V Consultant will consider refined approaches for measurement of impacts for participating customers. A comparison to non-participants is not relevant in this case.

¹⁶ For purposes of this discussion, it is assumed that the TRM is approved as proposed to the Commission in Docket No. 09-0513-GE-UNC. Should this not be the case, the Companies will adjust as necessary their EM&V plans in future filings.

OE Table 19: DLC Program Data Collection & Verification Activities

Data collection method	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				
Surveys (phone, mail or web-based)			X	X	
Billing histories			X		
File Reviews	X				
On-Site Verification			X		

- Discussion of Uncertainty of Results** - Uncertainty regarding the achievement of program impacts is related to customer behavior, equipment failure and signal failure. The amount of direct load control resources is known and quantifiable (the number of customers signed up that could be deployed to reduce load), but it is affected by these three main sources of uncertainty. Measurement of the realization rate of actual load reductions to potential or planned load reductions will provide factors that can be applied to future estimates of program savings.

The existing program uses two-way communications that enable event by event quantification of system operability based on a census of participants supporting the Commission's required level of precision. Adoption of future technologies will be selected and designed to achieve the Commission's required precision level, 90% +/-10%, level of confidence and precision, respectively.

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for new additions to this program. This schedule is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

2. Appliance Recycling Program EM&V Type: Rebate

- **Program Description** – The Appliance Turn-In program promotes the recycling and disposal of older inefficient residential appliances that are second units in a home and are still in operation. The program targets second refrigerators and freezers and room air conditioners. Customers receive an incentive and free pick-up and disposal of the equipment. The removal of such appliances is responsible for both kWh and kW savings that accrue to the Company.
- **Overview of EM&V Approach and Methodology** – Program savings will be based upon the energy and demand usage of the removed equipment as recognized in the TRM. Information regarding the size and vintage of the recycled equipment will be collected when the equipment is picked up and will be used to support future improvements to the TRM associated with the recycled units.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing materials, awareness among customers and customer satisfaction with the program and implementation processes associated with tracking and documentation. Non-participants who initially agreed to the removal of this equipment but later declined service will be surveyed to understand the reasons for not participating in the program. The market evaluation will assess the influence that the program had on both participants and non-participants and their decision to recycle other appliances, such as dehumidifiers, fans and small air conditioning units.
- **Impact Evaluation Tasks** – In Docket No. 09-0512-GE-UNC, the Commission has stated that the deemed savings in the Ohio TRM will be the basis for calculating energy and demand savings for prescriptive or non-custom measures. The TRM is an appropriate impact methodology for rebate programs offering non-custom programs, such as the Appliance Recycling Program. The savings for the program will be based upon the TRM deemed savings. Customer survey data (e.g., hours of operation for room air conditioners) and the equipment data collected during the recycling process will be shared with the Commission as requested so as to allow refinements to the engineering estimates in the TRM so as to more accurately reflect the actual operating characteristics of the removed equipment.

OE Table 20: Appliance Recycling Data Collection & Verification Activities

Data collection method	Population					
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population	
	Interviews or focus groups	X				
	Surveys (phone, mail or web-based)			X	X	
	Billing histories					
	File Reviews	X				
	On-Site Verification					

- Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is whether participants replaced the removed equipment with newer units. Participant surveys will be used to gather information about the percentage of customers who replaced the removed units and equipment characteristics of the new units (e.g., size of the unit, hours of operation). Program related savings would still accrue but, depending on the results of the surveys, the savings basis would change.

To reduce the uncertainty and error in measuring the program impacts, customer surveys will be tested with a sample of customers prior to implementing the survey to the entire sample. This will provide the EM&V Consultant with an opportunity to modify the survey as needed to capture more accurate and unbiased information. Also, impact analysis tasks will be designed to achieve the Commission’s required precision level, 90% +/-10%, level of confidence and precision, respectively.

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes an April 1, 2010 launch for this program. This schedule is subject to change, depending on the date on which the Commission issues its Order approving the Plan and/or the Fast Track Programs.

3. Energy Efficient Products Program EM&V Type: Rebate

- **Program Description** – The Energy Efficient Products program offers residential customers incentives for the installation of a wide range of high efficiency measures including room and central air conditioners, heat pumps, thermostats, water heaters, washers, dryers and other electric appliances. Customers purchase the equipment from retail vendors and then submit proof of purchase to the Company for a rebate.
- **Overview of EM&V Approach and Methodology** – Program savings will be based upon the energy and demand usage of the installed equipment relative to the energy and demand usage for the relevant base efficient measure. The program includes promotional support, point-of-sale materials, training, promotional events and rebates for select appliances.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, availability of eligible equipment and the satisfaction with the program. Non-participants will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the influence that the program had on the availability of energy efficient products. Evaluations will also assess the influence the program had on both participants and non-participants' decisions to purchase other high efficiency equipment.
- **Impact Evaluation Tasks** – The program offers incentives for a variety of prescriptive measures, and therefore the program impacts will be based upon the TRM deemed savings. Customer survey data (e.g., size of home, hours of operations for the equipment) and a sample of on-site verification data (e.g., is the equipment installed, installed properly, and still operating?) will be shared with the Commission as it requests.

OE Table 21: EE Products Data Collection & Verification Activities

Data collection method	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				X (retailers)
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X		

- Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is whether purchased equipment was installed. Participant surveys will be used gather information about the percentage of customers who installed the equipment and equipment characteristics of the new units (e.g., size of the unit and hours of operation).

The data collection activities and program savings analysis, as described in the previous programs, will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

4. Efficient New Homes Program EM&V Type: Rebate

- **Program Description** – The Efficient New Homes Program promotes energy efficiency measures during the design and build phase of new construction. Savings can be achieved through a combination of building shell and appliance upgrades. Builders receive an incentive for homes that exceed the standard building code by 15 percent or 30 percent consistent with energy efficiency standards as published by the Department of Energy under the ENERGY STAR® program.
- **Overview of EM&V Approach and Methodology** – Savings in new construction dwellings are a function of compliance with building codes and program efficiency requirements. Program savings will be based upon engineering estimates consistent with the TRM, combined with on-site verification for samples of participating homes.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** – The process evaluation will determine the effectiveness of the program marketing, awareness among customers and builders, the ease of locating participating builders, and the satisfaction with the program. Nonparticipating customers and builders will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the effect of the program on the building and design practices of participating and nonparticipating builders.
- **Impact Evaluation Tasks** – The savings for the program are a function of efficiency improvements as they relate to compliance with building codes. The program savings will include detailed participant data collected through on-site visits (e.g., data from blower door tests and duct blasting and dwelling size) and engineering estimates. More detailed engineering models, such as building simulation models, may be used to incorporate participant level data to generate engineering based energy and demand savings.

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OE Table 22: Efficient New Homes Data Collection & Verification Activities

Data collection method	Population					
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population	
	Interviews or focus groups	X				X (builders)
	Surveys (phone, mail or web-based)			X	X	
	Billing histories					
	File Reviews	X				
	On-Site Verification			X	x	

- Discussion of Uncertainty of Results** – The Company and its EM&V Consultant will verify estimates of energy savings from the direct output of accredited Home Energy Ratings (HERS) software for each home. The key uncertainty regarding savings performance is the actual performance and the design integrity of the new construction dwelling. Therefore, the combination of savings estimate verification, and on-site verification and testing for a sample of participants will verify the actual energy and demand consumption of the home.

The data collection activities and program savings analysis, as is the case for all of the plans in this filing, will be conducted to reduce the uncertainty and to minimize the sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

5. Comprehensive Residential Retrofit Program EM&V Type: Audit (with a Direct Install component)

- **Program Description** – The Comprehensive Residential Retrofit Program is an audit program that includes the direct installation of weatherization measures. Customers pay a discounted fee to receive an in-home audit including a blower door test. Based upon the results of the audit, customers will receive a list of recommended measures. Customers who implement the recommendations are eligible for incentives through the Company's rebate programs.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the Comprehensive Residential Retrofit Program will utilize the protocols contained in the TRM, based on behavior of the customer, specifically, the number and nature of the recommendations that were implemented by the customer. Furthermore, the savings achieved from the installed measures will be a function of the actual operation patterns of the measures. For customers that implement all recommended measures, a statistical analysis of the participants' usage patterns before and after participation may be used to enhance estimates of program impacts.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, and the satisfaction with the program. Nonparticipating customers will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the adoption rates of energy efficiency equipment and the availability of equipment at retailers.
- **Impact Evaluation Tasks** – Impacts for audit programs are related to the measures that were installed. For the limited measures installed during the audit process, savings will be based on the deemed savings values associated with the measures installed, consistent with the TRM. However, if all recommended measures are installed by participants, additional analyses will be performed to validate the savings associated with the mix of installed measures and their operational program savings based upon analysis of participant billing data pre- and post-program participation. On-site visits for a sample of participants will be conducted to verify the installation and operation of the recommended measures. A sample of comparable nonparticipating customers will serve as the control group for the analysis.

OE Table 23: Comprehensive Residential Retrofit Program Data Collection & Verification Activities

Data collection method	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				
Surveys (phone, mail or web-based)			X	X	
Billing histories	X				
File Reviews	X				
On-Site Verification			X		

- **Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is the actual installation of the recommended measures. Therefore, on-site verification and participant surveys will be used to verify the installation and implementation date.

The data collection activities and program savings analysis, as is the case for all of the plans in this filing will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

6. Online Audit Program EM&V Type: Audit

- **Program Description** – The Online Audit Program provides customers with the ability to obtain an audit study using an online software tool. Customers input dwelling and equipment information into the software tool. The tool links the customer information with their billing information and generates a list of recommended measures. Customers who implement some or all of the recommended measures are eligible for incentives through the Company’s rebate programs.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the Online Audit Program will utilize the protocols contained in the TRM. The program savings for the Online Audit Program will be driven by behavior of the customer, specifically the number and nature of the recommendations that were implemented by the customer. The Company’s EM&V Consultant will survey a sample of participants to determine participant actions. Based on information obtained from that survey, the EM&V Consultant may perform a statistical analysis of the participants’ usage patterns before and after participation to enhance estimates of program impacts.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, and the satisfaction with the program and the software tool. Nonparticipating customers will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess buying patterns of energy efficiency equipment and the availability of equipment at retailers.
- **Impact Evaluation Tasks** – For audit programs, impacts for the program will be based on accepted savings from the TRM. The EM&V Consultant will survey a sample of participants to determine participant actions. Based on information obtained from that survey, the EM&V Consultant may (a) conduct on-site visits for a sample of participants to verify the installation and operation of the recommended measures; or (b) perform a statistical analysis based upon analysis of pre- and post-program participation billing data in order to enhance estimates of program impacts. A sample of nonparticipating customers will serve as the control group for that statistical analysis.

OE Table 24: Online Audit Data Collection & Verification Activities

Data collection method	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				
Surveys (phone, mail or web-based)			X	X	
Billing histories	X				
File Reviews	X				
On-Site Verification			X		

- Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is the actual performance of the audit and installation of the recommended measures. Performance of the audit will be documented and verified using the Company’s audit tool, and participant surveys will be used to verify the installation and implementation date of recommended measures.

The data collection activities and program savings analysis, as is the case for all of the plans in this filing will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

7. Online Efficient Products Program EM&V Type: Rebate

- **Program Description** – The Online Efficient Products program offers residential customers the ability to purchase high-efficiency products online. Customers may purchase products via a Company-sponsored link at a discounted price. The online catalog offers a comprehensive list of equipment including air conditioners, water heaters, and other energy efficient equipment and materials.
- **Overview of EM&V Approach and Methodology** – Program savings will be based upon the energy and demand usage of the purchased equipment relative to the energy and demand usage for the relevant base efficient measure. The program includes promotional support, point-of-sale materials, training, promotional events and rebates for select appliances.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, and the satisfaction with the program. Non-participants will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the influence the program has on customer buying patterns.
- **Impact Evaluation Tasks** – The program offers incentives for a variety of prescriptive measures, and therefore the program impacts will be based upon the TRM deemed savings. Customer survey data and on-site verification data (e.g., is the equipment installed, installed properly, and still operating?) will be used to refine the engineering estimates to reflect the actual operating characteristics of the installed equipment.

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OE Table 25: Online Efficient Products Data Collection & Verification Activities

Data collection method	Population					
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population	
	Interviews or focus groups	X				
	Surveys (phone, mail or web-based)			X	X	
	Billing histories					
	File Reviews	X				
	On-Site Verification			X		

- **Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is whether participants installed the purchased equipment. Participant surveys will be used gather information about the percentage of customers who installed the purchased equipment and operating characteristics of the equipment (e.g., size of the unit, hours of operation, etc.).

The data collection activities and program savings analysis, as is the case for all of the plans in this filing, will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

8. CFL Program
EM&V Type: Rebate

- **Program Description** – The CFL program provides customers with an opportunity to purchase compact fluorescent light bulbs at a discounted price. Low income customers will receive up to 6 bulbs at no cost. Customers can receive the bulbs through either direct home delivery, the Companies’ online store or through participating retailers.
- **Overview of EM&V Approach and Methodology** – Program savings will be based upon the energy and demand usage of the CFLs relative to usage levels for a comparable incandescent bulb.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, and the satisfaction with the program. Non-participants will be surveyed to assess program awareness and identify barriers to participation. The market evaluation will assess the influence the program has on customer buying patterns and determine the availability of CFLs at retailers.
- **Impact Evaluation Tasks** – The program impacts will be based upon the TRM deemed savings. Customer survey data (e.g., size of home, hours of operations for the equipment) and on-site verification data (e.g., is the equipment installed, installed properly, and still operating?) will be used to refine the TRM engineering estimates to reflect the actual operating characteristics of the installed equipment.

OE Table 26: CFL Program Data Collection & Verification Activities

	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Data collection method Interviews or focus groups	X				
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X		

- **Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is whether participants installed the purchased equipment. Participant surveys will be used gather information about the percentage of customers who installed the purchased equipment and operating characteristics of the equipment (e.g., size of the unit, hours of operation).

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The data collection activities and program savings analysis, as is the case for all of the plans in this filing will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission's required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes an April 1, 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan and/or the Fast Track Programs.

9. Community Connections Program

EM&V Type: Audit with Direct Install

- **Program Description** – The Community Connections Program provides a walk-through audit to low-income customers. The weatherization measures and energy efficient equipment recommended by the audit are installed at no cost to the customer. This program is administered by OP&E.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the Community Connections Program will rely on data and evaluation processes utilized by OP&E, consistent with its EM&V processes used throughout Ohio. The program savings for the Community Connections Program will be driven by behavior of the customer, how many and which recommendations were implemented.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** – The EM&V Consultant will coordinate with OP&E, as appropriate, to ensure adherence to EM&V protocols applicable to low-income programs.
- **Impact Evaluation Tasks** – The EM&V Consultant will coordinate with OP&E, as appropriate, to ensure adherence to EM&V protocols applicable to low-income programs.

OE Table 27: CFL Program Data Collection & Verification Activities

Data collection method	Population					
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population	
	Interviews or focus groups	X				
	Surveys (phone, mail or web-based)			X	X	
	Billing histories	X				
	File Reviews	X				
	On-Site Verification			X		

- **Discussion of Uncertainty of Results** – The EM&V Consultant will coordinate with OP&E, as appropriate, to ensure adherence to EM&V protocols applicable to low-income programs.

OP&E's data collection activities and program savings analysis, as is the case for all of the plans in this filing will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission's required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

10. C/I Equipment Program EM&V Type: Rebate

- **Program Description** – The C/I Equipment program offers business and other non-residential customers incentives for the installation of high efficiency equipment, including lighting, HVAC, and food services equipment. Customers purchase the equipment from vendors and then submit proof of purchase to the Company for a rebate.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the C/I Equipment Program will utilize the protocols contained in the TRM. Program savings will be based upon the energy and demand usage of the installed equipment relative to the energy and demand usage for the relevant base efficient measure. The program includes promotional support, point-of-sale materials, training, promotional events and rebates for select appliances.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, availability of eligible equipment and the satisfaction with the program. Non-participants will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the influence the program had on both participants and non-participants and their decision to purchase other high efficiency equipment.
- **Impact Evaluation Tasks** – The program offers incentives for a variety of prescriptive measures, and therefore the program impacts will be based upon the TRM deemed savings. Customer survey data (e.g., size of facility, hours of operations for the equipment) and on-site verification data (e.g., is the equipment installed, installed properly, and still operating?) will be used to refine the engineering estimates to reflect the actual operating characteristics of the installed equipment.

OE Table 28: C/I Equipment Program Data Collection & Verification Activities

	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X	X			X (vendors)
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X		

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- **Discussion of Uncertainty of Results** – Based on deemed savings under the TRM, the key uncertainty regarding savings performance is whether purchased equipment was installed. Where savings are not supported in the TRM (e.g. for “custom” energy efficiency measures) the Company and its EM&V Consultant will work with the statewide Independent Program Evaluator to develop and perform approved protocols. Participant surveys will be used to gather information about the percentage of customers who installed the equipment and equipment characteristics of the new units (e.g., size of the unit, hours of operation).

The data collection activities and program savings analysis, as described in the previous programs, will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a phased launch for this program with lighting measures offered starting April 1, 2010, and the other end use measures launched in the second quarter 2010. This schedule is subject to change, depending on the date on which the Commission issues its Order approving the Plan and/or the Fast Track Programs.

11. C/I Audit Program EM&V Type: Audit

- **Program Description** – The C/I Audit Program provides customers with two levels of energy audits for non-residential customers. For a fixed fee, small businesses can obtain a walk-through audit to identify opportunities for energy savings. Medium and large commercial and non-residential customers can receive a more comprehensive audit that focuses on more complicated end-uses. Customers receiving this type of audit will be charged a fee based upon the square footage of their facility. All participants will receive a list of energy saving recommendations at the conclusion of each audit. Customers who implement the recommended measures are eligible for incentives through the Company’s rebate programs.
- **Overview of EM&V Approach and Methodology** – The program savings for the C/I Audit Program will be a driven by behavior of the customer, specifically the number and nature of the recommendations that were implemented by the customer. Furthermore, the savings achieved from the installed measures will be a function of the actual operation patterns of the measures. A statistical analysis of the participants’ usage patterns before and after participation will be used to measure the program impacts.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, vendors and contractors, and the satisfaction with the program. Nonparticipating customers will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess customer buying patterns for energy efficiency equipment and the availability of equipment from distributors and retailers.
- **Impact Evaluation Tasks** – For audit programs, impacts for the program are related to the measures that were installed. The EM&V Consultant will monitor and assess results through (i) C/I Equipment and other program enrollment; (ii) participant surveys to the extent the C/I Audits resulted in implementation of recommended measures; and (iii) estimated energy savings and peak demand reduction impacts using deemed savings as approved under the TRM, or documentation of estimates associated with other measures. On-site visits may be conducted with a sample of participants to verify the installation and operation of the recommended measures. A sample of nonparticipating customers will serve as the control group for the analysis.

OE Table 29: C/I Audit Program Data Collection & Verification Activities

Data collection method	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X		

- Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is the actual installation of the recommended measures. Therefore, on-site verification and participant surveys will be used to verify the installation and implementation date.

The data collection activities and program savings analysis, as is the case for all of the plans in this filing will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

12. C/I Equipment Program - Motors

EM&V Type: Rebate

- **Program Description** – In the C/I Equipment program industrial customers receive incentives to upgrade existing motors and drives. Customers purchase the equipment from vendors and then submit proof of purchase to the Company for a rebate.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the C/I Equipment Program will utilize the protocols contained in the TRM. Program savings will be based upon the energy and demand usage of the installed equipment relative the energy and demand usage for the relevant base efficient measure. The program includes promotional support, point-of-sale materials, training, promotional events and rebates for select appliances.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, availability of eligible equipment and the satisfaction with the program. Non-participants will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the influence the program had on both participants and non-participants and their decision to purchase other high efficiency equipment.
- **Impact Evaluation Tasks** – The program offers incentives for a variety of prescriptive motors and drives, and therefore the program impacts will be based upon the TRM deemed savings. Customer survey data (e.g., size of facility, hours of operations for the equipment) and on-site verification data (e.g., is the equipment installed, installed properly, and still operating?) will be used to refine the TRM engineering estimates to reflect the actual operating characteristics of the installed equipment.

OE Table 30: C/I Equipment Program (Motors) Data Collection & Verification Activities

	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				X (vendors)
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X		

- **Discussion of Uncertainty of Results** – Based on deemed savings under the TRM, the key uncertainty regarding savings performance is whether purchased equipment was installed and operating. Where savings are not supported in the TRM (e.g. for “custom” energy efficiency measures) the Company and its EM&V Consultant will work with the statewide Independent Program Evaluator to develop and

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perform approved protocols. Participant surveys will be used to gather information about the percentage of customers who installed the equipment and equipment characteristics of the new units (e.g., size of the unit, hours of operation).

The data collection activities and program savings analysis, as described in the previous programs, will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission's required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes an April 1, 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan and/or the Fast Track Programs.

