

**Template for Pennsylvania EDC Energy Efficiency and Conservation Plans**

To be submitted by EDCs by July 1, 2009

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Note:

If any of your answers require you to disclose what you believe to be privileged or confidential information, not otherwise available to the public, you should designate at each point in the EE&C Plan that the answer requires you to disclose privileged and confidential information. Explain briefly why the information should be treated as confidential. You should then submit the information on documents stamped "CONFIDENTIAL" at the top in clear and conspicuous letters and submit one copy of the information under seal to the Secretary's Office along with the EE&C Plan. In addition, an expunged copy of the filing should also be included with the EE&C Plan. If someone requests to examine the information, or if Commission staff believes that the proprietary claim is frivolous or otherwise not justified, the Secretary's Bureau will issue a Secretarial Letter directing that the EDC file a petition for protective order pursuant to 52 Pa. Code § 5.423.

## Energy Efficiency and Conservation Plan

**A. Transmittal Letter** - with reference to statutory and regulatory requirements and Electric Distribution Company (EDC) contact that PA PUC should contact for more information.

**B. Table of Contents** - including lists of tables and figures.

### 1. Overview of Plan (~10 pages)

*(The objective of this section is to provide an overview of the entire plan)*

- 1.1. Summary description of plan, plan objectives, and overall strategy to achieve energy efficiency and conservation goals.

Pursuant to Act 129 of 2008 (“Act 129”) the Pennsylvania General Assembly charged the Pennsylvania Public Utility Commission (“PUC” or “Commission”) with establishing an energy efficiency and conservation program. The energy efficiency and conservation program requires each electric distribution company (“EDC”) with at least 100,000 customers to adopt a plan to reduce energy demand and consumption within its service territory. In response to Act 129, on January 16, 2009, the Commission entered an Implementation Order at Docket No. M-2008-2069887.

On March 26, 2009, the PUC identified specific energy consumption and peak demand reductions that EDCs must achieve under the requirements of Act 129. Under Act 129, the EDCs must reduce electricity consumption by 1 percent by May 31, 2011, and by 3 percent by May 31, 2013. Duquesne Light Company’s (“Duquesne Light” or “Duquesne” or the “Company”), energy consumption reductions total 140,855 MWh and 422,565 MWh, respectively. The Act also requires a 4.5 percent reduction in peak demand by May 31, 2013. The Company’s peak demand reductions are 113 MW.

In compliance with the requirements of Act 129 and PUC Orders, Duquesne has used the energy consumption and peak demand reductions established by the Commission to develop its energy efficiency and conservation plan, which is submitted herewith.

In addition to internal resources within Duquesne Light, the Company retained MCR Performance Solutions, LLC (“MCR”) to assist in developing a compliance strategy and plan required by the energy efficiency and conservation and demand side response (“EEC & DR”) initiatives mandated by Act 129. To support these objectives, MCR and Duquesne worked to develop and implement a phased project approach resulting in the enclosed EEC & DR Plan (“Plan”), pre-filed supporting testimony and required filing supporting testimony and the EEC & DR Study (“Study”). Material provided in this document includes primary and secondary research, analytical processes, findings and program plans required to support the Plan filing.

The resulting Plan combines both energy efficiency and conservation (“EEC” or “EE&C”) measures with demand response (“DR”) measures. Current Pennsylvania regulations prohibit EDCs from counting DR program contracted capacity toward mandated demand reductions. Given uncertainty over how DR programs would be permitted to contribute toward achieving the mandated reductions, the Company primarily focused planning efforts and resources on developing EEC programs, which can be reliably credited to achieving mandated reductions. Nonetheless, certain DR

planning was included for each customer class, both to comply with the requirements of Act 129 and to incorporate DR features into the overall planning effort. Duquesne will consider whether it may be able to avail itself to PJM's Reliability Pricing Model program.

To support EEC program planning, the Company and MCR assessed the EEC potential in the Duquesne Light service territory for a cross-section of customer segments comprising the major rate classes. Once the EEC potential had been ascertained, particular measures were selected for each customer segment based on numerous factors, as described in the detailed sections of the Plan that follow this summary. In essence, this planning process made extensive use of benchmarking data and drew heavily on the experience gained by other energy service providers that have initiated EEC measures over the last several decades throughout the nation. The valuable lessons learned about what has been effective elsewhere were applied to the specific information relative to Duquesne Light's customers. The Company then made decisions to include or exclude particular EEC measures within its plan to achieve the mandated reductions in cost-effective ways that are consistent with customer interests.

1.2. Summary description of process used to develop the EE&C plan and key assumptions<sup>1</sup> used in preparing the plan.

In support of EE&C program planning, MCR assessed the EE&C potential in Duquesne's service territory for a cross-section of customer segments comprising the major rate classes. The EEC potential forecast is comprised of the analytical tasks necessary to create a regional "inventory" of program opportunities from an engineering perspective (technical potential). Cost-benefit analysis is applied to the technical potential to determine the economic potential, and, finally, achievable potential is forecast based on documented customer acceptance behavior. The EEC potential forecast identifies *where* the potential exists to achieve the mandated reductions. Benchmarking analysis identifies *how* to best deliver services to the targeted sectors. As with the potential forecast, benchmarking focuses on *retrofit* (versus new construction) program options where more than 90 percent of efficiency gain potential resides.<sup>2</sup> In addition to program elements described under program plans, program benchmarking provides reference points for program cost allocation between rebates (or incentives) and program administration. In addition to defining the portion of program budgets allocated to incentives versus program administration, program planning requires setting incentive levels. Energy efficiency incentives function to offset the incrementally higher cost of energy efficiency measures in an effort to make the customer indifferent to the higher cost of high-efficiency products. Incentive levels are stated in terms of percentage of a measure's incremental cost. Key assumptions used in preparing the plan are referenced throughout the Study. The key assumptions were: Duquesne Light customer base information, end-use saturation information, customer retail rates, utility avoided costs, regional generation output, emission rates, baseline budget allocation and incentive levels.<sup>3</sup>

<sup>1</sup> Whenever assumptions are used, provide the basis for using that assumption.

<sup>2</sup> Potential for Energy Efficiency, Demand Response, and Onsite Solar Energy in Pennsylvania, Table 4, page 15, 90% of residential sector efficiency gain potential is in existing buildings and 95% of commercial sector efficiency gain is in existing building stock, ACEEE April 2009.

- 1.3. Summary tables of portfolio savings goals, budget and cost-effectiveness (see Tables 1, 2 and 3).<sup>3</sup>
- 1.4. Summary of program implementation schedule over four year plan period (see Chart 1 Notes).

**Residential Sector:** Pursuant to discussions held at Stakeholder Meetings, Duquesne Light developed plans to launch four programs targeting the residential sector: A low income program, a residential rebate program, a residential and schools educational program and a refrigerator recycling program. The low income program will leverage the public agency program operated through local government partnerships developed earlier this year (described below). The residential and schools program will be implemented by a Conservation Service Provider (“CSP”). The refrigerator recycling program is under discussion as a joint program using a single recycling contractor. Program design and advanced efforts will enable Duquesne Light to initiate program launch concurrent with the Commission’s approval of this plan, no later than December 1, 2009, as reflected in the Gantt Chart in Section 12, Chart 1 Residential Portfolio Program. Duquesne Light will plan to meet with stakeholders as needed to discuss the status of the program and issues, no less than semi-annually, until May 31, 2013, unless otherwise ordered by the Commission.

#### **Small and Large Commercial/Industrial Programs**

**Commercial Sector:** Duquesne Light began working directly with major healthcare system operators shortly after the Act 129 Stakeholder meetings to tailor EEC & DR program to meet segment specific needs. Subsequently Duquesne Light initiated implementation of its largest commercial sector program, the large office building program, by issuing an implementation RFP on May 15, 2009. The bids were received on June 19, 2009, and the implementation contract will be awarded by August 12, 2009. Following the RFP process for the large office building program, Duquesne Light will utilize the RFP format, process and lessons learned to guide issuance of two more RFPs soliciting contractor proposals for the small office building and retail store segment programs. Duquesne Light will complete contract negotiations with those CSPs. All programs are expected to be launched by December 1, 2009 as reflected in the Gantt chart for Commercial and Industrial Programs in Section 12, Charts 2 and 3. The programs will be operated to render savings impacts and achieve mandated reductions through May 31, 2013. Duquesne Light will plan to meet with stakeholders as needed to discuss the status of the program and issues, no less than semi-annually, until May 31, 2013, unless otherwise ordered by the Commission.

**Industrial Sector:** Similar to the residential sector pursuant to discussions held at Stakeholder Meetings, Duquesne Light developed program plans. Following the RFP process for the large office building program (described above), Duquesne Light will utilize the RFP format, process and lessons learned to guide issuance of three more RFPs soliciting contractor proposals to implement programs targeting the industrial primary metals and chemical products manufacturing market segments. The third industrial sector program will provide EEC & DR services to a mixture of smaller

<sup>3</sup> Tables (and Chart) referenced in the template outline are located in the separate master spreadsheet.

industrial segments. Duquesne Light will complete contract negotiations with those CSPs. All programs are expected to be launched by December 1, 2009, as reflected in the Gantt chart for Commercial and Industrial Programs in Section 12, Charts 2 and 3. The programs will be operated to render savings impacts and achieve mandated reductions through May 31, 2013. Duquesne Light will plan to meet with stakeholders as needed to discuss the status of the program and issues, no less than semi-annually, until May 31, 2013, unless otherwise ordered by the Commission.

Governmental/Non-Profit Sector Programs: Duquesne Light began working directly with regional local governments shortly after the Act 129 Stakeholder meetings in an effort to tailor EEC & DR programs to meet segment specific needs. In preparation for program launch, Duquesne Light executed memoranda of understanding with several key local public agencies and identified project areas for EEC & DR services. Project work will begin concurrent with the Commission's approval of this plan. Programs will be launched to later than December 1, 2009, as shown in the Gantt chart for Governmental/non-profit Sector Programs in Section 12, Chart 4. Duquesne Light will plan to meet with stakeholders as needed to discuss the status of the program and issues, no less than semi-annually, until May 31, 2013, unless otherwise ordered by the Commission.

- 1.5. Summary description of the EDC implementation strategy to manage EE&C portfolios and engage customers and trade allies.

The delivery organization size and function will be driven by the portfolio of programs fielded. The portfolio proposed by Duquesne Light is structured under three broad "umbrella" programs: residential, commercial and industrial.

The umbrella programs provide incentives for a full range of measures to assist residential, commercial and industrial energy customers of all sizes and in all key market segments to overcome barriers to adopting energy efficiency measures. The umbrella programs put in place a baseline program design, with set incentive levels and measure content. The umbrella programs are designed as an overarching programmatic structure, with calculated incentives for customized projects or itemized incentives for standard measures. Under the overarching umbrella programs, specialized sub-programs can promote specific technologies or target specific market segments while incorporating the umbrella program savings impacts and incentive levels. In this manner, sub-programs present a consistent and common offering. The umbrella programs comprise the operational structure for the implementation of all programs to be offered.

Duquesne Light will implement programs in an effective and economical manner by balancing utility resources with contracted resources. More specifically, contractors and subcontractors with expertise and experience in program implementation and operations will be deployed under agreements with Duquesne Light. Management responsibility for meeting goals will still rest with Duquesne Light, working in concert with contractors and subcontractors as outline in the table below.

**Figure 1: Program Implementation Responsibility**

EE Sector	Program	Implementation
<b>Residential</b>	<b>Residential Rebate</b>	Core Team (or Contractor)
	<b>Residential School Energy Pledge</b>	Sub-program Contractor
	<b>Refrigerator Recycling</b>	Sub-program Contractor
	<del><b>Solar Photovoltaic Incentives</b></del>	<del>Core Team (or Contractor)</del>
	<b>Low-Income Weatherization</b>	Sub-program Contractor
<b>Commercial</b>	<b>Commercial Rebates (umbrella)</b>	Core Team (or Contractor)
	<b>Office Buildings</b>	Sub-program Contractor
	<b>Healthcare</b>	Core Team (or Contractor)
	<b>Retail Stores &amp; Restaurants</b>	Sub-program Contractor
	<b>Education</b>	Core Team (or Contractor)
	<b>Public Agency Program</b>	Core Team (or Contractor)
<b>Industrial</b>	<b>Industrial Rebates (umbrella)</b>	Core Team (or Contractor)
	<b>Primary Metals</b>	Sub-program Contractor
	<b>Chemicals</b>	Sub-program Contractor
	<b>Industrial Rebates (Mixed)</b>	Sub-program Contractor
<b>Demand Response Programs</b>	<b>Utility Interface</b>	Core Team (or Contractor)
	<b>Residential DR</b>	Sub-program Contractor
	<b>Small/Mid Commercial DR</b>	Sub-program Contractor
	<b>Large C/I Curtailable Load</b>	Sub-program Contractor

Program implementation requires significant planning and operations management functions. In addition to initiating the contracting process, each contractor will be managed and integrated into an organized, cohesive operation. Program procedural guidelines will be developed and followed. Documentation will be maintained and electronic data structures will be developed and managed.

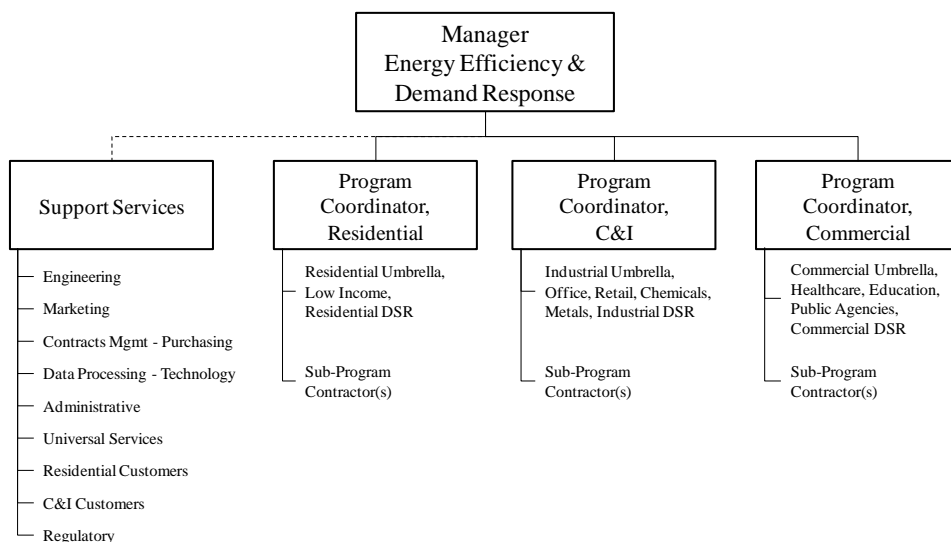
Customers will be engaged through at least three channels. First, Duquesne Light will promote the programs to its customers, through such marketing approaches as mass media advertising, direct marketing, events, conferences, account representatives and electronic media. Second, the Duquesne Light contractors and subcontractors will have similar responsibilities, with specific focus on securing commitments for customers to participate in the programs. Third, trade allies, such as builders, architects, engineers, vendors, equipment installation contractors, retailers and others, will be informed of the



Duquesne Light programs, with the objective of securing their willingness to participate and secure their customers and clients to participate. Trade allies also will be engaged, primarily through direct marketing, events, conferences and account representatives.

The implementation organization for Duquesne Light will be housed within the customer service function. The size and structure will reflect the use of contractors and subcontractors. The organization will be headed by one manager responsible for the energy efficiency and conservation program plan. The manager will be supported by several sector or segment specific program coordinators. There also will be support staff for such functions as engineering, marketing, data processing, regulatory and contract management. The organizational chart pictured below represents a preliminary structure to plan and implement the energy efficiency and conservation plan, including demand response.

**Figure 2: Organization Chart**



- 1.6. Summary description of EDC’s data management, quality assurance and evaluation processes; include how EE&C plan, portfolios, and programs will be updated and refined, based on evaluation results.

Respecting the decision to administer evaluation, measurement and verification (EM&V) studies centrally under the Commission’s oversight, Duquesne Light focused its efforts on incorporating EM&V elements within its program planning elements to ensure “verification” was not an afterthought. Duquesne Light’s plan development incorporates EM&V consideration within the planning process, during implementation (for mid-course correction) and following each program period to inform the next planning cycle and make adjustments, as warranted. This is accomplished by incorporating the following elements:

EM&V Logic Diagrams: Including EM&V logic diagrams within energy efficiency program planning is a practice adopted by measurement and verification technical boards and subsequently required by regulation in key states, such as California and New York. Evaluation contractors successful in obtaining contracts to evaluate Pennsylvania's energy efficiency programs will be familiar with logic diagrams and will recognize the effort taken as appropriate due diligence by informed program planners. More important, the exercise of formulating the diagrams and attendant performance indicators linked to the logic diagram, bring visibility to program planning elements that might otherwise be overlooked. EM&V Logic Diagrams and performance indicators for Duquesne Light umbrella and sub-programs can be reviewed in the Study.

Program Management and Reporting System (PMRS): From an EM&V perspective, Duquesne Light's PMRS records individual measure savings impacts, expenditures and customer contact events. The records describe the equipment installed, model and serial numbers and location for site verification. Files contain all data elements in a customer commitment and installation process, including customer contact information, customer activities - including installations, rebating, and educational or information services, i.e., energy survey. Data recording and updating are performed on a regular basis, and integrated into program operations, so that the progression from a sales contact to an installation and inspection of a project is fully documented. PMRS data supports stratified random sampling and provides a record of causality regarding the customer's decision to implement recommended energy efficiency measures. PMRS data content, file structures and high-level operational processes can be viewed in Section 5 of the Plan. Per the Opinion and Order entered October 27, 2009 in Docket No. M-2009-2093217, Duquesne will track low income participation in all residential programs, including residential programs not specifically directed toward low-income customers. Duquesne will include such collected information in its annual energy efficiency report to the Commission. Duquesne will also track appropriate data, in coordination with the Statewide Evaluator, including at least (1) type of appliance or equipment being replaced; (2) the availability of natural gas at the customer's location or immediate area; and (3) whether electric appliances or equipment were installed in areas where natural gas is available.

If Duquesne finds that shifting of funds between programs or customer classes would be beneficial to the program, Duquesne will file a petition with the Commission requesting such a modification, per the Opinion and Order entered October 27, 2009.

1.7. Summary description of cost recovery mechanism.

The Act allows all EDCs to recover on a full and current basis from customers, through a reconcilable adjustment clause under 66 Pa. C.S. § 1307, all reasonable and prudent costs incurred in the provision or management of its plan. The Act also requires that each EDC's plan include a proposed cost-recovery tariff mechanism, in accordance with 66 Pa. C.S. § 1307, to fund all measures and to ensure full and current recovery of prudent and reasonable costs, including administrative costs, as approved by the Commission. To that end, Duquesne Light has designed a surcharge and reconciliation mechanism for all customer segments. The surcharge has been designed in a manner

that recovers costs of the programs from the customers who have an opportunity to participate in those programs designs.

The Company proposes to implement five surcharges. The Residential surcharge is designed to recover costs on a cents per kilowatt-hour basis with ~~an annual one-time~~ reconciliation with the charges included in the overall distribution kWh rate. in June 2013, after the 42-month implementation time frame of the Act. The Small and Medium Commercial and Industrial surcharges are designed to recover costs on a cents per kilowatt-hour basis with an annual reconciliation. The large Commercial and Industrial surcharges are designed to recover costs through a combination of a fixed monthly surcharge and a demand-based surcharge with ~~an annual one-time~~ reconciliation in June 2013 after the 42-month implementation time frame of the Act. All of the commercial and industrial customers will have a separate line item delineation of these charges on the bill.

## 2. Energy Efficiency Portfolio/Program Summary Tables and Charts

*(The objective of this section is to provide a quantitative overview of the entire plan for the four-year period. The audience will be those who want to see the “numbers”, but not all the details.)*

- 2.1. Residential, Commercial/Industrial Small, Commercial/Industrial Large and Governmental/Non-profit Portfolio Summaries (see Table 4).<sup>4</sup>
- 2.2. Plan data: Costs, Cost-effectiveness and Savings by program, sector and portfolio (see Tables 1-4).
- 2.3. Budget and Parity Analysis – (see Table 5).

All tables are provided in Section 11.

## 3. Program Descriptions (2 to 3 pages per program)

*(The objective of this section is to provide detailed descriptions of each proposed program and the background on why particular programs were selected and how they form balanced/integrated portfolios.)*

- 3.1. Discussion of criteria and process used for selection of programs:

Program development was initiated by first completing an energy efficiency potential forecast. The development of effective energy efficiency and conservation programs requires detailed knowledge about utility customer populations, building stock and regional energy use. Through the energy efficiency potential forecast, a regional inventory of program opportunities (technical potential) was established. Starting with this “universe” of potential efficiency technology applications, prioritization was performed by employing cost-benefit analyses (economic potential). Given a subset of energy efficiency opportunities feasible from an engineering perspective and cost-effective from an economic perspective, program participation was forecast based on documented customer acceptance behavior (achievable potential).

Best practices for efficiency programs include conducting a “potential study” prior to starting programs, outlining what can be accomplished at what cost. Duquesne’s energy efficiency potential forecast provides information about target markets and technology applications capable of producing cost-effective impacts at customer properties located throughout Duquesne Light’s service territory.

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<sup>4</sup> A *project* is an activity or course of action involving one or multiple energy efficiency measures, at a single facility or site. A *program* is a group of projects, with similar characteristics and installed in similar applications. Individual programs include those that involve encouraging and/or incenting the installation of equipment or practices associated with new-construction and retrofit solar energy and energy efficiency projects. The *portfolio* consists of all the programs in the residential, commercial/industrial small, commercial/industrial large, or governmental/non-profit sectors. Residential sector programs include low-income, single-family and multi-family housing projects. Commercial/Industrial Small sector programs include small commercial, industrial, agricultural, and public sector facility projects. Commercial/Industrial Large sector programs include large commercial, industrial, agricultural, and public sector facility projects. Governmental/Non-Profit includes Federal, State, Municipal, and Local Governments; as well as school districts, institutions of higher learning, and non-profit entities.

The energy efficiency forecast described in the Study addresses technologies at the discrete, individual measure level. This is required to affect cost-effectiveness screening using the Total Resource Cost test ratio (TRC), to forecast market penetration based on customer probabilities for acceptance and to set individual measure incentive levels. This level of rigor is required to support program planning; not possible through a topical discussion of energy efficiency potential.