13. Technical Assessment Umbrella Program EM&V Type: Audit

- **Program Description** – The Technical Assessment Umbrella Program targets larger commercial and industrial customers with complex, staged or phased energy efficiency projects. Customers hire a contractor to perform an energy assessment and propose a long term strategy for capturing energy savings. The plan is reviewed by the Company and an incentive is calculated based upon the proposed savings.
- **Overview of EM&V Approach and Methodology** – The program savings for the Umbrella Program will be a driven by behavior of the unique characteristics of the specific projects implemented by the customers. Furthermore, the savings achieved from the installed measures will be a function of the actual operation patterns of the measures. The EM&V Consultant will work with the statewide Independent Program Evaluator to develop and perform EM&V protocols and processes to determine energy savings and peak load reduction impacts.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, and the satisfaction with the program. Nonparticipating customers will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess buying patterns of energy efficiency equipment and the availability of equipment from retailers.
- **Impact Evaluation Tasks** – As cited in the previous EM&V plans for audit-type programs, the impacts for the program are related to the measures that were installed. The measures and projects qualifying under this program are custom and unique in nature and may not be included in the TRM. The EM&V Consultant will work with the statewide Independent Program Evaluator to develop and perform EM&V protocols and processes to determine energy savings and peak load reduction impacts for each project (or generic types of energy efficiency measures), which may range from equipment-specific protocols to analysis of participant billing data, pre- and post-program participation. On-site visits will be conducted with a sample of participants to verify the installation and operation of the recommended measures. A sample of nonparticipating customers will serve as the control group for the analysis.

OE Table 31: Technical Assessment Umbrella Program Data Collection & Verification Activities

Data collection method	Population					
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population	
	Interviews or focus groups	X				
	Surveys (phone, mail or web-based)			X	X	
	Billing histories	X				
	File Reviews	X				
	On-Site Verification			X		

- **Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is the actual installation and performance of the recommended measures and projects. Therefore, on-site verification and participant surveys will be used to verify the installation and implementation date.

The data collection activities and program savings analysis, as is the case for all of the plans in this filing will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

14. C/I Interruptible Load Program EM&V Type: Demand

- **Program Description.** This C/I program achieves load shed by curtailing load of specific customer end uses. The Company will use two-way communication devices to call for the customer's interruption of pre-selected equipment during critical peak periods.
- **Overview of EM&V Approach and Methodology.** Demand response programs involve direct measurement of loads during times of system activation. Interval meter data are collected on a census of participants and analyzed to determine the extent to which the system activation resulted in desired load reductions. Savings will be reported in terms of kW reduced. Since these programs also provide a load reduction "resource" regardless of the actual calling of an event, the total potential for peak load reduction is also an important measure to be reported.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** – Process evaluations will assess the effectiveness of the marketing, customer communications and procedures for recruiting customers and getting their cooperation during control events. Non-participants that qualify for the program will be surveyed to understand program awareness, intentions and reasons for nonparticipation. The technical procedures for calling and recording events will be examined for operational effectiveness. This program is not a market transformation program, however, the non-participant study will seek to estimate the amount of the eligible market that the program might be expected to ultimately capture.
- **Impact Evaluation Tasks** - The determination of program impacts for the Interruptible Load for Demand Response program will primarily involve the review of participating customer load data before and during a load reduction event. A comparison to non-participants is not relevant in this instance.

OE Table 32: Interruptible Load for Demand Response Data Collection & Verification Activities

Data collection method	Population					
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population	
	Interviews or focus groups	X				
	Surveys (phone, mail or web-based)			X	X	
	Billing histories			X		
	File Reviews	X				
	On-Site Verification			X		

- Discussion of Uncertainty of Results** - Uncertainty regarding the achievement of program impacts is related to customer behavior or equipment failure. The amount of load reduction resource is known and quantifiable (the number of customers and kW under contract that could be deployed to reduce load), but it is affected by these sources of uncertainty. Future estimates of program savings will be based on curtailable load availability.

To reduce the uncertainty and error in measuring the program impacts, customer surveys will be tested with a sample of customers prior to implementing the survey to the entire sample. This will provide the EM&V Consultant with an opportunity to modify the survey as needed to capture more accurate and unbiased information. Also, impact analysis tasks will be designed to achieve the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively

- Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

15. Government Lighting Program
EM&V Type: Rebate

- **Program Description** – The Government Lighting program offers local government incentives to replace inefficient traffic signals and pedestrian light signals with high efficiency equipment. Street lighting will be retrofitted with high pressure sodium lamps and pedestrian signals will be converted to LED fixtures.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the Government Lighting Program will utilize the protocols contained in the TRM. Program savings will be based upon the energy and demand usage of the installed lighting equipment relative the energy and demand usage for the relevant base efficient measure.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers, availability of eligible equipment and the satisfaction with the program.
- **Impact Evaluation Tasks** – The program offers incentives for a variety of prescriptive lighting measures, and therefore the program impacts will be based upon the TRM deemed savings. Customer survey data (e.g., size of facility, hours of operations for the equipment) and on-site verification data (e.g., is the equipment installed, installed properly, and still operating?) will be used to refine the engineering estimates to reflect the actual operating characteristics of the installed equipment.

OE Table 33: Government Lighting Program Data Collection & Verification Activities

	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				X (vendors)
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X		

- **Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is whether purchased equipment was installed and operating properly. Participant surveys will be used to gather information about the percentage of customers who installed the equipment and equipment characteristics of the new units (e.g., size of the unit, hours of operation).

The data collection activities and program savings analysis, as described in the previous programs, will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring

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the analysis meets the Commission's required precision level, 90% +/-10% level of confidence and precision, respectively.

- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

16. C/I New Construction Program EM&V Type: Rebate

- **Program Description** – The C/I New Construction Program promotes energy efficiency measures during the design and build phase of new construction. Savings can be achieved through a combination of building shell and appliance upgrades. Building owners and developers receive an incentive for facilities that exceed the standard building code.
- **Overview of EM&V Approach and Methodology** – Impacts associated with the C/I New Construction Program will utilize the protocols contained in the TRM. Savings in new construction buildings are a function of compliance with building codes and program efficiency requirements. Program savings will be based upon engineering estimates combined with on-site verification data that will measure the efficiency characteristics of each participating dwelling.

All EM&V metrics are discussed in the program summaries included in Sections 3.2 through 3.5 of this Plan.

- **Process and Market Evaluation Tasks** - The process evaluation will determine the effectiveness of the program marketing, awareness among customers and builders, the ease of locating participating contractors and builders, and the satisfaction with the program. Nonparticipating building owners and contractors will be surveyed to assess program awareness and identify the barriers to participation. The market evaluation will assess the effect of the program on the building and design practices of participating and nonparticipating builders.
- **Impact Evaluation Tasks** – The savings for the program are a function of compliance with building code and program requirements. While the TRM will provide an initial estimate of program savings, the impact evaluation will refine those estimates to reflect the actual performance and operation of the measures in the dwellings. The program savings will include detailed participant data collected through on-site visits (e.g., data from blower door tests and duct blasting, dwelling size) and engineering estimates. More detailed engineering models, such as building simulation models, can be used to incorporate participant level data to generate engineering based energy and demand savings. A sample of new construction non-participants will serve as the control group for the analysis.

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OE Table 34: C/I New Construction Program Data Collection & Verification Activities

	Population				
	Utility & other program delivery staff	Trade allies	Participating Customers	Nonparticipating Customers	Other Population
Interviews or focus groups	X				X (builders/contractors)
Surveys (phone, mail or web-based)			X	X	
Billing histories					
File Reviews	X				
On-Site Verification			X	x	

- **Discussion of Uncertainty of Results** – The key uncertainty regarding savings performance is the actual performance and the design integrity of the new construction facility. Therefore, on-site verification and testing for both a sample of participants and non-participants will determine the actual energy and demand consumption of the home.

The data collection activities and program savings analysis, as is the case for all of the plans in this filing, will be conducted to reduce the uncertainty and to minimize sampling bias by pre-testing surveys and ensuring the analysis meets the Commission’s required precision level, 90% +/-10% level of confidence and precision, respectively.

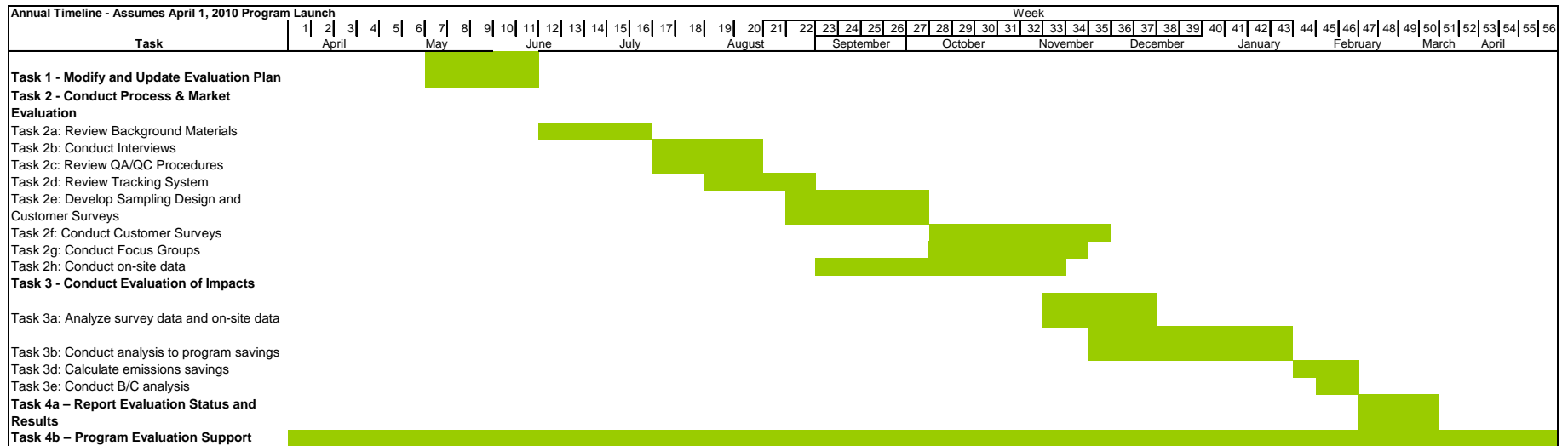
- **Schedule of Key Evaluation Milestones** - A timeline is provided for each annual evaluation cycle and is included in Figure 4 at the end of this Section 6.4. It assumes a second quarter 2010 launch for this program, which is subject to change, depending on the date on which the Commission issues its Order approving the Plan.

7.0 UTILITY EVALUATION, MEASUREMENT & VERIFICATION ACTIVITIES

Timeline

Figure 4 shows the timeline for the annual evaluations described above. The timeline assumes that the Company's new Fast Track programs are launched by April 1, 2010 and the annual EM&V report is filed with the Commission on March 15th of each year.

Figure 4: Annual EM&V Timeline



The Company is required by the Commission to file an EM&V status report for its three existing programs by March 15, 2010. The three programs include:

- Community Connections Program
- Residential On-line Efficient Products Program
- Mercantile Self-Direct Program

For this initial filing, the gross savings estimates for each program will be based upon engineering estimates associated with the installed measures. For subsequent program years, the evaluations, which will follow the above timeline, will incorporate data from on-site verifications, customer survey data, and billing data in order to provide more refined gross savings estimates.

7.0 COST RECOVERY MECHANISM

7.0 COST-RECOVERY MECHANISM

7.1 Provide and describe tariffs and a cost recovery mechanism. Provide all calculations and supporting cost documentation.

The Company will continue to collect costs associated with demand side management and costs incurred to comply with the provisions set forth in R.C. 4928.66 through its current Demand Side Management and Energy Efficiency Rider (Rider DSE), which was approved in Case No. 08-935-EL-SSO (“ESP Case”), and which is being amended through this Plan.

Rider DSE is designed with two charges. The first charge, DSE1, recovers costs related to the credits paid to a customer who takes service under the Economic Load Response Program (“ELR”) Rider or the Optional Load Response Program (“OLR”) Rider. This charge was recently updated through a filing made on December 1, 2009 in Case Nos. 08-935-EL-SSO, 09-21-EL-AEM, and 89-6006-EL-TRF, to be effective on a service rendered basis for the period January 1, 2010 through June 30, 2010. The second charge, DSE2, recovers those non-ELR/OLR costs incurred to comply with the provisions set forth in R.C. 4928.66, including all costs incurred to design, approve and implement EE&PDR programs (such as consultant and other professional fees, rebate costs, third party program managers fees, and EM&V service fees), applicable carrying costs, administrative costs, shared savings, and variable distribution revenue non-collections, including those that may arise through the Mercantile Program (collectively, “EE/PDR Costs”). While the DSE2 charge as of the date on which this Plan is being filed is 0.0000 cents per kWh, the Company, through this Plan, is seeking to update the DSE2 charge, effective January 1, 2010, to recover all eligible EE/PDR Costs (i) that have been incurred from September 1, 2009 through November 30, 2009; and (ii) that are projected to be incurred during the period December 1, 2009 through December 31, 2010. Additionally, the calculation of charges will occur as follows: (i) the initial rate for the RS Rate Schedule in DSE2 following the approval of the Company’s EE&PDR Plan will collect the EE/PDR Costs in the 2010 rate as levelized over three years (2010, 2011 and 2012), and all other components of the RS 2010 rate will be equal to the expected 2010 annual costs; (ii) the initial DSE2 rate for all other Rate Schedules following the approval of the Company’s EE&PDR Plan will collect costs eligible for recovery that were incurred from September 1, 2009 through November 30, 2009, as well as projected costs for the period December 1, 2009 through December 31, 2010; and (iii) thereafter, each annual update to the DSE1 and DSE2 rates will include recovery of the Company’s projected ELR/OLR related costs (DSE1), and projected EE/PDR Costs (DSE2), as levelized over the remainder of the Reporting Period for the RS Rate Schedule, or for the next annual period for all other Rate Schedules, adjusted for any over/under-collection during the preceding recovery period. The calculation of this charge is included in Exhibits SEO C-1, C-2 and C-3 to the testimony of Steven E. Ouellette, which accompanies the filing of this Plan.

Both the DSE1 and DSE 2 charges are expressed as a price per kWh and are billed on that basis. These charges are stated separately for the following rate schedules: RS, GS, GP, GSU, GT, STL, TRF and POL (collectively, “Rate Schedules”). Costs are allocated to the Rate Schedules based on the EE/PDR Costs incurred on behalf of either all customers (if common costs) or specific group(s) of customers (if such costs can be specifically identified to such group(s)). As previously discussed, this Plan designed programs for seven specific customer sectors: (i) Residential; (ii) Residential – Low Income; (iii) Small Enterprise; (iv) Mercantile; (v) Mercantile – Utility (Large C&I); (vi) Governmental; and (vii) Transmission & Distribution. Specific Residential and Residential – Low Income costs were directly assigned to the RS rate; Small Enterprise, to the GS rate; Mercantile Program and Large C&I costs were allocated to GP, GSU and GT rates based on 2010 forecasted usage as reported in the Company’s April 15, 2009 LTFR; and Governmental costs, to the STL and TRF rates, with common costs for this sector also being allocated based on 2010 forecasted usage as reported in the LTFR. In the reconciliation process, actual customer based charges will be directly assigned to the appropriate rate schedule and common costs will be allocated appropriately. There are costs for every sector in the Plan except for Transmission & Distribution. Such costs will be addressed in future

7.0 COST RECOVERY MECHANISM

proceedings. There are no variable distribution revenue non-collections associated with the Mercantile Programs in the 2010 rate because it is assumed that all Mercantile Program projects included in 2010 were completed prior to January 1, 2009.

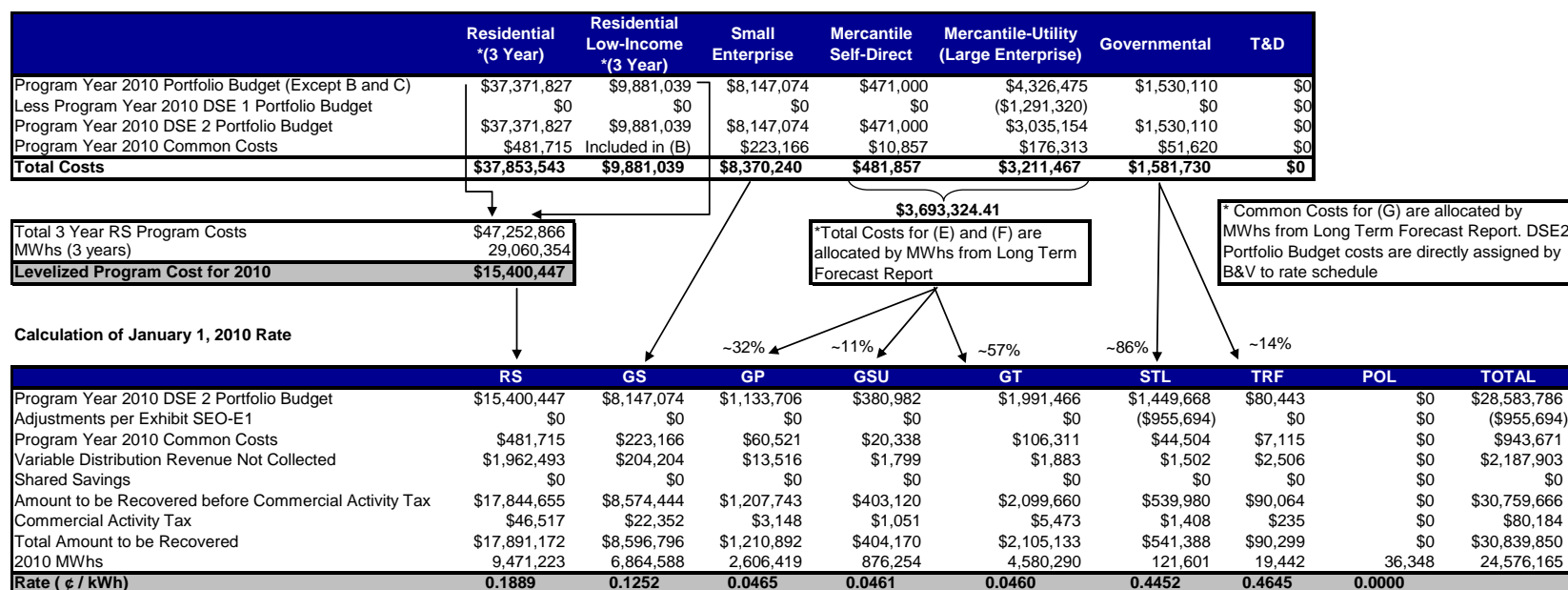
The Company is proposing several amendments to Rider DSE to better reflect the requirements of R.C. 4928.66 and the Commission's Rules that became effective after Rider DSE was approved. The first involves the timing for updating the DSE1 and DSE2 components, which currently are updated semi-annually on December 1 and June 1 each year. The Company is seeking to amend Rider DSE to require that both components are updated annually on December 1 of each year, although the Company is reserving the right to file with the Commission to update both components more frequently if necessary. The rate filed on December 1, 2009 would be applicable to all of 2010 and would be reconciled and filed on December 1, 2010 to be effective on January 1, 2011. The second involves an additional cost component within the EE/PDR Costs. Currently the DSE2 charge does not include a provision for recovery of any shared savings. Rider DSE would be amended to allow the Companies, consistent with Rule 4901:1-39-07(A) to recover shared savings for over-compliance with energy efficiency or peak demand reduction benchmarks in any given year. This shared savings component provides that the Company will receive 15% of the net benefits as calculated by the Company utility cost test, net of taxes, for generating savings in excess of the Company's required benchmarks. If such over-compliance occurs in any given year, the shared savings component would be recovered as a reconcilable item based on actual results. The third proposed amendment to Rider DSE involves the determination of the amount of the DSE2 charge for the first update following approval of this Plan based on both actual costs incurred through November 30, 2009 and projected costs for the period thereafter through December 31, 2010. The final amendment is to the determination of eligible costs after December 31, 2010. The Company is recommending that: (i) annual updates of the DSE1 charge be based on projected ELR/OLR related costs, adjusted for any over/under-collection during the preceding recovery period, and (ii) annual updates of the DSE2 charge be based on projected EE/PDR Costs as they relate to the next annual period for non-residential customers, and projected residential EE/PDR Costs levelized over the remainder of the planning period for the RS Rate Schedule, adjusted for any over/under-collection during the preceding recovery period. Each of these amendments are reflected in the revised Rider DSE, which is included in this Plan as Appendix F and more fully explained in the testimony of Steven E. Ouellette that accompanies this Plan.

7.0 COST RECOVERY MECHANISM

7.2 Describe how the cost recovery mechanism will ensure that measures approved are financed by the same Rate Schedule that will receive the direct benefits.¹⁷

The following chart shows the program costs by sector and how they are allocated by rate schedule. As is show the Residential costs are allocated to the rate code RS. The Small Enterprise costs are allocated to the rate code GS which represent general service secondary customers. The Mercantile-Utility (Large Enterprise) are allocated to rate codes GP, GSU and GT. The Governmental costs are allocated to rate codes STL and TRF.

Figure 5: Summary of Costs from Plan



¹⁷ This heading was adjusted from that included in the Commission's proposed template due to the fact that the Companies must track information based on rate schedules, rather than the customer segments proposed by the Commission.

7.0 COST RECOVERY MECHANISM

PUCO Table 5 set forth below provides a summary of the three year budget for each customer segment and the percentage of the total allocated thereto.