With an understanding about specific building stock technology applications capable of rendering the targeted reductions, the project team identified optimal delivery channels through benchmarking as well as extensive experience planning and implementing programs in diverse geographic and demographic settings. Detailed descriptions of the analytical processes, inputs, assumptions and findings are provided in the Study.<sup>5</sup>

- 3.1.1. Describe portfolio objectives and metrics that define program success (e.g., energy and demand savings, customers served, number of units installed).

As described above, the project team identified key target markets for efficiency gain potential and proven approaches to program delivery. Given this foundation, the planning process imposed program budget limits consistent with the Act (Act 129 Annual Budget: \$19,545,952). Available funding was first allocated to each major rate class in proportions approximating annual energy consumption. Act 129 mandates regarding low income sector and governmental/non-profit sector reduction targets caused changes to program funding allocations.

**Figure 3: Budget**

	<b>2011 Forecast Annual Energy Use (kWh)</b>	<b>% Use</b>	<b>4-Year Program Funding</b>	<b>% Funding</b>
<b>Residential</b>	4,276,840,291	30%	\$25,735,926	33%
<b>Commercial</b>	6,852,783,429	49%	\$37,280,984	48%
<b>Industrial</b>	<u>2,914,124,575</u>	<u>21%</u>	<u>\$15,166,895</u>	<u>19%</u>
<b>Total</b>	14,043,748,296	100%	\$78,183,806	100%

The Act requires certain amounts of the mandated reductions be achieved through programs serving low income customers. Working with the governmental/non-profit sector, programs were designed and funded to meet

<sup>5</sup> For analytical processes please see Study Sections: Energy Efficiency Potential Forecast, Summary of Analytical Steps, Application of Forecast Energy Efficiency Potential in Program Planning and Energy Efficiency Program Benchmarking. For inputs and assumptions please see Study Sections: Energy Efficiency Potential Forecast, Summary of Analytical Steps, Step 1 – Develop Key Energy Efficiency Potential Forecast Inputs and Assumptions. For findings please see Study Sections: Energy Efficiency Potential Forecast, Energy Efficiency Potential Forecast Findings and Program Planning to Achieve Mandated Reductions.

these requirements. In addition to mandated programs, a portfolio of programs was assembled to penetrate key markets. The table below shows the structure of the portfolio to meet these objectives:

**Figure 4: Portfolio Objectives**

Cumulative Energy (kWh) and Demand (kW) Savings		Program Years Ending		
		May 31, 2011 (kWh)	May 31, 2013 (kWh)	May 31, 2013 (kW)
<b>Program Name</b>				
<b>Residential</b>	Energy Efficiency	50,623,321	118,121,083	54,916
	Residential/Schools	2,025,000	4,725,000	4,253
	Refrigerator Recycling	5,000,503	11,667,840	2,908
	<del>Solar-Voltaic Incentives</del>	<del>312,000</del>	<del>624,000</del>	<del>240</del>
	Low-Income Energy Efficiency	12,880,759	30,055,105	12,254
<b>Commercial</b>	Umbrella Program Rebates	8,043,808	18,768,885	4,027
	Office Buildings	46,251,895	108,521,087	22,189
	Healthcare	17,093,091	39,883,880	8,557
	Retail Stores & Restaurants	18,601,305	43,403,046	9,312
	Education	10,557,498	24,634,161	5,285
	Governmental / Non-Profit	26,920,191	62,813,778	20,187
	Industrial Rebates (umbrella)	3,772,833	8,803,277	1,360
<b>Industrial</b>	Primary Metals	25,708,810	59,987,224	9,265
	Chemicals	9,343,007	21,800,349	3,367
	Industrial Rebates (Mixed)	8,335,770	19,450,130	3,004
	<b>Demand Response(DR)</b>			
	Residential DR	229,965	1,388,748	18,595
	Small/Mid Commercial DR	111,974	671,846	7,776
	Large C/I Curtailable Load	172,800	1,036,800	10,800
<b>Total EEC &amp; DR Programs (cumulative)</b>		<del>245,984,531</del> 244,151,922	<del>576,356,241</del> 571,349,629	<del>198,294</del> 199,182
<b>Mandated Reductions</b>		140,885,117	422,565,351	113,000

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Projected program measure penetration for each portfolio is provided in the Study. Specifically, energy efficiency supply curves for the residential, commercial and industrial portfolios detail the amount of savings that will be achieved at each level of cost, built up across individual measures. An example of program measure content in the residential portfolio is provided below. The measure detail for the commercial and industrial is provided in the Study.

**Figure 5: Residential Energy Efficiency Rebate Program****Residential Energy Efficiency Rebate Program plus Refrigerator Recycling Program**

Measure Description	Levelized Cost \$/kWh	Annual Program Savings kWh	Total Annual Savings kWh	Homes
Programmable Thermostat (ASHP Heating)	\$0.0047	3,238,694	3,238,694	1,775
Pipe Wrap	\$0.0049	208,038	3,446,732	4,728
Linear Fluorescent T5/T8	\$0.0059	453,309	3,900,041	8,599
Faucet Aerators	\$0.0065	824,220	4,724,261	2,971
Duct Repair (ASHP Heating)	\$0.0070	4,986,060	9,710,321	1,306
High Efficiency Pool Pump and Motor	\$0.0102	33,112	9,743,433	24
Low Flow Showerhead	\$0.0124	333,414	10,076,847	1,755
ES Outdoor Fixture	\$0.0126	4,504,707	14,581,554	19,326
Occupancy sensor based controls	\$0.0135	1,326,287	15,907,841	1,973
Solar Water Heat	\$0.0161	979,854	16,887,695	402
Programmable Thermostat (CAC HP Cooling)	\$0.0178	954,975	17,842,670	1,974
26-50W CFL Screw-in	\$0.0183	72,058	17,914,727	548
Refrigerator Recycling	\$0.0183	3,333,669	21,248,396	3,508
EnergyStar Fridges	\$0.0185	8,253	21,256,649	96
Ceiling Insulation R38 (ASHP Heating)	\$0.0192	1,258,604	22,515,253	593
Wall Insulation R19 (ASHP Heating)	\$0.0197	3,439	22,518,691	1
Whole House Fans (CAC HP Cooling)	\$0.0198	995,821	23,514,513	1,145
Ceiling Insulation R30 (ASHP Heating)	\$0.0201	1,304,406	24,818,919	646
Duct Insulation (ASHP Heating)	\$0.0202	897,906	25,716,825	808
18-22W CFL Screw-in	\$0.0222	144,036	25,860,861	1,083
13-17W CFL Screw-in	\$0.0234	3,179,219	29,040,080	5,904
23-26W CFL Screw-in	\$0.0252	998,313	30,038,393	2,680
ES Indoor Fixture	\$0.0281	94,472	30,132,865	1,192
EnergyStar Freezers	\$0.0314	1,309	30,134,174	23
EnergyStar Room Air Conditioners	\$0.0336	1,515	30,135,689	22
EnergyStar Dehumidifiers	\$0.0383	1,365	30,137,054	6
Cooling Equipment (CAC - SEER 15)	\$0.0391	355	30,137,409	3
Duct Repair (CAC HP Cooling)	\$0.0395	5,188	30,142,597	12
ES Torchieres	\$0.0416	1,305,546	31,448,143	12,434
High Efficiency Fan - Heating	\$0.0440	4,202,756	35,650,898	11,697
26-50W CFL Hard-Wire	\$0.0542	649	35,651,548	44

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).

Program Portfolio Structures:

As described under Section 3.1 and 3.1.1, energy efficiency potential is forecast based on customer building stock and technology applications within that building stock. This approach is functional and consistent with industry standard practices. Programs described herein are planned according to a customer market segmentation approach. Programs are designed to (1) target identified efficiency gain potential (energy and demand), and (2) address market segment

specific needs and barriers. This approach assigns priority to how customers use energy which may not necessarily align with utility tariff categories. The following chart shows customer sector building stock categories observed in the development of the energy efficiency programs described herein:

**Figure 6: Customer Sector Building Stock Categories**

<b>Residential Building Stock</b>	<b>Commercial Building Stock</b>	<b>Industrial Building Stock</b>
Single Family	Colleges	Food Processing
Multifamily	Food Stores	Textiles / Apparel
Manufactured Housing (mobile homes)	Healthcare	Lumber / Furniture
	Lodging	Paper & Allied Products
	Offices - Large	Printing
	Offices - Small	Chemical Products
	Refrigerated Warehouses	Petroleum / Coal
	Retail Stores	Rubber / Plastics
	Restaurants	Stone / Clay / Glass
	Schools	Primary Metals
	Warehouses	Fabricated Metals
		Industrial Machinery
		Electronics
		Transportation Equipment
		Instruments

Structuring programs according to Small Commercial/Industrial and Large Commercial/Industrial does not provide for programs designed around how customers use energy, their specific needs and programmatic barriers. As an example, there would be very little in common between programs designed to serve large hospitals and large steel production plants. Further, programs targeting food refrigeration could provide services to both large grocery stores and small convenience stores.

The programs described in the following sections are developed to address specific market segments. It will be noted where this approach does not align with the Commission’s prescribed EE&C Plan template, Section 3.3 Small Commercial/Industrial and Section 3.4 Large Commercial/Industrial Sectors. Programs designed to service both large and small customers only will be described in one section. To support EE&C Plan template accounting, costs and benefits are allocated to EE&C Plan template sectors proportional to anticipated participation by each sector in the subject program.

Residential Revenue Class

Duquesne Light’s project team analyzed residential sector summary actual data for 2007–2008 as well as 2009-2013 forecast data for customer count, energy, and demand statistics. Dwelling type and vintage definition was developed by analyzing 2006 American Community Survey data for Allegheny and Beaver



counties, representative of housing characteristics in Duquesne Light's service area. The analysis supported a proportional allocation of percentages of regional housing stock into single-family, multi-family and mobile home dwelling types. Housing stock was further disaggregated into vintage groups built 30 years ago or newer and more than 30 years ago. For the purposes of establishing prototypical housing stock characteristics, the team evaluated available saturation studies, analyzed Pennsylvania building construction codes & standards, interviewed weatherization contractors active in the area<sup>6</sup> and performed secondary research.<sup>7</sup> The following table provides Duquesne Light housing stock projections for 2011:

**Figure 7: Duquesne Light Housing Stock Projections (2011)**

Residential Housing Stock	2011	
	<u>Dwellings</u>	<u>Percent</u>
Single Family Post-1978	58,411	10.9%
Single Family Pre-1978	329,561	61.7%
Multifamily Post-1978	20,984	3.9%
Multifamily Pre-1978	118,393	22.2%
Mobile Homes Post-1978	996	0.2%
Mobile Homes Pre-1978	<u>5,622</u>	<u>1.1%</u>
	533,968	100.0%
Total Post-1978	80,391	15.1%
Total Pre-1978	<u>453,577</u>	<u>84.9%</u>
	533,968	100.0%

Residential EEC&DR program planning incorporates energy and demand savings associated with implementing 57 lighting, appliance, heating ventilation and air conditioning, building shell, water heating, and other energy efficiency measures. Residential sector measures and their energy and demand savings estimates are consistent with the Pennsylvania Technical Reference Manual (TRM).<sup>8</sup> Where the TRM fails to address measures important to residential sector programs, measure content was expanded.<sup>9</sup>

<sup>6</sup> Phone interviews with representatives from Action Housing Pittsburgh, Affordable Comfort, Inc., Conservation Consultants, Inc., and the Beaver County Weatherization Program.

<sup>7</sup> Secondary research sources include: Middle Atlantic Household Electricity Consumption Report Table D2; Building America Research Benchmark Definition Updated December 19, 2008 table 17; U.S. DOE EIA Mid-Atlantic Household Electricity Report and Residential Energy Consumption Survey; U.S. DOE ORNL Insulation calculator for zip code starting 152

<sup>8</sup> The Pennsylvania Alternative Energy Portfolio Standard Technical Reference Manual (TRM) Revisions to September 2005 TRM January 2009

<sup>9</sup> "Assessment of Achievable Potential from Energy Efficiency and Demand Response Programs in the U.S." (2010–2030) EPRI 1016987 Technical Report, January 2009, and; California Energy Efficiency Potential Study, Itron, May 2006.

Where appropriate, especially for weather sensitive measures, measure savings impacts were modeled applying prototypical housing stock definitions using building performance modeling software with weather inputs appropriate for the Pittsburgh area.<sup>10</sup> Prototypical housing stock type and size definitions for single-family (SF), multi-family (MF) and mobile homes (MB) are summarized below:

**Figure 8: Prototypical Housing Stock Type and Size**

<b>Modeled Housing Stock Sizes</b>	<b>Ft<sup>2</sup></b>
Single Family Post-1978	1,643
Single Family Pre-1978	2,123
Multifamily Post-1978	724
Multifamily Pre-1978	936
Mobile Homes Post-1978	855
Mobile Homes Pre-1978	1,105

Heating ventilation and air conditioning (HVAC) measure efficiencies were adjusted to align with new federal efficiency standards.<sup>11</sup> A listing of forecast measures by dwelling type and vintage are provided in the Study Attachment 1. Additional information sources are provided in the Study Attachment 2.

#### Commercial Revenue Class

Duquesne Light's project team analyzed commercial sector summary actual data for 2007–2008 as well as 2009–2013 forecast data for customer count, energy and demand statistics. The project team utilized Standard Industrial Classification (SIC) codes available for Duquesne Light's larger commercial customers identifying market segments (building types) for commercial customer accounts amounting to approximately 75% of commercial sector consumption. The team reviewed more than 61,000 commercial and industrial account records and assigned SIC codes to expand the amount of classified commercial sector consumption to more than 99% of sector consumption.

2006 County Business Pattern data (business establishments with paid employees) were applied to annual energy consumption by building type<sup>12</sup> and energy consumption percentages by building type calculated. Proportional energy consumption for building types was compared with SIC coded Duquesne Light commercial customer data. Any significant variation noted. Sector consumption for retail stores and restaurants were adjusted upward as a result of this analysis. This treatment is justified due to the age of available segment data

<sup>10</sup> Energy-10 Residential and commercial building performance modeling software (developed under a partnership between US DOE National Renewable Energy Laboratory Center for Building and Thermal Systems, the Sustainable Buildings Industry Council (SBIC) and Lawrence Berkeley National Laboratory)

<sup>11</sup> 10 CFR 430.32 Residential Air Conditioners and Heat Pumps and 10 CFR 431.97 Commercial Minimum Cooling and Heating Efficiency Standards

<sup>12</sup> U.S. DOE EIA 2006 Commercial Building Energy Survey, average annual energy consumption by building type.

and high “churn” rates for these customer segments. Overall, the customer data was corroborated by the exercise and found to present a reasonable and stable basis for energy efficiency program planning.

Energy intensity (kWh per ft<sup>2</sup>) by building type was established using U.S. DOE EIA Commercial Building Energy Consumption Survey information and by using building type building performance modeling using the U.S. DOE Building Energy Simulation Modeling Program DOE-2.1.E (DOE-2). Energy intensities were applied to building type annual consumption data to calculate building stock ft<sup>2</sup> as shown in the table below:

**Figure 9: Building Stock Square Feet**

<b>Commercial Building Stock</b>	<b>2011 Forecast Energy (kWh)</b>	<b>Percentage</b>
Colleges	479,694,840	7.0%
Food Stores	205,583,503	3.0%
Health Care	1,164,973,183	17.0%
Lodging	68,527,834	1.0%
Offices - Large	2,055,835,029	30.0%
Offices - Small	1,096,445,349	16.0%
Misc	342,639,171	5.0%
Refrigerated Warehouses	6,852,783	0.1%
Retail Stores	719,542,260	10.5%
Restaurants	342,639,171	5.0%
Schools	239,847,420	3.5%
Warehouses	<u>130,202,885</u>	<u>1.9%</u>
Total	6,852,783,429	100.0%

<b>Sub-Program Segments</b>	<b>Percentage</b>
Office Buildings	46.0%
Health Care	17.0%
Retail Stores & Restaurants	18.5%
Education (Colleges & Schools)	<u>10.5%</u>
Total	92.0%

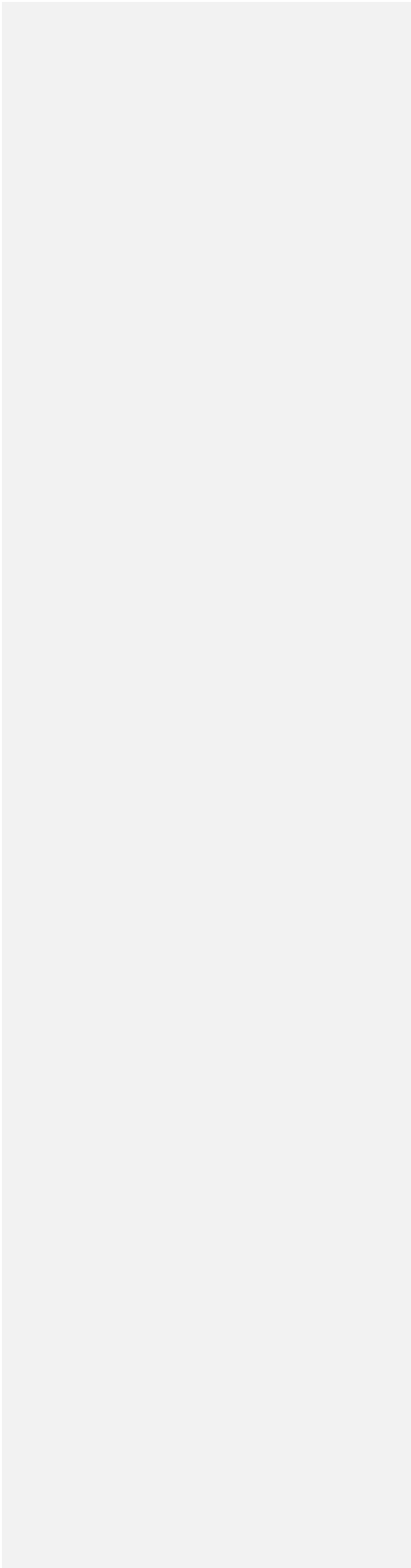
Commercial sector EE&C programs for office buildings, health care, retail stores and education provide specialized EE&C services for customers consuming 92% of the commercial sector energy. All commercial sector customers can receive EE&C incentives under the Commercial Sector Umbrella Energy Efficiency Program.

Commercial sector energy efficiency potential is driven by building type floor space (ft<sup>2</sup>), where equipment density is expressed in terms of units (hp, lamps, fixtures, tons, etc) per ft<sup>2</sup>. Equipment densities are based on building type architectural features, internal loads, lighting power density, equipment density, occupant density and air supply requirements. A listing of forecast measures by building type is provided in EEC & DR Study Attachment 3. Equipment densities are provided in Study Attachment 4.

Industrial Revenue Class

Duquesne Light’s project team analyzed industrial sector summary actual data for 2007–2008 as well as 2009-2013 forecast data for customer count, energy and demand statistics. The project team utilized Standard Industrial Classification (SIC) codes available for Duquesne Light’s larger industrial customers, identifying market segments for industrial customer accounts amounting to approximately 50% of industrial sector consumption. The team examined more than 61,000 commercial and industrial account records and assigned SIC codes to expand the amount of classified industrial sector consumption to more than 85% of sector consumption. This was considered the optimal level of information available given the unique characteristics of Duquesne Light’s industrial customer base. The following table shows industrial market segment energy consumption:

**Figure 10: Industrial Market Segment Energy Consumption**



Industrial Market Segments	2011 Forecast	
	Energy (kWh)	Percentage
Food Processing	83,021,048	2.8%
Textiles / Apparel	886,599	0.0%
Lumber/Furniture	4,686,239	0.2%
Paper & Allied Products	462,822	0.0%
Printing	38,469,324	1.3%
Chemicals Products	577,320,680	19.8%
Petroleum / Coal	4,790,976	0.2%
Rubber / Plastics	46,538,528	1.6%
Stone / Clay / Glass	214,176,577	7.3%
Primary Metals	1,588,592,204	54.5%
Fabricated Metals	112,223,274	3.9%
Industrial Machinery	77,479,766	2.7%
Electronics	113,514,590	3.9%
Transportation Equipment	24,618,855	0.8%
Instruments	5,350,047	0.2%
Misc Mfg	<u>21,993,046</u>	<u>0.8%</u>
Total	2,914,124,575	100.0%

Sub-Program Segments	Percentage
Primary Metals	54.5%
Chemicals	19.8%
Mixed Segments	<u>17.9%</u>
Total	92.3%

Industrial sector EE&C programs provide specialized services for the primary metals, chemical products and the mixed segments, which comprise 92% of the industrial sector energy. All industrial sector customers can receive EE&C incentives under the Industrial Sector Umbrella Energy Efficiency Program.

As described in the Study, industrial sector energy efficiency potential was driven by market segment annual energy consumption by end use category and historical energy savings potential for each category (compressed air, fan and pumping systems, process heating and cooling, HVAC and lighting). Industrial sector measure data were provided by Lawrence Berkeley National Laboratories, as presented in the referenced industrial sector energy efficiency potential forecast.<sup>13</sup> Assumed energy use by end use category for forecast industrial market segments is provided in the Study Attachment 5.<sup>14</sup> Energy savings for each end-use category is provided in Study Attachment 6.<sup>15</sup>

<sup>13</sup> PGE0252.01 California Industrial Existing Construction Energy Efficiency Potential Study, KEMA, May 2006

<sup>14</sup> Industrial market segment energy use by end-use category is taken from the U.S. DOE EIA Manufacturing Energy Consumption Survey (MECS)

<sup>15</sup> See market factor references below for potential energy savings by end-use category.

Saturation studies are used in determining technology applications by building type and current levels of efficiency. Saturation studies need to be updated periodically (i.e., every two years) for use by organizations planning and implementing energy efficiency programs. Very little equipment saturation information was available for the region. The project team defined residential dwelling type characteristics through the use of primary and secondary research described previously. Applicability, incomplete and feasibility factors (market factors) for the residential sector are provided in the Study Attachment 1.

#### End-Use Market Factor

Energy efficiency potential is derived herein by applying three factors common to residential, commercial and industrial customer segments.

1. **Applicability Factor:** The fraction of dwelling units (residential), floor space (commercial) or energy consumption (industrial) applicable for the efficient technology in a given market segment.
2. **Incomplete Factor:** The fraction of dwelling units (residential), floor space (commercial) or energy consumption (industrial) that is not yet converted to the efficient measure (essentially the inverse of EE technology market saturation).
3. **Feasibility Factor:** The fraction of dwelling units (residential), floor space (commercial) or energy consumption (industrial) that is technically feasible for conversion to the efficient technology from an engineering perspective.

Program planning described herein applies known commercial and industrial energy use characteristics of other regions to commercial and industrial activities located in Duquesne Light's service area. This is reasonable for like activities (commercial building types and industrial market segments) where energy use is driven by comparable operational requirements with minimal weather sensitivity.<sup>16</sup> Weather sensitive measure savings estimates have been adjusted to reflect Pittsburgh area climate using either TRM data or modeled using building performance modeling software.<sup>17</sup>

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<sup>16</sup> Sources for commercial and industrial sector energy use characteristics:

- "Assessment of Achievable Potential from Energy Efficiency and Demand Response Programs in the U.S." (2010–2030) EPRI 1016987 Technical Report, January 2009.
- Kansas City Power and Light, C&I Energy Efficiency Measures Potential Study, Summit Blue Consulting, LLC, September 2007
- Potential for Energy Efficiency, Demand Response and Onsite Renewable Energy to Meet Texas's Growing Electricity Needs, ACEEE, March 2007
- Energy Efficiency and Renewable Energy Resource Development Potential in New York State, New York State Energy Research and Development Authority (NYSERDA), August 2003
- California Industrial Existing Construction Energy Efficiency Potential Study, KEMA, Inc., May 2006
- California Energy Efficiency Potential Study, Itron, May 2006

<sup>17</sup> Energy-10 Residential and commercial building performance modeling software (developed under a partnership between US DOE National Renewable Energy Laboratory Center for Building and Thermal Systems, the Sustainable Buildings Industry Council (SBIC) and Lawrence Berkeley National Laboratory.

Commercial and industrial sector market factors applied in this forecast are provided in the following EEC & DR Study Attachments:

Study Attachment 7 – Commercial Building Type Applicability Factors

Study Attachment 8 – Commercial Building Type Incomplete Factors

Study Attachment 9 – Commercial Building Type Feasibility Factors

Study Attachment 10 – Industrial Market Segment Applicability Factors

Study Attachment 11 – Industrial Market Segment Incomplete Factors

Study Attachment 12 – Industrial Market Segment Feasibility Factors

- 3.1.3. Describe how energy efficiency, conservation, solar, solar photovoltaic systems, geothermal heating, and other measures are included in the portfolio of programs as applicable.

The project team performed extensive research described above to document the cost and impacts of EEC & DR measures. Residential measures are described in EEC & DR Study Attachment 1 and include providing incentives associated with solar water heating technologies. Duquesne Light's Solar Photovoltaic Incentives Program provides energy efficiency incentives to promote adoption of solar photovoltaic technologies. [This program was removed per the Opinion and Order entered October 27, 2009 in Docket No. M-2009-2093217 and will not be offered.](#)

- 3.2. Residential Sector (as defined by EDC Tariff) Programs include formatted descriptions of each program organized under the following headings:

- Program title and program years during which program will be implemented<sup>18</sup>
- Objective(s)
- Target market
- Program description
- Implementation strategy (including expected changes that may occur in different program years)
- Program issues and risks and risk management strategy
- Anticipated costs to participating customers
- Ramp up strategy
- Marketing strategy

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<sup>18</sup> It is assumed that there are four program years, each starting June 1 and ending May 31<sup>st</sup>. The first program year (PY) is Program Year 2009 (although it is expected that programs will not start before late 2009 or early 2010), and the last program year is Program Year 2012.

- 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)
- Program start date with key schedule milestones
- Assumed Evaluation, Measurement, and Verification (EM&V) requirements required to document savings by the Commission's statewide EE&C Plan Evaluator
- Administrative requirements – include internal and external staffing levels
- Estimated participation – includes tables indicating metric(s) with target value(s) per year
- Estimated program budget (total) by year – include table with budget per year
- Savings targets – include tables with total MWh and MW goals per year and cumulative tables that document key assumptions of savings per measure or project
- Cost-effectiveness – include TRC for each program
- Other information deemed appropriate

#### 3.2-a. Residential Energy Efficiency Rebate Program

Title: The Residential Energy Efficiency Rebate Program (“REEP”) will be implemented during program years 2009 through 2012.

Objectives: The REEP program is designed to mitigate primary cost and awareness barriers to residential customer adoption of energy efficiency measures and practices. To affect this outcome, REEP provides access to both printed and Internet based educational materials, as well as financial incentives in the form of energy efficient product rebates.

Target Market: This program is made available to Duquesne Light residential customers.

Program Description: The REEP encourages customers to make an energy efficient choice when purchasing and installing household appliance and equipment measures by offering educational materials on energy efficiency options and rebate incentives. Program educational materials and rebates will be provided in conjunction with the Duquesne Light on-line home energy audit. The on-line home energy audit will allow customers to obtain instant results by answering questions regarding their home energy use. A menu of approved measures and rebate amounts simplifies the audit process for the customer and provides a "per-widget" rebate to reduce the cost of replacing outdated and inefficient equipment. A more comprehensive home energy audit will be available for customers. This more comprehensive audit features an on-site assessment of home energy use conducted by Duquesne Light residential program technicians. Additionally, a no-cost home energy audit is available to low-income customers through Duquesne's Low Income Usage Reduction Program (“LIURP”). [This program has been modified per the Opinion and Order entered October 27, 2009 at Docket No. M-2009-2093217 to include high efficiency furnace fans. This inclusion is referenced in Figure 5, page 15 of this Plan.](#)



**Implementation Strategy:** The REEP will be implemented with assistance by a qualified CSP that will serve as program manager. Members of Duquesne Light's core team will support on-going planning activities, contract management, assist with program outreach and marketing as well as internal tracking and reporting. The CSP program coordinator will perform marketing, rebate processing, verification and calculation of overall savings. It is anticipated customers will submit rebate applications via phone, fax, Internet, or mail.

Duquesne Light will work with regional stakeholders to assess the viability, and potentially incorporate within REEP, upstream and mid-stream incentives (incentives provided manufacturers and retail distributors) to support point-of-purchase instant rebates. A web-based home energy efficiency survey application will be provided via linkage to Duquesne Light's website during the first year of program operation.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provide for fund shifting from under-performing programs.

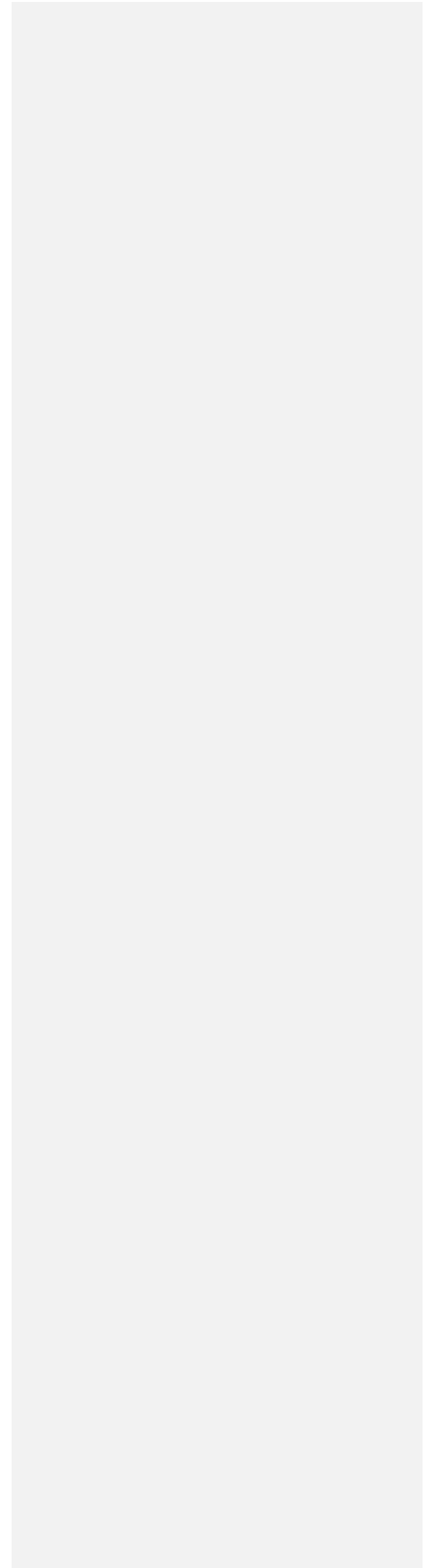
**Anticipated Cost to Participating Customers:** The REEP program is designed to offset approximately one-third of energy efficiency measure incremental cost. The cost to the participant is approximately two-thirds the incremental cost for choosing to purchase identified energy efficiency equipment.

**Ramp-up Strategy:** It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

**Marketing Strategy:** Duquesne Light will assist the CSP to coordinate marketing activities with local entities and outreach channels (e.g., local governments, community, faith-based and ethnic-based organizations, business associations, chambers of commerce, customer trade associations, etc). Duquesne Light will also support the program by marketing program services to its customers and through existing channel partners such as large commercial, institutional and local government customers. Duquesne Light will work with its CSP contractor to develop a marketing plan that may incorporate direct mail, web-based, circulated print media as well as radio and television advertising options.

Eligible Measures and Incentives: REEP program incentives are designed to offset one-third of measure incremental costs. Incentives offered under this program are provided in the following table:

**Figure 11: Residential Energy Efficiency Rebate Program**



**Residential Sector Measure Incentives**

Measure Description	Incentive per Unit	Unit
13-17W CFL Screw-in	\$1.65	Lamp
18-22W CFL Screw-in	\$2.15	Lamp
23-26W CFL Screw-in	\$2.75	Lamp
26-50W CFL Hard-wire	\$10.30	Lamp
26-50W CFL Screw-in	\$3.50	Lamp
Ceiling Insulation R30 (ASHP Heating)	\$0.40	ft2
Ceiling Insulation R38 (ASHP Heating)	\$0.40	ft2
Cooling Equipment (CAC HP high efficiency - SEEF)	\$32.50	Ton
Duct Insulation (ASHP Heating)	\$0.12	Linear ft
Duct Repair (ASHP Heating)	\$0.13	Linear ft
Duct Repair (CAC HP Cooling)	\$0.13	Linear ft
EnergyStar Dehumidifiers	\$50.00	Dehumidifier
EnergyStar Freezers	\$11.00	Freezer
EnergyStar Refrigerators	\$10.00	Refrigerator
EnergyStar Room Air Conditioners	\$10.00	Air Conditioner
ES Indoor Fixture	\$1.50	Fixture
ES Outdoor Fixture	\$13.00	Fixture
ES Torchier	\$18.40	Torchier
Faucet Aerators	\$3.50	Aerator
High Efficiency Pool Pump and Motor	\$60.00	Pump
Linear Fluorescent T5/T8	\$1.25	Lamp
Low Flow Showerhead	\$10.00	Showerhead
Occupancy sensor based controls	\$12.00	Sensor
Pipe Wrap	\$1.65	Linear ft
Programmable Thermostat (ASHP Heating)	\$65.00	Thermostat
Programmable Thermostat (CAC HP Cooling)	\$65.00	Thermostat
Refrigerator Recycling	\$120.00	Refrigerator
Solar Water Heat	\$300.00	System
Wall Insulation R19 (ASHP Heating)	\$0.40	ft2
Whole House Fans (CAC HP Cooling)	\$130.00	Fan

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**Residential Sector Measure Incentives**

Measure Description	Incentive per Unit	Unit
13-17W CFL Screw-in	\$1.65	Lamp
18-22W CFL Screw-in	\$2.15	Lamp
23-26W CFL Screw-in	\$2.75	Lamp
26-50W CFL Hard-wire	\$10.30	Lamp
26-50W CFL Screw-in	\$3.50	Lamp
Ceiling Insulation R30 (ASHP Heating)	\$0.40	ft <sup>2</sup>
Ceiling Insulation R38 (ASHP Heating)	\$0.40	ft <sup>2</sup>
Cooling Equipment (CAC - SEER 15)	\$32.50	Ton
Duct Insulation (ASHP Heating)	\$0.12	Linear ft
Duct Repair (ASHP Heating)	\$0.13	Linear ft
Duct Repair (CAC HP Cooling)	\$0.13	Linear ft
EnergyStar Dehumidifiers	\$50.00	Dehumidifier
EnergyStar Freezers	\$11.00	Freezer
EnergyStar Refrigerators	\$10.00	Refrigerator
EnergyStar Room Air Conditioners	\$10.00	Air Conditioner
ES Indoor Fixture	\$1.50	Fixture
ES Outdoor Fixture	\$13.00	Fixture
ES Torchier	\$18.40	Torchier
Faucet Aerators	\$3.50	Aerator
High Efficiency Pool Pump and Motor	\$60.00	Pump
Linear Fluorescent T5/T8	\$1.25	Lamp
Low Flow Showerhead	\$10.00	Showerhead
Occupancy sensor based controls	\$12.00	Sensor
Pipe Wrap	\$1.65	Linear ft
Programmable Thermostat (ASHP Heating)	\$65.00	Thermostat
Programmable Thermostat (CAC HP Cooling)	\$65.00	Thermostat
Refrigerator Recycling	\$35.00	Refrigerator
Solar Water Heat	\$300.00	System
Wall Insulation R19 (ASHP Heating)	\$0.40	ft <sup>2</sup>
Whole House Fans (CAC HP Cooling)	\$130.00	Fan

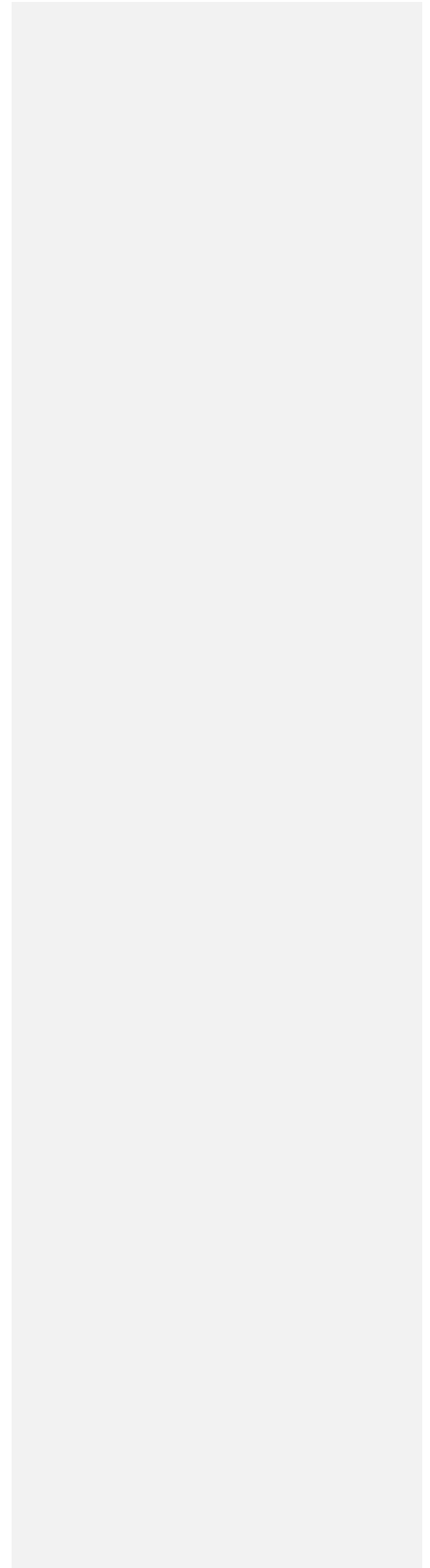
Program Start Date and Key Milestones: Refer to Section 12 Chart 1, Residential Portfolio Program.

Assumed EM&V requirements to document savings by the Commission’s statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in EEC & DR Study, EM&V Related Program Content section where there is a complete listing of the information that will be provided the Commission’s statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs, with administrative costs approximately 20% of program budgets, as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 12: Residential Energy Efficiency Rebate Program**



**Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	\$1,489,038	\$2,978,075	\$2,978,075	\$2,978,075	\$10,423,264
Admin	\$744,519	\$744,519	\$744,519	\$744,519	\$2,978,075

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	7,845	15,690	15,690	15,690	54,916
Energy Savings (kWh)	16,874,440	33,748,881	33,748,881	33,748,881	118,121,083

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**Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	\$1,609,038	\$3,098,075	\$3,098,075	\$3,098,075	\$10,903,264
Admin	\$774,519	\$774,519	\$774,519	\$774,519	\$3,098,076

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	8,149	15,965	15,965	15,965	56,044
Energy Savings (kWh)	16,784,834	32,317,879	32,317,879	32,317,879	113,738,471

Cost Effectiveness: TRC 3.0

## 3.2-b. Schools Energy Pledge Program

Title: Residential/Schools Energy Pledge Program (“SEP”) will be implemented during the program years 2009 through 2012.

Objectives: Residential markets represent substantial aggregate savings potential but small per-unit (household) savings, coupled with geographic dispersion, results in high program transaction costs. This creates stranded opportunities and what the energy efficiency industry terms “hard-to-reach” markets. SEP engages the schools market segment as a means to channel energy efficiency services into hard-to-reach residential populations. The energy efficiency impacts projected are based on engaging 20 schools per year and achieving a 50% participation rate among student bodies. Actual participation rates in other regions of the country are closer to 70 percent. SEP pledge forms can be customized to include linkage to other energy efficiency programs, such as refrigerator recycling, weatherization, on-line home energy audits or other energy efficiency programs.

Target Market: Demographics indicate there are approximately 0.34 school age children per household in Allegheny and Beaver counties. When applied to Duquesne Light’s residential population, this equates to 175,000 school age children. The SEP program targets primary grades (K-5), or approximately 73,000 primary school

students. An average of 450 students per primary school<sup>19</sup> extrapolates to approximately 162 primary schools in Duquesne Light's service territory.

**Program Description:** Schools Energy Pledge program energy efficiency impacts take place in student homes when families adopt energy efficiency measures students learn about at school. Through the SEP program, students learn about energy efficiency, participate in a school fundraising drive, and help their families to implement energy-saving measures at home. Major Program elements include:

- **Launch:** Schools announce the program with a short, energizing video for students during a kick-off assembly.
- **Learn:** Students engage in hands-on lessons linking scientific concepts with practical applications.
- **Pledge:** Families sign a pledge to install energy efficiency measures contained in an energy saving toolkit.
- **Track:** A graphic display at school shows the number of pledge forms returned to school by students and progress toward school fundraising, energy savings and greenhouse gas reduction goals.
- **Reward:** Schools receive energy efficiency incentive funds for the pledges returned.

**Implementation Strategy:** SEP is an energy efficiency program co-developed through a partnership between MCR and Strategic Energy Innovations. SEP implementation is performed "turnkey" by a specialized team of professionals with extensive energy efficiency and education industry experience. Implementation includes all program materials, standardized forms, lesson plans, site coordinator training, tracking and reporting. Energy saving toolkits are customized for each utility and provided by mail directly to participating households.

**Program Risk and Risk Management Strategy:** SEP is implemented under a fixed price, fixed term contract. Program implementation cycles are approximately four months. SEP is a very low risk educational schools program with quantifiable impacts in the residential sector.

**Anticipated Cost to Participating Customers:** The SEP program is provided at no cost to participating customers.

**Ramp-up Strategy:** Given the Commission's regulatory schedules for final approval of Duquesne Light EE&C programs the earliest program launch would be November 1, 2009. However, this would place the program out-of-phase with school holiday, and testing schedules. Duquesne Light could elect to launch the program in advance of the Commission's final decision, regarding its EE&C portfolio. This is an option for Duquesne because the SEP program has been prepared in advance and can be implemented given short notice by a specialized team. If Duquesne elects to move forward prior to the Commission's final decision, the SEP program could be implemented in the 2009 fall season. If Duquesne elects to wait for the Commission's formal decision the SEP program would be launched in the spring of (March-April)

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<sup>19</sup> State of Pennsylvania statistics provided by the National Center for Educational Statistics



2010. The SEP is budgeted for reduced/preparatory pilot program and outreach during 2009.

Marketing Strategy: The SEP will work with Duquesne management and field service organization to identify pilot schools, and then conduct outreach meetings and conference calls to prepare memoranda of understanding between the Duquesne Light and participating schools districts or individual schools. This approach is a part of defined SEP implementation activities.

Eligible Measures and Incentives: The SEP is tailored to specific regional needs. Classroom lesson plans are linked to state curriculum standards for science and mathematics. The school energy efficiency toolkit includes a quantity of six CFLs in addition to faucet aerators, night lights and educational materials.

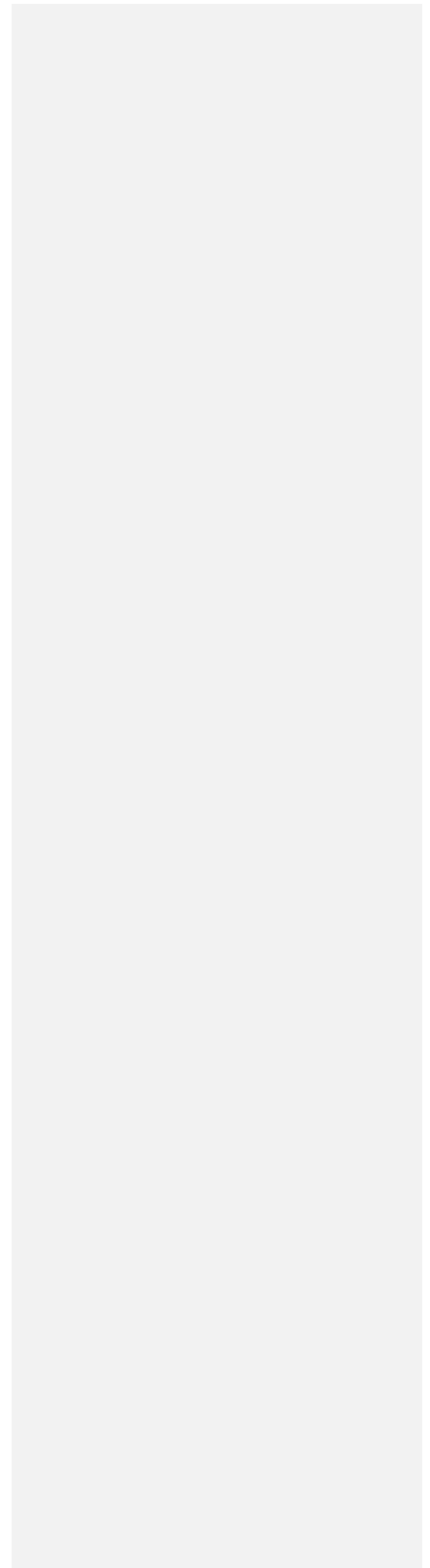
Program Start Date and Key Milestones: Refer to Section 12 Chart 1, Residential Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in EEC & DR Study and EM&V Related Program Content section, where there is a complete listing of the information that will be provided the Commission's statewide EE&C Evaluator.