PUCO Table 5 - Budget and Parity Analysis Summary

Customer Class	3 Year Budget	% of Total EDC Budget
Residential	37,371,827	40.37%
Residential Low Income	9,881,039	10.67%
Residential Subtotal	47,252,866	51.05%
Small Enterprise	21,891,017	23.65%
Small Enterprise Total	21,891,017	23.65%
Mercantile-Utility (Large Enterprise)	17,295,061	18.68%
Mercantile-Self Direct	1,065,000	1.15%
Mercantile Subtotal	18,360,061	19.83%
Governmental	5,063,518	5.47%
Transmission & Distribution	-	0.00%
Other Expenditures Subtotal	-	0.00%
EDC TOTAL	92,567,462	100%

8.0 COST EFFECTIVENESS

8.1. *Explain and demonstrate how the proposed portfolio will be cost effective as defined by the Total Resource Cost Test (TRC) under proposed Rule 4901:1-39-01(W).*

The EE&PDR plan is based upon the requirements and guidance of the draft TRM that is being considered by the Commission in Docket No. 09-512-GE-UNC and other public sources, which have been used in developing the key inputs to the analysis on EE&PDR technologies or measures, and include:

- California Deemed Energy Database (DEER)
- Michigan Deemed Savings Database
- ACEEE Market Potential Study for Ohio (weather sensitive measures)

The TRC method utilized by the Company takes into account the combined effects of the EE&PDR Plan on both participating and non-participating customers. The sum of costs incurred by both the Company and any participating customers was used to calculate the costs. The benefits calculated in the TRC test include the avoided supply costs, including generation, transmission and distribution capacity costs valued at marginal cost, and the avoided energy supply costs.

On the benefits side the avoided energy costs were determined as follows:

- a. For avoided energy costs, the study team used wholesale energy prices from the Department of Energy, Energy Information Administration's 2009 Annual Energy Outlook (AEO) low oil prices case. (The AEO low oil price case was used so as to be consistent with a previously performed study for FirstEnergy's Pennsylvania utilities). The AEO represents a national average energy price, so for a better representation of the energy price that Ohio customers would see, a Cinergy Hub equivalent price was derived by applying a ratio based on three years of historic national average and Cinergy Hub prices.
- b. For capacity, the team used a combination of forecasted market prices for MISO in 2010 and Western PJM prices for years 2011 and 2012. As indicated in a press release July 31, 2009, FirstEnergy plans to move its transmission assets into PJM with the approval of the Federal Energy Regulatory Commission (FERC). For transmission and distribution, the team is including marginal T&D costs by creating a T&D number the Companies based on a PJM cost of transmission capacity used in the Pennsylvania ACT 129 filing of approximately \$15 per kW-year and \$5 per kW-yr distribution avoid cost.

The benefits were then calculated using the measure kWh and kW savings multiplied by the assumed number of measure units and the avoided capacity and energy costs. This value per year was then discounted by taking a Net Present Value (NPV) over the measure life-time using the post-tax weighted average cost of capital ("WACC") of 8.48 percent.

On the costs side the TRC test includes the costs of the various programs incurred by the Company and the participating customers, including, equipment, installation, operation, and maintenance costs, cost of removal (less salvage value) for turn-in programs, and administrative costs. The costs are in 2010 dollars and are "as spent" due to the fact that each year's program is evaluated separately by measure and the budgeted number of measure units. Program costs are budgeted by year in 2010 dollars, but operation and maintenance costs are based on measure life and are discounted using NPV back to the program year installed.

8.0 COST EFFECTIVENESS

As a result, the Company's EE&PDR Plan is cost-effective based on the TRC test as described above. The results of the TRC test are presented in PUCO Table 1, which can be found in Section 1.3 of the Plan, and are expressed as both a net present value and a benefit-cost ratio.

8.2. Provide background and describe the development and results contained in PUCO Tables 7A through 7G.

Below in PUCO Tables 7A through 7G are summaries of the TRC test results for each of the five customer segments on an individual program basis, plus the Mercantile Program and the Companies' T&D Program:

PUCO Table 7A: Residential TRC Benefits

Residential (exclusive of Low-Income) * Indicates an Existing/Pre-Filed Program													
TRC Benefits By Program Per Year (\$000)													
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved		
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime	
Direct Load Control*	2010	0.78	3,096,290	2,403,619	1,792,780	See footnote 1	610,839	See footnote 2	1,953	10,225	223	48,394	
	2011	0.82	3,006,290	2,471,882	1,834,708		637,175		1,953	10,225	1,114	48,394	
	2012	0.86	3,927,870	3,372,473	2,476,540		895,933		2,603	10,225	1,040	48,394	
Appliance Turn-In Program	2010	2.33	2,021,982	4,721,059	938,236		3,782,823	1,750	5,059	4,695	305,527		
	2011	2.65	1,479,937	3,920,239	751,492		3,168,747	1,418	5,059	15,577	305,527		
	2012	2.74	1,973,082	5,404,113	956,133		4,447,980	1,891	5,059	13,533	305,527		
Energy Efficient Products Program	2010	1.73	7,131,944	12,310,485	3,734,502		8,575,984	5,666	18,873	4,915	809,887		
	2011	1.84	7,130,299	13,100,991	3,726,192		9,374,799	5,641	18,873	25,045	809,887		
	2012	1.90	9,560,597	18,163,286	4,902,095		13,261,191	7,567	18,873	24,115	809,887		
Efficient New Homes Program	2010	1.79	1,003,514	1,794,043	1,284,674		509,369	1,399	4,244	279	47,148		
	2011	1.93	890,250	1,718,727	1,224,043		494,684	1,303	4,244	1,355	47,148		
	2012	1.98	1,053,647	2,084,967	1,467,265		617,702	1,542	4,244	1,134	47,148		
Comprehensive Residential Retrofit Program	2010	0.61	6,331,838	3,880,100	1,069,005		2,811,095	1,215	4,050	1,525	263,044		
	2011	0.64	6,286,713	4,024,279	1,092,062		2,932,217	1,215	4,050	7,625	263,044		
	2012	0.67	8,381,492	5,593,174	1,469,133		4,124,041	1,620	4,050	7,117	263,044		
Online Audit Program	2010	0.53	1,260,432	668,799	177,440		491,359	455	6,013	1,594	316,035		
	2011	3.10	1,046,575	3,244,834	879,819		2,365,015	1,997	6,013	6,996	316,035		
	2012	7.01	1,046,575	7,336,746	2,808,496		4,528,249	3,561	6,013	12,479	316,035		
Online Efficient Products*	2010	0.53	367,215	193,263	51,275		141,988	131	657	461	34,543		
	2011	1.16	367,215	427,248	115,846		311,402	263	657	921	34,543		
	2012	1.47	367,215	541,559	207,308		334,251	263	657	921	34,543		
CFL Program*	2010	3.01	2,661,725	8,011,584	1,003,884		7,007,700	2,573	15,138	22,731	1,203,421		
	2011	11.30	2,661,725	30,086,770	3,869,094		26,217,676	8,780	15,138	77,554	1,203,421		
	2012	-	-	15,114,299	2,984,397		12,129,902	3,784	15,138	33,428	1,203,421		
Total		2.06	73,054,424	150,588,538	40,816,417		109,772,121	22,833	64,260	93,767	3,027,999		

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component therefore the total avoided capacity costs for Generation, Transmission and Distribution are displayed here.

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided energy costs for on and off peak energy costs are displayed here.

8.0 COST EFFECTIVENESS

PUCO Table 7B: Residential Low-Income TRC Benefits

Residential Low-Income * Indicates an Existing Pre-Filed Program												
TRC Benefits By Program Per Year (\$000)												
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved	
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime
Appliance Turn-In Program	2010	2.21	178,311	394,938	78,488	See footnote 1	316,450	See footnote 2	146	423	393	25,559
	2011	2.64	124,262	327,946	62,866		265,080		119	423	1,303	25,559
	2012	2.73	165,515	452,078	79,985		372,094		158	423	1,132	25,559
Energy Efficient Products Program*	2010	20.57	19,006	391,040	-		391,040		0	0	214	42,432
	2011	24.54	18,139	445,171	-		445,171		0	0	1,109	42,432
	2012	25.93	24,302	630,080	-		630,080		0	0	1,094	42,432
Community Connections*	2010	0.20	2,707,766	549,156	145,697		403,459		373	2,263	1,309	118,929
	2011	0.44	2,707,766	1,185,219	293,618		891,600		753	2,263	2,637	118,929
	2012	0.57	2,707,766	1,554,970	595,241		959,730		755	2,263	2,645	118,929
CFL Program*	2010	4.82	1,228,206	5,919,183	741,698		5,177,485		1,901	2,881	16,795	381,694
	2011	0.00	-	3,306,869	382,087		2,924,782		979	2,881	8,652	381,694
	2012	-	-	-	-		-		0	2,881	0	381,694
Total		1.53	9,881,039	15,156,650	2,379,679		12,776,971		913	5,567	4,871	568,613
<p>1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component</p> <p>2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided</p>												

PUCO Table 7C: Small Enterprise TRC Benefits

Small Enterprise														
TRC Benefits By Program Per Year (\$000)														
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved			
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime		
Small Enterprise Audits & Equipment Program	2010	1.16	3,361,132	3,905,673	1,188,804	See footnote 1	2,716,869	See footnote 2	1,691	5,643	2,207	257,228		
	2011	1.22	3,314,734	4,037,389	1,202,808		2,834,581		1,693	5,643	11,040	257,228		
	2012	1.26	4,420,519	5,570,050	1,585,370		3,984,680		2,259	5,643	10,314	257,228		
C/I Equipment Program (Commercial Lighting)	2010	0.69	30,481,438	21,013,492	7,058,830		13,954,662		7,706	22,345	9,565	1,259,748		
	2011	0.73	24,718,099	18,089,739	5,895,082		12,194,657		6,274	22,345	33,884	1,259,748		
	2012	0.76	32,957,914	25,105,534	7,957,408		17,148,126		8,365	22,345	29,854	1,259,748		
C/I New Construction Program	2010	1.95	157,206	307,121	102,384		204,738		103	343	101	21,385		
	2011	2.38	133,456	318,001	105,109		212,892		103	343	507	21,385		
	2012	2.48	177,524	440,646	142,722		297,924		137	343	473	21,385		
Total		0.79	99,722,020	78,787,644	25,238,516				53,549,128		10,761	28,331	40,641	1,538,362
<p>1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component</p> <p>2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided</p>														

8.0 COST EFFECTIVENESS

PUCO Table 7D: Mercantile Self-Direct TRC Benefits

TRC Benefits By Program Per Year (\$000)														
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved			
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime		
					See footnote 1		See footnote 2							
Mercantile EE Savings*	2010	62.00	471,000	29,202,404	7,096,053	See footnote 1		22,106,351	See footnote 2		18,191	39,508	71,708	2,336,118
	2011	29.15	332,000	9,677,234	2,404,831			7,272,403			5,457	39,508	21,512	2,336,118
	2012	22.89	262,000	5,996,014	2,130,869			3,865,145			2,702	39,508	10,652	2,336,118
Total		42.14	1,065,000	44,875,652	11,631,753			33,243,899			2,702	39,508	10,652	2,336,118

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

PUCO Table 7E: Mercantile Utility (Large Enterprise) TRC Benefits

TRC Benefits By Program Per Year (\$000)														
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved			
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime		
					See footnote 1		See footnote 2							
C/I Audits & Equipment Program	2010	0.70	357,287	251,459	106,712	See footnote 1		144,747	See footnote 2		112	374	66	12,613
	2011	0.77	339,909	260,107	109,472			150,635			112	374	330	12,613
	2012	0.79	453,128	359,528	148,371			211,157			150	374	308	12,613
Technical Assessment Umbrella Program	2010	0.70	39,699	27,940	11,857			16,083			12	42	7	1,401
	2011	0.77	37,768	28,901	12,164			16,737			12	42	37	1,401
	2012	0.79	50,348	39,948	16,486			23,462			17	42	34	1,401
C/I Equipment (Commercial Lighting)	2010	0.69	11,947,616	8,227,297	2,763,705			5,463,592			3,017	8,748	3,745	493,222
	2011	0.73	9,678,411	7,082,576	2,308,069			4,774,507			2,456	8,748	13,267	493,222
	2012	0.76	12,904,500	9,829,432	3,115,520			6,713,912			3,275	8,748	11,689	493,222
C/I Equipment (Industrial Motors)	2010	1.88	165,025	310,161	14,840			295,321			16	46	211	25,946
	2011	2.38	109,145	259,710	12,180			247,530			13	46	698	25,946
	2012	2.51	145,018	364,493	16,441			348,052			17	46	606	25,946
Interruptible Demand Reduction*	2010	1.19	1,291,320	1,531,903	1,531,903			-			0	32,650	0	0
	2011	0.43	4,032,273	1,730,524	1,730,524			-			0	32,650	0	0
	2012	0.77	4,019,129	3,096,800	3,096,800			-			0	32,650	0	0
Total		0.73	45,570,577	33,400,778	14,995,044			18,405,734			3,442	41,819	12,603	531,782

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

8.0 COST EFFECTIVENESS

PUCO Table 7F: Governmental TRC Benefits

Governmental												
TRC Benefits By Program Per Year (\$000)												
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime
					Benefits	Gen/T&D	Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime
Government Lighting	2010	0.95	1,565,202	1,481,208	204,745	See footnote 1	1,276,463	See footnote 2	223	743	698	129,832
	2011	0.99	1,549,527	1,541,029	209,533		1,331,496		223	743	3,492	129,832
	2012	1.04	2,065,760	2,155,054	282,834		1,872,220		297	743	3,260	129,832
Total		1.00	5,180,489	5,177,291	697,112		4,480,178		297	743	3,260	129,832

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

PUCO Table 7G: Transmission & Distribution TRC Benefits

Transmission & Distribution												
* Indicates an Existing/Pre-Filed Program												
TRC Benefits By Program Per Year (\$000)												
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime
					Benefits	Gen/T&D	Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime
Transmission & Distribution Projects*	2010		-	-	-	See footnote 1	-	See footnote 2	984	7,796	4,008	459,366
	2011		-	-	-		-		1,968	7,796	8,015	459,366
	2012		-	-	-		-		1,968	7,796	8,015	459,366
Total			0	0	0		0		1,968	7,796	8,015	459,366

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

9.0 PLAN COMPLIANCE INFORMATION AND OTHER KEY ISSUES

9.1. *Summarize how programs in the portfolio meet the following design criteria (sub-sections may reference other chapters of the plan as they may restate what was included elsewhere in the plan, and are collected here only for convenience of review):*

9.1.1. *Potential for broad participation within the targeted customer class.*

The portfolio of EE&PDR programs offers comprehensive participation opportunities to the customers and communities within the Company's service territory.

The residential customer base has five program groups which are 1) Low Use/General Service customers 2) Electric Heat customers 3) Central Air Conditioning customers 4) Low Income customers and 5) New Residential Construction. Each of these residential programs includes a variety of options for EE&PDR consumer participation.

For example, Low Use/General Use customers can participate in the following programs: Appliance Turn-In, Efficient Products, Online Audit, Online Efficient and the CFL programs.

Electric Heat customers can participate in the Comprehensive Residential Retrofit Program and Direct Load Control program plus all of the above programs. Central A/C customers can participate in the above programs plus Direct Load Control. Low Income residential customers can participate in any of the above plus Community Connections, which is specifically designed for them. In addition, the separate program for new residential construction is at two levels of efficiency – 15 percent and 30 percent.

The business and government sector has an equal amount of programs covering a broad range of energy efficiency opportunities. These programs include C/I Audits and Equipment rebates which are included for both small and large enterprise customers. A New Construction program is targeted at contractors and architects, as well as other construction and building professionals. There is also a special municipal government program that targets, pedestrian and street lighting.

9.1.2. *Cost-effectiveness on a portfolio basis*

The cost-effectiveness on a portfolio basis is a ratio of 1.38. Details are presented in PUCO Table 1, which can be found in Section 1.3 of this Plan.

9.1.3. *Benefit to all members of a customer class, including non-participants.*

Benefits to all members of the customer class are outlined in Section 9.1.1.

Non-participants in all classes will also benefit by the educational services and increased marketing concerning the value of energy efficiency technologies and actions. Regardless of their level of program participation, community members will be aware of the Company's programs. This awareness will help even non-participants to make more informed decisions regarding their energy usage.

9.1.4. *Likely magnitude of aggregate energy savings or peak-demand reduction.*

The magnitude of aggregate energy savings and peak-demand reduction is presented in PUCO Table 2, Table Summary of Portfolio Energy and Demand Savings, which can be found in Section 1.3 of the Plan.

9.1.5. *Non-energy benefits.*

Residential and C&I customers both receive a number of non-energy benefits through this Plan. Residential benefits include:

- Increased comfort, both in businesses and in the home
- Improved quality of the housing stock
- Lower energy burden as a lower proportion of household income that is devoted to energy costs
- Increased ability to pay bills, both in terms of overall amount and timeliness

C&I non-energy benefits include:

- Reduced operating costs
- Improved quality of building stock
- Increased knowledge about how to control energy costs
- Improved property values
- Ability to claim green status
- Increased employee satisfaction

Broader non-energy benefits to the service territory include:

- Increased public safety and decreased community maintenance costs through the implementation of energy efficient changes such as LED Street lighting
- Increased employment benefits through the potential creation of “green” jobs
- Community pride as customers actively work against climate change

9.1.6. *Equity among customer classes.*

Please refer to Section 7.2 for a discussion on customer class and associated direct energy and conservation benefits, as reflected in PUCO Table 5, Rate Class Budget and Parity Analysis.

9.2. ***Describe relative advantages or disadvantages of energy efficiency and peak-demand reduction programs for the construction of new facilities, replacement of retiring capital stock, or retrofitting existing capital stock.***

The greatest advantage of energy efficiency and peak demand reduction programs is their ability to postpone the construction of generating stations, which, in turn, creates certain environmental benefits. However, these programs will not become a substitution for such construction. As generating stations age and the country’s appetite for electricity grows, new generating stations will still need to be constructed. In order to maximize the period in which EE&PDR programs postpone such construction, the Commission should encourage programs that are, in essence, a reliable substitution for the generation they displace.

The MW and MWh reductions associated with the substitution of older, less efficient appliances and end uses with newer, more efficient appliances and end uses for both the residential and non-residential sectors are the most reliable and enduring. This is so because the replacement of old, less efficient, electric consuming devices with new, more efficient ones requires only one act by the consumer. The programs that foster such technology upgrades not only produce enduring energy savings over the measures’ lives but they also contribute to peak-related savings since, often, this more efficient equipment generally has a lower system-coincident peak contribution than the equipment it replaces. The Plan demonstrates this dual benefit feature of

9.0 PLAN COMPLIANCE INFORMATION & OTHER KEY ISSUES

energy efficiency programs. Over the 2010-2012 periods, for example, the energy savings associated with the menu of energy efficiency programs selected amounts to 628,220 MWh while contributing an additional benefit of 188,065 MW of concomitant system peak –coincident savings

Conversely, programs in which a customer can choose whether to actively participate are less reliable substitutions for the generation they displace. For example, if a customer has the option of over-riding a peak reduction device, the utility cannot rely on the program as a total substitution for the generation it is supposedly replacing. This ability to over-ride the program also makes it more difficult to accurately determine the actual amount of generation the program displaces. The Company during the design of this Plan attempted to balance these competing factors, recognizing that customers want to have choice, while the Company wants certainty. As a result, the Plan has a variety of programs, with varying degrees of customer control.

9.3. *Describe potential to integrate the proposed programs with similar programs offered by other utilities, if such integration produces the most cost-effective results and is in the public interest.*

While the Companies are not opposed to working with the other Ohio utilities to develop cost effective state-wide EE&PDR programs, the Companies believe that any such initiative must be coordinated through the Commission. Consistent with this approach, the Companies have worked with the other Ohio utilities on the development of the TRM in Docket No. 09-0512-GE-UNC.

9.4. *Describe the degree to which measures may be bundled within a program so as to avoid lost opportunities to attain energy savings or peak reductions that would not be cost-effective or would be less cost-effective if installed individually.*

There is a wide range of measures that were evaluated on an individual basis as part of the Market Potential Study, with those showing the most potential appearing in final program designs at the conclusion of that analysis. The Portfolio incorporates all of the cost effective measures and programs from that analysis, as well as other measures and programs that may have been less cost effective on their own. There are several reasons why it is important to include a wide range of measure options for consumers and businesses when designing programs:

- Many less cost effective measures still produce considerable energy savings and provide value to customers and the Company
- Less cost effective measures can become more cost effective when bundled with others, by sharing the administrative costs of program implementation across many measures
- Several of the individually less cost effective measures can be obtained through lower cost program options, such as the online store, thus keeping their cost benefit ratios as high as possible

9.5. *Describe the degree to which the program designs engage the energy efficiency supply chain and leverage partners in program delivery.*

The Company will coordinate programs with trade allies, community based organizations, and other local market participants through outreach, training and potential co-marketing to ensure that these partners are aware of the Company's programs, are able to articulate program features and benefits to potential customers and can support customers in their decision to take energy efficiency actions. The Company's

9.0 PLAN COMPLIANCE INFORMATION & OTHER KEY ISSUES

implementation strategy will rely on a broad range of contractors, partners, trade allies, community agencies, and other entities engaged in energy efficiency to promote, deliver, and support the effective deployment of programs. The Company expects to use outside vendors to deliver services in support of many of its programs, with some vendors operating as turnkey program delivery contractors, and others providing specific functions across multiple programs. In addition, many of the Company's programs will depend on trade allies and other market partners to engage customers, promote programs, evaluate projects, and install energy efficient equipment. The Company's objective is to strike a reasonable balance of costs, customer value, customer choice, quality of service and energy savings.