Administrative Requirements: The SEP is provided as a turnkey program administered by CSP staff and requires little formal involvement by Duquesne Light. The SEP CSP implementation team is comprised of 10 specialized staff working on both a full, and part-time basis for four months per season.

Estimated Participation: The baseline program targets 20 schools with approximately 9,000 students. Historically, this type of program achieves not less than 50% participation by students and families. The estimated number of homes retrofitted is 4,500.

**Figure 13: Schools Sector Budget and Impacts**



**Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	\$90,000	\$180,000	\$180,000	\$180,000	\$630,000
Admin	\$342,667	\$342,667	\$342,667	\$342,667	\$1,370,667

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	608	1,215	1,215	1,215	4,253
Energy Savings (kWh)	675,000	1,350,000	1,350,000	1,350,000	4,725,000

Cost Effectiveness: TRC 3.5

## 3.2-c. Refrigerator Recycling

**Title:** The Residential Refrigerator Recycling Program (“RRP”) will be implemented during program years 2009 through 2012.

**Objectives:** Assist customers to become more energy efficient by educating them about the amount of energy consumed and the costs associated with operating inefficient refrigerators. Provide access to an easy-to-use service to remove and recycle the operational inefficient refrigerators. Customer motivation will be increased by providing a cash incentive for program participation.

**Target Market:** Duquesne Light’s energy efficiency potential forecast estimates that of the 533,000 households served, approximately 42,000 households operate more than one refrigerator.

**Program Description:** The Refrigerator Recycling Program encourages residential customers in Duquesne Light’s service territory to turn in their older operating refrigerators to be recycled. Removing an older, operating refrigerator can result in an energy savings of more than 950 kWh<sup>20</sup> per year. To encourage participation in this program, this program provides a \$35 check for the removal of the old refrigerator. The

<sup>20</sup> PA TRM annual energy savings value

program will consist of Duquesne Light hiring a contractor to administer the program that would consist of the following services:

- Vendor to handle questions and to set up recycling appointments
- Website (program details, reservation requests)
- On-site verification of unit working condition
- Unit collection/transportation
- Recycling processing (including CFC-11 (foam) incineration or recycling)
- Rebate check & rebate processing
- Reporting

The recycling portion of this program is based on the Pacific Gas & Electric 2008 ACEEE Exemplary Appliance Recycling Program (<http://aceee.org/pubs/u081/res-light-app.pdf>).

Implementation Strategy: Contractor proposals will be evaluated based upon inclusion of a proposed marketing and outreach plan, to include elements such as the following:

- Customer Marketing
- Bill Insert & Direct Mail Document Development
- Radio (& television) Advertisement Development
- Trade Show & Store Display Development
- Rebate Processing & Verification
- Customer Enrollment: Customer contacts vendor call center to schedule to have their older, functioning refrigerator removed. Once the refrigerator has been determined to be functional, it will be removed without any cost to the customer.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: There is no cost to participating customers.

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based

on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: Duquesne Light will work with a selected CSP to develop a marketing plan that may incorporate direct mail, web-based, circulated print media as well as radio and television advertising options. The vendor CSP will handle questions, set up recycling appointments and provide website based systems to provide program details and make reservation requests.

Eligible Measures and Incentives: Based on the experience of other utilities attempting to operate appliance recycling programs that include room air conditioners and freezers, Duquesne Light has limited program scope to refrigerators. A \$35 check will be given to the customer once the following conditions have been met:

- Customers would be required to have the functioning refrigerator at their billing address at the time of the removal.
- The refrigerator must be a consumer model between 10-30 cubic feet.

Program Start Date and Key Milestones: Refer to Section 12 Chart 1, Residential Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator:

Detailed evaluation, measurement and verification activities are identified in EEC&DR Study, and the EM&V Related Program Content section where there is a complete listing of the information that will be provided the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs, with administrative costs approximately 20% of program budgets, as shown in the Projected Program Budget table below. Organization planning assumes administrative duties will be performed by the Duquesne Light residential sector program coordinator, as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: Duquesne projects an annual capture rate reflected in the following table:

**Figure 14: Duquesne Annual Capture Rate**

Program Year	Total Customers	Participating Customers	Participation Rate
2009	529,440	2,120	.4%
2010	531,699	3,635	.7%
2011	533,968	3,665	.7%
2012	536,247	2,395	.7%

**Figure 15: Refrigerator Recycling Sector Budget and Impacts**

***Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$209,056	\$418,112	\$418,112	\$418,112	\$1,463,391
Admin	\$104,528	\$104,528	\$104,528	\$104,528	\$418,112

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	415	831	831	831	2,908
Energy Savings (kWh)	1,666,834	3,333,669	3,333,669	3,333,669	11,667,840

Cost Effectiveness: TRC 3.1

3.2.d. Solar—Photovoltaic Incentives Program

**Title:** Solar—Photovoltaic Incentives Program will be implemented during program years 2009 through 2012.

**Objectives:** The photovoltaic program is designed to stimulate the application of systems among residential building types. It is considered a pilot program as a way to demonstrate technical, economic and energy saving considerations. It is expected that energy savings will be realized and bill savings will be obtained.

**Target Market:** Target customers will include owner-occupied single family homes and detached residences, as well as attached homes, such as townhomes and patio homes.

**Program Description:** The photovoltaic program is designed to stimulate the installation of solar installations on residential buildings. Incentives will be offered at the rate of \$2.50 per watt of installed capacity. The maximum size of the incentive will be limited to 10 kilowatts for residential and 25 kilowatts for commercial and industrial applications. Of course participants may install larger systems and will have access to state and federal incentives. The photovoltaic program is designed to stimulate the application of systems among various building types.

**Implementation Strategy:** The photovoltaic program will be available over the first four years of the energy efficiency and conservation program plan. More specifically, the program will be available in the first program year, with the hope that installations will be approved and perhaps completed prior to May 31, 2010. Prospective participants will be expected to submit their plans and designs for approval by Duquesne Light. A field inspection will be conducted prior to approval in order to confirm locations, designs, metering, estimated energy savings and safety. Once approved the participant may proceed with installation. Upon final inspection, the incentive payment will be made based on confirming such aspects as capacity of the system and safety to customers and the electrical system.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under performing programs.

**Anticipated Cost to Participating Customers:** The program provides incentive amounts of \$2.50 per watt of installed capacity. All other costs are born by the program participant.

**Ramp-up Strategy:** The Photovoltaic Incentive Program is funded equally for the four years 2009 through 2012.

**Marketing Strategy:** Duquesne develops marketing as required to subscribe the program budget. Marketing efforts may incorporate direct mail, web-based, circulated print media as well as radio and television advertising options.

**Eligible Measures and Incentives:** The program provides incentive amounts of \$2.50 per watt of installed capacity of solar photovoltaic technologies.

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Program Start Date and Key Milestones: Refer to Section 12 Chart 1, Residential Portfolio Program.

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Assumed EM&V requirements to document savings by the Commission’s statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section, where there is a complete listing of the information that will be provided to the Commission’s statewide EE&C Evaluator.

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**Administrative Requirements:** For this pilot program, administrative costs have not been separately estimated, as they may entail the multiple functions under analysis within Duquesne Light, including electrical systems engineering and operations, energy efficiency and conservation, metering and billing, information technologies, legal and others. Program budgets will be adjusted as program costs become better defined as a result of implementing this pilot program.

Estimated Participation: The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the following Projected Program Impacts table.

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Figure 16: Solar — Photovoltaic Sector Budget and Impacts

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**Projected Program Budget**

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Program Year	2009	2010	2011	2012	Total
Incentives	\$150,000	\$150,000	\$150,000	\$150,000	\$600,000
Admin	N/A	N/A	N/A	N/A	N/A

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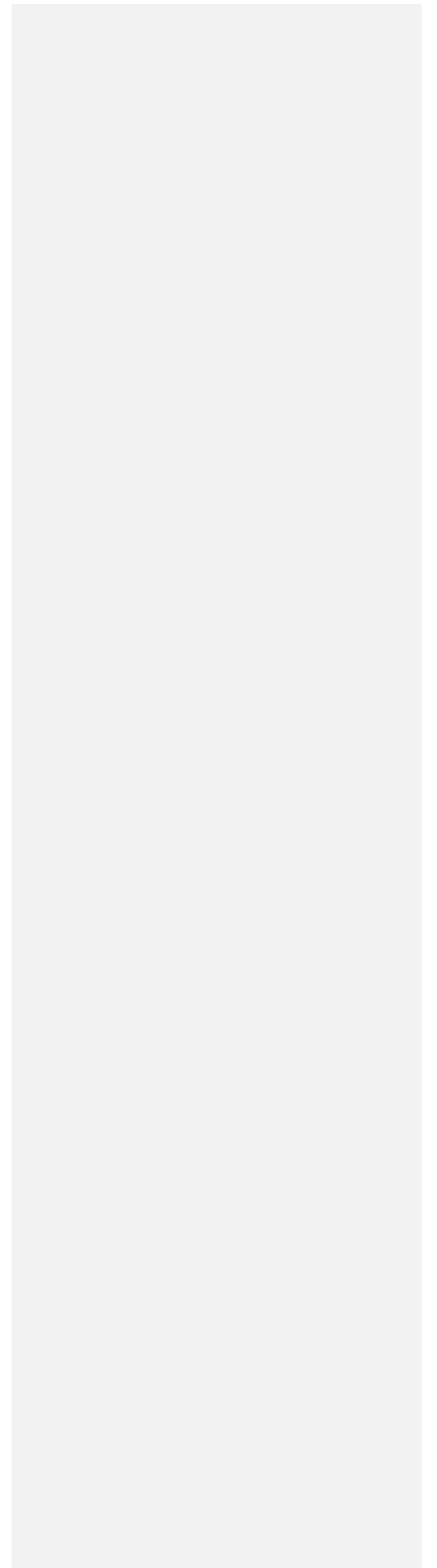
**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	60	60	60	60	240
Energy Savings (kWh)	156,000	156,000	156,000	156,000	624,000

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Cost Effectiveness: TRC 0.3

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### 3.2-de. Air Conditioner Cycling Program

Title: Air Conditioner Cycling Program (“ACCP”) will be operated in program years 2010, 2011 and 2012.

Objectives: The program will achieve the benefits of demand response by cycling off central air conditioners and electric water heaters for residential customers.

Target Market: Target customers will include owner-occupied single-family homes with central air conditioners, including detached residences as well as attached homes such as town-homes and patio homes. Renter occupied homes, apartments and condominium developments will not be eligible due to ownership considerations and the presence of central air conditioning units that are typically smaller than those found in single-family homes.

Program Description: The program will install load cycling switch technology on the air conditioner condensing units and, where applicable, on electric water heaters. A total of 48 hours of cycling will be conducted during the summer season. The program will be delivered under contract by a third party experienced in implementing air conditioner cycling programs.

Implementation Strategy: The program will be delivered under contract by a CSP experienced in implementing air conditioner cycling programs. The contractor is responsible for such activities as: acquiring and inventorying equipment for installation; hiring and training of installation and service technicians; arranging equipment installation; communicating with equipment during cycling events, and; handling customer service issues.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light’s PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: There will be no cost to participating customers.

Ramp-up Strategy: The program will incur some administrative expense in 2009 and will not operate in a cycling mode until 2010. Projected participation ramps up to approximately 5,000 units per year through 2012.

Marketing Strategy: The program will be promoted through a variety of strategies, including:

- Direct marketing techniques, including direct mail, telemarketing, and door to door sales
- Existing utility resources, including bill inserts, websites, customer service call center representatives
- Literature will be prepared for use in direct mail, door hangers, public meetings, and response to customer inquiries
- Media events for radio, television and newspapers
- Presentations at public meetings such as civic clubs, church groups, and neighborhood associations

Eligible Measures and Incentives: Measures: Load cycling switch technology on the air conditioner condensing units and, where applicable, on electric water heaters.

Incentives: Participating customers will receive bill credits of \$32 per summer season for air conditioning and an additional \$10 per summer season for water heating.

Program Start Date and Key Milestones: Refer to Section 12 Chart 1, Residential Portfolio Program.

Assumed EM&V requirements to document savings by the Commission’s statewide EE&C Evaluator:

Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission’s statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets, as shown in the Projected Program Budget table below. Organization planning assumes administrative duties will be performed by the Duquesne Light residential sector program coordinator as well as part-time support by engineering, marketing, purchasing, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: Projected participation rates for years 2009 through 2012 are shown below:

**Figure 17: Air Conditioner Cycling Program Participation**

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Installed Annually</b>	0	4,991	5,039	5,088
<b>Operating Cumulative</b>	0	4,991	10,030	15,118

**Figure 18: Air Conditioner Cycling Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$0	\$164,688	\$330,977	\$498,881	\$994,546
Admin	\$88,000	\$461,277	\$614,678	\$769,569	\$1,933,524

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	0	6,138	12,336	18,595	18,595
Energy Savings (kWh)	0	229,965	462,164	696,619	1,388,748

Cost Effectiveness: TRC 1.0 – 1.5 per Section 11, Table 7A

3.2.1. Low-Income Sector (as defined by 66 Pa. C.S. § 2806.1) Programs include formatted descriptions of each program organized under the same headings as listed above for residential programs. As well, provide and detail all plans for achieving compliance with 66 Pa. C.S. § 2806.1.

Title: The Low Income Energy Efficiency Program (LIEEP) will be implemented during program years 2009 through 2012.

Objectives: The objective of LIEEP is to increase qualifying customers' comfort while reducing their energy consumption, costs, and economic burden.

Target Market: The LIEEP provides energy efficiency services to households located in single-family and multifamily dwellings that are at or below 150% of the federal poverty guidelines.

**Program Description:** LIEEP is an income-qualified program providing services designed to assist low-income households to conserve energy and reduce electricity costs. This program adopts the local government energy efficiency partnership strategy described in the EEC & DR Study benchmarking section for this program plan. Partnership agencies serve as the governing bodies for housing authorities. The project agreements between Duquesne and partnership agencies contain the terms to leverage local agency staff to reach, pre-screen and enroll program participants. The utility and the agency split specified program costs. The Partnership Memorandum of Understanding (“MOU”) puts in place dedicated contacts and a working group structure to identify and evaluate energy efficiency project opportunities within all governmental departments and sub-agencies. A sample Public Agency MOU is provided in Study Attachment 14 of the EEC & DR Study.

**Implementation Strategy:** Key elements of the implementation process follow. (1) Duquesne executes a Partnership MOU with the Public Agency (2) Duquesne Light facilitates working group meetings with the public agency and jurisdictional housing authority agencies (3) The working group collaborates on the development proposed project concept papers (4) Public agency working group members obtain feedback on the proposed projects and the working group makes necessary adjustments to the concept paper (5) Duquesne prepares a project agreement and resolution for approval by the public agency governing body (6) Duquesne and the public agency implement the project plan consistent with the terms of the project agreement.

Patterned after successful programs operating in other parts of the country, a key element of the LIEEP is co-funding by Duquesne Light and the Partnership agency of energy efficiency audits and measure implementation. LIEEP will utilize local contractors and/or other survey and installation entities based on availability, cost, and quality of service. Whenever possible, LIEEP will utilize non-profit, community based organizations to perform the energy efficiency surveys and measure installation. A sample resolution, project agreement and concept paper are provided in the Study Attachment 15.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light’s PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

**Anticipated Cost to Participating Customers:** There will be no cost to low income household residents.

**Ramp-up Strategy:** It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program funding provides for incentive funding at 50% of full year operation. To support ramp-up activities, program funding provides for administrative costs at 100% of full year operation.

Marketing Strategy: Local government agencies are engage directly by Duquesne Light under the local government partnership model. Each partnering agency assists in communicating with all governmental departments and jurisdictional agencies.

Eligible Measures and Incentives: All measures identified in the Study Attachment 1 will be provided, as specified in the project agreements described previously. The projects implemented under this program are provided at no cost to participants. The cost to identify and implement measures shall be co-funded by parties to the Partnership as specified in project agreements.

Program Start Date and Key Milestones: Refer to Section 12 Chart 1, Residential Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator:

Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section, where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator. Duquesne will monitor and where possible, coordinate its planned whole house energy audits, especially in regard to LIEEP, with any statewide whole house programs that would benefit its customers.

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Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets, as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: Determination of low-income segment mandated reductions requires interpretation of the following Act 129 language:

Act 129 (House Bill No., 2200 Session of 2008) Section 2. Title 66: § 2806.1 Energy Efficiency and Conservation Program. (A)(11)(1)(G): "The plan shall include specific energy efficiency measures for households at or below 150% of the federal poverty income guidelines. The number of measures shall be proportionate to those households' share of the total energy usage in the service territory."

Low income program goals presented in this plan are adjusted to reflect the percentage of Act 129 mandated reductions equivalent to the low income segment energy use percentage of Duquesne Light's total territory energy use. This treatment of low income program energy savings impact goals conforms to the Office of Consumer Advocate's interpretation of the referenced Act 129 language.

**Figure 19: Low Income Territory Energy Use**  
**Annual Period - Year Ending May 31, 2011**

<b>Allocation Basis</b>	<b>Territory Energy Use</b>
Forecast 2011 Territory Energy Use (kWh)	14,043,748,296
Residential Energy Use	4,276,840,291
Residential Accounts	533,968
Average Residential Energy Use (kWh)	8,010
Low-Income Accounts	106,794
Estimated Low-Income Energy Use (kWh)	855,368,058
Low Income % Territory Use	6.1%
May 31, 2011 Reduction Target (kWh)	140,855,117
<b>Low-Income Proportional Savings (kWh)</b>	<b>8,579,118</b>

Based on the required annual reductions described above, projected participating households is 8,500 for each full year of program operation.

**Figure 20: Low-Income Sector Budget and Impacts**

***Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$547,150	\$1,094,299	\$1,094,299	\$1,094,299	\$3,830,048
Admin	\$273,575	\$273,575	\$273,575	\$273,575	\$1,094,299

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	1,751	3,501	3,501	3,501	12,254
Energy Savings (kWh)	4,293,586	8,587,173	8,587,173	8,587,173	30,055,105

Cost Effectiveness: TRC 2.3

- 3.3. Small Commercial/Industrial Sector (as defined by EDC Tariff) Programs include formatted descriptions of each program organized under the same headings as listed previously for residential programs.

## Definition of Terms:

Sector Umbrella Programs: Umbrella Programs described in Sections 3.3 and 3.4 provide a level of service (incentives only) to all sector customers and establish the terms, conditions and incentive levels for all Sector Sub-Programs. Umbrella programs define prescriptive incentives (\$ per lamp, fixture, ton, square foot of insulation, etc) and custom incentives provide \$ per kWh saved for all Sector Sub-Programs.

Sector Sub-Programs: Sub-sector programs described in Sections 3.3 and 3.4 are designed to mitigate segment specific barriers to program participation by providing segment specific energy efficiency audits and incentives. The manner of program delivery is aligned to segment characteristics and needs. Incentive levels for all Sector Sub-Programs are defined by Sector Umbrella Programs.

## 3.3.1. Commercial Sector Umbrella Energy Efficiency Program Plan

Title: The Commercial Sector Umbrella Energy Efficiency Program Plan will be implemented during program years 2009 through 2012.

Objectives: The Commercial Sector Umbrella Program (“CSUP”) provides for the payment of incentives to offset the higher cost of high-efficiency equipment when compared to standard efficiency equipment. Importantly, the CSUP establishes the terms, conditions, and incentive levels for all Sub-Programs. This has two key functions: (1) Changes to incentive levels occur once at the CSUP, thereafter referenced by all other programs, and; (2) all program incentive offers are consistent, eliminating confusion and gaming (customers and/or contractors can participate in any program within the portfolio and receive exactly the same incentive). Incentive program tracking, reporting and processing are performed under the structures and procedures established under the CSUP.

Additionally, Sub-Programs are structured to provide specialized services to customers consuming 92% of the sector energy use. The CSUP provides access to energy efficiency incentives by customers not served by the Sub-Programs.

Target Market: The CSUP is primarily an operations activity facilitating operation of the Sector Sub-Programs. The CSUP can serve to provide cash incentives to customers that lack service under one of the Sector Sub-Programs.

Program Description: The CSUP establishes the terms, conditions, and incentive levels for all Sub-Programs. Incentive program tracking, reporting and processing are performed under the structures and procedures established under the CSUP. The CSUP provides incentives to offset the higher cost of high-efficiency equipment when compared to standard efficiency equipment. Rebate

applications allow customers to reserve funds for their projects via phone, fax, Internet, or mail.

**Implementation Strategy:** The CSUP is operated by the Duquesne Light core team or a designated CSP. Procedural guidelines for the CSUP define the processes for all incentive reservation and redemption as well as program activity and impact reporting.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light’s PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

**Anticipated Cost to Participating Customers:** Incentive payments offset a portion of the incrementally greater cost of high-efficiency equipment. Incentive “levels” refer to the percentage of incremental measure cost off-set by program incentives. Participating customers pay the remaining amounts. The following table summarizes incentive levels for commercial programs:

**Figure 21: Commercial Program Incentive Levels**

Lighting	32.6%
HVAC	45.8%
Refrigeration	60.9%
Office Equipment	50.0%

**Ramp-up Strategy:** It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participants before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program funding provides for incentive funding at 50% of full year operation. To support ramp-up activities, program funding provide for administrative costs at 100% of full year operation.

**Marketing Strategy:** The CSUP is primarily an operational program. Customers will have access to CSUP incentive applications through a link on Duquesne Light’s Act 129 website.

**Eligible Measures and Incentives:** Prescriptive measures and associated rebate amounts are provided in Study Attachment 13. Where custom or calculated incentive amounts are appropriate (as described in program terms and conditions), the program will pay \$0.14 per kWh.

**Program Start Date and Key Milestones:** Refer to Section Chart 2, Small Commercial/Industrial Portfolio Program.

**Assumed EM&V requirements to document savings by the Commission’s statewide EE&C Evaluator:** Detailed evaluation, measurement and verification activities are identified in the Study and the EM&V Related Program Content



section, where there is a complete listing of the information that will be provided the Commission’s statewide EE&C Evaluator.

Administrative Requirements: Program administrative costs are shown in the following Projected Program Budget table. Organization planning includes provision for one full-time project coordinator for Duquesne Light C&I Programs as well as part-time support by engineering, marketing, purchasing, regulatory data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Small C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 22: Small Commercial & Industrial Sector Budget and Impacts**

***Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$67,159	\$134,318	\$134,318	\$134,318	\$470,114
Admin	\$33,580	\$33,580	\$33,580	\$33,580	\$134,318

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	169	337	337	337	1,181
Energy Savings (kWh)	786,115	1,572,229	1,572,229	1,572,229	5,502,802

Cost Effectiveness: TRC 2.6

### 3.3.2. Commercial Sector Sub-Program: Office Buildings

Title: The Commercial Sector Sub-program: Office Buildings program will be implemented during program years 2009 through 2012

Objectives: The office buildings segment program is tailored to assist the segment to overcome unique, segment specific barriers to energy efficiency program participation.

Target Market: Office building owners and operators of small to large buildings.

Program Description: The Office Buildings Program helps commercial customers to assess the potential for energy-efficiency project implementation, cost and energy savings, and, for appropriate customers, provides follow-through by installing measures and verifying savings. Program components include auditing of energy use, provision of targeted financing and incentives, project management and installation of retrofit measures, training, and technical assistance. Incentive amounts for this program are consistent with the Commercial Sector Umbrella Program.

Energy audits provide business customers a readily available, reliable source of information about their energy use and outline ways to save energy that, when implemented, will result in energy savings, reduced operating costs, lowered carbon emissions, and improved air quality. Training and technical assistance is provided to facility managers on how to select vendors and retrofit strategies, and how to operate and maintain the energy efficiency equipment, upon installation.

Implementation Strategy: The Office Building program will be delivered by one or more CSPs. It is anticipated separate RFPs will be issued for a large office building program and a small office building program. Characteristics of the two segments vary significantly requiring different kinds of services traditionally provided by different types of CSPs. RFPs will solicit innovative approaches to providing the basic services described above. Programs implemented under contract to CSPs will conform to the Commercial Umbrella Program incentives structures, terms, conditions and operating procedures.

*Note: An RFP soliciting proposals from qualified CSPs to implement the Large Office Buildings programs was issued May 15, 2009, with bids received by June 19, 2009. The contract is anticipated to be awarded by August 12, 2009, see the Study Attachment 16.*

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost, offset by program incentives, is established under the Commercial Sector Umbrella Program. Participating customers pay the remaining amounts.

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program “ramp-up” is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 “ramp-up” period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: A marketing plan is part of prospective CSP proposals to implement programs for this market segment. The successful contractor will raise target market awareness of program and service offerings to the commercial office building sector through strategies such as hosting and sponsoring of Webinars, and the development and dissemination of general and specific collateral marketing materials via direct mail, email and the Internet. Additionally, CSP’s can conduct outreach through participation and membership in selected key trade associations, attendance at key trade shows and sponsorship of training events. CSPs will be expected to use their unique market segment expertise to craft compelling program participation messages for key customer decision makers.

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.3.1 Commercial Sector Umbrella Program.

Program Start Date and Key Milestones: Refer to Section Chart 2, Small Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission’s statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission’s statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for sub-contracted C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Small C&I): The primary metrics for program participation will be processing incentive payments for the purchase and

installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 23: Office Buildings Budget and Impacts**

***Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$430,126	\$859,251	\$845,251	\$834,251	\$2,968,880
Admin	\$251,563	\$214,563	\$211,563	\$207,563	\$885,251

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	970	1,940	1,940	1,940	6,789
Energy Savings (kWh)	5,317,298	10,634,596	10,634,596	10,634,596	37,221,087

Cost Effectiveness: TRC 2.6

3.3.3. Commercial Sector Sub-Program: Retail Stores

Title: The Commercial Sector Sub-program: Retail Stores program will be implemented during program years 2009 and 2012.

Objectives: The retail stores segment program is tailored to assist the segment to overcome unique, segment specific, barriers to energy efficiency program participation.

Target Market: Retail Stores, grocery stores and restaurants

Program Description: The Retail Stores Program helps commercial customers to assess the potential for energy-efficiency project implementation, cost and energy savings, and, for appropriate customers, provides follow-through by

installing measures and verifying savings. Program components include auditing of energy use, provision of targeted financing and incentives, project management and installation of retrofit measures, training, and technical assistance. Incentive amounts for this program are consistent with the Commercial Sector Umbrella Program.

Energy audits provide business customers a readily available, reliable, source of information about their energy use and outline ways to save energy that, when implemented, will result in customers achieving energy savings, reduced operating costs, lowered carbon emissions, and improved air quality. Training and technical assistance is provided to facility managers on how to select vendors and retrofit strategies, and how to operate and maintain the energy efficiency equipment upon installation.

Implementation Strategy: The Retail Stores Program will be delivered by one or more CSPs. It is anticipated separate RFPs will be issued for a retail stores, grocery stores and restaurants. Characteristics of the segments vary significantly, requiring different kinds of services traditionally provided by different types of CSPs. RFPs will solicit innovative approaches to providing the basic services described above. Programs implemented under contract to CSPs will conform to the Commercial Umbrella Program incentives structures, terms, conditions and operating procedures.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's Program Management and Reporting System (PMRS). The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost, off-set by program incentives is established under the Commercial Sector Umbrella Program. Participating customers pay the remaining amounts.

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: A marketing plan is part of prospective CSP proposals to implement programs for this market segment. The successful contractor will raise target market awareness of program and service offerings to the retail stores sector through strategies such as hosting and sponsoring of Webinars, and the development and dissemination of general and specific collateral marketing materials via direct mail, email and the Internet. Additionally, CSP's can conduct outreach through participation and membership in selected key trade associations, attendance at key trade shows and sponsorship of training events. CSPs will be expected to use their unique market segment expertise to craft compelling program participation messages for key customer decision makers.

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.3.1 Commercial Sector Umbrella Program.

Program Start Date and Key Milestones: Refer to Section Chart 2, Small Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for sub-contracted C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Small C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 24: Retail Stores Budget and Impacts****Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	\$155,305	\$310,611	\$310,611	\$310,611	\$1,087,138
Admin	\$77,653	\$77,653	\$77,653	\$77,653	\$310,611

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	390	780	780	780	2,730
Energy Savings (kWh)	1,817,890	3,635,780	3,635,780	3,635,780	12,725,231

Cost Effectiveness: TRC 2.6

#### 3.3.4. Commercial Sector Sub-Program: Education Segment

Title: The Commercial Sector Education Segment Sub-program will be implemented during program years 2009 and 2012.

Objectives: The education segment program is tailored to help overcome unique, segment specific, barriers to energy efficiency program participation.

Target Market: Education sector energy efficiency programs are divided into two primary areas of focus: Higher Education (universities and community colleges) and Primary Schools (K-12).

Program Description: The Education Segment Program helps colleges and Primary Schools to assess the potential for energy-efficiency project implementation, cost and energy savings, and for appropriate customers, provides follow-through by installing measures and verifying savings. Program

components include auditing of energy use, provision of targeted financing and incentives, project management and installation of retrofit measures, training, and technical assistance. Incentive amounts for this program are consistent with the Commercial Sector Umbrella Program.

Energy audits provide customers a readily available, reliable, source of information about their energy use and outline ways to save energy that, when implemented, will result in energy savings, reduced operating costs, lowered carbon emissions, and improved air quality. Training and technical assistance is provided to facility managers on how to select vendors and retrofit strategies, and how to operate and maintain the energy efficiency equipment, upon installation.

Implementation Strategy: The Education Segment Program will be delivered by one or more CSPs. Separate RFPs may be issued for colleges and Primary Schools. Characteristics of the segments vary significantly requiring different kinds of services traditionally provided by different types of CSPs. RFPs will solicit innovative approaches to providing the basic services described above. Programs implemented under contract to CSPs will conform to the Commercial Umbrella Program incentives structures, terms, conditions and operating procedures.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost, offset by program incentives, is established under the Commercial Sector Umbrella Program. Participating customers pay the remaining amounts.

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.



Marketing Strategy: A marketing plan is part of prospective CSP proposals to implement programs for this market segment. The successful contractor will raise target market awareness of program and service offerings to the retail stores sector through strategies such as hosting and sponsoring of Webinars, and the development and dissemination of general and specific collateral marketing materials via direct mail, email and the Internet. Additionally, CSP's can conduct outreach through participation and membership in selected key trade associations, attendance at key trade shows and sponsorship of training events. CSPs will be expected to use their unique market segment expertise to craft compelling program participation messages for key customer decision makers.

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.3.1 Commercial Sector Umbrella Program.

Program Start Date and Key Milestones: Refer to Section Chart 2, Small Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for sub-contracted C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Small C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the following Projected Program Impacts table.

**Figure 25: Education Segment Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$88,146	\$176,293	\$176,293	\$176,293	\$617,024
Admin	\$44,073	\$44,073	\$44,073	\$44,073	\$176,293

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	221	443	443	443	1,550
Energy Savings (kWh)	1,031,775	2,063,551	2,063,551	2,063,551	7,222,428

Cost Effectiveness: TRC 2.6

### 3.3.5. Industrial Sector Umbrella Program (Program description Section 3.4)

(See Section 3.4.6. for full program description)

Estimated Participation (Small C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 26: Industrial Sector Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$33,124	\$43,399	\$43,399	\$43,399	\$163,320
Admin	\$36,827	\$48,251	\$48,251	\$48,251	\$181,580

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	57	114	114	114	399
Energy Savings (kWh)	368,716	737,432	737,432	737,432	2,581,011

## 3.3.6. Industrial Sector Sub-Program: Mixed Segments

**Title:** The Industrial Sector Mixed Segments Sub-program will be implemented during program years 2009 and 2012.

**Objectives** This program was developed through information provided to Duquesne at Act 129 Stakeholder Meetings wherein participants expressed interest in specialized programs for the chemicals and primary metals markets, which comprise 75% of Duquesne's industrial energy use. The industrial sector mixed segment program is tailored to assist smaller industrial customers in overcoming unique, segment specific barriers to energy efficiency program participation.

**Target Market:** The program provides energy audits and incentives to multiple industrial segments, including, but not limited to, food processing, rubber & plastics, stone/clay/glass, fabricated metals and electronics.

**Program Description:** The program is delivered by a single contractor that provides program outreach and energy audits to multiple industrial segments. The Industrial Sector Mixed Segment Program helps smaller manufacturing entities to assess the potential for energy-efficiency project implementation, cost and energy savings, and, for appropriate customers, provides follow-through by installing measures and verifying savings. Program components include auditing of energy use, provision of targeted financing and incentives, project management and installation of retrofit measures, training, and technical assistance. Incentive amounts for this program are consistent with the Industrial Sector Umbrella Program.

Energy audits provide customers a readily available, reliable, source of information about their energy use and outline ways to save energy that, when implemented, will result in energy savings, reduced operating costs, lowered carbon emissions, and improved air quality. Training and technical assistance is provided to facility managers on how to select vendors and retrofit strategies, and how to operate and maintain the energy efficiency equipment upon installation.

**Implementation Strategy:** The Industrial Sector Mixed Segment Program will be delivered by a single CSP specializing in serving this diverse market. The RFP will solicit innovative approaches to providing the basic services described above. Programs implemented under contract to a CSP will conform to the Industrial Sector Umbrella Program incentives structures, terms, conditions and operating procedures.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

**Anticipated Cost to Participating Customers:** Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost, offset by program incentives, is established under the Industrial Sector Umbrella Program. Participating customers pay the remaining amounts.

**Ramp-up Strategy:** It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs

anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: A marketing plan is part of a prospective CSP's proposal to implement a program for this market segment. The successful contractor will raise market awareness of program and service offerings to the multiple industrial sector segments through strategies such as hosting and sponsoring of Webinars, and the development and dissemination of general and specific collateral marketing materials via direct mail, email and the Internet. Additionally, CSP's can conduct outreach through participation and membership in selected key trade associations, attendance at key trade shows and sponsorship of training events. CSPs will be expected to use their unique market segment expertise to craft compelling program participation messages for key customer decision makers

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.4.6 Industrial Sector Umbrella Program.

Program Start Date and Key Milestones: Refer to Section Chart 2, Small Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section, where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for sub-contracted C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Small C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the following Projected Program Impacts table.

**Figure 27: Mixed Segments Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$249,615	\$327,048	\$327,048	\$327,048	\$1,230,759
Admin	\$277,522	\$363,613	\$363,613	\$363,613	\$1,368,360

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	429	858	858	858	3,004
Energy Savings (kWh)	2,778,590	5,557,180	5,557,180	5,557,180	19,450,130

Cost Effectiveness: TRC 3.8

### 3.3.7. Demand Response: Small & Midsized Commercial

Title: The Air Conditioner Cycling Program for Small and Mid-Size Facilities will be implemented during program years 2010 through 2012.

Objectives: The program will achieve the benefits of demand response by cycling off central air conditioners for small and medium sized commercial and industrial facilities.

Target Market: The program will target approximately 54,000 small and mid-sized customers. Small facilities have demands less than 25 kW per month and consume less than 1,000 kWh per month. Mid-sized facilities are between 25 kW and 300 kW.

Program Description: The program will install a load cycling switch technology, similar to that used currently in the residential program by Duquesne Light. However, the switch will be configured to achieve more cost-effective load reductions through the use of an adaptive algorithm during cycling events. The advantage of the adaptive algorithm is to adjust the air conditioner operation tailored to the amount of electricity use by each individual participant at the

time of the cycling event. A total of 48 hours of cycling will be conducted during the average summer season over the four months of June, July, August and September. This is based on the following estimates: 12 cycling events per season on average; 4 hours per event on average. With permission of the participants, the switch will be installed on the air conditioner condensing unit. Communications to the switches will be accomplished through wireless media.

Implementation Strategy: The program will be delivered under contract with a third party experienced in implementing air conditioner cycling programs. The contractor will be responsible for such activities as acquiring and inventorying equipment for installation; hiring and training of installation and service technicians; arranging equipment installation; communicating with equipment during cycling events, and, handling customer service issues. The contractor may also be engaged more broadly, such as direct marketing; managing call centers for customer inquires, installation and service; operating cycling events when called by the utility, and monitoring and verifying performance.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Participants will receive the load cycling unit at no charge and no charge for installation.

Ramp-up Strategy: The program will not operate in 2009. Some administrative costs will be incurred preparing program launch in 2010. Program projected participation is 540 participants per year, 2010 through 2012.

Marketing Strategy: The program will be promoted through a variety of strategies, including direct mail, telemarketing, door to door sales, bill inserts, websites, and customer service call center representatives. Literature will be prepared for use in direct mail, door hangers, public meetings, and response to customer inquiries. Media events will be held for radio, television and newspapers, and presentations at public meetings.

Eligible Measures and Incentives: Participants will receive the load cycling unit at no charge and no charge for installation. Customers will receive credits on their monthly electric bill for participation amounting to \$32 per summer season. This is based on an incentive of \$8/month for each of the four summer months.

Program Start Date and Key Milestones: Refer to Section Chart 2, Small Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs, administrative and incentive costs are shown in the Projected Program Budget table below. Organization planning assumes administrative duties will performed by the Duquesne Light program manager for the C&I sub-contract programs as well as part-time support by engineering, marketing, purchasing, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: Projected participation rates for years 2009 through 2012 are shown below:

**Figure 28: Demand Response Projected Participation Rates**

<i>3 Units per participant</i>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<i>Units operating annual</i>	0	1,620	1,620	1,620
<i>Units operating cumulative</i>	0	1,620	3,240	4,860

**Figure 29: Demand Response Budget and Impacts**

***Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$0	\$51,840	\$103,680	\$155,520	\$311,040
Admin	\$40,000	\$168,360	\$213,720	\$259,080	\$681,160

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	0	2,592	5,184	7,776	7,776
Energy Savings (kWh)	0	111,974	223,949	335,923	671,846



Cost Effectiveness: TRC 1.3 – 2.0

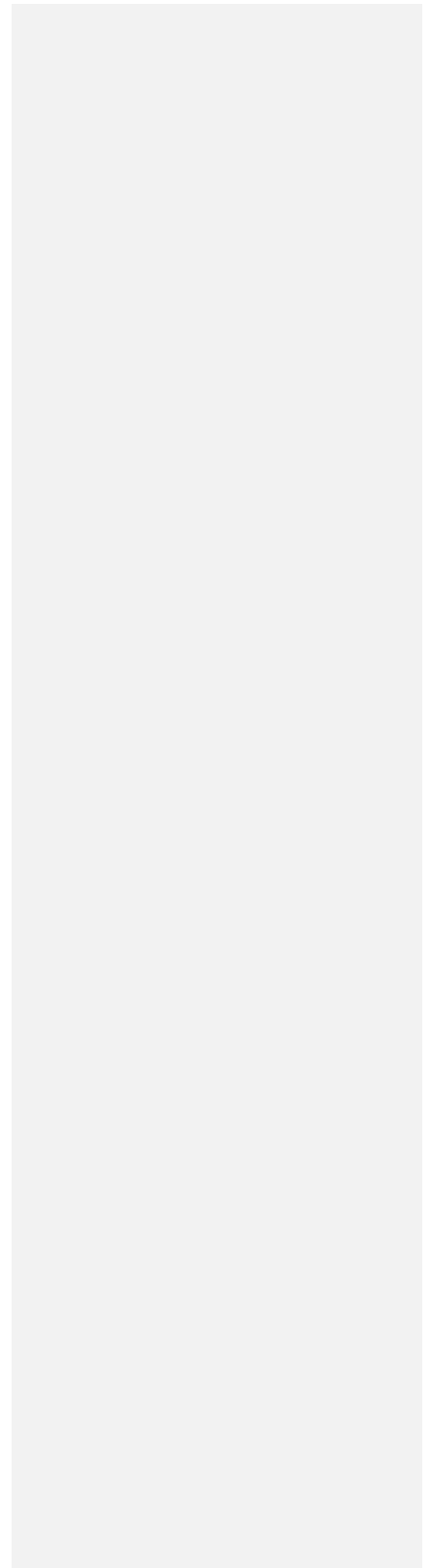
- 3.4. Commercial/Industrial Large Sector (as defined by EDC Tariff) Programs include formatted descriptions of each program organized under the same headings as listed above for residential programs.

- 3.4.1. Commercial Sector Umbrella Energy Efficiency Program Plan

(Program description Section 3.3)

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 30: Commercial Sector Umbrella Budget and Impacts**



**Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	\$161,906	\$323,812	\$323,812	\$323,812	\$1,133,344
Admin	\$80,953	\$80,953	\$80,953	\$80,953	\$323,812

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	407	813	813	813	2,846
Energy Savings (kWh)	1,895,155	3,790,309	3,790,309	3,790,309	13,266,082

3.4.2. Commercial Sector Sub-Program: Office Buildings

(Program description Section 3.3)

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 31: Office Buildings Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$887,000	\$1,775,000	\$1,789,000	\$1,800,000	\$6,251,000
Admin	\$407,000	\$444,000	\$447,000	\$451,000	\$1,749,000

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	2,200	4,400	4,400	4,400	15,400
Energy Savings (kWh)	10,100,000	20,200,000	20,400,000	20,600,000	71,300,000

## 3.4.3. Commercial Sector Sub-Program: Health Care

**Title:** The Commercial Sector Sub-Program: Health Sector Segment program will be implemented during program years 2009 and 2012.

**Objectives:** The Health Care Segment program is tailored to assist the segment to overcome unique, segment specific, barriers to energy efficiency program participation.

**Target Market:** This program provides energy efficiency services to medical office buildings and acute care facilities. (Represents 17% of commercial sector energy use)

**Program Description:** By working directly with regional health care system administrators, Duquesne's new Health Care Energy Efficiency Programs

(“HEEP”) establishes a permanent framework for a long-term energy management program for medical office buildings and acute care facilities. HEEP is a retrofit incentive program tailored to individual system administrator needs

Implementation Strategy: Duquesne Light will leverage its existing business relationships with major regional health care systems to enroll these important customers in tailored energy efficiency programs. Duquesne Light’s key account representatives, supported by specialized CSPs, will facilitate working group meetings with client energy and facility managers to identify and prioritize projects for inclusion in the HEEP. It is anticipated the working groups will focus on large scale projects and challenges facing this unique customer segment.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light’s PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost offset by program incentives, is established under the Industrial Sector Umbrella Program. Participating customers pay the remaining amounts.

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program “ramp-up” is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 “ramp-up” period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: The marketing approach for this program will be direct meetings with mid-level health care system energy and facility managers. Duquesne Light will continue its outreach through participation and membership in selected key trade associations, attendance at key trade shows and sponsorship of training events.

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.4.6 Industrial Sector Umbrella Program. Custom measures will be evaluated on a case-by-case basis.

Program Start Date and Key Milestones: Refer to Section Chart 3, Large Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator responsible for Duquesne Light implemented C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 32: Health Care Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$486,764	\$973,528	\$973,528	\$973,528	\$3,407,347
Admin	\$243,382	\$243,382	\$243,382	\$243,382	\$973,528

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	1,222	2,445	2,445	2,445	8,557
Energy Savings (kWh)	5,697,697	11,395,394	11,395,394	11,395,394	39,883,880

Cost Effectiveness: TRC 2.6

#### 3.4.4. Commercial Sector Sub-Program: Retail Stores

(For a complete program description see Section 3.3)

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 33: Retail Stores Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$374,408	\$748,816	\$748,816	\$748,816	\$2,620,857
Admin	\$187,204	\$187,204	\$187,204	\$187,204	\$748,816

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	940	1,881	1,881	1,881	6,582
Energy Savings (kWh)	4,382,545	8,765,090	8,765,090	8,765,090	30,677,815

## 3.4.5. Commercial Sector Sub-Program: Education

(For a complete program description see Section 3.3)

**Estimated Participation (Large C&I):** The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 34: Education Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$212,502	\$425,004	\$425,004	\$425,004	\$1,487,514
Admin	\$106,251	\$106,251	\$106,251	\$106,251	\$425,004

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	534	1,067	1,067	1,067	3,736
Energy Savings (kWh)	2,487,390	4,974,781	4,974,781	4,974,781	17,411,733

## 3.4.6. Industrial Sector Energy Efficiency Umbrella Program

**Title:** The Industrial Sector Umbrella Energy Efficiency Program Plan will be implemented during program years 2009 through 2012.