The Company's Supply Chain Group will be involved with external entities by utilizing bids and/or negotiating contract awards and extensions, as most appropriate, given the situation and the partner(s) involved. Supply Chain creates Purchase Orders, Contracts, or other written agreements with EE&PDR suppliers to ensure a control process is in place for appropriate financial terms, legal safeguards, compliance with FirstEnergy policies and procedures, and management of these outside suppliers. They deal with suppliers in a fair and impartial way so that no supplier is given an improper competitive advantage over another. All offers for goods and services are objectively evaluated, with all buying decisions based on the best interests of FirstEnergy and its customers. In addition to cost, these decisions are based on terms that are:

- fair and equitable to buyer and seller;
- competitive to the maximum extent practicable;
- founded on a sound business basis; and
- include appropriate financial terms and legal safeguards.

The Companies have attempted and will continue to try to leverage their relationships throughout FirstEnergy's three state service territory, in an effort to minimize costs by creating economies of scale and efficiencies through consistency. For example, Black & Veatch assisted FirstEnergy's Pennsylvania utilities with the development of their EE&PDR programs and long-term strategies. Much of this work, including market research, vendor input and cost analyses was utilized in the development of this Plan, thus negating the need to duplicate certain tasks. Moreover, the Companies are carefully evaluating the third party service providers selected in Pennsylvania, such as the vendor that will recycle appliances, in the hopes of creating economies of scale that can translate into lower implementation costs. FirstEnergy is also developing systems that it hopes can be used in all three states in which its utilities do business. Where applicable, costs for such systems could be spread over larger customer bases, thus reducing costs for all on an individual customer basis.

9.6. *Describe the degree to which the programs successfully address market barriers or market failures.*

The programs in the Company's EE&PDR Plan address several barriers that face both consumers and businesses regarding energy efficiency actions they can take. The most common barriers identified through market research conducted as part of the Market Potential Study are shown below, with an indication as to how this portfolio addresses each one.

9.0 PLAN COMPLIANCE INFORMATION & OTHER KEY ISSUES

EE& PDR Program Plan
Ohio Edison

Market Barrier	How it is addressed in this Portfolio
Lack of adequate information about energy efficiency options	Three portfolio elements address the lack of information that exists in the Company's service territory: 1) a broad consumer and business education campaign through FirstEnergy's marketing and communications efforts will promote the benefits of energy efficiency, generic actions they can take, and alert customers about the programs being introduced; 2) an online audit tool that enables customers to obtain customized information about their homes based on self-administered survey; and 3) on-site audits for residential and commercial/industrial customers that will provide a blueprint for comprehensive actions that can be taken and any incentives available.
Higher first cost of energy efficient equipment, appliances and building upgrades	Several programs provide incentives that bring the first cost of equipment and projects down by covering some or all of the incremental costs over standard options. Both fixed and customized rebates are provided. For low income customers, many measures and services are free of charge.
No comprehensive service that can identify all savings opportunities in a home or building	The portfolio includes comprehensive programs for residential (Comprehensive Residential Retrofit Program) and commercial, government and industrial customers (Technical Assessment Umbrella Program) for those who prefer a service that handles all aspects – from audits through the installation of measures.
Inexperience with high efficiency technologies	The early launch of high efficiency lighting and motors program components in the residential and C/I markets provide an opportunity for customers to immediately experience the benefits of high efficiency products in these two most common and ubiquitous end use categories.
No discretionary funds to pay for the balance of project or equipment costs for low income	In recognition of this barrier, residential programs include either waivers of fees, 100% rebates (free items) and/or direct

9.0 PLAN COMPLIANCE INFORMATION & OTHER KEY ISSUES

households	installation of measures to ensure that low income households can fully benefit from the portfolio of programs offered.
High cost of disposal and lack of knowledge of how to responsibly dispose of old appliances	The Appliance Turn-In Program helps customers get rid of old energy intensive appliances in a way that provide several immediate and tangible benefits: 1) rather than paying a service to do so, customers <i>receive</i> a payment as a type of bounty for relinquishing the unit(s); 2) their energy bills will be lowered by the amount of energy previous consumed by these older units; 3) customers can feel positive about the fact that the unit(s) are disposed of in an environmentally friendly manner; and 4) unlike other retailer pick-up services, they do not have to have purchased a new appliance to participate in this program.

9.7. *Describe the degree to which the programs leverage knowledge gained from existing programs successes and failures.*

There has been experience in the delivery of basic energy efficiency programs nationally for at least two decades, and a wide body of literature exists with findings related to successful implementation strategies and best practices for achieving results. This well-documented experience from elsewhere is weighed against the context of a utility with limited previous experience in delivery of EE&PDR in a state that is setting aggressive targets with little ramp up time for priming the market. The final set of programs recommended in this Plan represents a combination of tried-and-true delivery approaches of commercially available technologies that have a high probability of being accepted by consumers and business customers during the Reporting Period.

The Company's limited experience with a Home Performance program revealed important lessons regarding implementation vendor expectations, consumer marketing and education and the importance of gaining the enthusiastic support of local contractors. These will be features of a newly redesigned program in 2010. Experience testing some emerging technologies related to direct load control - specifically, programmable thermostats with two way communication capability - are continuing as the Company seeks the best product to roll out with its new suite of load control and demand response initiatives included in this Plan. Other lessons will be learned from early process evaluations as the portfolio of programs are launched and experience is gained. Importantly, the portfolio seeks to allow the Company to start with a strong foundation of fairly quick-start well-established program designs, tapping considerable vendor experience, to give the Plan a critical jump-start toward compliance with statutory benchmarks. This way, significant levels of participation can be encouraged early on, experience gained and the market primed for even more aggressive and comprehensive programs later into 2010 and beyond.

And, finally, based on the response by customers to the Company's CFL program as originally approved by the Commission, the Company has learned that customers desire some control over the programs being offered, preferring in some instances to voluntarily participate in them, rather than being forced to do so.

9.8. *Describe the degree to which the programs promote market transformation.*

Market transformation occurs when the overall market for a product, such as high efficiency compact fluorescent light bulbs, becomes the new standard model, rather than the outlier. The primary ways in which the programs in this portfolio address market transformation are 1) by providing customers with unbiased customized information about the opportunities that exist in their homes and the specific types of products they can buy to achieve those savings; and 2) by putting products into their hands quickly so that customers can immediately experience the quality, hassle free nature of the products and test their claims for lowering utility bills.

Market transformation effects will be measured through statistically based sector level non-participant surveys to be conducted each year. If savings are detected as being realized by customers not participating in the programs, but benefiting from the information, increased availability or other secondary benefits of the programs, then these savings will be quantified and should be included as market transformation effects.

10.0 TABLES FOR PORTFOLIO PLAN

Ohio Edison

10.0 TABLES FOR PORTFOLIO PLAN

As required by the Commission's proposed template, the Company includes the following PUCO Tables that are not previously addressed in this Plan:

PUCO Table 1-3 – See Section 1.3

PUCO Table 5 – See Section 7.2

PUCO Tables 7A-7G – See Section 8.2

10.0 TABLES FOR PORTFOLIO PLAN

PUCO Table 4 – Program Summaries

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Residential Portfolio Programs (exclusive of Low Income)		X	Direct Load Control	RES	This program will provide the Company with a program result that will have the capability to reduce loads over more hours during the summer.	3	48,394	10,225	0.4%
	X		Appliance Turn-In Program	RES	Provide incentive to households for removing older inefficient appliances from the system by offering customers an incentive and free pick-up and disposal service for second refrigerators, freezers and room air conditioners.	3	305,527	5,059	2.8%
	X		Energy Efficient Products Program	RES	This program provides rebates to consumers and financial incentives and support to retailers that sell energy efficient products, such as ENERGY STAR® qualified appliances, high efficiency lighting, and other electricity conservation products.	3	809,887	18,873	7.4%
	X		Efficient New Homes Program	RES	The objective of this program is to increase the energy efficiency of new residential construction by taking advantage of the best opportunity for capturing savings – i.e., during the design and build phase. The program provides a rebate to local builders for achieving energy efficiency targets through a combination of building shell and appliance upgrades.	3	47,148	4,244	0.4%
	X		Comprehensive Residential Retrofit Program	RES	This program offers residential customers a comprehensive home energy audit with air infiltration testing through the use of blower door technology or other diagnostic tools for improving the integrity of the building shell. It also examines appliance efficiency, lighting and HVAC systems.	3	263,044	4,050	2.4%
	X		Online Audit Program	RES	The Online Home Energy Audit Tool is a software program that will provide the Company with the necessary tools and equipment needed to properly supply customers with the information and education required to lower their energy costs through energy efficiency program participation and other actions.	3	316,035	6,013	2.9%
	X		Online Efficient Products Program*	RES	Provides customers with a way to quickly and directly purchase energy efficiency measures and products via a sponsored link to the Energy Federation Institute (EFI) penergy efficient products catalog on on-line.	3	34,543	657	0.3%
	X		CFL Program*	RES	This program gives customers the ability to choose to participate in the program through a variety of channels and supports their efforts to reduce their residential energy consumption.	3	1,203,421	15,138	11.0%
				<i>Totals for Residential Sector</i>				3,027,999	64,260

10.0 TABLES FOR PORTFOLIO PLAN

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Residential Low-Income Sector Programs	X		Appliance Turn-In Program	LI RES	See above	3	25,559	423	0.2%
	X		Energy Efficient Products Program	LI RES	See above	3	42,432	-	0.4%
	X		Community Connections*	LI RES	The Community Connections Program provides weatherization measures, energy efficient solutions, and client education to the Company's low-income customers to which the Company provides electric service.	3	118,929	2,263	1.1%
	X		CFL Program*	LI RES	The objective of this program is to quickly distribute energy efficient product to low income eligible customers so that they may immediately start realizing energy savings and gain experience with compact fluorescent light bulbs	3	381,694	2,881	3.5%
			<i>Totals for Low-Income Sector</i>					568,613	5,567

10.0 TABLES FOR PORTFOLIO PLAN

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Small Enterprise	X		Small Enterprise Audits & Equipment Program	Small C&I	Provides two levels of energy audits for non-residential customers of the Company: 1) Small business customers may obtain a simple walk-through audit appropriate for small buildings or facilities with non-complex loads to help identify existing end uses of energy and find specific ways in which energy savings can be achieved. The audit helps to identify rebates and other incentives available from other programs. 2) Medium and large commercial and non-residential customers may elect to obtain an audit that covers more complex equipment as well as larger buildings	3	257,228	5,643	2.4%
	X		C/I Equipment Program (Commercial Lighting)	Small C&I	This program offers a range of rebates for technologies applicable to business and other non-residential facilities. It is available to Small Enterprise as well as Large C/I customers. The first iteration of the program is a component of the C/I Efficient Equipment Program. The objective of this program is to quickly launch rebates to address the most common end use of electricity across all non-residential (and residential for that matter) building types – lighting. This program provides rebates to customers for the purchase and installation of high efficiency lighting as an alternative to standard fixtures and bulbs.	3	1,259,748	22,345	11.5%
	X		C/I New Construction Program	Small C&I	The objective of this program is to increase the energy efficiency of new commercial buildings by taking advantage of the best opportunity for capturing savings – i.e., during the design and build phase. The program provides incentive of up to \$15,000 to building owners and developers for achieving energy efficiency targets through a combination of building shell and equipment upgrades.	3	21,385	343	0.2%
				Totals for Small Enterprise			1,538,362	28,331	14.1%

10.0 TABLES FOR PORTFOLIO PLAN

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Mercantile Self-Direct	X	X	Mercantile EE Savings*		All customers that meet the definition of "mercantile customer", as defined in R.C. § 4928.01 (A) (19) are eligible for this program. The Companies are currently proactively working with a group of approximately 300 customers across their respective service territories to jointly file applications to commit the customer's EE/PDR programs, pursuant to division R.C. § 4928.66(A)(2)(c). These 300 customers were selected based on highest usage.	3	2,336,118	39,508	21.4%
			<i>Totals for Mercantile Self-Direct</i>				2,336,118	39,508	21.4%
Mercantile-Utility (Large Enterprise)	X		C/I Audits & Equipment Program	Large C&I	This program provides rebates for high efficiency electric equipment and building shell related measures for non-residential customers. Rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less. Participants are encouraged, but not required, to complete an energy audit prior to participating in this program.	3	12,613	374	0.1%
	X		C/I Equipment Program (Commercial Lighting)	Large C&I	This program provides rebates for high efficiency electric equipment and building shell related measures for non-residential customers. Rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less. Participants are encouraged, but not required, to complete an energy audit prior to participating in this program.	3	493,222	8,748	4.5%
	X	X	C/I Equipment Program (Industrial Motors)	Large C&I	This program is designed to encourage the Company's commercial and industrial customers to upgrade their existing motors to NEMA Premium® motors when switching out old motors due to breakdowns and or programmed replacements.	3	25,946	46	0.2%
		X	Interruptible Demand Reduction*	Large C&I	The objective of the Economic Load Response Program is load curtailment. Metrics include calculating Curtailable Load Curtailable Load (CL) is calculated by the Company for each customer by subtracting the customer's contract Firm Load from its monthly highest thirty (30) minute integrated kW load occurring during the non-holiday weekday hours of 11 a.m. to 5 p.m. Eastern Standard Time (equivalent to noon to 6 p.m. EDT).	3	-	32,650	0.0%
			<i>Totals for Large Enterprise</i>					2,869,302	81,368

10.0 TABLES FOR PORTFOLIO PLAN

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Governmental Portfolio Programs	X		Government Lighting	Gov't	The intent of this program is to target an easily addressed energy savings opportunity that will help local governments save money. This program provides local governments with rebates for replacing inefficient traffic signals and pedestrian light signals with high efficiency LED equipment. It also addresses upgrades to street lighting fixtures and lamps.	3	129,832	743	1.2%
			<i>Totals for Gov't/NP Sector Programs</i>				<i>129,832</i>	<i>743</i>	<i>1.2%</i>
Transmission & Distribution	X	X	Transmission & Distribution Projects*	T&D	The use of T&D projects is a significant aspect of the Companies' overall energy efficiency compliance plan. It is the Companies' intent to submit past and future T&D improvement projects for compliance.	3	459,366	7,796	4.2%
			<i>Totals for Gov't/Sector Programs</i>				<i>459,366</i>	<i>7,796</i>	<i>4.2%</i>
Total for Plan							10,929,592	180,269	100.0%

PUCO Table 6A: Portfolio-Specific Assignment of EE&PDR Costs

Residential Portfolio (excluding Low-Income) * Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Peak Demand Reduction Programs			
Direct Load Control*	2,687,683	2,617,688	5,305,371
Peak Demand Reduction Program Subtotal	2,687,683	2,617,688	5,305,371
Energy Efficiency Programs			
Appliance Turn-In Program	1,484,558	3,990,443	5,475,001
Energy Efficient Products Program	5,968,186	3,583,562	9,551,748
Efficient New Construction Program	1,548,042	735,923	2,283,965
Comprehensive Residential Retrofit Program	3,666,406	1,310,659	4,977,065
Online Audit Program	0	3,353,583	3,353,583
Online Energy Efficiency Products*	0	1,101,645	1,101,645
CFL Program*	0	5,323,450	5,323,450
EE Program Subtotal	12,667,192	19,399,265	32,066,456
Totals	15,354,874	22,016,953	37,371,827

10.0 TABLES FOR PORTFOLIO PLAN

EE& PDR Program Plan
Ohio Edison

Residential Low-Income Portfolio			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Appliance Turn-In Program	124,190	343,898	468,088
Energy Efficient Products Program	48,130	13,317	61,447
Community Connections*	0	8,123,297	8,123,297
CFL Program*	0	1,228,206	1,228,206
Totals	172,320	9,708,718	9,881,039

Small Enterprise			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Small Enterprise Audits & Equipment Program	1,496,585	686,861	2,183,446
C/I Equipment Program (Commercial Lighting)	15,238,113	4,205,672	19,443,785
C/I New Construction Program	204,399	59,386	263,786
Totals	16,939,098	4,951,919	21,891,017

Mercantile Self-Direct			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Mercantile EE Savings*	0	1,065,000	1,065,000
Totals	0	1,065,000	1,065,000

10.0 TABLES FOR PORTFOLIO PLAN

EE& PDR Program Plan
Ohio Edison

Mercantile Utility (Large Enterprise)			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Peak Demand Reduction Programs			
Interruptible Demand Reduction*	9,054,806	287,916	9,342,723
Peak Demand Reduction Program Subtotal	9,054,806	287,916	9,342,723
Energy Efficiency Programs			
C/I Audits & Equipment Program	118,262	68,908	187,170
C/I Equipment Program (Commercial Lighting)	5,966,095	1,661,349	7,627,444
C/I Equipment Program (Industrial Motors)	85,466	52,259	137,725
EE Program Subtotal	6,169,822	1,782,516	7,952,338
Totals	15,224,629	2,070,432	17,295,061

Governmental			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Government Lighting	1,205,031	3,858,487	5,063,518
Totals	1,205,031	3,858,487	5,063,518

Transmission & Distribution			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Transmission & Distribution Projects*	0	0	0
Totals	0	0	0

10.0 TABLES FOR PORTFOLIO PLAN

EE& PDR Program Plan
Ohio Edison

PUCO Table 6B- Allocation of Common Costs to Applicable Customer Sector

Common Cost Element	EE Program (check box)	PDR Program (check box)	Total Cost (\$)	Basis for Cost Allocation	Residential (Including Low-Income)	Small Enterprise (Small C&I)	Mercantile-Self Directed	Mercantile-Utility (Large C&I)	Transmission & Distribution	Governmental/ Non-profit
Consultant Costs and Employee Expenses for Plan Development	X	X	\$ 316,820	EE Plan Budget	\$161,727	\$74,924	\$3,645	\$59,194	\$0	\$17,330
Measurement and Verification Tracking and Reporting Software	X	X	\$ 570,276	EE Plan Budget	\$291,109	\$134,863	\$6,561	\$106,549	\$0	\$31,195
External Legal Fees	X	X	\$ 56,575	EE Plan Budget	\$28,880	\$13,379	\$651	\$10,570	\$0	\$3,095
Totals			\$943,671		\$481,715	\$223,166	\$10,857	\$176,313	\$0	\$51,620

Table 6C: Summary of Portfolio EE&PDR Costs

Portfolio	Total Sector Portfolio-specific Costs	Total Common Costs	Total of All Costs
Residential (Including Low-Income)	\$47,252,866	\$481,715	\$47,734,581
Small Enterprise	\$21,891,017	\$223,166	\$22,114,183
Mercantile-Self Direct	\$1,065,000	\$10,857	\$1,075,857
Mercantile-Utility (Large Enterprise)	\$17,295,061	\$176,313	\$17,471,374
Transmission & Distribution	\$0	\$0	\$0
Governmental	\$5,063,518	\$51,620	\$5,063,518
Totals	\$92,567,462	\$943,671	\$93,459,513

11.0 LIST OF APPENDICES

- A. Assessment of Potential Reference
- B. Program Cost Detail Support. – Appendix B1-B3
- C. Other Supporting Data, Calculations, Methodologies
 - Appendix C-1 – Measure savings for programs included, including key assumptions
 - Appendix C-2 – Annual measure participation numbers
 - Appendix C-3 – PUCO Tables 1-7
- D. Assessment of Potential
- E. FirstEnergy Redesigned CFL Distribution Proposal
- F. Amendment Rider DSE
- G. 2009 OE Energy Efficiency Compliance

Appendix A Assessment of Potential Reference Summary

The programs that were determined to be cost effective in the Market Potential Study were carried through to the EE&PDR Program Portfolio. The programs include:

Residential Programs:

- Comprehensive Residential Program
- Residential Direct Load Control
- Online Audit Program
- Energy Efficient Products Program
- Residential New Construction

C/I Programs:

- C/I Equipment Rebate Program
- C/I Motors and Drives
- C/I New Construction Program

Refer to Table 7.7 (Tables 7.7.1, 7.7.2 and 7.7.3) on page 90 of the Assessment of Potential in Appendix D of this document for a detailed description of the results for these programs.

Furthermore, savings associated with the eight programs in the Market Assessment Program will achieve the following energy savings relative the Commission's goal of 22 percent of energy savings by 2025 (see Appendix A: Executive Summary, Market Assessment Potential Study, page 1):

- Ohio Edison – 19.2 percent
- Toledo Edison – 17.9 percent
- Cleveland Electric Illuminating – 19.9 percent

Therefore, to meet the Commission's savings goals by 2025, nine additional programs were included in the EE&PDR Program Portfolio:

Residential Programs:

- Residential Appliance Turn-In Program
- Online Energy Efficiency Products
- CFL
- Community Connections

C/I Programs:

- C/I Audit Program
- Technical Assessment Umbrella Program
- Government Lighting
- Interruptible Demand Reduction

APPENDIX A – ASSESSMENT OF POTENTIAL REFERENCE SUMMARY

EE& PDR Program Plan
Ohio Edison

The CFL Lighting, Online Energy Efficiency Products and Community Connections programs were pre-existing or pre-filed programs and are included in the Program Portfolio. The Residential Appliance Turn-In Program represents a standard best practice program that provides immediate energy and demand savings due to its relatively quick launch period.