**Objectives:** The Industrial Sector Umbrella Program (“ISUP”) provides for the payment of incentives to offset the higher cost of high-efficiency equipment when compared to standard efficiency equipment. Importantly, the ISUP establishes the terms, conditions, and incentive levels for all Sub-Programs. This has two key functions: (1) Changes to incentive levels occurs once at the ISUP, thereafter referenced by all other programs, and (2) all program incentive offers are consistent, eliminating confusion and gaming (customers and/or contractors can participate in any program within the portfolio and receive exactly the same incentive). Incentive program tracking, reporting and processing are performed under the structures and procedures established under the ISUP.



Additionally, Sub-Programs are structured to provide specialized services to customers consuming 92% of the sector energy use. The ISUP provides access to energy efficiency incentives by customers not served by the Sub-Programs.

Target Market: The ISUP is primarily an operations activity facilitating operation of the Sector Sub-Programs. The ISUP can serve to provide cash incentives to customers that lack service under one of the Sector Sub-Programs.

Program Description: The ISUP establishes the terms, conditions, and incentive levels for all Sub-Programs. Incentive program tracking, reporting and processing are performed under the structures and procedures established under the ISUP. The ISUP provides incentives to offset the higher cost of high-efficiency equipment when compared to standard efficiency equipment. Rebate applications allow customers to reserve funds for their projects via phone, fax, Internet, or mail.

Implementation Strategy: The ISUP is operated by the Duquesne Light core team or a designated CSP. Procedural guidelines for the ISUP define the processes for all incentive reservation, redemption as well as program activity and impact reporting.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Incentive payments offset a portion of the incrementally greater cost of high-efficiency equipment. Incentive "levels" refer to the percentage of incremental measure cost offset by program incentives. Participating customers pay the remaining amounts. The following table summarizes incentive levels for industrial programs:

**Figure 35: Industrial Program Incentive Levels**

Lighting	32.6%
HVAC	45.8%
Refrigeration	60.9%
Office Equip	50.0%

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participants before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be

required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: The ISUP is primarily an operational program. Customers will have access to ISUP incentive applications through a link on Duquesne Light's Act 129 website. In addition contacts can be made through the account representative.

Eligible Measures and Incentives: Prescriptive measures and associated rebate amounts are provided in the EEC & DR Attachment 13. Where custom or calculated incentive amounts are appropriate (as described in program terms and conditions) incentive levels for industrial process custom measures will be evaluated on a case-by-case basis.

Program Start Date and Key Milestones: Refer to Section Chart 3, Large Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative costs are shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for Duquesne Light C&I Programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 36: Industrial Umbrella Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$79,854	\$104,626	\$104,626	\$104,626	\$393,731
Admin	\$88,782	\$116,323	\$116,323	\$116,323	\$437,750

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	137	275	275	275	961
Energy Savings (kWh)	888,895	1,777,790	1,777,790	1,777,790	6,222,266

Cost Effectiveness: TRC 3.8

#### 3.4.7. Industrial Sector Sub-Program: Primary Metals

Title: The Industrial Sector Sub-Program: Primary Metals Segment program will be implemented during program years 2009 and 2012.

Objectives: The primary metals segment program is tailored to assist the segment to overcome unique, segment specific, barriers to energy efficiency program participation.

Target Market: Primary Metals products manufacturing companies (SIC 33 / NAIC 331)

Program Description: The Primary Metals Segment Program helps industrial customers to assess the potential for energy-efficiency project implementation, cost and energy savings, and, for appropriate customers, provides follow-

through by installing measures and verifying savings. Program components include auditing of energy use, provision of targeted financing and incentives, project management and installation of retrofit measures, training, and technical assistance. Incentive amounts for this program are consistent with the Industrial Sector Umbrella Program.

Energy audits provide industry a readily available, reliable source of information about their energy use and outline ways to save energy that, when implemented, will result in energy savings, reduced operating costs, lowered carbon emissions, and improved air quality. Training and technical assistance is provided to facility managers on how to select vendors and retrofit strategies, and how to operate and maintain the energy efficiency equipment upon installation.

Implementation Strategy: The Primary Metals Segment Program will be delivered by one or more specialized CSPs with a track record of engaging primary metals companies in utility energy efficiency programs. RFPs will solicit innovative approaches to providing the services outlined above. Programs implemented under contract to CSPs will conform to the Industrial Sector Umbrella Program incentives structures, terms, conditions and operating procedures.

Program Risk and Risk Management Strategy: All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

Anticipated Cost to Participating Customers: Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost offset by program incentives, is establish under the Industrial Sector Umbrella Program. Participating customers pay the remaining amounts.

Ramp-up Strategy: It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: A marketing plan is part of prospective CSP proposals to implement programs for this market segment. The successful contractor will raise target market awareness of program and service offerings to the retail stores sector through strategies such as hosting and sponsoring of Webinars, and the development and dissemination of general and specific collateral marketing materials via direct mail, email and the Internet. Additionally, CSP's can conduct outreach through participation and membership in selected key trade associations, attendance at key trade shows and sponsorship of training events. CSPs will be expected to use their unique market segment expertise to craft compelling program participation messages for key customer decision makers.

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.4.6. Industrial Sector Umbrella Program.

Program Start Date and Key Milestones: Refer to Section Chart 3, Large Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for sub-contracted C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 37: Primary Metals Budget and Impacts*****Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$769,851	\$1,008,668	\$1,008,668	\$1,008,668	\$3,795,853
Admin	\$855,921	\$1,121,438	\$1,121,438	\$1,121,438	\$4,220,235

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	1,324	2,647	2,647	2,647	9,265
Energy Savings (kWh)	8,569,603	17,139,207	17,139,207	17,139,207	59,987,224

Cost Effectiveness: TRC 3.8

#### 3.4.8. Industrial Sector Sub-Program: Chemical Products

**Title:** The Industrial Sector Sub-Program: Chemical Products Segment program will be implemented during program years 2009 and 2012.

**Objectives:** The Chemical Products Segment Program is tailored to assist the segment to overcome unique, segment specific, barriers to energy efficiency program participation.

**Target Market:** Chemical Products manufacturing companies (SIC 28 / NAIC 325)

**Program Description:** The Chemical Products Segment Program helps industrial customers to assess the potential for energy-efficiency project implementation, cost and energy savings, and, for appropriate customers, provides follow-through by installing measures and verifying savings. Program components include auditing of energy use, provision of targeted financing and incentives, project management and installation of retrofit measures, training, and technical assistance. Incentive amounts for this program are consistent with the Industrial Sector Umbrella Program.

Energy audits provide industry a readily available, reliable source of information about their energy use and outline ways to save energy that, when implemented, will result in energy savings, reduced operating costs, lowered carbon emissions, and improved air quality. Training and technical assistance is provided to facility managers on how to select vendors and retrofit strategies, and how to operate and maintain the energy efficiency equipment upon installation.

**Implementation Strategy:** The Chemical Products Segment Program will be delivered by one or more specialized CSPs with a track record of engaging chemical products companies in utility energy efficiency programs. RFPs will solicit innovative approaches to providing the services outlined above. Programs implemented under contract to CSPs will conform to the Industrial Sector Umbrella Program incentives structures, terms, conditions and operating procedures.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

**Anticipated Cost to Participating Customers:** Program incentive payments will offset a portion of the incrementally greater cost of recommended high-efficiency equipment. The incentive levels, or the percentage of incremental measure cost, offset by program incentives, is established under the Industrial Sector Umbrella Program. Participating customers pay the remaining amounts.

**Ramp-up Strategy:** It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participant before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

**Marketing Strategy:** A marketing plan is part of prospective CSP proposals to implement programs for this market segment. The successful contractor will raise target market awareness of program and service offerings to the retail stores sector through strategies such as hosting and sponsoring of Webinars, and the development and dissemination of general and specific collateral marketing materials via direct mail, email and the Internet. Additionally, CSP's can conduct outreach through participation and membership in selected key trade

associations, attendance at key trade shows and sponsorship of training events. CSPs will be expected to use their unique market segment expertise to craft compelling program participation messages for key customer decision makers.

Eligible Measures and Incentives: Eligible measures and incentives are defined under the Section 3.4.6. Industrial Sector Umbrella Program.

Program Start Date and Key Milestones: Refer to Section Chart 3, Large Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on upon benchmarking of similar programs with administrative costs approximately 20% of program budgets as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator for sub-contracted C&I programs as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation (Large C&I): The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:



**Figure 38: Chemical Products Budget and Impacts**

***Projected Program Budget***

Program Year	2009	2010	2011	2012	Total
Incentives	\$279,776	\$366,566	\$366,566	\$366,566	\$1,379,476
Admin	\$311,056	\$407,549	\$407,549	\$407,549	\$1,533,703

***Projected Program Impacts***

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	481	962	962	962	3,367
Energy Savings (kWh)	3,114,336	6,228,671	6,228,671	6,228,671	21,800,349

Cost Effectiveness: TRC 3.8

3.4.9. Demand Response: Curtailable Load for Large Commercial / Industrial

Title: The Curtailable Load Program for Large Commercial and Industrial Facilities will be implemented during program years 2009 through 2012.

Objectives: The program will achieve the benefits of demand response by engaging large commercial and industrial facilities in managing peak loads in a manner agreed to in advance under the terms of a program enrollment agreement upon special request.

Target Market: The target customers are more than 900 accounts with demands exceeding 300 kW.

Program Description: Customers execute an agreement to reduce facility electric demands during peak periods. Electric load reductions can result from operational curtailment at times coinciding with electric system peak loads as planned and defined in program agreements or when notified over an automated or real-time communication system. It is anticipated an average of 48 hours

of ~~interruptions cycling~~ will be ~~called for annually, conducted during the summer season.~~ Participants receive the ~~control or communications systems facilitating load reductions~~ at a ~~reduced half-price~~ and are paid incentives based on recorded reductions, ~~and the wholesale energy price during the curtailment.~~ ~~Reduction periods are selected based upon an assessment of the current wholesale energy prices.~~

**Implementation Strategy:** The program will be delivered under contract with a third party experienced in implementing load management programs ~~in wholesale energy markets.~~ The contractor will at least be responsible for such activities as, acquiring and inventorying equipment for installation, hiring and training of installation and service technicians, arranging equipment installation; communicating with equipment during cycling events, and handling customer service issues. The contractor may also be engaged more broadly, such as direct marketing; managing call centers for customer inquiries, installation and service; operating cycling events when called by the utility, and monitoring and verifying performance. ~~All Large C & I customers and their authorized third parties, including Curtailment Service Providers in PJM All CSPs will be given equivalent incentives to participate in the Duquesne program, equivalent access to customer usage data, and equivalent facilities paid for through the EEC&DR surcharge to implement this program. Customers can then effectively choose to participate or not, without restriction, and choose the provider that is optimal for their needs.~~

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

**Anticipated Cost to Participating Customers:** Participants receive the communications system at half-price

**Ramp-up Strategy:** The program will not operate in 2009. Some administrative costs will be incurred preparing program launch in 2010. Program projected participation is 18 participants per year, 2010 through 2012.

**Marketing Strategy:** The program will be promoted through a variety of strategies, including direct mail, telemarketing, and door to door sales; existing utility resources, including bill inserts, websites, customer service call center representatives. Special literature will be prepared for use in direct mail, door hangers, public meetings, and response to customer inquiries. Media events will be held for radio, television and newspapers. There will be presentations at public meetings such as civic clubs, church groups, and neighborhood associations. ~~Per the Commission's Opinion and Order entered October 27, 2009 at Docket No. M-2009-2093217, marketing procedures will be subject to periodic Commission review.~~

**Eligible Measures and Incentives:** Participants will receive the ~~communication and control technologies load cycling unit~~ at a ~~reduced price, no charge and no charge for installation.~~ Customers will receive credits on their monthly electric

bill for participation amounting to \$32 per summer season. This is based on an incentive of \$8/month for each of the four summer months.

Program Start Date and Key Milestones: Refer to Section Chart 3, Large Commercial/Industrial Portfolio Program.

Assumed EM&V requirements to document savings by the Commission’s statewide EE&C Evaluator: Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section, where there is a complete listing of the information that will be provided to the Commission’s statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs, administrative and incentive costs shown the Projected Program Budget table below. Organization planning assumes administrative duties will performed by the Duquesne Light program manager for the C&I sub-contract programs as well as part-time support by engineering, marketing, purchasing, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: Projected participation rates for years 2009 through 2012 are shown below:

**Figure 39: Demand Response Projected Participation Rates**

Year	2009	2010	2011	2012
Participants per Year	0	18	18	18
Participants Cumulative	0	18	36	54

**Figure 40: Demand Response: Curtailable Load for Large Commercial & Industrial Customers**

**Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	0	\$46,656	\$93,312	\$139,968	\$279,936
Admin	\$60,000	\$66,120	\$72,240	\$78,360	\$276,720

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	0	3,600	7,200	10,800	10,800
Energy Savings (kWh)	0	172,800	345,600	518,400	1,036,800

Cost Effectiveness: TRC 3.4 – 5.3

- 3.5. Governmental//Non-Profit Sector (as defined by 66 Pa. C.S. § 2806.1) Programs - include formatted descriptions of each program organized under the same headings as listed above for residential programs. As well, provide and detail all plans for achieving compliance with 66 Pa. C.S. § 2806.1.

**Commercial Sector Sub-Program: Public Agency Partnership**

Title: The Public Agency Partnership Program (PAPP) will be implemented during program years 2009 through 2012.

Objectives: Engage local government in a partnership to implement an Energy Efficiency Action Plan. Systematically inventory efficiency gain potential present in local government departments and jurisdictional agencies. Execute project agreements to co-fund identified energy efficiency projects.

**Target Market:** Federal, state and local government, including municipalities, school districts, institutions of higher education and nonprofits (per Act 129)

**Program Description** Public Agency Partnerships are established through execution of a Memorandum of Understanding (MOU) by and between Duquesne and selected local governmental agencies. The MOU establishes working groups comprised of Duquesne and agency representatives that identify project areas within agency departments (and jurisdictional agencies). Working groups define project scopes of service and establish project agreements to co-fund agreed to projects. The project agreements between Duquesne Light and Partnership agencies contain the terms to leverage local agency staff to reach, pre-screen and enroll program participants. The utility and the agency split specified program costs. The Partnership MOU puts in place dedicated contacts and a working group structure to identify and evaluate energy efficiency project opportunities within all governmental departments and sub-agencies. A sample Public Agency MOU is provided in Study Attachment 14 of the EEC & DR Study.

**Implementation Strategy:** Key elements of the implementation process follow (1) Duquesne Light executes a Partnership MOU with the Public Agency (2) Duquesne Light facilitates working group meetings with the Public Agency and jurisdictional agencies (3) the working group collaborates on the development proposed project concept papers (4) public agency working group members obtain feedback on the proposed projects and the working group makes necessary adjustments to the concept paper (5) Duquesne Light prepares a project agreement and resolution for approval by the public agency governing body (6) Duquesne Light and the public agency implement the project plan consistent with the terms of the project agreement.

Patterned after successful programs operating in other parts of the country, a key element of the PAPP is co-funding by Duquesne Light and the Partnership agency of energy efficiency audits and measure implementation. PAPP will utilize local contractors and/or other survey and installation entities based on availability, cost, and quality of service. Whenever possible, PAPP will utilize non-profit, community based organizations to perform the energy efficiency surveys and measure installation. A sample resolution, project agreement and concept paper is provided in EEC & DR Study Attachment 15.

**Program Risk and Risk Management Strategy:** All portfolios and programs are operated through Duquesne Light's PMRS. The system provides comprehensive oversight of program budgets and impacts and provides early warning regarding program under- or over-subscription. Provisions in CSP contract language provides for fund shifting from under-performing programs.

**Anticipated Cost to Participating Customers:** PAPP Partners will fund portions of identified energy efficiency projects consistent with adopted project agreements.

**Ramp-up Strategy:** It is anticipated the earliest program launch could be November 1, 2009. Given the need to develop business systems and processes, assemble collateral program materials and conduct training, it is unlikely the program will be enrolling participants before January 1, 2010. This provides for approximately five months of operation in program year 2009. Program "ramp-up" is initiated in 2009. The 2010 program year is planned to be fully-funded and fully operational, as reflected in EEC Plan projected budgets and savings impacts. During the 2009 "ramp-up" period, based on the aforementioned five months of likely program operation, it is anticipated the

amount of incentive payments provided customers will be approximately 50% of the amount that would be provided during a full year of program operation. Even through the 2009 ramp-up year will be shorter than a full year of operation, the plan has allowed for an amount of administrative costs equivalent to what would be required for a full year of program operation. This is based on greater costs anticipated to initiate program operation, such as tracking and reporting system development, collateral material development, conducting RFPs and training.

Marketing Strategy: Local government agencies are engage directly by Duquesne Light under the local government partnership model. Each partnering agency assists in communicating with all governmental departments and jurisdictional agencies.

Eligible Measures and Incentives: All measures identified in the Study Attachments 1 and 13 will be considered for inclusion in PAPP projects. Additionally, custom measures will be evaluated on a case-by-case basis. Project requirements will be specified in the project agreements described above. The cost to identify and implement measures shall be co-funded by parties to the Partnership as specified in project agreements.

Program Start Date and Key Milestones: Refer to Section 12 Chart 4, Governmental/Non-Profit Portfolio Program.

Assumed EM&V requirements to document savings by the Commission's statewide EE&C Evaluator:

Detailed evaluation, measurement and verification activities are identified in the EEC & DR Study and the EM&V Related Program Content section where there is a complete listing of the information that will be provided to the Commission's statewide EE&C Evaluator.

Administrative Requirements: Program administrative budgets are based on benchmarking of similar programs with administrative costs approximately 20% of program budgets, as shown in the Projected Program Budget table below. Organization planning includes provision for one full-time project coordinator as well as part-time support by engineering, marketing, purchasing, regulatory, data processing and clerical staff, in addition to contracted CSP services.

Estimated Participation: The primary metrics for program participation will be processing incentive payments for the purchase and installation of energy efficiency equipment rendering deemed savings estimates reflected in the Projected Program Impacts table below:

**Figure 41: Public Agency Partnership Budget and Impacts**

**Projected Program Budget**

Program Year	2009	2010	2011	2012	Total
Incentives	\$1,158,267	\$2,316,535	\$2,316,535	\$2,316,535	\$8,107,871
Admin	\$579,134	\$579,134	\$579,134	\$579,134	\$2,316,535

**Projected Program Impacts**

Program Year	2009	2010	2011	2012	Total
On-Peak Demand Reduction (kW)	2,884	5,768	5,768	5,768	20,187
Energy Savings (kWh)	8,973,397	17,946,794	17,946,794	17,946,794	62,813,778

Cost Effectiveness: TRC 2.5

**4. Program Management and Implementation Strategies (~5 to 10 pages)**

*(The objective of this section is to provide detailed description of how EDC plans to manage and implement programs, including their approach to and use of Conservation Service Providers (CSPs).)*

4.1. Overview of EDC Management and Implementation Strategies:

4.1.1. Describe the types of services to be provided by EDC as well as consultants, trade allies, and CSPs. Indicate which organizations will provide which services and the basis for such allocation. Reference reporting and EM&V information from Sections 5 and 6 below.<sup>21</sup>

The delivery organization size and function will be largely driven by the portfolio of programs fielded. The portfolio proposed by Duquesne Light is structured under three broad “umbrella” programs: residential, commercial and industrial.

<sup>21</sup> Services to be offered by EDC or others may include marketing, customer recruiting, demonstration projects, audits and or installation of new efficiency measures, verification of installations and or baseline usage, response to customer concerns, program tracking and program evaluation.

The umbrella programs provide incentives for a full range of measures to assist residential, commercial and industrial energy customers of all sizes and in all key market segments to overcome barriers to adopt energy efficiency measures. The umbrella programs put in place is a baseline program design, with set incentive levels and measure content. The umbrella programs are designed as an overarching programmatic structure with calculated incentives for customized projects or itemized incentives for standard measures. Under the overarching umbrella programs, specialized sub-programs can promote specific technologies or target specific market segments while incorporating the umbrella program savings impacts and incentive levels. In this manner, sub-programs present a consistent and common offering. The umbrella programs comprise the operational structure for the implementation of all programs to be offered.

Duquesne Light will implement programs effectively and economically. To achieve this, contractors known as CSPs with expertise and experience in program implementation and operations will be deployed under agreements with Duquesne Light. Success depends on special services offered by CSPs to implement and overcome market segment specific barriers. Duquesne Light will work together with CSPs and contractors to provide the services outlined in the table below.



**Figure 42: Program Implementation Responsibility**

EE Sector	Program	Implementation
<b>Residential</b>	<b>Residential Rebate</b>	Core Team (or Contractor)
	<b>Residential School Energy Pledge</b>	Sub-program Contractor
	<b>Refrigerator Recycling</b>	Sub-program Contractor
	<del><b>Solar Photovoltaic Incentives</b></del>	<del>Core Team (or Contractor)</del>
	<b>Low-Income Weatherization</b>	Sub-program Contractor
<b>Commercial</b>	<b>Commercial Rebates (umbrella)</b>	Core Team (or Contractor)
	<b>Office Buildings</b>	Sub-program Contractor
	<b>Healthcare</b>	Core Team (or Contractor)
	<b>Retail Stores &amp; Restaurants</b>	Sub-program Contractor
	<b>Education</b>	Core Team (or Contractor)
	<b>Public Agency Program</b>	Core Team (or Contractor)
<b>Industrial</b>	<b>Industrial Rebates (umbrella)</b>	Core Team (or Contractor)
	<b>Primary Metals</b>	Sub-program Contractor
	<b>Chemicals</b>	Sub-program Contractor
	<b>Industrial Rebates (Mixed)</b>	Sub-program Contractor
<b>Demand Response Programs</b>	<b>Utility Interface</b>	Core Team (or Contractor)
	<b>Residential DR</b>	Sub-program Contractor
	<b>Small/Mid Commercial DR</b>	Sub-program Contractor
	<b>Large C/I Curtailable Load</b>	Sub-program Contractor

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Program implementation requires significant planning and operation management functions. In addition to initiating the contracting process, each contractor will be managed and integrated into an organized and cohesive operation. Program procedural guidelines will be developed and followed. Documentation will be maintained and electronic data structures will be developed and managed.