The C/I Audit and Technical Assessment Umbrella Programs are the direct result of input from the Collaborative Group members and address the lack the information about energy efficiency in the business community. This need was identified in feedback from the C/I customer surveys. The Government Lighting program targets the municipal sector in an easy and identifiable manner. Finally, the Interruptible Demand Reduction Program is an existing program that will continue and is included in the Program Portfolio.

The savings associated with the entire Program Portfolio are as follow:

- Ohio Edison – 2.5 percent
- Toledo Edison – 2.5 percent
- Cleveland Electric Illuminating – 2.5 percent

**Appendix B1-B3
Program Cost Detail Support**

Appendix B-1
Detailed Budget Year 1

	Utility Program/ Labor Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provider Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
FirstEnergy Prefiled Programs											
1 Online Audit Tool	\$1,260,432										
2 Online EE Products	\$367,215										
3 CFL Program	\$2,661,725										
4 Community Connections	\$2,707,766										
5 CFL Program	\$1,228,206										
6 T&D Projects	\$0										
7 Interruptible Demand Reduction	\$72,542									\$1,218,778	
8 LG C&I	\$471,000										
9											
10											
	Total										
11 New EE Plan Programs											
12 Direct Load Control	\$8,068	\$124,448	\$56,446	\$0	\$0	\$0	\$110,017	\$806,305	\$0	\$125,909	\$607,234
13 Appliance Turn-In Program	\$54,784	\$26,998	\$98,259	\$0	\$0	\$0	\$1,196,563	\$0	\$0	\$645,578	\$0
14 Energy Efficient Products Program	\$2,875,136	\$148,002	\$156,910	\$290,306	\$173,902	\$3,828	\$6,914	\$0	\$18,438	\$1,754,059	\$0
15 Energy Efficient New Construction	\$784,802	\$70,889	\$40,647	\$0	\$0	\$0	\$83,558	\$510,328	\$0	\$0	\$0
16 Comprehensive Residential-Home Performance	\$1,524,944	\$138,015	\$82,684	\$0	\$0	\$0	\$79,523	\$549,631	\$0	\$550,291	\$0
17 Appliance Turn-In Program LI	\$178,311	\$11,422	\$8,220	\$0	\$0	\$0	\$100,081	\$0	\$0	\$54,006	\$0
18 Energy Efficient Products Program LI	\$19,006	\$887	\$928	\$0	\$0	\$0	\$78	\$0	\$1,542	\$11,992	\$0
19 1-C&I Audits & C/I Equipment (expanded)	\$689,920	\$51,608	\$74,432	\$48,409	\$28,772	\$2,580	\$0	\$0	\$0	\$448,557	\$0
20 1-C/I Equipment (Comm Lighting)	\$7,361,268	\$124,204	\$353,932	\$0	\$408,815	\$0	\$0	\$0	\$0	\$5,901,977	\$0
21 C/I New Construction	\$95,886	\$25,943	\$3,995	\$0	\$0	\$0	\$1,752	\$0	\$0	\$61,320	\$0
22 2-C&I Audits & C/I Equipment (expanded)	\$69,844	\$2,142	\$2,175	\$1,871	\$1,261	\$240	\$0	\$0	\$0	\$39,385	\$0
23 2-C/I Equipment (Comm Lighting)	\$2,895,503	\$62,015	\$138,573	\$0	\$160,061	\$0	\$0	\$0	\$0	\$2,310,769	\$0
24 C/I Equipment (Industrial Motors)	\$69,807	\$1,437	\$30,954	\$1,595	\$1,089	\$0	\$0	\$0	\$0	\$32,781	\$0
25 Government Lighting	\$1,530,110	\$39,670	\$16,500	\$0	\$0	\$0	\$0	\$0	\$0	\$361,509	\$1,088,495
26	\$21,954,948	\$879,008	\$1,004,813	\$342,182	\$773,899	\$6,647	\$1,578,786	\$1,866,264	\$19,980	\$12,298,131	\$1,695,729
27											
28											
	Total										
29 Recovery Allocation											
30 Residential	\$4,879,183	\$308,352	\$34,946	\$290,506	\$173,902	\$3,828	\$1,476,375	\$1,866,264	\$18,438	\$3,075,837	\$607,234
31 Low Income Residential	\$4,133,289	\$14,500	\$9,148	\$0	\$0	\$0	\$100,660	\$0	\$1,542	\$65,998	\$0
32 Small Commercial & Industrial	\$8,147,074	\$626,892	\$224,512	\$48,409	\$437,586	\$2,580	\$1,752	\$0	\$0	\$6,441,854	\$0
33 Large Commercial & Industrial	\$4,797,475	\$771,207	\$115,144	\$3,466	\$162,411	\$240	\$0	\$0	\$0	\$3,601,712	\$0
34 Government Lighting	\$1,530,110	\$39,670	\$16,500	\$0	\$0	\$0	\$0	\$0	\$0	\$361,509	\$1,088,495
35	\$31,942,611	\$10,258,393	\$1,004,813	\$342,182	\$773,899	\$6,647	\$1,578,786	\$1,866,264	\$19,980	\$13,516,909	\$1,695,729

Appendix B-2
Detailed Budget Year 2

	Utility Program/ Labor Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
FirstEnergy Prefiled Programs											
1 Online Audit Tool	\$1,046,575										
2 Online EE Products	\$367,215										
3 CFL Program	\$2,661,725										
4 Community Connections	\$2,707,766										
5 CFL Program	\$0										
6 T&D Projects	\$0										
7 Interruptible Demand Reduction	\$14,259									\$3,918,014	
8 LG C&I	\$332,000										
9											
10											

	Utility Program/ Labor Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
New EE Plan Programs											
11 Direct Load Control	\$8,068	\$34,448	\$56,446	\$0	\$0	\$0	\$110,017	\$806,305	\$0	\$125,909	\$481,724
12 Appliance Turn-In Program	\$1,479,937	\$14,229	\$80,411	\$0	\$0	\$0	\$980,625	\$0	\$0	\$359,563	\$0
13 Energy Efficient Products Program	\$2,852,230	\$99,149	\$158,418	\$291,886	\$174,460	\$3,826	\$7,546	\$0	\$20,122	\$1,771,976	\$0
14 Energy Efficient New Construction	\$686,623	\$21,949	\$37,843	\$0	\$0	\$0	\$77,795	\$475,131	\$0	\$0	\$0
15 Comprehensive Residential-Home Performance	\$1,479,819	\$92,890	\$82,684	\$0	\$0	\$0	\$79,523	\$549,631	\$0	\$350,291	\$0
16 Appliance Turn-In Program LI	\$124,262	\$1,648	\$6,727	\$0	\$0	\$0	\$82,034	\$0	\$0	\$30,079	\$0
17 Energy Efficient Products Program LI	\$18,139	\$756	\$1,013	\$0	\$0	\$0	\$631	\$0	\$1,683	\$13,088	\$0
18 1-C&I Audits & C/I Equipment (expanded)	\$640,337	\$24,103	\$35,605	\$48,487	\$28,824	\$2,580	\$0	\$0	\$0	\$449,064	\$0
19 1-C/I Equipment (Comm Lighting)	\$5,178,246	\$84,670	\$290,208	\$0	\$334,280	\$0	\$0	\$0	\$0	\$4,001,095	\$0
20 C/I New Construction	\$72,136	\$2,126	\$3,995	\$0	\$0	\$0	\$1,752	\$0	\$0	\$61,320	\$0
21 2-C&I Audits & C/I Equipment (expanded)	\$50,404	\$2,700	\$2,772	\$1,873	\$1,262	\$240	\$0	\$0	\$0	\$39,415	\$0
22 2-C/I Equipment (Comm Lighting)	\$2,028,079	\$33,820	\$13,623	\$0	\$130,879	\$0	\$0	\$0	\$0	\$1,566,527	\$0
23 C/I Equipment (Industrial Motors)	\$29,325	\$1,888	\$1,562	\$1,276	\$871	\$0	\$0	\$0	\$0	\$22,579	\$0
24 Government Lighting	\$1,514,435	\$825	\$23,956	\$0	\$0	\$0	\$0	\$0	\$0	\$361,509	\$1,088,495
25	\$17,776,890	\$415,203	\$895,243	\$343,522	\$670,575	\$6,645	\$1,339,923	\$1,831,067	\$21,806	\$9,352,414	\$1,570,219
26											
27											
28											

	Utility Program/ Labor Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
Recovery Allocation											
29 Residential	\$2,197,042	\$262,665	\$415,803	\$291,886	\$174,460	\$3,826	\$1,255,506	\$1,831,067	\$20,122	\$2,807,738	\$481,724
30 Low Income Residential	\$5,890,167	\$2,405	\$7,739	\$0	\$0	\$0	\$82,665	\$0	\$1,683	\$43,167	\$0
31 Small Commercial & Industrial	\$6,472,082	\$110,900	\$329,808	\$48,487	\$363,104	\$2,580	\$1,752	\$0	\$0	\$4,511,479	\$0
32 Large Commercial & Industrial	\$1,514,435	\$38,408	\$17,957	\$3,149	\$133,012	\$240	\$0	\$0	\$0	\$5,546,535	\$0
33 Government Lighting	\$8,559,812	\$825	\$23,956	\$0	\$0	\$0	\$0	\$0	\$0	\$361,509	\$1,088,495
34	\$28,924,445	\$415,203	\$895,243	\$343,522	\$670,575	\$6,645	\$1,339,923	\$1,831,067	\$21,806	\$13,270,428	\$1,570,219
35											

Appendix B-3
Detailed Budget Year 3

	Utility Program/ Labor Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
FirstEnergy Prefiled Programs											
1 Online Audit Tool	\$1,046,575										
2 Online EE Products	\$367,215										
3 CFL Program	\$0										
4 Community Connections	\$2,707,766										
5 CFL Program	\$0										
6 T&D Projects	\$0										
7 Interruption Demand Reduction	\$101,115									\$3,918,014	
8 Mercantile EE Savings	\$262,000										
9											
10											
New EE Plan Programs											
11 Direct Load Control	\$1,844,026	\$42,598	\$75,262	\$0	\$0	\$0	\$146,690	\$1,075,073	\$0	\$167,878	\$325,768
12 Appliance Turn-In Program	\$1,973,082	\$18,805	\$107,215	\$0	\$0	\$0	\$1,307,501	\$0	\$0	\$479,417	\$0
13 Energy Efficient Products Program	\$3,824,382	\$132,083	\$212,463	\$391,552	\$233,955	\$5,078	\$10,127	\$0	\$27,006	\$2,376,585	\$0
14 Energy Efficient New Construction	\$812,540	\$25,528	\$44,809	\$0	\$0	\$0	\$92,113	\$562,582	\$0	\$0	\$0
15 Comprehensive Residential-Home Performance	\$1,972,301	\$123,062	\$110,246	\$0	\$0	\$0	\$106,030	\$732,842	\$0	\$733,721	\$0
16 Appliance Turn-In Program LI	\$165,515	\$2,031	\$8,969	\$0	\$0	\$0	\$109,378	\$0	\$0	\$40,105	\$0
17 Energy Efficient Products Program LI	\$24,302	\$972	\$1,359	\$0	\$0	\$0	\$847	\$0	\$2,259	\$17,566	\$0
18 1-C&I Audits & C/I Equipment (expanded)	\$863,189	\$68,914	\$47,490	\$64,674	\$38,443	\$3,440	\$0	\$0	\$0	\$598,965	\$0
19 1-C/I Equipment (Comm Lighting)	\$6,904,272	\$112,531	\$386,961	\$0	\$445,724	\$0	\$0	\$0	\$0	\$5,335,041	\$0
20 C/I New Construction	\$95,764	\$2,418	\$5,326	\$0	\$0	\$0	\$2,336	\$0	\$0	\$81,760	\$0
21 2-C&I Audits & C/I Equipment (expanded)	\$66,922	\$3,260	\$3,699	\$2,499	\$1,683	\$319	\$0	\$0	\$0	\$52,602	\$0
22 2-C/I Equipment (Comm Lighting)	\$2,703,861	\$44,728	\$151,505	\$0	\$174,512	\$0	\$0	\$0	\$0	\$2,088,799	\$0
23 C/I Equipment (Industrial Motors)	\$38,592	\$2,009	\$2,083	\$1,701	\$1,161	\$0	\$0	\$0	\$0	\$30,106	\$0
24 Government Lighting	\$2,018,972	\$825	\$31,915	\$0	\$0	\$0	\$0	\$0	\$0	\$482,012	\$1,451,326
25	\$23,297,721	\$542,113	\$1,189,300	\$460,426	\$895,478	\$8,838	\$1,775,023	\$2,370,497	\$29,266	\$12,484,557	\$1,777,094
26											
27											
28											
Recovery Allocation											
29 Residential	\$11,840,122	\$342,076	\$349,994	\$391,552	\$233,955	\$5,078	\$1,662,461	\$2,370,497	\$27,006	\$3,757,601	\$325,768
30 Low Income Residential	\$2,897,583	\$3,004	\$10,328	\$0	\$0	\$0	\$110,226	\$0	\$2,259	\$57,671	\$0
31 Small Commercial & Industrial	\$7,853,225	\$146,212	\$439,777	\$64,674	\$484,168	\$3,440	\$2,336	\$0	\$0	\$6,015,766	\$0
32 Large Commercial & Industrial	\$7,090,504	\$49,997	\$157,287	\$4,201	\$177,356	\$319	\$0	\$0	\$0	\$6,089,522	\$0
33 Government Lighting	\$2,018,972	\$825	\$31,915	\$0	\$0	\$0	\$0	\$0	\$0	\$482,012	\$1,451,326
34	\$31,700,406	\$542,113	\$1,189,300	\$460,426	\$895,478	\$8,838	\$1,775,023	\$2,370,497	\$29,266	\$16,402,571	\$1,777,094
35											

Appendix C Other Supporting Data, Calculations, Methodologies and Assumptions

Appendix C-1 – Measure savings for programs included, including key assumptions

Appendix C-2 – Annual measure participation numbers

Appendix C-3 – PUCO Tables 1-7

Appendix C-1
Savings by Measure

	Measure Name	Program	Rate Class	kWh Savings	kW Savings	Life	Source of Saving Values and Life
1	DLC-CAC	Direct Load Control	Res	342	0.720	15	33% Cycle
2	DLC-Pool Pumps	Direct Load Control	Res	342	1.470	15	33% Cycle + OH TRM
3	DLC-Water Heat	Direct Load Control	Res	342	0.920	15	33% Cycle + OH TRM
4	Refrigerator/Freezer recycling	Appliance Turn-In Program	Res	1,647	0.190	8	OH TRM
5	Room Air Conditioners recycling	Appliance Turn-In Program	Res	79	0.067	5	OH TRM + Energy Star Factor
6	Refrigerator/Freezer recycling	Appliance Turn-In Program	LI RES	1,647	0.190	8	OH TRM
7	Room Air Conditioners recycling	Appliance Turn-In Program	LI RES	79	0.067	5	OH TRM + Energy Star Factor
8	ASHP - SEER 15	Energy Efficient Products Program	Res	1,238	0.286	12	OH TRM
9	CAC - SEER 15	Energy Efficient Products Program	Res	221	0.286	14	OH TRM
10	CAC - Maintenance	Energy Efficient Products Program	Res	215	0.290	7	OH TRM
11	EE Ground Source Heat Pump	Energy Efficient Products Program	Res	2,946	0.147	15	OH TRM
12	Solar Water Heating	Energy Efficient Products Program	Res	2,103	0.481	15	ACEEE OH Report
13	HP Water Heater	Energy Efficient Products Program	Res	2,103	0.481	15	ACEEE OH Report
14	EE Water Heater	Energy Efficient Products Program	Res	319	0.065	14	Manufacturer Supplied
15	Programmable Thermostat_Heat	Energy Efficient Products Program	Res	4,161	0.000	15	FE Calculation Using Energy Star
16	Programmable Thermostat_Heat	Energy Efficient Products Program	Res	4,161	0.000	15	FE Calculation Using Energy Star
17	Programmable Thermostat_CAC	Energy Efficient Products Program	Res	264	0.309	15	FE Calculation Using Energy Star
	Clothes Washer Energy Star, Electric Water heater, Electric Dryer						
18	Dryer	Energy Efficient Products Program	Res	232	0.015	11	ACEEE OH Report
19	Dehumidifiers	Energy Efficient Products Program	Res	213	0.010	12	ACEEE OH Report
20	Pump and Motor Single Speed	Energy Efficient Products Program	Res	184	0.566	15	OH TRM
21	Refrigerators-Freezers Energy Star - Side by Side	Energy Efficient Products Program	Res	95	0.013	13	OH TRM
22	Refrigerators-Freezers Energy Star - Top Freezer	Energy Efficient Products Program	Res	80	0.013	13	OH TRM
23	Room Air Conditioners	Energy Efficient Products Program	Res	65	0.067	10	OH TRM
24	Smart Strip plug outlet	Energy Efficient Products Program	Res	197	0.000	5	OH TRM
25	Torchiere Floor Lamps	Energy Efficient Products Program	Res	127	0.017	10	OH TRM
26	Residential New Construction - 15%	Residential New Construction	Res	1,225	1.427	15	ACEEE OH Report
27	Residential New Construction - 30%	Residential New Construction	Res	1,480	2.852	15	ACEEE OH Report
28	Ceiling Fans	reheusive Residential-Home Perfor	Res	180	0.020	10	OH TRM
29	Estar Windows	reheusive Residential-Home Perfor	Res	353	0.130	15	OH TRM
30	Duct sealing 20 leakage base	reheusive Residential-Home Perfor	Res	753	0.580	15	ACEEE OH Report
31	Low Flow Showerheads	reheusive Residential-Home Perfor	Res	234	0.028	10	ACEEE OH Report
32	Kitchen Aerator	reheusive Residential-Home Perfor	Res	114	0.024	9	DEER with Electric Hot Water
33	Bathroom Aerator	reheusive Residential-Home Perfor	Res	57	0.012	9	DEER with Electric Hot Water
34	Pipe Wrap	reheusive Residential-Home Perfor	Res	325	0.037	13	DEER with Electric Hot Water
35	Roof Insulation	reheusive Residential-Home Perfor	Res	703	0.034	15	ACEEE OH Report
36	Wall Insulation	reheusive Residential-Home Perfor	Res	664	0.065	15	ACEEE OH Report
37	Whole Building	reheusive Residential-Home Perfor	Res	-	0.000	1	None
38	Commercial, Industrial Audit - Sm&Md	I Audits & C/I Equipment (expande	SM C&I	-	0.000	1	None
39	Commercial, Industrial Audit - Large	I Audits & C/I Equipment (expande	LG C&I	-	0.000	1	None
40	Commercial New Construction	Commercial New Construction	SM C&I	21,700	5.505	17	ACEEE OH Report
41	Exterior HID replacement above 175W to 100 HPS retrofit	C/I Equipment (Comm Lighting)	SM C&I	314	0.000	15	OH TRM
42	HPT8 4ft 4 lamp, T12 to HPT8	C/I Equipment (Comm Lighting)	SM C&I	127	0.036	15	OH TRM

Appendix C-1
Savings by Measure

Measure Name	Program	Rate Class	kWh Savings	kW Savings	Life	Source of Saving Values and Life
43 LED Exit Signs Electronic Fixtures (Retrofit Only)	C/I Equipment (Comm Lighting)	SM C&I	158	0.018	15	OH TRM
44 Occupancy Sensors under 500 W	C/I Equipment (Comm Lighting)	SM C&I	351	0.099	15	OH TRM
45 Exterior HID replacement above 175W to 250W HID retrofit	C/I Equipment (Comm Lighting)	LG C&I	314	0.000	15	OH TRM
46 HPT8 4ft 4 lamp, T12 to HPT8	C/I Equipment (Comm Lighting)	LG C&I	127	0.036	15	OH TRM
47 LED Exit Signs Electronic Fixtures (Retrofit Only)	C/I Equipment (Comm Lighting)	LG C&I	158	0.018	15	OH TRM
48 Occupancy Sensors under 500 W	C/I Equipment (Comm Lighting)	LG C&I	351	0.099	15	OH TRM
49 LED Auto Traffic Signals	Government Lighting	GOV	535	0.061	15	OH TRM 8"
50 LED Pedestrian Signals	Government Lighting	GOV	946	0.108	15	OH TRM
51 Street Lighting - 175 Mercury to 100 HPS	Government Lighting	GOV	287	0.018	15	=(175-100)*3833
52 AC 65,000 - 135,000	I Audits & C/I Equipment (expande	SM C&I	529,614	0.467368	15	ACEEE OH Report
53 Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	I Audits & C/I Equipment (expande	SM C&I	633	0.067	11	DSMore MI Database
54 Efficient Refrigeration Condenser	I Audits & C/I Equipment (expande	SM C&I	120	0.118	15	DSMore MI Database
55 ENERGY STAR Commercial Solid Door Freezers less than 20ft3	I Audits & C/I Equipment (expande	SM C&I	520	0.059	12	DSMore MI Database
56 ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	I Audits & C/I Equipment (expande	SM C&I	507	0.058	12	DSMore MI Database
57 ENERGY STAR Commercial Solid Door Refrigerators 20 to 48 ft3	I Audits & C/I Equipment (expande	SM C&I	905	0.103	12	DSMore MI Database
58 ENERGY STAR Ice Machines less than 500 lbs	I Audits & C/I Equipment (expande	SM C&I	1,069	0.122	12	DSMore MI Database
59 ENERGY STAR Ice Machines 500 to 1000 lbs	I Audits & C/I Equipment (expande	SM C&I	1,652	0.189	12	DSMore MI Database
60 ENERGY STAR Ice Machines more than 1000 lbs	I Audits & C/I Equipment (expande	SM C&I	2,695	0.308	12	DSMore MI Database
61 ENERGY STAR Steam Cookers 3 Pan	I Audits & C/I Equipment (expande	SM C&I	6,048	0.690	12	DSMore MI Database
62 EE Water Heater	I Audits & C/I Equipment (expande	SM C&I	11,188	2.550	12	DSMore MI Database
63 HP Water Heater (Base Usage 22831)	I Audits & C/I Equipment (expande	SM C&I	319	0.065	14	Manufacturer Supplied
64 Plug Load Occupancy Sensors Document Stations	I Audits & C/I Equipment (expande	SM C&I	14,200	2.880	15	ACEEE OH Report
65 Commercial Smart Strip plug outlet	I Audits & C/I Equipment (expande	SM C&I	803	0.055	5	DSMore MI Database
66 Pre Rinse Sprayers	I Audits & C/I Equipment (expande	SM C&I	197	0.000	5	OH TRM
67 Strip curtains for walk-ins - freezer	I Audits & C/I Equipment (expande	SM C&I	1,396	0.116	5	DSMore MI Database
68 Vending Equipment Controller	I Audits & C/I Equipment (expande	SM C&I	613	0.070	4	DSMore MI Database
69 Window Film	I Audits & C/I Equipment (expande	SM C&I	800	0.210	5	DSMore MI Database
70 AC 240,000 - 760,000	I Audits & C/I Equipment (expande	SM C&I	282	0.105	10	OH TRM
71 Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	I Audits & C/I Equipment (expande	LG C&I	1,894	1.671	15	OH TRM
72 Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	I Audits & C/I Equipment (expande	LG C&I	10,734	8.576	23	OH TRM
73 Window Film	I Audits & C/I Equipment (expande	LG C&I	11,991	9.581	23	OH TRM
74 Plug Load Occupancy Sensors Document Stations	I Audits & C/I Equipment (expande	LG C&I	14,110	5.257	15	OH TRM
75 Commercial Smart Strip plug outlet	I Audits & C/I Equipment (expande	LG C&I	803	0.055	15	DSMore MI Database
76 Motors 1 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	197	0.000	15	DSMore MI Database
77 Motors 5 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	97	0.007	15	OH TRM
78 Motors 10 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	329	0.025	15	OH TRM
79	C/I Equipment (Industrial Motors)	LG C&I	467	0.036	15	OH TRM

Appendix C-1
Savings by Measure

	Measure Name	Program	Rate Class	kWh Savings	kW Savings	Life	Source of Saving Values and Life
80	Motors 20 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	857	0.065	15	OH TRM
81	Motors 1 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	66	0.005	15	OH TRM
82	Motors 5 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	174	0.013	15	OH TRM
83	Motors 10 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	324,9314	0.024723	15	OH TRM
84	Motors 20 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	501,6837	0.038172	15	OH TRM
85	Water Pumps with VFD's	C/I Equipment (Industrial Motors)	LG C&I	1360	0.024027	15	OH TRM
86	HVAC Fans with VFD's	C/I Equipment (Industrial Motors)	LG C&I	1653	0.029203	15	OH TRM
87	Air Compressors with VFD's	C/I Equipment (Industrial Motors)	LG C&I	774	0.013674	15	OH TRM
88	Water Pumps with VFD's	C/I Equipment (Industrial Motors)	LG C&I	6800	0.120133	15	OH TRM
89	HVAC Fans with VFD's	C/I Equipment (Industrial Motors)	LG C&I	8265	0.146015	15	OH TRM
90	Air Compressors with VFD's	C/I Equipment (Industrial Motors)	LG C&I	3870	0.06837	15	OH TRM
91	Water Pumps with VFD's	C/I Equipment (Industrial Motors)	LG C&I	13600	0.240267	15	OH TRM
92	HVAC Fans with VFD's	C/I Equipment (Industrial Motors)	LG C&I	16530	0.29203	15	OH TRM
93	Air Compressors with VFD's	C/I Equipment (Industrial Motors)	LG C&I	7740	0.13674	15	OH TRM

Appendix C-2
Annual measure participation numbers

Measure Name	Program	Rate Class	Number of 2010		Number of 2011		Number of 2012		Participants Assumptions
			Program participants	Program participants	Program participants	Program participants			
DLC-CAC	Direct Load Control	Res	2,298	2,298	3,064	3,064	Res*Sat*Survey		
DLC-Pool Pumps	Direct Load Control	Res	73	73	98	98	Res*Sat*Survey		
DLC-Water Heat	Direct Load Control	Res	73	73	98	98	Res*Sat*Survey		
Refrigerator/Freezer recycling	Appliance Turn-In Program	Res	8,172	6,538	8,717	8,717	Res*Sat*Survey - Minus Low Income		
Room Air Conditioners recycling	Appliance Turn-In Program	Res	1,308	1,308	1,743	1,743	Budgetary Limits		
Refrigerator/Freezer recycling	Appliance Turn-In Program LI	LI RES	684	547	729	729	Res*Sat*Survey x Low Income		
Room Air Conditioners recycling	Appliance Turn-In Program LI	LI RES	109	109	146	146	Budgetary Limits		
ASHP - SEER 15	Energy Efficient Products Program	Res	94	95	128	128	10% of CAC		
CAC - SEER 15	Energy Efficient Products Program	Res	2,146	2,161	2,900	2,900	Res*Sat*Survey - Minus 12%		
CAC - Maintenance	Energy Efficient Products Program	Res	9,544	9,612	12,900	12,900	Res*Sat*Survey		
EE Ground Source Heat Pump	Energy Efficient Products Program	Res	43	43	58	58	2% of CAC		
Solar Water Heating	Energy Efficient Products Program	Res	10	10	14	14	10% of HP Water Heaters		
HP Water Heater	Energy Efficient Products Program	Res	103	103	139	139	Res*Sat*Survey		
EE Water Heater	Energy Efficient Products Program	Res	2,231	2,247	3,015	3,015	Res*Sat*Survey - Minus HP Water Heater		
Programmable Thermostat_Heat	Energy Efficient Products Program	Res	2,305	2,515	3,376	3,376	Res*Sat*Survey - Minus Low Income		
Programmable Thermostat_Heat	Energy Efficient Products Program LI	LI RES	193	210	282	282	Res*Sat*Survey x Low Income		
Programmable Thermostat_CAC	Energy Efficient Products Program	Res	2,962	2,789	3,743	3,743	Res*Sat*Survey		
Clothes Washer Energy Star, Electric	Energy Efficient Products Program	Res	2,205	2,221	2,981	2,981	Res*Sat*Survey		
Water heater, Electric Dryer	Energy Efficient Products Program	Res	3,986	4,014	5,388	5,388	Res*Sat*Survey		
Dehumidifiers	Energy Efficient Products Program	Res	266	268	360	360	Res*Sat*Survey		
Pump and Motor Single Speed	Energy Efficient Products Program	Res	6,236	6,277	8,418	8,418	Res*Sat*Survey		
Refrigerators-Freezers Energy Star - Side	Energy Efficient Products Program	Res	6,236	6,277	8,418	8,418	Res*Sat*Survey		
by Side	Energy Efficient Products Program	Res	6,236	6,277	8,418	8,418	Res*Sat*Survey		
Refrigerators-Freezers Energy Star - Top	Energy Efficient Products Program	Res	6,236	6,277	8,418	8,418	Res*Sat*Survey		
Freezer	Energy Efficient Products Program	Res	6,236	6,277	8,418	8,418	Res*Sat*Survey		
Room Air Conditioners	Energy Efficient Products Program	Res	5,873	5,912	7,928	7,928	Res*Sat*Survey		
Smart Strip plug outlet	Energy Efficient Products Program	Res	6,887	6,936	9,309	9,309	(Res*Sat*Survey)*50%		
Torchiere Floor Lamps	Energy Efficient Products Program	Res	768	715	847	847	(Res*Sat*Survey)*25%		
Residential New Construction - 15%	Energy Efficient New Construction	Res	752	700	829	829	New Res*Sat*Survey*90%		
Residential New Construction - 30%	Energy Efficient New Construction	Res	84	78	92	92	New Res*Sat*Survey*10%		
Ceiling Fans	Comprehensive Residential-Home Performance	Res	1,649	1,649	2,199	2,199	Res*Sat*Survey		
Estar Windows	Comprehensive Residential-Home Performance	Res	1,099	1,099	1,466	1,466	Res*Sat*Survey		
Duct sealing 20 leakage base	Comprehensive Residential-Home Performance	Res	1,099	1,099	1,466	1,466	Res*Sat*Survey		
Low Flow Showerheads	Comprehensive Residential-Home Performance	Res	1,649	1,649	2,199	2,199	Res*Sat*Survey		
Kitchen Aerator	Comprehensive Residential-Home Performance	Res	1,832	1,832	2,443	2,443	Res*Sat*Survey		
Bathroom Aerator	Comprehensive Residential-Home Performance	Res	1,832	1,832	2,443	2,443	Res*Sat*Survey		
Pipe Wrap	Comprehensive Residential-Home Performance	Res	1,268	1,268	1,691	1,691	Res*Sat*Survey		
Roof Insulation	Comprehensive Residential-Home Performance	Res	3,879	3,879	5,172	5,172	Res*Sat*Survey		
Wall Insulation	Comprehensive Residential-Home Performance	Res	550	550	733	733	Res*Sat*Survey		
Whole Building	Comprehensive Residential-Home Performance	Res	1,832	1,832	2,443	2,443	Res*Sat*Survey		
Commercial, Industrial Audit - Sm&Md	1-C&I Audits & C/I Equipment (expanded)	SM C&I	552	552	736	736	Budgetary Limits		
Commercial, Industrial Audit - Large	2-C&I Audits & C/I Equipment (expanded)	LG C&I	11	11	15	15	Budgetary Limits		
Commercial New Construction	C/I New Construction	SM C&I	18	18	23	23	25% of New GS Customers		
Exterior HID replacement above 175W to 250W HID retrofit	1-C/I Equipment (Comm Lighting)	SM C&I	8,453	8,460	11,285	11,285	Comm*Survey		
HPT8 4ft 4 lamp, T12 to HPT8	1-C/I Equipment (Comm Lighting)	SM C&I	186,392	149,113	198,818	198,818	Comm*Survey*Square Foot Estimate		
LED Exit Signs Electronic Fixtures (Retrofit Only)	1-C/I Equipment (Comm Lighting)	SM C&I	5,371	5,376	7,171	7,171	Comm*Survey		
Occupancy Sensors under 500 W	1-C/I Equipment (Comm Lighting)	SM C&I	4,192	4,192	5,589	5,589	Comm*Survey		

Appendix C-2
Annual measure participation numbers

Measure Name	Program	Rate Class	Number of 2010		Number of 2011		Number of 2012		Participants Assumptions
			Program participants	Program participants	Program participants	Program participants			
Exterior HID replacement above 175W to 250W HID retrofit	2-C/I Equipment (Comm Lighting)	LG C&I	3,310	3,312	4,418	Comm*Survey			
HPT8 4ft 4 lamp, T12 to HPT8 (Retrofit Only)	2-C/I Equipment (Comm Lighting)	LG C&I	72,977	58,381	77,842	Comm*Survey*Square Foot Estimate			
LED Exit Signs Electronic Fixtures	2-C/I Equipment (Comm Lighting)	LG C&I	2,103	2,105	2,808	Comm*Survey			
Occupancy Sensors under 500 W	2-C/I Equipment (Comm Lighting)	LG C&I	1,641	1,641	2,188	Comm*Survey			
LED Auto Traffic Signals	Government Lighting	GOV	1,132	1,132	1,510	Intersection Estimate			
LED Pedestrian Signals	Government Lighting	GOV	283	283	377	Intersection Estimate			
Street Lighting - 175 Mercury to 100 HPS	Government Lighting	GOV	6,070	6,070	8,093	Known Number of Lights			
AC 65,000 - 135,000	1-C&I Audits & C/I Equipment (expanded)	SM C&I	464	464	619	Comm*Survey			
Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	1-C&I Audits & C/I Equipment (expanded)	SM C&I	329	331	442	Comm*Survey			
Efficient Refrigeration Condenser	1-C&I Audits & C/I Equipment (expanded)	SM C&I	230	230	307	Comm*Survey			
ENERGY STAR Commercial Solid Door Freezers less than 20ft3	1-C&I Audits & C/I Equipment (expanded)	SM C&I	180	180	240	Comm*Survey			
ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	1-C&I Audits & C/I Equipment (expanded)	SM C&I	21	21	27	Comm*Survey			
ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	1-C&I Audits & C/I Equipment (expanded)	SM C&I	368	368	491	Comm*Survey			
ENERGY STAR Commercial Solid Door Refrigerators 20 to 48 ft3	1-C&I Audits & C/I Equipment (expanded)	SM C&I	92	92	123	Comm*Survey			
ENERGY STAR Ice Machines less than 500 lbs	1-C&I Audits & C/I Equipment (expanded)	SM C&I	27	27	35	Comm*Survey			
ENERGY STAR Ice Machines 500 to 1000 lbs	1-C&I Audits & C/I Equipment (expanded)	SM C&I	13	13	18	Comm*Survey			
ENERGY STAR Ice Machines more than 1000 lbs	1-C&I Audits & C/I Equipment (expanded)	SM C&I	4	4	6	Comm*Survey			
ENERGY STAR Steam Cookers 3 Pan	1-C&I Audits & C/I Equipment (expanded)	SM C&I	276	276	369	Comm*Survey			
EE Water Heater	1-C&I Audits & C/I Equipment (expanded)	SM C&I	336	336	448	Comm*Survey Minus 10% of Water Heating			
HP Water Heater (Base Usage 22831)	1-C&I Audits & C/I Equipment (expanded)	SM C&I	37	37	50	10% of Water Heating			
Plug Load Occupancy Sensors Document Stations	1-C&I Audits & C/I Equipment (expanded)	SM C&I	268	268	358	Comm*Survey			
Commercial Smart Strip plug outlet	1-C&I Audits & C/I Equipment (expanded)	SM C&I	4,119	4,119	5,492	Comm*Survey			
Pre Rinse Sprayers	1-C&I Audits & C/I Equipment (expanded)	SM C&I	773	773	1,031	Comm*Survey			
Strip curtains for walk-ins - freezer	1-C&I Audits & C/I Equipment (expanded)	SM C&I	607	607	810	Comm*Survey			
Vending Equipment Controller	1-C&I Audits & C/I Equipment (expanded)	SM C&I	987	994	1,327	Comm*Survey			
Window Film	1-C&I Audits & C/I Equipment (expanded)	SM C&I	552	553	737	Comm*Survey			
AC 240,000 - 760,000	2-C&I Audits & C/I Equipment (expanded)	LG C&I	52	52	69	Comm*Survey			
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	2-C&I Audits & C/I Equipment (expanded)	LG C&I	1	1	2	Comm*Survey			
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	2-C&I Audits & C/I Equipment (expanded)	LG C&I	1	1	2	Comm*Survey			
Window Film	2-C&I Audits & C/I Equipment (expanded)	LG C&I	1	1	2	Scaled based on Large C&I HVAC			
Plug Load Occupancy Sensors Document Stations	2-C&I Audits & C/I Equipment (expanded)	LG C&I	67	67	89	Scaled based on Small C&I Light to Large C&I			
Commercial Smart Strip plug outlet	2-C&I Audits & C/I Equipment (expanded)	LG C&I	412	412	549	Scaled based on Small C&I Light to Large C&I			
Motors 1 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	109	87	116	Using NJ Experience for Motor Program			

Appendix C-2
Annual measure participation numbers

Measure Name	Program	Rate Class	Number of 2010 Program participants	Number of 2011 Program participants	Number of 2012 Program participants	Participants Assumptions
Motors 5 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	54	44	58	Using NJ Experience for Motor Program
Motors 10 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	27	22	29	Using NJ Experience for Motor Program
Motors 20 HP 1200	C/I Equipment (Industrial Motors)	LG C&I	7	5	7	Using NJ Experience for Motor Program
Motors 1 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	109	87	116	Using NJ Experience for Motor Program
Motors 5 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	54	44	58	Using NJ Experience for Motor Program
Motors 10 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	27	22	29	Using NJ Experience for Motor Program
Motors 20 HP 3600	C/I Equipment (Industrial Motors)	LG C&I	7	5	7	Using NJ Experience for Motor Program
Water Pumps with VFD's	C/I Equipment (Industrial Motors)	LG C&I	31	25	33	Using NJ Experience for Motor Program
HVAC Fans with VFD's	C/I Equipment (Industrial Motors)	LG C&I	31	25	33	Using NJ Experience for Motor Program
Air Compressors with VFD's	C/I Equipment (Industrial Motors)	LG C&I	31	25	33	Using NJ Experience for Motor Program
Water Pumps with VFD's	C/I Equipment (Industrial Motors)	LG C&I	16	13	17	Using NJ Experience for Motor Program
HVAC Fans with VFD's	C/I Equipment (Industrial Motors)	LG C&I	16	13	17	Using NJ Experience for Motor Program
Air Compressors with VFD's	C/I Equipment (Industrial Motors)	LG C&I	16	13	17	Using NJ Experience for Motor Program
Water Pumps with VFD's	C/I Equipment (Industrial Motors)	LG C&I	3	3	3	Using NJ Experience for Motor Program
HVAC Fans with VFD's	C/I Equipment (Industrial Motors)	LG C&I	3	3	3	Using NJ Experience for Motor Program
Air Compressors with VFD's	C/I Equipment (Industrial Motors)	LG C&I	3	3	3	Using NJ Experience for Motor Program

Table 1: Portfolio Summary of Lifetime Costs and Benefits

Portfolio Summary of Lifetime Costs and Benefits Net Lifetime Benefits, and TRC per the California Standard Practice Manual					
Portfolio	Discount Rate	Total Discounted Lifetime Costs (\$)	Total Discounted Lifetime Benefits (\$)	Total Discounted Net Lifetime Benefits (\$)	Cost- Benefit Ratio (TRC)
Residential <i>(exclusive of Low-Income)</i>	8.48%	76,620,080	150,588,538	73,968,458	1.97
Residential Low-Income	8.48%	9,881,039	15,156,650	5,275,612	1.53
Small Enterprise	8.48%	99,722,020	78,787,644	(20,934,376)	0.79
Mercantile Self-Direct	8.48%	1,065,000	44,875,652	43,810,652	42.14
Mercantile-Utility (Large Enterprise)	8.48%	45,570,577	33,400,778	(12,169,799)	0.73
Governmental	8.48%	5,180,489	5,177,291	(3,198)	1.00
Transmission & Distribution*	8.48%	*	*	*	*
Total	8.48%	238,039,204	327,986,553	89,947,349	1.38

* The Company is not seeking Cost Recovery through Rider DSE for costs associated with T&D projects. These costs will be addressed in the future proceedings. T&D projects are further described in Section 2.7.

Table 2: Summary of Portfolio Energy and Demand Savings

Summary of Portfolio Energy and Demand Savings						
MWh Saved for Consumption Reductions kW Saved for Peak Load Reductions	Program Year 2010		Program Year 2011		Program Year 2012	
	MWh Saved	kW Saved	MWh Saved	kW Saved	MWh Saved	kW Saved
Baseline	25,015,720	5,207,790	24,591,525	5,213,171	24,819,632	5,355,200
Residential Sector <i>(exclusive of Low-Income)</i> - Cumulative Projected Portfolio Savings	36,887	18,858	173,075	41,427	266,841	64,260
Residential Low-Income Sector - Cumulative Projected Portfolio Savings	20,048	2,803	33,749	4,654	38,620	5,567
Small Enterprise - Cumulative Projected Portfolio Savings	11,873	9,499	57,305	17,569	97,946	28,331
Mercantile-Self Direct	123,577	31,349	145,089	36,806	155,741	39,508
Mercantile-Utility (Large Enterprise)- Cumulative Net Weather Adjusted Savings	4,029	35,808	18,360	38,401	30,997	41,860
Governmental- Cumulative Projected Portfolio Savings	698	223	4,191	446	7,450	743
Transmission & Distribution	14,594	3,860	22,609	5,828	30,624	7,796
Portfolio Plan Total - Cumulative Projected Savings	211,707	102,400	454,378	145,132	628,220	188,065
Percent Reduction From Baseline (MWh)	0.8%	2.0%	1.8%	2.8%	2.5%	3.5%
Percent Savings Due to Portfolio Above or Below Targets*	6%	12%	23%	11%	10%	8%

*The indicated amounts are estimates only and based on aggressive program implementation schedules. Any over compliance should be viewed solely as a contingency. In the event actual over-compliance occurs, the Company reserves the right to modify any program contributing to such over compliance to the degree necessary to bring actual results more in line with statutory benchmark requirements.