Customers will be engaged through at least three channels. First, Duquesne Light will promote the programs to its customers through such marketing strategies as mass media advertising, direct marketing, events, conferences, account representatives and electronic media. Second, the Duquesne Light contractors will have similar responsibilities with a specific focus on securing commitments for customers to participate in the programs. Third, trade allies such as builders, architects, engineers, vendors, equipment installation contractors, retailers and others will be informed of the Duquesne Light programs with the objective of securing their willingness to participate and secure their customers and clients to participate. Trade allies will be engaged primarily through direct marketing, events, conferences and account representatives.

The programs are designed to overcome key barriers to customer participation. In general the barriers to greater customer participation in energy efficiency are information, technical assistance, and financial assistance. The programs are designed to encourage comprehensiveness in terms of including multiple

measures, taking account of interactive savings between measures, and advancing new designs and technologies.

Depending on the specific program in the portfolio for Duquesne Light, services available are expected to include:

- Benchmarking of energy use based on utility bills
- Walk-through energy audits to pre-screen and qualify the facility to optimize measure selection and implementation
- Investment grade energy audits for specific measures and energy savings
- Life-cycle cost-benefit analysis
- Retro-commissioning
- Project and construction planning and management
- Project documentation and operator training
- Post installation quantification of savings
- Providing guidance about alternative financing assistance
- Quantifying environmental benefits

The CSP may offer a range of services to achieve program success that includes:

- Marketing to prospective customers based on leads from Duquesne Light as well as resources of the CSP
- Educating customers and recruiting participants
- Conducting walk-through or preliminary energy audits
- Securing customer approval to proceed with targeted or comprehensive investment grade energy audits
- Recommending measures with estimates of energy and demand savings
- Preparing benefit and cost analyses and identification of financing options
- Completing and submitting customer applications to reserve program incentive funds to Duquesne Light for approval
- Performing or assisting customer with equipment specification, vendor selection, bidding and project management
- Conducting post-installation inspections
- Verifying savings estimates
- Coordinating applications for incentive payments
- Conducting project completion and follow-up services
- Conducting customer satisfaction surveys

Reporting will be conducted based on the requirements of the regulatory authorities, Duquesne Light management, and CSPs. Section 5 below presents Duquesne Light's proposed reporting criteria and supporting information systems.

EM&V will be conducted for each program. The scope and level will depend on the nature of the program and split of responsibilities between regulatory authorities, Duquesne Light management and CSPs. Section 6 below presents Duquesne Light's approach to EM&V.

- 4.1.2. Describe how the risk categories of performance, technology, market and evaluation can affect the programs and any risk management strategies that will be employed to mitigate those risks.<sup>22</sup>

Performance risk refers to the ability of programs to achieve their individual goals in the context of overall corporate goals for Duquesne Light relating to energy efficiency and demand response programs. This risk will be mitigated by offering a variety of programs addressing key customer classes and market segments within the customer classes. There will be an umbrella program for each customer class and subprograms for market segments within the customer class. The programs will allow both itemized and customized solutions in terms of measures for commercial and industrial sectors. Comprehensive solutions will be encouraged. Performance risk will further be mitigated through regular reporting and timely management to identify and resolve issues through the PMRS as described in Section 5. CSP payments as well as incentive reservations and payments are facilitated through PMRS which provided for real-time management of program budgets and progress towards goals.

Technology risk refers to the possibilities that energy conservation measures will not perform as well as expected in achieving expected savings. The risk will be mitigated by designing programs to foster the installation of proven technologies for the specific energy conservation measure. The program design will allow for certain technologies and not others. However, advanced technologies will be encouraged where greater energy savings and cost-effectiveness are expected. The risk will be further mitigated by activities in EM&V to identify and resolve technology performance concerns.

Market risk refers to the ability to recruit sufficient participants for the programs. Mitigation of market risk will be pursued through efforts by Duquesne Light, CSPs, and trade allies to encourage participation by end-use customers. Where barriers to information, technical assistance and financial incentives are identified as continuing issues, adjustments will be considered to program designs to improve participation levels. Market risk is being mitigated during this process of planning and filing for program approval. In particular,

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<sup>22</sup> Performance risk is the risk that, due to design or implementation flaws, the program does not deliver expected savings. Technology risk is the risk that technologies targeted by a program fail to deliver the savings expected. Market risk is the risk that customers, or other key market players (e.g., contractors), choose not to participate in a program. Evaluation risk is the risk that independent EM&V will, based on different assumptions, conclude that savings fall short of what the implementers have estimated.

Duquesne Light has initiated discussions with certain large customers in key market segments to encourage participation and plan energy efficiency and demand response projects to qualify for the proposed programs.

Evaluation risk refers to the possibilities that energy savings results will be open to question. Mitigation of this risk should be achieved by an open and transparent planning process for EM&V. Programs are planned and implemented in a manner to support verification and ensure availability of required evaluation data. The plan is expected to be developed in consultation with regulatory authorities. The plan should be based on policies and procedures widely accepted in the discipline. The risk will be mitigated further by implementation of the plan in a collaborative manner and with careful documentation of significant deviations. Finally, issues will be identified and solutions will be proposed where evaluation risks become real.

- 4.1.3. Describe how EDC plans to address human resource and contractor resource constraints to ensure that adequate personnel and contractors are available to implement the EE&C plan successfully.

Human resource constraints refer to the ability of Duquesne Light to recruit and retain qualified personnel to manage and implement the proposed programs. Duquesne Light has involved individuals and teams within the organization in the planning process for the energy efficiency program to date. This should provide a pool of resources to participate in implementation. Several programs were specifically designed to leverage the resources of external governmental agencies and community engagement channels. In addition, job descriptions have been developed and further, all four positions are currently posted both internally and externally for Duquesne Light. These positions will assume their responsibility once programs are approved. Duquesne will conduct both local and national searches to obtain qualified personnel.

Contractor resource constraints refer to the ability of Duquesne Light to secure sufficient support from CSPs. Duquesne Light expects to recruit CSPs on a competitive basis by sending requests for proposals to a significant pool of potential contractors. Prior to selecting contractors and signing agreements, Duquesne Light will confirm the ability of the CSPs to fulfill their responsibilities.

A broader issue could be the long term availability of qualified technicians and professionals with skills such as energy auditing, energy savings analysis, project engineering and measures installation. Duquesne Light is willing to cooperate with educational institutions and training organizations to increase the supply of qualified personnel in the Pittsburgh job market. One unique strategy with long run potential is to stimulate interest in the field for energy efficiency and demand response via programs targeted to achieving energy savings in educational facilities and in the homes of students and staff at those facilities.

- 4.1.4. Describe “early warning systems” that will be utilized to indicate progress towards the goals and whether they are likely to be met. Describe EDC’s approach and process for shifting goals and funds, as needed, between programs and adding new measures/programs.

Progress toward goals will be reported on a regular basis rather than waiting until the end of the program cycle. The progress reporting process will be developed by Duquesne Light in consultation with regulatory authorities. Furthermore, it is anticipated that CSPs will be directly involved through regular reporting, documentation of issues, and development of plans to resolve issues in meeting goals.

Duquesne Light will implement programs in a manner to facilitate adjusting of individual programs funds and goals in order to achieve corporate goals. Each program will be managed with a total budget as well as a budget for each year of implementation. This will allow for at least an annual review and decision on the budget for the subsequent year.

As each year progresses, Duquesne Light anticipates allocating or reserving up to two-thirds of incentive payment funds for each program before committing the remaining funds for a program for that year. Funds will be allocated on a project-by-project basis for large commercial and industrial customers as submitted for Duquesne Light approval. Then, when the project is completed the customer will be more assured that funds to pay the incentive will be available. For programs that are implemented through CSPs contract provisions, approximately 30% will be held in reserve.

As further protection to help insure funds are well managed, Duquesne Light expects to pay for CSP performance in two steps. For applications submitted and approved by Duquesne Light, up to 30% of the pay for performance will be based on estimated savings. Applications will include a signed project agreement wherein the customer commits to proceed with the installation. The remainder of the pay for performance will be paid based on verified savings upon project completion and acceptance by the customer.

These plans will provide flexibility to Duquesne Light to re-allocate program budgets. For example, some programs may be oversubscribed so that more funds could be added to meet customer demand for participation and shifted away from programs that are undersubscribed.

New programs may be added over time to reach underserved customers and market segments. In particular, CSPs with expertise and experience in certain market segments may be recruited to address specific opportunities.

Similarly, new technologies may be encouraged as programs are implemented. Duquesne Light will be open to offering incentives for new technologies, whether as an existing or new program or subprogram.

Finally, Duquesne Light expects to consult with regulatory authorities and other utilities when considering significant adjustments to program budgets or adding new programs and new technologies.

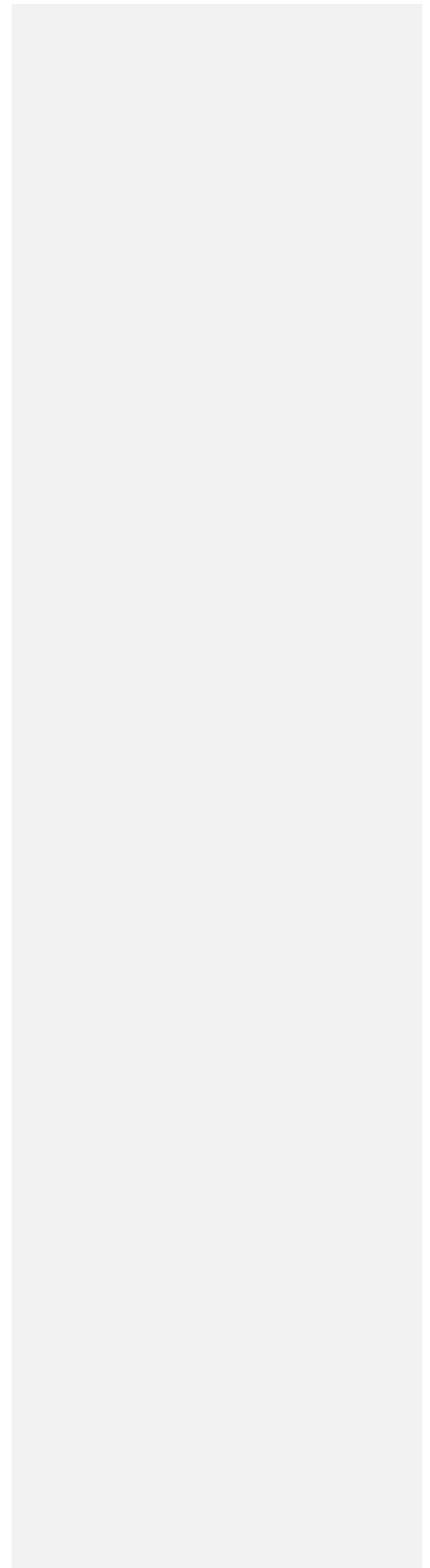
4.1.5. Provide implementation schedules with milestones.

See Section 12, Charts 1 through 4.

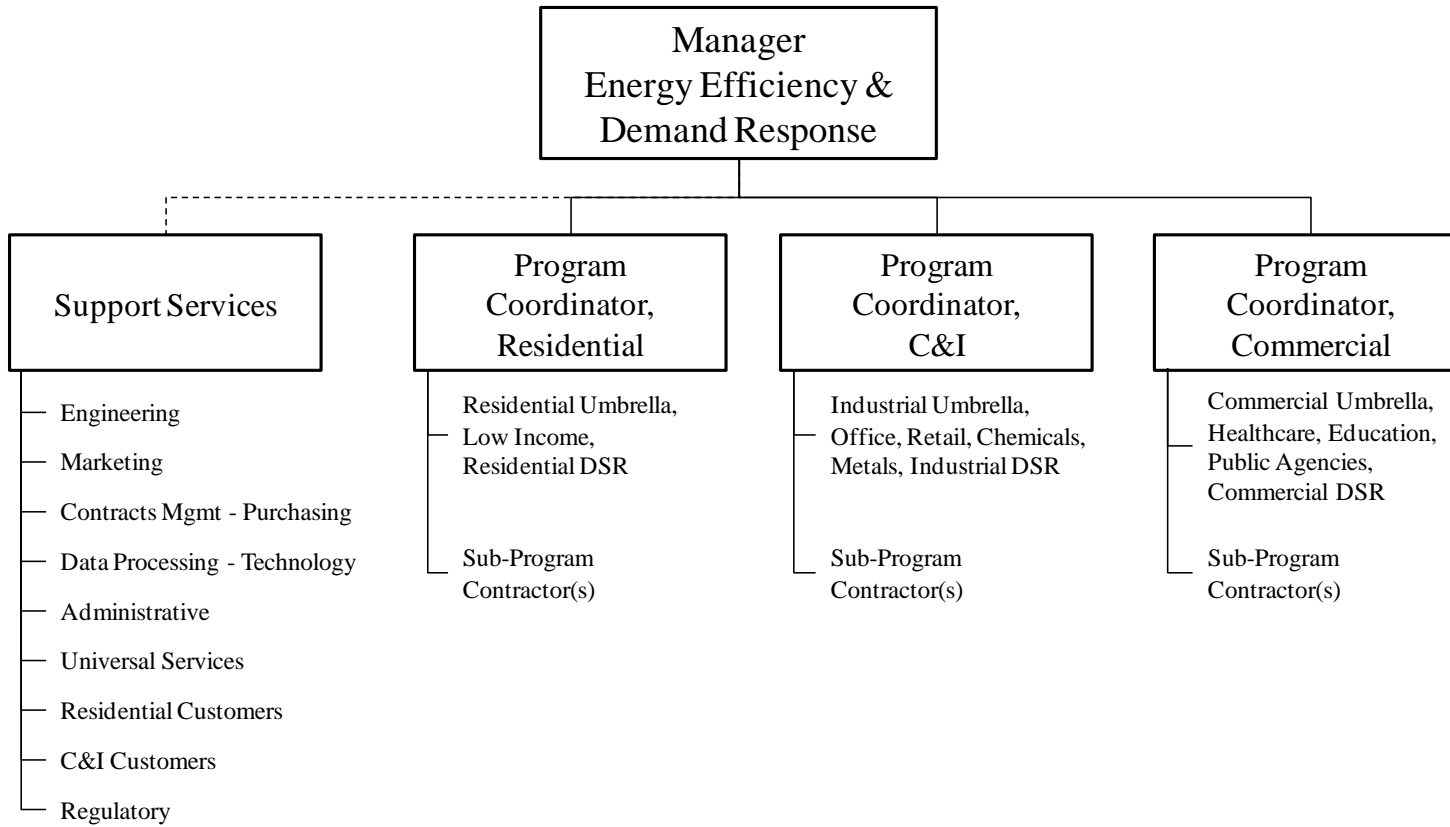
4.2. Executive management structure:

4.2.1. Describe EDC structure for addressing portfolio strategy, planning, review of program metrics, internal and external communications, budgeting and financial management, program implementation, procurement, program tracking and reporting, and Quality Assurance/Quality Control (QA/QC). Include EDC organization chart for management team responsible for implementing EE&C plan.

The implementation organization for Duquesne Light will be located within the customer service function. The size and structure will reflect the use of contractors and subcontractors. The organization will be headed by one manager responsible for the energy efficiency and conservation program plan. The manager will be supported by several sector or segment specific program coordinators. There will also be support staff for such functions as engineering, marketing, regulatory, data processing and contract management. The organizational chart pictured below represents a preliminary structure to plan and implement the energy efficiency and conservation plan, including demand response.



**Figure 43: Energy Efficiency and Demand Response Group**



Each program coordinator will be responsible for overall program management including planning, reporting progress on program metrics, internal communication, external communication, budgeting and financial management. The program coordinator will be able to call upon staff support for assistance within the energy efficiency program. Support for the programs will be available for procurement and contract management, marketing, and data tracking and reporting. Also quality assurance and quality control functions performed by engineering and other support staff will support the program coordinator.

CSPs will be expected to provide a quality control plan. The plan will provide for quality control on projects, regulatory compliance processes and performance auditing. The plan will allow for Duquesne Light to access files, data and related program operating information. The plan will be designed to minimize customer service issues, protect confidential information and prevent duplicate applications for incentive payments.

- 4.2.2. Describe approach to overseeing the performance of sub-contractors and implementers of programs and how they can be managed to achieve results, within budget, and ensure customer satisfaction.

Contractors and implementers of programs will be subject to detailed planning requirements. The detailed plans will include tasks, milestones, schedules, budgets, metrics of performance and personnel assignments. Regular reports will be required on progress with sufficient information to allow the identification of issues and planning for improvements. Each contractor will be subject to specific policies and procedures to guide their activities. Both hard copy and electronic documentation methods will be required as appropriate. Regarding customer satisfaction, contractors and implementers will be expected to foster and participate in obtaining feedback from their clients with results supplied to Duquesne Light, whether directly or through a third party.

- 4.2.3. Describe basis for administrative budget.

The administrative budget may be broadly defined to include all items other than incentive payments for measures installed by customers. This would include planning, market research, sales and marketing communications, engineering, data management, contracting, and evaluation.

Administrative budgets vary from program to program depending on the nature of the program. The portion of program budgets allocated to program administration is based on administrative costs of similar programs implemented in other jurisdictions, most commonly New Jersey, New York and California. The administrative budgets of Duquesne Light are therefore based on these documented experiences of energy efficiency program implementation.



4.3. Conservation Service Providers (CSPs):

4.3.1. List any selected CSPs, describe their qualifications and basis for selection (include contracts in Appendix).

MCR Performance Solutions, LLC. (“MCR”). MCR was retained by Duquesne Light to assist in developing a compliance strategy and plan required by the energy efficiency and conservation and demand side response initiatives mandated by Act 129.

MCR provides management consulting services exclusively to the utility industry. The firm possesses substantial qualifications in energy efficiency business strategy, regulatory strategy, energy efficiency potential, program design and program implementation.

MCR was selected through an RFP process. The firm was selected based on its in-depth experience with developing the energy efficiency, conservation and demand response programs established over many years, clients and jurisdictions. Furthermore, MCR possesses an in depth understanding of the Pennsylvania regulatory environment, including familiarity with the Commission, Commission Staff, Office of Consumer Advocate (OCA) and Office of the Small Business Advocate (OSBA).

4.3.2. Describe the work and measures being performed by CSPs.

MCR developed the EEC & DR plan (“Plan”), pre-filed testimony and required filing supporting documents. The plan was developed using primary and secondary research, analytical processes, findings and program plans required to support the Plan filing.

4.3.3. Describe any pending RFPs to be issued for additional CSPs.

A request for proposal was issued for CSPs to respond for implementing the energy efficiency and conservation program for large commercial office buildings. The request was issued May 15, 2009 and responses were due June 19, 2009. No selection has been made.

It is anticipated that CSPs may be sought for the following segments:

- Low-income weatherization
- Residential rebate programs
- Small office buildings
- Retail stores and restaurants
- Primary metals
- Chemicals
- Other or mixed industrial rebates

## 5. Reporting and Tracking Systems<sup>23</sup> (~5 pages)

*(Objective of this section is to provide detailed description of reporting and the critical data management and tracking systems that EDCs need in order to implement programs and which Commission, and its statewide EE&C Plan Evaluator, need to access.)*

### 5.1. Reporting:

#### 5.1.1. List reports that would be provided to the Commission, the schedule for their delivery, and the intended contents.

Four reports are proposed to be provided to the Commission within one month following the close of each quarter and program year-end.

The “Energy Efficiency Program Report” presents performance progress against goals for each program by customer sector. The report presents data on three key performance measures: Budgets & Expenditures, Demand Reduction (Peak kW) and Energy Savings (kWh). (Reference “Energy Efficiency Program Report” Appendix F in Section 10). Each performance measure will present data by the following attribute:

- Target: current year, inception through final target date
- Expended/installed: current quarter, current year and inception through final target date
- Committed: current quarter, current year and inception through final target date

The “Energy Efficiency Program Portfolio Report” presents performance progress against goals for each of the following portfolio components: (Reference “Energy Efficiency Program Portfolio Report” Appendix F in Section 10)

- Portfolio Costs - Current quarter, Inception-To-Date
- Portfolio Impacts - Quarterly
- Portfolio Impacts - Annual
- Portfolio Impacts - Cumulative 2009-2012 Savings
- Portfolio Impacts - Aggregate End Use
- Portfolio Impacts – Market Sector

The “Demand Response Program Report” presents program results for the demand response programs by Residential, Small C/I and Large C/I customer segments for each of the program indices. (Reference “Demand Response Program Report” Appendix F in Section 10).

<sup>23</sup> This Section may be modified if the Commission’s statewide EE&C Plan Evaluator develops further reporting and tracking systems that are approved by the Commission.

- Proposed Impacts
- Actual Impacts
- Programs Results

The “Energy Efficiency and Demand Response Summary Report” presents summary results for the energy efficiency programs, demand response programs and total for both programs combined. (Reference “Energy Efficiency and Demand Response Summary Report Appendix F in Section 10). The report presents progress against goals for the following:

- 2009, 2010 program years – actual against 2010 goal
- 2011, 2012 program years – actual against 2012 goal
- Low Income and Governmental/Non-profit kW and kWh reductions achieved as a percent of total programs.

5.1.2 Describe data that would be available (including format and time frame of availability) for Commission review and audit.<sup>24</sup>

The data for managing and reporting project, program and portfolio activities, status, performance and expenditures will be collected and available through two flat files: The Measure Flat File and Financial Flat File.

#### **Measure Flat File**

The measure flat file reports measure savings impacts, expenditures and customer contact events. The measure flat file shows all data elements in a customer commitment and installation record or program service activity record. This flat file will be used to record customer contacts and any customer activities including installations, rebating, and educational or information services, i.e., energy survey. This flat file records information on a regular basis so that the progression from a sales contact to an installation and inspection of a project is fully documented. The following table lists the primary fields of the measure flat file.

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<sup>24</sup> This should include information on measures, projects, programs and portfolios.