Table 3: Summary of Portfolio Costs

Summary of Portfolio Costs			
Program year is June 1 – May 31			
	Program Year 2010	Program Year 2011	Program Year 2012
	Portfolio Budget (\$)	Portfolio Budget (\$)	Portfolio Budget (\$)
Residential Portfolio Annual Budget (\$ and percent of Portfolio Budget)	13,334,663	12,197,042	11,840,122
Residential Low-Income Portfolio Annual Budget (\$ and percent of Portfolio Budget)	4,133,289	2,850,167	2,897,583
Small Enterprise Portfolio Annual Budget (\$ and percent of Portfolio Budget)	8,147,074	5,890,718	7,853,225
Mercantile-Self Direct Portfolio Annual Budget(\$ and percent of Portfolio Budget)	471,000	332,000	262,000
Mercantile-Utility (Large Enterprise) Portfolio Annual Budget (\$ and percent of Portfolio Budget)	4,326,475	6,140,082	6,828,504
Governmental Portfolio Annual Budget (\$ and percent of Portfolio Budget)	1,530,110	1,514,435	2,018,972
Transmission & Distribution Portfolio Annual Budget (\$ and percent of Portfolio Budget)*	*	*	*
Total Portfolio Annual Budget	31,942,611	28,924,445	31,700,406
* The Company is not seeking Cost Recovery through Rider DSE for costs associated with T&D projects. These costs will be addressed in the future proceedings. T&D projects are further described in Section 2.7.			

Table 4: Program Summaries

Table 4: Program Summaries * Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Residential Portfolio Programs (exclusive of Low Income)		X	Direct Load Control	RES	This program will provide the Company with a program result that will have the capability to reduce loads over more hours during the summer.	3	48,394	10,225	0.4%
	X		Appliance Turn-In Program	RES	Provide incentive to households for removing older inefficient appliances from the system by offering customers an incentive and free pick-up and disposal service for second refrigerators, freezers and room air conditioners.	3	305,527	5,059	2.8%
	X		Energy Efficient Products Program	RES	This program provides rebates to consumers and financial incentives and support to retailers that sell energy efficient products, such as ENERGY STAR® qualified appliances, high efficiency lighting, and other electricity conservation products.	3	809,887	18,873	7.4%
	X		Efficient New Homes Program	RES	The objective of this program is to increase the energy efficiency of new residential construction by taking advantage of the best opportunity for capturing savings – i.e., during the design and build phase. The program provides a rebate to local builders for achieving energy efficiency targets through a combination of building shell and appliance upgrades.	3	47,148	4,244	0.4%
	X		Comprehensive Residential Retrofit Program	RES	This program offers residential customers a comprehensive home energy audit with air infiltration testing through the use of blower door technology or other diagnostic tools for improving the integrity of the building shell. It also examines appliance efficiency, lighting and HVAC systems.	3	263,044	4,050	2.4%
	X		Online Audit Program	RES	The Online Home Energy Audit Tool is a software program that will provide the Company with the necessary tools and equipment needed to properly supply customers with the information and education required to lower their energy costs through energy efficiency program participation and other actions.	3	316,035	6,013	2.9%
	X		Online Efficient Products Program*	RES	Provides customers with a way to quickly and directly purchase energy efficiency measures and products via a sponsored link to the Energy Federation Institute (EFI) energy efficient products catalog on on-line.	3	34,543	657	0.3%
	X		CFL Program*	RES	This program gives customers the ability to choose to participate in the program through a variety of channels and supports their efforts to reduce their residential energy consumption.	3	1,203,421	15,138	11.0%
Totals for Residential Sector							3,027,999	64,260	27.7%
Table 4: Program Summaries * Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Residential Low-Income Sector Programs	X		Appliance Turn-In Program	LI RES	See above	3	25,559	423	0.2%
	X		Energy Efficient Products Program	LI RES	See above	3	42,432	-	0.4%
	X		Community Connections*	LI RES	The Community Connections Program provides weatherization measures, energy efficient solutions, and client education to the Company's low-income customers to which the Company provides electric service.	3	118,929	2,263	1.1%
	X		CFL Program*	LI RES	The objective of this program is to quickly distribute energy efficient product to low income eligible customers so that they may immediately start realizing energy savings and gain experience with compact fluorescent light bulbs	3	381,694	2,881	3.5%
	Totals for Low-Income Sector							568,613	5,567

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Small Enterprise	X		Small Enterprise Audits & Equipment Program	Small C&I	Provides two levels of energy audits for non-residential customers of the Company: 1) Small business customers may obtain a simple walk-through audit appropriate for small buildings or facilities with non-complex loads to help identify existing end uses of energy and find specific ways in which energy savings can be achieved. The audit helps to identify rebates and other incentives available from other programs. 2) Medium and large commercial and non-residential customers may elect to obtain an audit that covers more complex equipment as well as larger buildings	3	257,228	5,643	2.4%
	X		C/I Equipment Program (Commercial Lighting)	Small C&I	This program offers a range of rebates for technologies applicable to business and other non-residential facilities. It is available to Small Enterprise as well as Large C/I customers. The first iteration of the program is a component of the C/I Efficient Equipment Program. The objective of this program is to quickly launch rebates to address the most common end use of electricity across all non-residential (and residential for that matter) building types – lighting. This program provides rebates to customers for the purchase and installation of high efficiency lighting as an alternative to standard fixtures and bulbs.	3	1,259,748	22,345	11.5%
	X		C/I New Construction Program	Small C&I	The objective of this program is to increase the energy efficiency of new commercial buildings by taking advantage of the best opportunity for capturing savings – i.e., during the design and build phase. The program provides incentive of up to \$15,000 to building owners and developers for achieving energy efficiency targets through a combination of building shell and equipment upgrades.	3	21,385	343	0.2%
				<i>Totals for Small Enterprise</i>				<i>1,538,362</i>	<i>28,331</i>

Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Mercantile Self-Direct	X	X	Mercantile EE Savings*		All customers that meet the definition of "mercantile customer", as defined in R.C. § 4928.01 (A) (19) are eligible for this program. The Companies are currently proactively working with a group of approximately 300 customers across their respective service territories to jointly file applications to commit the customer's EE/PDR programs, pursuant to division R.C. § 4928.66(A)(2)(c). These 300 customers were selected based on highest usage.	3	2,336,118	39,508	21.4%
<i>Totals for Mercantile Self-Direct</i>							2,336,118	39,508	21.4%
Mercantile-Utility (Large Enterprise)	X		C/I Audits & Equipment Program	Large C&I	This program provides rebates for high efficiency electric equipment and building shell related measures for non-residential customers. Rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less. Participants are encouraged, but not required, to complete an energy audit prior to participating in this program.	3	12,613	374	0.1%
	X		C/I Equipment Program (Commercial Lighting)	Large C&I	This program provides rebates for high efficiency electric equipment and building shell related measures for non-residential customers. Rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less. Participants are encouraged, but not required, to complete an energy audit prior to participating in this program.	3	493,222	8,748	4.5%
	X	X	C/I Equipment Program (Industrial Motors)	Large C&I	This program is designed to encourage the Company's commercial and industrial customers to upgrade their existing motors to NEMA Premium® motors when switching out old motors due to breakdowns and/or programmed replacements.	3	25,946	46	0.2%
		X	Interruptible Demand Reduction*	Large C&I	The objective of the Economic Load Response Program is load curtailment. Metrics include calculating Curtailable Load Curtailable Load (CL) is calculated by the Company for each customer by subtracting the customer's contract Firm Load from its monthly highest thirty (30) minute integrated kW load occurring during the non-holiday weekday hours of 11 a.m. to 5 p.m. Eastern Standard Time (equivalent to noon to 6 p.m. EDT).	3	-	32,650	0.0%
<i>Totals for Large Enterprise</i>							2,869,302	81,368	26.3%
Table 4: Program Summaries									
* Indicates an Existing/Pre-Filed Program									
	EE Program (check box)	PDR Program (check box)	Program Name	Program Market	Program Two Sentence Summary	Program Years Operated	Net Lifetime MWh Savings	Net Peak Demand kW Savings	Percentage of Portfolio and Total Lifetime MWh savings %
Governmental Portfolio Programs	X		Government Lighting	Gov't	The intent of this program is to target an easily addressed energy savings opportunity that will help local governments save money. This program provides local governments with rebates for replacing inefficient traffic signals and pedestrian light signals with high efficiency LED equipment. It also addresses upgrades to street lighting fixtures and lamps.	3	129,832	743	1.2%
	<i>Totals for Gov't/INP Sector Programs</i>							129,832	743
Transmission & Distribution	X	X	Transmission & Distribution Projects*	T&D	The use of T&D projects is a significant aspect of the Companies' overall energy efficiency compliance plan. It is the Companies' intent to submit past and future T&D improvement projects for compliance.	3	459,366	7,796	4.2%
<i>Totals for Gov't/Sector Programs</i>							459,366	7,796	4.2%
Total for Plan							10,929,592	180,269	100.0%

Table 5: Budget and Parity Analysis Summary

Customer Class	3 Year Budget	% of Total EDC Budget
Residential	37,371,827	40.37%
Residential Low Income	9,881,039	10.67%
Residential Subtotal	47,252,866	51.05%
Small Enterprise	21,891,017	23.65%
Small Enterprise Total	21,891,017	23.65%
Mercantile-Utility (Large Enterprise)	17,295,061	18.68%
Mercantile-Self Direct	1,065,000	1.15%
Mercantile Subtotal	18,360,061	19.83%
Governmental	5,063,518	5.47%
Transmission & Distribution	-	0.00%
Other Expenditures Subtotal	-	0.00%
EDC TOTAL	92,567,462	100%

Table 6A: Portfolio-Specific Assignment of EE&C Costs

Residential Portfolio (excluding Low-Income) * Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Peak Demand Reduction Programs			
Direct Load Control*	2,687,683	2,617,688	5,305,371
Peak Demand Reduction Program Subtotal	2,687,683	2,617,688	5,305,371
Energy Efficiency Programs			
Appliance Turn-In Program	1,484,558	3,990,443	5,475,001
Energy Efficient Products Program	5,968,186	3,583,562	9,551,748
Efficient New Construction Program	1,548,042	735,923	2,283,965
Comprehensive Residential Retrofit Program	3,666,406	1,310,659	4,977,065
Online Audit Program	0	3,353,583	3,353,583
Online Energy Efficiency Products*	0	1,101,645	1,101,645
CFL Program*	0	5,323,450	5,323,450
EE Program Subtotal	12,667,192	19,399,265	32,066,456
Totals	15,354,874	22,016,953	37,371,827

Appendix C-3
PUCO Table 6A-6C

Residential Low-Income Portfolio			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Appliance Turn-In Program	124,190	343,898	468,088
Energy Efficient Products Program	48,130	13,317	61,447
Community Connections*	0	8,123,297	8,123,297
CFL Program*	0	1,228,206	1,228,206
Totals	172,320	9,708,718	9,881,039

Small Enterprise			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Small Enterprise Audits & Equipment Program	1,496,585	686,861	2,183,446
C/I Equipment Program (Commercial Lighting)	15,238,113	4,205,672	19,443,785
C/I New Construction Program	204,399	59,386	263,786
Totals	16,939,098	4,951,919	21,891,017

Mercantile Self-Direct			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Mercantile EE Savings*	0	1,065,000	1,065,000
Totals	0	1,065,000	1,065,000

Appendix C-3
PUCO Table 6A-6C

Mercantile Utility (Large Enterprise)			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Peak Demand Reduction Programs			
Interruptible Demand Reduction*	9,054,806	287,916	9,342,723
Peak Demand Reduction Program Subtotal	9,054,806	287,916	9,342,723
Energy Efficiency Programs			
C/I Audits & Equipment Program	118,262	68,908	187,170
C/I Equipment Program (Commercial Lighting)	5,966,095	1,661,349	7,627,444
C/I Equipment Program (Industrial Motors)	85,466	52,259	137,725
EE Program Subtotal	6,169,822	1,782,516	7,952,338
Totals	15,224,629	2,070,432	17,295,061

Governmental			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Government Lighting	1,205,031	3,858,487	5,063,518
Totals	1,205,031	3,858,487	5,063,518

Transmission & Distribution			
* Indicates an Existing/Pre-Filed Program			
EE&PDR Program	Cost Elements (\$)		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2012)</i>
Transmission & Distribution Projects*	0	0	0
Totals	0	0	0

Table 6B: Allocation of Common Costs to Applicable Customer Sector

Common Cost Element	EE Program (check box)	PDR Program (check box)	Total Cost (\$)	Basis for Cost Allocation	Residential (Including Low-Income)	Small Enterprise (Small C&I)	Mercantile-Self Directed	Mercantile-Utility (Large C&I)	Transmission & Distribution	Governmental/ Non-profit
Consultant Costs and Employee Expenses for Plan Development	X	X	\$ 316,820	EE Plan Budget	\$161,727	\$74,924	\$3,645	\$59,194	\$0	\$17,330
Measurement and Verification Tracking and Reporting Software	X	X	\$ 570,276	EE Plan Budget	\$291,109	\$134,863	\$6,561	\$106,549	\$0	\$31,195
External Legal Fees	X	X	\$ 56,575	EE Plan Budget	\$28,880	\$13,379	\$651	\$10,570	\$0	\$3,095
Totals			\$943,671		\$481,715	\$223,166	\$10,857	\$176,313	\$0	\$51,620

Table 6C: Summary of Portfolio EE/PDR Costs

Portfolio	Total Sector Portfolio-specific Costs	Total Common Costs	Total of All Costs
Residential (Including Low-Income)	\$47,252,866	\$481,715	\$47,734,581
Small Enterprise	\$21,891,017	\$223,166	\$22,114,183
Mercantile-Self Direct	\$1,065,000	\$10,857	\$1,075,857
Mercantile-Utility (Large Enterprise)	\$17,295,061	\$176,313	\$17,471,374
Transmission & Distribution	\$0	\$0	\$0
Governmental	\$5,063,518	\$51,620	\$5,063,518
Totals	\$92,567,462	\$943,671	\$93,459,513

Table 7A: TRC Benefits Table

Residential (exclusive of Low-Income) * Indicates an Existing/Pre-Filed Program	TRC Benefits By Program Per Year (\$000)														
	Program	Year	TRC	Program Costs (\$000)		Program Benefits (\$000)	Capacity		Energy Annual Benefits	Energy Annual On/Off Peak	Load Reductions in kW		MWh Saved		
				Program Costs (\$000)	Program Benefits (\$000)		Capacity Annual Benefits	Capacity Annual Gen/T&D			Annual	Lifetime	Annual	Lifetime	
Direct Load Control*	2010	0.78	3,096,290	2,403,619	1,792,780	610,839	See footnote 1	1,953	10,225	223	48,394	1,953	10,225	223	48,394
	2011	0.82	3,006,290	2,471,882	1,834,708	637,175		2,603	10,225	1,114	48,394	1,953	10,225	1,114	48,394
	2012	0.86	3,927,870	3,372,473	2,476,540	895,933		1,750	5,059	4,695	305,527	1,418	5,059	15,577	305,527
Appliance Turn-In Program	2010	2.33	2,021,982	4,721,059	938,236	3,782,823		1,891	5,059	13,553	305,527	5,666	18,873	4,915	809,887
	2011	2.65	1,479,937	3,920,239	751,492	3,168,747		5,641	18,873	25,045	809,887	7,567	18,873	24,115	809,887
	2012	2.74	1,973,082	5,404,113	956,133	4,447,980		1,399	4,244	279	47,148	1,303	4,244	1,355	47,148
Energy Efficient Products Program	2010	1.73	7,131,944	12,310,485	3,734,502	8,575,984		1,542	4,244	1,134	47,148	1,215	4,050	1,525	263,044
	2011	1.84	7,130,299	13,100,991	3,726,192	9,374,799		1,620	4,050	7,117	263,044	1,997	6,013	1,594	316,035
	2012	1.90	9,560,597	18,163,286	4,902,095	13,261,191		455	6,013	6,996	316,035	3,561	6,013	12,479	316,035
Efficient New Homes Program	2010	1.79	1,003,514	1,794,043	1,284,674	509,369		131	657	461	34,543	263	657	921	34,543
	2011	1.93	890,250	1,718,727	1,224,043	494,684		263	657	921	34,543	263	657	921	34,543
	2012	1.98	1,053,647	2,084,967	1,467,265	617,702		2,573	15,138	22,731	1,203,421	2,573	15,138	22,731	1,203,421
Comprehensive Residential Retrofit Program	2010	0.61	6,331,838	3,880,100	1,069,005	2,811,095		8,780	15,138	77,554	1,203,421	1,215	4,050	7,625	263,044
	2011	0.64	6,286,713	4,024,279	1,092,062	2,932,217		1,620	4,050	7,117	263,044	1,215	4,050	7,625	263,044
	2012	0.67	8,381,492	5,593,174	1,469,133	4,124,041		455	6,013	1,594	316,035	1,997	6,013	12,479	316,035
Online Audit Program	2010	0.53	1,260,432	668,799	177,440	491,359		131	657	461	34,543	263	657	921	34,543
	2011	3.10	1,046,575	3,244,834	879,819	2,365,015		263	657	921	34,543	263	657	921	34,543
	2012	7.01	1,046,575	7,336,746	2,808,496	4,528,249		131	657	461	34,543	263	657	921	34,543
Online Efficient Products*	2010	0.53	367,215	193,263	51,275	141,988		131	657	461	34,543	263	657	921	34,543
	2011	1.16	367,215	427,248	115,846	311,402		263	657	921	34,543	263	657	921	34,543
	2012	1.47	367,215	541,559	207,308	334,251		263	657	921	34,543	263	657	921	34,543
CFL Program*	2010	3.01	2,661,725	8,011,584	1,003,884	7,007,700		8,780	15,138	77,554	1,203,421	2,573	15,138	22,731	1,203,421
	2011	11.30	2,661,725	30,086,770	3,869,094	26,217,676		3,784	15,138	33,428	1,203,421	3,784	15,138	33,428	1,203,421
	2012	-	-	15,114,299	2,984,397	12,129,902		22,833	64,260	93,767	3,027,999	22,833	64,260	93,767	3,027,999
Total		2.06	73,054,424	150,588,538	40,816,417	109,772,121		22,833	64,260	93,767	3,027,999	22,833	64,260	93,767	3,027,999

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component therefore the total avoided capacity costs for Generation, Transmission and Distribution are displayed here.

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided energy costs for on and off peak energy costs are displayed here.

Table 7B: TRC Benefits Table

Residential Low-Income Filed Program	TRC Benefits By Program Per Year (\$000)											
	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
					Annual Benefits	Gen/T&D	Annual Benefits	On/Off Peak	Annual	Lifetime		Annual
Appliance Turn-In Program	2010	2.21	178,311	394,938	78,488	See footnote 1	316,450	See footnote 2	146	423	393	25,559
	2011	2.64	124,262	327,946	62,866		265,080		119	423	1,303	25,559
	2012	2.73	165,515	452,078	79,985		372,094		158	423	1,132	25,559
Energy Efficient Products Program*	2010	20.57	19,006	391,040	-		391,040		0	0	214	42,432
	2011	24.54	18,139	445,171	-		445,171		0	0	1,109	42,432
	2012	25.93	24,302	630,080	-		630,080		0	0	1,094	42,432
Community Connections*	2010	0.20	2,707,766	549,156	145,697		403,459		373	2,263	1,309	118,929
	2011	0.44	2,707,766	1,185,219	293,618		891,600		753	2,263	2,637	118,929
	2012	0.57	2,707,766	1,554,970	595,241		959,730		755	2,263	2,645	118,929
CFL Program*	2010	4.82	1,228,206	5,919,183	741,698		5,177,485		1,901	2,881	16,795	381,694
	2011	0.00	-	3,306,869	382,087		2,924,782		979	2,881	8,652	381,694
	2012	-	-	-	-		-		0	2,881	0	381,694
Total		1.53	9,881,039	15,156,650	2,379,679		12,776,971		913	5,567	4,871	568,613

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

Table 7C: TRC Benefits Table

TRC Benefits By Program Per Year (\$000)													
Small Enterprise	Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
						Annual Benefits	Gen/T&D	Annual Benefits	On/Off Peak	Annual	Lifetime		Annual
	Small Enterprise	2010	1.16	3,361,132	3,905,673	1,188,804	See footnote 1	2,716,869	See footnote 2	1,691	5,643	2,207	257,228
	Audits & Equipment	2011	1.22	3,314,734	4,037,389	1,202,808		2,834,581		1,693	5,643	11,040	257,228
	Program	2012	1.26	4,420,519	5,570,050	1,585,370		3,984,680		2,259	5,643	10,314	257,228
	C/I Equipment	2010	0.69	30,481,438	21,013,492	7,058,830		13,954,662		7,706	22,345	9,565	1,259,748
	Program	2011	0.73	24,718,099	18,089,739	5,895,082		12,194,657		6,274	22,345	33,884	1,259,748
	(Commercial	2012	0.76	32,957,914	25,105,534	7,957,408		17,148,126		8,365	22,345	29,854	1,259,748
	Lifetime)	2010	1.95	157,206	307,121	102,384		204,738		103	343	101	21,385
	C/I New Construction	2011	2.38	133,456	318,001	105,109		212,892		103	343	507	21,385
	Program	2012	2.48	177,524	440,646	142,722		297,924		137	343	473	21,385
	Total		0.79	99,722,020	78,787,644	25,238,516		53,549,128		10,761	28,331	40,641	1,538,362

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

Table 7D: TRC Benefits Table

Mercantile Self-Direct * Indicates an Existing/Pre-Filed Program	TRC Benefits By Program Per Year (\$000)												
	Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity Annual		Energy Annual		Load Reductions in kW		MWh Saved	
						Benefits	Gen/T&D	Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime
Mercantile EE Savings*	2010	62.00	471,000	29,202,404	7,096,053	See footnote 1	22,106,351	See footnote 2	18,191	39,508	71,708	2,336,118	
	2011	29.15	332,000	9,677,234	2,404,831		7,272,403		5,457	39,508	21,512	2,336,118	
	2012	22.89	262,000	5,996,014	2,130,869		3,865,145		2,702	39,508	10,652	2,336,118	
Total		42.14	1,065,000	44,875,652	11,631,753		33,243,899		2,702	39,508	10,652	2,336,118	

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

Table 7E: TRC Benefits Table

TRC Benefits By Program Per Year (\$000)												
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime
C/I Audits & Equipment Program	2010	0.70	357,287	251,459	106,712	See footnote 1	144,747	See footnote 2	112	374	66	12,613
	2011	0.77	339,909	260,107	109,472		150,635		112	374	330	12,613
	2012	0.79	453,128	359,528	148,371		211,157		150	374	308	12,613
Technical Assessment Umbrella Program	2010	0.70	39,699	27,940	11,857		16,083		12	42	7	1,401
	2011	0.77	37,768	28,901	12,164		16,737		12	42	37	1,401
	2012	0.79	50,348	39,948	16,486		23,462		17	42	34	1,401
C/I Equipment (Commercial Lighting)	2010	0.69	11,947,616	8,227,297	2,763,705		5,463,592		3,017	8,748	3,745	493,222
	2011	0.73	9,678,411	7,082,576	2,308,069		4,774,507		2,456	8,748	13,267	493,222
	2012	0.76	12,904,500	9,829,432	3,115,520		6,713,912		3,275	8,748	11,689	493,222
C/I Equipment (Industrial Motors)	2010	1.88	165,025	310,161	14,840		295,321		16	46	211	25,946
	2011	2.38	109,145	259,710	12,180		247,530		13	46	698	25,946
	2012	2.51	145,018	364,493	16,441		348,052		17	46	606	25,946
Interruption Demand Reduction*	2010	1.19	1,291,320	1,531,903	1,531,903		-		0	32,650	0	0
	2011	0.43	4,032,273	1,730,524	1,730,524		-		0	32,650	0	0
	2012	0.77	4,019,129	3,096,800	3,096,800		-		0	32,650	0	0
Total		0.73	45,570,577	33,400,778	14,995,044		18,405,734		3,442	41,819	12,603	531,782

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

Table 7F: TRC Benefits Table

TRC Benefits By Program Per Year (\$000)												
Governmental Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity Annual		Energy Annual		Load Reductions in kW		MWh Saved	
					Benefits	Gen/T&D	Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime
Government Lighting	2010	0.95	1,565,202	1,481,208	204,745	See footnote 1	1,276,463	See footnote 2	223	743	698	129,832
	2011	0.99	1,549,527	1,541,029	209,533		1,331,496		223	743	3,492	129,832
	2012	1.04	2,065,760	2,155,054	282,834		1,872,220		297	743	3,260	129,832
Total		1.00	5,180,489	5,177,291	697,112		4,480,178		297	743	3,260	129,832

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

Table 7F: TRC Benefits Table

Transmission & Distribution * Indicates an Existing/Pre-Filed Program	TRC Benefits By Program Per Year (\$000)												
	Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
						Annual Benefits	Gen/T&D	Annual Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime
Transmission & Distribution Projects*	2010	-	-	-	-	See footnote 1	-	-	See footnote 2	984	7,796	4,008	459,366
	2011	-	-	-	-	-	-	-	-	1,968	7,796	8,015	459,366
	2012	-	-	-	-	-	-	-	-	1,968	7,796	8,015	459,366
Total		0	0	0	0	0	0	0	0	1,968	7,796	8,015	459,366

1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component

2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided

Appendix D
Assessment of Potential

Appendix E
The Company's Redesigned CFL Distribution Proposal

FirstEnergy Redesigned CFL Distribution Proposal

The redesigned CFL distribution proposal is a two-year plan that gives customers the ability to choose to participate in the program through a variety of channels and supports their efforts to reduce their residential energy consumption. The issue of customer choice was a concern heard by the company with respect to the original CFL program; the following proposal addresses that concern by providing customers opportunities to decide for themselves if they would like to start saving electricity and learn about energy efficiency by buying CFLs or for some customers to receive the CFLs through other channels. In addition, a full customer outreach and education plan about energy efficiency in general and CFLs in particular will be developed.

An important aspect of the redesigned proposal is to utilize first the light bulbs in stock (and efficiently use the collateral materials developed to support the original direct distribution CFL program) as part of the utilities' efforts to meet their energy efficiency portfolio goals. In the redesigned program, the CFLs will be distributed and used as an introduction to educate customers about energy conservation and to promote future efficiency programs. This effort will include information and incentives to purchase future energy-efficient products that are approved by the Public Utilities Commission of Ohio (PUCO). Taking into consideration the number of light bulbs and the public's reaction to the original plan, a variety of distribution options – including retailer purchase – have been developed to appeal to a range of stakeholders. This overall approach relies substantially upon and reflects stakeholders' comments and customer feedback.

The CFLs will be distributed a number of ways, with each described below in more detail and listed in the order in which the channels will be introduced to the customer. The primary distribution methods will be: 1) Select retailers will offer the CFLs for a significantly reduced cost compared to other light bulbs at locations throughout the FirstEnergy's Ohio utilities' service territory; 2) CFLs will be distributed to customers through select public assistance agencies or affinity groups such as senior centers at designated locations across the utilities' service territory, or the bulbs can be delivered to customer their homes as initiated by the agency. Other distribution channels may include: 1) Assisting Percentage of Income Payment Plan (PIPP) customers by directly distributing -- with the cooperation of the Ohio Department of Development -- up to 6 CFLs to each PIPP customer opting into the program; 2) Additional light bulb distribution can occur through the utility call center or web site when customers need help managing their bills and energy use. These customers have the option to receive up to 6 CFLs; 3) Customers requesting new electric service at their residences will have the option of receiving up to 6 CFLs per household through an economical delivery method; 4) All-electric residential customers will have the option of receiving up to 6 CFLs. 5) General use customers will have the option of receiving up to 6 CFLs per household, through an economical delivery method. Special attention will be paid to customers using less than 550 kWh per month (lower use customers).

CFLs

The original CFL distribution program was designed to deliver a package of two CFLs to each home. Going forward, the proposed plan would take full advantage of the materials developed for that program in an effort to control cost and speed the distribution of the CFLs.

The original delivery package includes:

- Custom kraft paper bag / box with FirstEnergy logo and message
- Welcome letter and usage instructions with 10% coupon
- "100 Ways to improve your electric bill" brochure
- CFL two-pack
 - 23-watt compact fluorescent light bulbs
 - 100-watt incandescent equivalent
 - Light output: 1600 lumens
 - Life: 8,000 hours to 12,000 hours
 - Color: Warm White 2700K
 - Energy Star ® certified

Communication Plan

Public understanding of the benefits of the proposed CFL plan is equally as important as delivery of the light bulbs themselves. A community outreach communication plan will be developed to inform customers and educate them on the value of energy efficiency. Stakeholders involved in the collaborative will be asked to participate in developing a unified message to customers about the program. All stakeholders must publicly support the program.

For every distribution channel, the message about energy efficiency -- along with education materials and other incentives for purchase of future energy efficiency products -- will be delivered to customers through a variety of mass marketing channels. These include the companies' contact center, broadcast media, newspapers, direct mail, bill inserts, point of sale displays at retailers, and the companies' Web site and on-line store. Educational materials on the proper use of CFLs also will be provided. In addition, retailers and manufacturers will be involved in cross promoting product offers in conjunction with national campaigns such as Earth Day and Change a Light, Change the World.

The FirstEnergy Web page and email system will be utilized in allowing customer easy access to the CFL program information and facilitate opt in request to receive light bulbs.

The primary source for CFL distribution will be through retail and community group organizations.

The target market is all FirstEnergy Ohio utility residential customers, including renters and homeowners, and identified small business customers. The additional delivery channels associated with distinct customer groups -- such as PIPP customers, new utility customers and call center high-usage customers -- will be mutually exclusive to one another to avoid overlapping distribution among these customer groups.

CFLs at Retailers

Participating retailers will offer the existing CFLs to customers for no more than \$1.00 each in a point-of-purchase display that will provide information on the offer and how CFLs can help them save on electricity usage. Structured like a traditional CFL buy-down or rebate campaign used by other utilities, customers may go to the retailer and choose to buy the discounted light bulbs. The first CFLs used in the retail program are the existing 23 watt light bulbs in stock.

CFLs will also be offered to FirstEnergy customers as an incentive for buying energy efficiency products from the company's online store.

Public Assistance Agencies, community groups and affinity organizations

Community support agencies and affinity groups throughout the FirstEnergy service territory will be asked to participate in an educational outreach and CFL distribution program to the customers they serve. Agencies will be reviewed and selected based on collaborative members' recommendations. The review will focus on the customer groups the agencies serve, geographic location, and experience with assisting the public with material items as opposed to those which provide financial aid. The total number of CFLs offered through this method will be determined by program support and general expense.

Light bulbs will be held back from retail and community group distribution for customers in the following distribution channels that opt in to the following programs for receiving CFLs. The list is presented in the order in which the distribution channels will be made available to customers.

PIPP Customers

Customers participating in the Percentage of Income Payment Plan (PIPP) will have the option of being sent up to 6 CFLs with the cooperation of the Ohio Department of Development. Approximately 140,000 FirstEnergy Ohio customers are currently enrolled in the assistance program. Participating PIPP customers will be sent the CFLs along with educational materials. Offered as an opt-in program, it is estimated 10% or 14,000 customers will ask to receive the light bulbs. A total of 84,000 CFLs will be distributed to this group. The most cost-effective delivery method will be selected once the location of each customer is identified.

Contact Center High Usage Tool

Each year, the FirstEnergy contact center receives approximately 200,000 calls from FirstEnergy's Ohio customers asking about their energy consumption. Through the Online Audit tool now being installed, the contact center representative has a software program to help customers better understand their electricity usage. Separate from that audit, the company will offer each of these customers 6 CFLs per household. This approach gives customers an immediate action they may take to lower their usage. It is estimated that two thirds of the customers will accept the light bulbs, totaling potential distribution of approximately 264,000 CFLs over the course of one year.

New Utility Customers

The FirstEnergy contact center handles approximately 200,000 requests for new electrical service each year. A new electric utility customer is an ideal candidate to receive information on how to control energy consumption. Along with the standard "100 Ways to Improve Your Electric Bill" brochure, FirstEnergy will give each new customer the option of receiving 6 CFLs as part of a "welcome pack." Of the 200,000 calls about half will be actual new customers and eligible for this program. FirstEnergy estimates potential delivery of 396,000 CFLs over a one-year period through this method.

All-Electric Home Customers

FirstEnergy has approximately 214,000 customers who use electricity as their only energy supply. This group will have the option of receiving up to 6 CFLs along with special conservation suggestions for their all-electric homes.

General Customer Opt-in

General customers have the option of having up to 6 CFLs delivered to each home. Through this program, customers will be able to opt-in to having the light bulbs sent to their

homes. The delivery mechanism of delivery will be determined by the extent of customer participation, and the most economical delivery method will be used. With this opt-in plan, it is most economical to offer this group up to 6 CFLs per customer. With 1,800,000 customers in the group, it is estimated 10% would participate, meaning 180,000 customers could receive 1,080,000 CFLs over two years. Lower usage customers will receive special notification and instructions on energy efficiency and conservation.

Small Business Customers

Initial reaction of small business customers to a CFL distribution program has been favorable, and their support for the distribution of CFLs has been consistent. This customer group has been fully vetted by the agencies that represent their interests. As in the original plan, FirstEnergy will distribute 3 CFLs to a list of 14,000 small business customers selected by the Council of Smaller Enterprises (COSE) and the Toledo Regional Chamber of Commerce.

Measurement

The redesigned CFL proposal will directly count CFLs that customers receive. Each light bulb purchased at a retailer will be counted starting in the month in which it was bought and tracked by logging delivery reports and retailer records. Energy savings determination through agency distribution will be effected by counting the numbers of CFLs sent to each approved organization or by counting the CFLs sent directly by FirstEnergy to the customer on behalf of the organization. It is expected that the commission’s determination as to cost and lost revenue recovery will be made at a later date after the approved statewide measurement and verification consultant makes its recommendations.

First-year forecast from the proposed program is 1,875,000 CFLs. We estimate the delivery of the remaining bulbs in year two. The Ohio Market Potential study conducted by Black and Veatch shows the market potential for most households is 8 additional CFLs each.

	Estimated Total kWh Saved	Estimated Total annual kWh Required	Estimated Light Bulbs per Year	Estimated Total Light Bulbs
2010	81,250,000	290,000,000	1,875,000	1,875,000
2011	231,250,000	410,000,000	1,875,000	3,750,000
2012	300,000,000	470,000,000	0	3,750,000

Schedule

Timing for the launch of the program is critical to its success. The customer data collection should be conducted as soon as possible. The companies will begin sharing public education messages with news media and contact centers a full three to four weeks in advance of the first CFL distribution. With a wide variety of distribution channels, a phased roll-out would enable the utilities to better manage customer’s expectations as well as the operational details of delivering the light bulbs.

Cost Estimates

The original direct distribution CFL plan was approved for \$13,125,000 or \$3.50 per CFL delivered to each customer. The estimated cost for the retail and community group distribution average is \$3.40 per CFL. The estimated average cost for the secondary channel distribution which represents the opt in programs is \$4.12 per CFL.

Summary

- CFL primary distribution mechanism is through retailers and community groups
- CFL secondary distribution mechanism is to opt in customers through multiple channels
- Communication and customer education is a critical component to the programs' success; all stakeholders need to be in agreement on the messages to customers and must publicly support the program
- Total operational cost will not exceed \$3.50 per CFL as originally approved (\$13M program operational cost)
- Kilowatt savings will be calculated per year beginning at customer purchase, at distribution to the a participating community group or at the time of delivery for the opt in channel

Appendix F
Amendment Rider DSE

RIDER DSE
Demand Side Management and Energy Efficiency Rider

APPLICABILITY:

Applicable to any customer that takes electric service under the Company's rate schedules.

RATE:

The following charges will apply, by rate schedule, effective for service rendered beginning the first day of the month following approval of this revised Rider DSE, for all kWhs per kWh as follows:

	<u>DSE1</u>	<u>DSE2</u>
RS	0.0196¢	0.1889¢
GS	0.0196¢	0.1252¢
GP	0.0196¢	0.0465¢
GSU	0.0196¢	0.0461¢
GT	0.0196¢	0.0460¢
STL	0.0196¢	0.4452¢
TRF	0.0196¢	0.4645¢
POL	0.0196¢	0.0000¢

DSE1: The DSE1 charges set forth in this Rider recover costs incurred by the Company associated with customers taking service under the Economic Load Response Rider (ELR) and Optional Load Response Rider (OLR).

DSE2: The DSE2 charges set forth in this Rider recover EE/PDR Costs defined below.

EE/PDR Costs: EE/PDR Costs include all costs incurred by the Company for the design, approval and implementation of programs for compliance with benchmarks established in Section 4928.66, Revised Code, including demand-response programs, energy efficiency programs, peak demand reduction programs (other than those recovered through the DSE1 charges), and self-directed demand-response, energy efficiency or other customer-sited programs. The costs incurred by the Company and fully recovered through the DSE2 charges will be all program costs, including but not limited to any customer incentives or rebates paid, applicable carrying costs, all administrative costs to conduct such programs, shared savings, and variable distribution revenue not collected resulting from the implementation of such programs.

Program Costs: EE/PDR Costs excluding all administrative costs to conduct such programs, shared savings, and variable distribution revenue not collected.

RIDER UPDATES:

1. The DSE1 charges set forth in this Rider shall be updated and reconciled at least annually. No later than December 1st of each year or as otherwise deemed necessary, the Company shall file with the PUCO a request for approval of the DSE1 charges which, unless otherwise ordered by the PUCO, shall automatically become effective on a service rendered basis on January 1st or as otherwise specified.

Filed pursuant to Order dated _____, in Case No. _____, before

The Public Utilities Commission of Ohio

Issued by: Richard R. Grigg, President

Effective: _____

RIDER DSE
Demand Side Management and Energy Efficiency Rider

2. The DSE2 charges will become effective on January 1, 2010 and shall be updated and reconciled at least annually. No later than December 1st of each year or as otherwise deemed necessary, the Company shall file with the PUCO a request for approval of the charges which, unless otherwise ordered by the PUCO, shall automatically become effective on a service rendered basis on January 1st of each year as applicable or as otherwise specified.
 - a. For customers taking service under Rate Schedules GS, GP, GSU, GT, STL, TRF, and POL: Subject to PUCO approval of the Company's Three Year Program Portfolio Plan, the initial DSE2 charge includes (i) EE/PDR Costs incurred from September 1, 2009 through November 30, 2009; and (ii) projected EE/PDR Costs for the period December 1, 2009 through December 31, 2010. All such charges shall be recovered through the period ending December 31, 2010. Thereafter, each update to the DSE2 charges shall include the Company's total projected EE/PDR Costs related to the next period. All EE/PDR Costs shall be allocated on a rate schedule basis.
 - b. For customers taking service under Rate Schedule RS: The initial DSE2 charge following approval of the Companies' EE/PDR Plans shall collect the levelized Program Costs for the years 2010, 2011, and 2012, and all other EE/PDR Costs of the DSE2 charge which will be equal to the expected 2010 annual costs and costs eligible for recovery for the period September 1, 2009 through December 31, 2009. Thereafter, each update to the DSE2 charge shall include recovery of the Companies' projected EE/PDR Costs levelized over the remainder of the period in which the then current Three Year Program Portfolio Plan is in effect.
3. This rider shall be in effect until all costs are fully recovered by the Company.

AVOIDABILITY:

1. The DSE1 charges set forth in this Rider are avoidable only for those customers taking service under Rider ELR and Rider OLR.
2. The DSE2 charges set forth in this Rider are avoidable for Non-Residential customers who (i) are not taking service under a unique arrangement (special contract) or the Reasonable Arrangements Rider (RAR) and (ii) who qualify as a "mercantile customer" as that term is defined in the Ohio Revised Code, provided that such customer executes a Mercantile Customer Project Commitment Agreement ("MCPCA") with the Company and obtains exempt status pursuant to PUCO order consistent with PUCO requirements.

MERCANTILE CUSTOMER PROJECT COMMITMENT AGREEMENT (MCPCA):

The terms and conditions set forth in the Company's MCPCA are incorporated into this Rider by reference and made a part of said Rider. A copy of such agreement can be obtained from the Company by calling its customer service toll free number. In the event any terms of this Rider conflict with those set forth in the MCPCA, the latter shall control.

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Effective: _____

Appendix G
2009 OE Energy Efficiency Compliance

Appendix G: 2009 OE Energy Efficiency Compliance

Ohio Edison				
2009 Energy Efficiency Compliance				
Program	Projected			Status
	MWh Saved	MW Saved	Docket No.	
Direct Load Control	465	3.7	05-1125-EL-ATA	Approved
Community Connections	1,338	0.4	Stipulated Agreement	Approved
Mercantile EE Savings	51,869	13.2	***	Pending
Interruptible Demand Reduction	0	32.6	08-0935-EL-SSO	Approved
Transmission & Distribution Programs	10,587	2.9	09-0951-EL-EEC	Pending
Historical Transmission & Distribution Programs*	58,265	0.0	09-0384-EL-EEC	Pending
CFL Program**	37,000	0.0	09-0580-EL-EEC	Approved**
Total	159,524	52.8		
EE&PDR Benchmark	76,796	52.8		

*Not included in the 2010 - 2012 plan.

**The revised program is reflected in this plan. Although approved on September 23, 2009, the Commission requested the Company delay implementation. If the program was implemented as filed, the Company would have achieved 147 GWh annualized, or 37 GWh for partial year savings for final quarter of the year.

***09-1200-EL-EEC

09-1201-EL-EEC

09-1202-EL-EEC

09-1203-EL-EEC

09-1205-EL-EEC

09-1206-EL-EEC

09-1207-EL-EEC

09-1209-EL-EEC

09-1210-EL-EEC

09-1212-EL-EEC

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Case No(s). 09-1948-EL-POR, 09-1943-EL-EEC, 09-0581-EL-EEC

Summary: Report 3 Year Energy Efficiency and Peak Demand Reduction Plan and Initial Benchmark Report electronically filed by Ms. Kathy J Kolich on behalf of Ohio Edison Company