**Figure 44: Measure Flat File**

	Column Header	Description	Format	Max Length	Allow Empty Cell
1	Version	Flat file format version number. Must be a 1	Numeric	1	n
2	RcrdUpdate <sup>1</sup>	A value of one (1) indicates that DLC has updated this record. Contractor must set this to zero for new rows.	1 or 0	1	n
3	RprtGenDt	Date flat file is generated	Date		n
4	Contr	Contractor Name	Text	50	n
5	ContrContNam	Contractor Contract Name	Text	50	n
6	ContrContNum	Contractor Contract Phone Number	Text	30	n
7	OtComp	Customer hired consultant or company ("Other Company") other than the program implementer	Text	50	y
8	OtCompCont	Other Company Contact Name	Text	50	y
9	OtCompContNum	Other Company Contact Phone Number	Text	30	y
10	Prog	Program Name	Text	50	n
11	RpPrdEndDt <sup>2</sup>	Reporting Period End Date	Date		n
12	ProjNum <sup>2</sup>	Contractor's unique project number for each service account	Text	20	n
		Because service account numbers may not be available initially, this field serves as the identifier for an account and therefore must be unique with respect to accounts.			
13	ProjPhse	Project phase in sequential order M=Marketing A=Initial Audit/Survey C=Commitment O=Equipment Ordered S=Project Started E=Project Completion I=Contractor to Inspect/Survey V=DLC Verifies Installation R=Incentive/Rebate Payment Made B=DLC Billed by Contractor P=DLC Invoice Paid WE=Customer Withdraw	Text	1	n
14	DLCProjStat <sup>3</sup>	P=Pre-committed	Text	1	y

	Column Header	Description	Format	Max Length	Allow Empty Cell
		C=Committed I=Installed D=Discontinued  This field will be supplied by DLC based on ProjPhase			
15	DLCInspStat <sup>3</sup>	Jon Availability for DLC Inspection Status  P=DLC Passed F=DLC Failed R=IOU Re-inspect O=DLC Override of Inspection Result T=Pass Through Inspection due to inspection challenges such as location, etc.)		1	Y
16	ServAcctNum <sup>4</sup>	Service Account Number (specify format)	Text	TBD	y
17	ServAcctNam <sup>4</sup>	Bill Customer Service Account Name	Text	50	y
18	ServAcctStrtNum <sup>4</sup>	Service Account Street Number	Text	20	y
19	ServAcctStrtPref <sup>4</sup>	Service Account Address Prefix (N., North, S., South)	Text	20	y
20	ServAcctStrtNam <sup>4</sup>	Service Account Street Name	Text	50	y
21	ServAcctUnitNum <sup>4</sup>	Service Account Unit Number	Text	20	y
22	ServAcctStrtSuf <sup>4</sup>	Service Account Address Suffix (Dr., Lane, St.)	Text	20	y
23	ServAcctCty <sup>4</sup>	Service Account City	Text	50	y
24	ServAcctSt <sup>4</sup>	Service Account State	Text	20	y
25	ServAcctZip <sup>4</sup>	Service Account Zip Code (5 digits)	Text	5	y
26	ServAcctZipExt <sup>4</sup>	Service Account Zip Code Extension	Text	4	y
27	MailStrtNum <sup>4</sup>	Mailing Address Street Number	Text	20	y
28	MailStrtPref <sup>4</sup>	Mailing Address Prefix (N., North, S., South)	Text	20	y
29	MailStrtNam <sup>4</sup>	Mailing Address Street Name	Text	50	y
30	MailUnitNum <sup>4</sup>	Mailing Address Unit Number	Text	20	y
31	MailStrtSuf <sup>4</sup>	Mailing Address Suffix (Dr., Lane, St.)	Text	20	y
32	MailCty <sup>4</sup>	Mailing Address City	Text	50	y
33	MailSt <sup>4</sup>	Mailing Address State	Text	20	y
34	MailZip <sup>4</sup>	Mailing Address Zip Code (5 digits)	Text	5	y

	Column Header	Description	Format	Max Length	Allow Empty Cell
35	MailZipExt <sup>4</sup>	Mailing Address Zip Code Extension	Text	4	y
36	CustContNam1 <sup>4</sup>	Customer Contact Name 1 (last, first, initial)	Text	50	n
37	CustContNam2 <sup>4</sup>	Customer Contact Name 2 (last, first, initial)	Text	50	n
38	Phone1 <sup>4</sup>	Customer Contact Phone Number 1. Format is ###-###-#### ext ##### (extension optional)	Text	30	y
39	Phone2 <sup>4</sup>	Customer Contact Phone Number 2. Format is ###-###-#### ext ##### (extension optional)	Text	30	y
40	Email	Customer contact Email Address	Text	50	y
41	ElecRateSch4	DLC Rate Schedule	Text	50	y
42	RevCode	Customer Revenue Code	Text	50	y
43	MktgType	Describe Marketing: P=Phone D=Door hanger/leave behind B=Brochure M=Mail E=Email F=Face-to-face	Text	1	y
44	NAICS (or SIC)	NAICS code of facility (2 digit minimum)	Text	10	y
45	BldgArea	Area of facility (gross sq. ft.)	Numeric		y
46	ParticType	R=Residential LI=Low Income PA=Public Agency SCI=Small C&I LCI=Large C&I	Text		s
47	MrktSectr	Market Sector: SI=Single Family MU=Multi Family MO=Mobile Homes A=Agriculture I=Industrial C=Commercial	Text	2	s <sup>1</sup>

	Column Header	Description	Format	Max Length	Allow Empty Cell
48	EndUse	A=Appliances CE=Consumer Electronics CA=Cooking Appliances H-HVAC L-Lighting PP=Pool Pump R=Refrigeration W=Water Heating O=Office P=Process S= Solar RDR=Residential Demand Response SCIDR= Small Comm/Ind Demand Response LCIDR= Large Comm/Ind Demand Response	Text	2	s
49	BCMsrCde	Contractor Internal Base Case Measure Code	Text	50	s
50	BCMsrDesc	Contractor Internal Base Case Measure Description	Text	50	s
51	BCMsrQty	Contractor Base Case Measure Qty	Text	50	s
52	BCOperHrs	Contractor Surveyed Customer Base Operating Hours	Text	50	s
53	RMsrCde	Contractor Internal Retrofit Measure Code	Text	50	n
54	RMsrDesc	Contractor Internal Retrofit Measure Description	Text	50	n
55	PropRMsrQty	Proposed Retrofit Measure Qty	Numeric		s
56	Final RMsrQty	Final Retrofit Measure Qty	Numeric		s
57	RMOperHrs	Contractor Surveyed Customer Retrofit Operating Hours	Text	50	s
58	MsrLctn	Measure Location	Text	50	y
59	MsrDtl	Measure Details (e.g., color, hp for motors, BTUs, R-factor)	Text	50	y
60	MsrModel	Measure Model Number	Text	50	y
61	MsrSerial	Measure Serial Number	Text	50	y
62	UnitDef	Unit of Measure (lamp, sq ft, each, site, kWh)	Text	50	s

	Column Header	Description	Format	Max Length	Allow Empty Cell
63	UnitKEProp	Proposed kW per Unit	Numeric		s
64	UnitkWhProp	Proposed kWh per Unit	Numeric		s
65	UnitkWFinal	Final kW per Unit	Numeric		s
66	UnitkWhFinal	Final kWh per Unit	Numeric		s
67	PropTotkW	Proposed kW Total	Numeric		s
68	PropTotkWh	Proposed kWh Total	Numeric		s
69	FinalTotkW	Final kW Total	Numeric		s
70	FinalTotkWh	Final kWh Total	Numeric		s
71	UnitIncentReb	Incentive per Unit	Numeric		s
72	PropTotIncent	Proposed Incentive Total	Numeric		s
73	FinalTotIncent	Final Incentive Total	Numeric		s
74	UnitDILabor	Unit Direct Install Labor Cost	Numeric		s
75	PropTotDILabor	Proposed Total Direct Install Labor	Numeric		s
76	FinalTotDILabor	Final Total Direct Install Labor	Numeric		s
77	UnitDIMaterialCst	Unit Direct Install Material Cost	Numeric		s
78	PropTotDIMatCst	Proposed Total Direct Install Material Cost	Numeric		2
79	FinalTotDIMatCst	Final Total Direct Install Material Cost	Numeric		s
80	PropTotCustCP	Proposed Total Customer Co-Pay	Numeric		y
81	FinalTotCustCP	Final Total Customer Co-Pay	Numeric		y
82	PropTotProjCst	Proposed Total Project Cost (Rebate+Co-Pay)	Numeric		s
83	FinalTotProjCst	Final Total Project Cost (Rebate+Co-Pay)	Numeric		s
84	ContactDte	Initial Customer Contact Date	Date		n
85	SurveyDte	Initial Survey Date	Date		s
86	CmtDte	Customer Commitment Date	Date		s
87	OrderDte	Material/Work Order Date	Date		y
88	MsrStrtDte	Measure Construction/Ship Date	Date		y
89	MsrCmpDte	Measure Completion Date	Date		s
90	ContInspDte	Contractor Post Measure Inspection Date	Date		y
	DLCInspDte <sup>3</sup>	DLC Post Inspection Date	Date		y



	Column Header	Description	Format	Max Length	Allow Empty Cell
91		DLC will update this field if job was selected for inspection			
92	IncPmtDte	Incentive Payment Date	Date		y
93	IncChkNum	Incentive Payment Check Number	Text	30	y
94	IncChkAmt	Incentive Check Amount	Numeric		y
95	InvDte	Date DLC Invoiced by Contractor	Date		y
96	InvPdDte	Date DLC Paid Contractor	Date		y
97	InvNum	Contractor-DLC Invoice Number	Text	50	y
98	InvChkNum <sup>3</sup>	DLC Check Number to Pay Contractor Invoice	Text	30	y
99	InvChkAmt	DLC Payment to Contractor Amount	Numeric		y
100	RejectionReason <sup>3</sup>	Job rejected reason (DLC entry only)	Text	100	y
101	MSRCD <sup>1,2</sup>	Unique measure code provided by DLC	Text	10	s
102	DLC Misc 1	DLC Misc 1 through DLC Misc 6 are reserved for future use and should be left blank at this time	Text	100	y
103	DLC Misc 2				
104	DLC Misc 3				
105	DLC Misc 4				
106	DLC Misc 5				
107	DLC Misc 6				
108	DLC Misc 3				
109	DLC Misc 4				
110	DLC Misc 5				
111	DLC Misc 6				

**Financial Flat File**

The financial flat file reports program expenditures categorized by invoice, cost description, and task. The following table lists the fields of the financial flat file.

**Figure 45: Financial Flat File Fields**

	Column Header	Description	Format	Max Length	Allow Empty Cell
1	Version	Flat file format version number. Must be a 1	Numeric	1	n
2	RcrdUpdate <sup>1</sup>	A value of one (1) indicates that DLC has updated this record. Contractor must set this to zero for new rows.	1 or 0	1	n
3	Contr	Contractor Name	Text	50	y
4	Prog	Program Name	Text	50	y
5	RpPrdEndDt <sup>4</sup>	Reporting Period End Date	Date		n
6	InvApprvlDtDLC <sup>1</sup>	DLC invoice approval date	Date		y
7	InvNum <sup>1</sup>	Contractor Invoice Number to DLC	Text	50	n
8	Cost Desc. <sup>2,4</sup>	Allowable Cost Element Description	Text	100	n
9	Admin <sup>2</sup>	Administrative category expenses incurred for the period	Numeric		y
10	Marketing <sup>2</sup>	Marketing category expense incurred for the period	Numeric		y
11	Direct Implementation	Direct implementation category expenses incurred for the period including expenses for the measure flat file (rebates, installation costs and/or material cost (excluding customer co-pay)	Numeric		y
12	Finance Cost <sup>2</sup>	Finance charge expenses incurred for the period for financing the contract project	Numeric		y
13	TaskNum <sup>3</sup>	Task number specific cost is tied to	Text	50	y
14	DLC Misc 1	DLC Misc 1 through DLC Misc 6 are reserved for future use and should be left blank at this time	Text	100	y
15	DLC Misc 2				
16	DLC Misc 3				
17	DLC Misc 4				
18	DLC Misc 5				
19	DLC Misc 6				

The data captured in the measure and financial flat files will be available for Commission review and audit one month following the close of each quarter and program year-end. The format of each file will be available in hard copy and published for download in a secured area on the Duquesne Light website.

5.2. Project Management Tracking Systems:

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

Duquesne Light plans to design and develop a PMRS for tracking, managing and reporting measure, project, program and portfolio activities. The PMRS will support and facilitate program operation, management and reporting for use by umbrella program managers (“UPM”) and sub-segment program managers (“SSPM”). PMRS will serve three primary purposes:

1. Enable SSPMs/CSPs to upload program reports
2. Provide UPMs the capability to download and approve SSPM reports
3. Provide comprehensive reporting to support Duquesne Light's internal and Commission reporting requirements.

Flat files will be uploaded into PMRS as required by procedural guidelines and statements of work for UPMs and SSPMs, respectively. All required monthly invoice reports can be generated via PMRS by uploading measure flat file data. In addition, the financial flat file data can be used to directly develop invoices from a pre-determined budget matrix. SSPMs/CSPs will work collaboratively with the UPM to tailor, as required, the measure and financial flat files for the specific program.

- 5.2.2. Describe the software format, data exchange format, and database structure you will use for tracking participant and savings data. Provide examples of data fields captured.

The PMRS will store data in a relational database using the IBM DB2 database engine. The database will be populated by uploading the measures and financial flat files from SSPMs/CSPs. The measures and financial flat files are comma separated values ("CSV") files. The PMRS will read and extract the data from these files and store the values in the PMRS database. The PMRS will use a reporting engine to run reports off of the database. Reports and supporting data for Commission review and audit will be provided in hard copy as well as published for download in a secured area on the Duquesne Light website. Examples of the fields captured are presented in the Measure and Financial flat files presented in 5.1.2.

- 5.2.3. Describe access and mechanism for access for Commission and statewide EE&C Plan Evaluator.

The program quarterly reports, program annual reports and supporting data will be provided in hard copy as well as published for download in a secured area on the Duquesne Light website using electronic access.

## 6. Quality Assurance and Evaluation, Measurement and Verification (~5 pages)

*(Objective of this section is to provide detailed description of how the EDC's quality assurance/quality control, verification and internal evaluation process will be conducted and how this will integrate with the statewide evaluation activities)*

### 6.1. Quality Assurance/Quality Control:

#### 6.1.1. Describe overall approach to quality assurance and quality control.(QA/QC)

EE&C program QA/QC is incorporated into program planning and implementation as describe below:

Program Planning: Program target markets and measure content are based on an energy efficiency potential forecast that is a systematic and comprehensive inventory of regional efficiency gain opportunities. Program approaches to deliver identified energy efficiency services are developed using benchmarked program approaches, tailored to Duquesne Light regional needs and opportunities. Program logic models identify key program activities that combine to produce a variety of expected outputs that in turn lead to key short-, mid- and long-term outcomes as well as performance indicators or metrics for each activity.

Program Implementation: Program managers will develop procedural guidelines to ensure programs are operated in a manner to achieve planned performance objectives. Procedural guidelines are a reference manual documenting qualifying technologies, instructions for calculating energy savings and demand reductions, step-by-step processes for customer enrollment, scheduling and recording energy audits, customer incentives reservation and payment. Program procedural guidelines provide the requirements for hard-copy project-level documentation as well as populating and operating the program tracking and reporting systems. Parts of procedural guidelines are unique to each program implemented, developed prior to program launch to support orientation and training, and; a deliverable of CSP contracts. Procedural elements common to all programs support portfolio management regulatory compliance reporting.

Program managers and coordinators will be made of aware of program performance indicators (see section 6.2, below) and annual employee/contractor performance evaluations will include progress toward addressing the program performance indicators.

Internal audits will be conducted each full year of program operation, to ensure programs are being implemented as designed and to determine to what extent performance indicators are being addressed. Additionally, the audits will inform management about changes needed in the programmatic approach, content and processes.

#### 6.1.2. Describe procedures for measure and project installation verification, quality assurance and control, and savings documentation.

Programs will document savings impacts in hard-copy project files and in electronic media that can vary considerably depending upon the type of program

and measure/project implemented. Generally, electronic data will be located in Duquesne Light's PMRS described in Section 5. PMRS data will contain measure savings impacts, expenditures and customer contact events. The record tracks all data elements in a customer commitment and installation process, including contact information, installations, rebating, and educational or information services, i.e., energy surveys. The data records are to be updated on a regular basis so that the progression from a sales contact to an installation and inspection of a project is fully documented for each program.

Verification processes will vary depending upon individual program objectives and content. However, all of the programs comprising the portfolio fall into the "downstream" incentive variety. Downstream means programmatic offerings, energy audits, recommendations and incentives, provided to end-use consumers. This is in contrast to "upstream" and "midstream" type programs that provide financial incentives to manufacturers and retail distribution outlets as a strategy for penetrating a particular market.

Downstream program procedural guidelines will foster efficient program operation and ensure only qualifying measures receive correct incentive amounts. The procedural guidelines for commercial and industrial down-stream audit and incentive programs seek to ensure program expenditures are prudent and (1) audits functionally increase awareness and are of a caliber to support capital investment (i.e., "investment grade audits"), and (2) rebates are incentives not rewards. This means energy efficiency audits, audit reports with recommendations, and monetary incentives precede the decision to install the efficient measures and are designed to cause a customer to implement energy efficiency measures. Installation verification and quality assurance and control are addressed for discrete programs below.

Low Income Programs: In Duquesne Light's Low Income Energy Efficiency Program (LIEEP) measures are installed at no cost to low income household residents and *all* installations are verified by contractors. "Quality Control" is the responsibility of the implementation contractor. "Quality Assurance" is provided by the Duquesne Light core team. The implementation contractor will perform the following quality control activities:

- Develop a system of technical and program review tasks to control the quality of program procedures and measures
- Ensure contractors maintain appropriate credentials
- Provide clear instructions and guidelines
- Review scopes of work
- Conduct quality control phone calls, pre-inspections, in-progress inspections and post-inspections
- Provide feedback to contractors based on QC/QA activities
- Provide Duquesne Light reports and ratings from completed QA calls and inspections

Duquesne Light quality assurance will include on-site visits on a random sample of customers that represent a cross section of contractors and regions for households receiving LIEEP services. On-site QA visits shall be scheduled

within 45 days of project completion. Contractors and vendors receiving less than satisfactory results shall be reevaluated for possible replacement.

Duquesne Light will conduct phone surveys on a random sample of customers who represent a cross section of contractors and territories for households who have received LIEEP services. Those customers reporting any significant issues via the phone surveys will be targeted for on-site inspections. Phone QA surveys shall be scheduled within thirty (30) days of project completion. After two attempts to schedule a phone QA survey, a letter will be sent to non-respondents along with a survey form and a self-addressed business reply envelope. Sampling percentages for LIEEP projects:

- On-site quality assurance inspection 5%
- Phone survey/quality assurance 15%

Residential Energy Efficiency Rebate Program (REEP): In addition to Duquesne Light's assessment of performance indicators linking to the program logic diagram (see section 6.2 below), a program impact verification and customer satisfaction survey will be performed on a random sample of participants via phone survey. The number of surveys to be conducted shall be based on program participation volume, with a sample quantity statistically valid to render a confidence level of 90% +/- 10% or higher. REEP savings impacts will be based on deemed savings values published in the TRM or other documented ex ante savings values if the TRM fails to address specific program measures.

Residential: Schools Energy Pledge Program (SEP): The SEP is 100% verified. Each parent is asked to sign a pledge that bears the customer's service account number(s), address(es) and a self-reporting inventory of measures installed. The signature attests to the program's influence in motivating each participant's decision to install program measures. SEP savings impacts will be based on deemed savings values published in the TRM or other documented ex ante savings values if the TRM fails to address specific program measures. Program implementers will perform spot checks to ensure energy saving toolkits are received and measures are installed. Follow-up satisfaction surveys will be conducted with participating schools, students and families.

Residential Refrigerator Recycling Program: In addition to Duquesne Light's assessment of performance indicators linking to the program logic diagram (see section 6.2 below), a program customer satisfaction survey will be performed on a random sample of participants via phone survey. The number of surveys to be conducted shall be based on program participation volume, with a sample quantity statistically valid to render a confidence level of 90% +/- 10% or higher. Program savings impacts will be based on deemed savings values published in the TRM or other documented ex ante savings values in any cases where the TRM fails to address specific program measures.

### Commercial & Industrial Umbrella Programs and Sub-Programs:

#### Definition of Terms:

**Sector Umbrella Programs:** Umbrella programs described in Sections 3.3 and 3.4 provide a level of service (incentives only) to *all* sector customers and establish the terms, conditions and incentive levels for all Sector Sub-Programs. Umbrella programs define prescriptive incentives (\$ per lamp, fixture, ton, square foot of insulation, etc) and custom incentives provide \$ per kWh saved for all Sector Sub-Programs.

**Sector Sub-Programs:** Sub-sector programs described in Sections 3.3 and 3.4 are designed to mitigate segment specific barriers to program participation by providing segment specific energy efficiency audits and incentives. The manner of program delivery is aligned to segment characteristics and needs. Incentive levels for all Sector Sub-Programs are defined by sector umbrella programs.

As described above commercial and industrial umbrella programs establish incentive levels, as well as the terms and conditions for providing incentives in sub-programs. Sub-program incentive program tracking, reporting and processing are performed under the structures and procedures established under umbrella programs. From a customer enrollment perspective, umbrella program services are limited to providing mainly prescriptive incentives, primarily to customers not served under on sector sub-programs. The verification process for umbrella program prescriptive incentives is to randomly sample for inspection a quantity of participating sites statistically valid to render a confidence level of 90% +/- 10% or higher. Applications with rebates of \$2,000 or more are treated as mandatory inspections. Applications with rebates under \$2,000 are selected randomly on an ongoing basis, maintaining the aforementioned confidence levels throughout the program period. Umbrella program customer projects receiving custom incentive payments will be 100% site verified. Custom incentives are paid on a per-kWh basis based on engineering calculations, and usually are associated with large, complex projects. Field inspections are recorded in PMRS.

Sub-programs verification processes will be adjusted depending upon the program activity. Sub-programs implemented through pay-for-performance contracts with CSPs will be 100% site verified. In these cases the implementing CSPs will inspect and verify that 100% of the installed measures/projects in the program have been properly installed according to specifications and are functioning correctly. The main objective is to provide sufficient assurances that the work is accurate, thorough, and performed as reported. The inspection procedure for different aspects of the program is as follows.

**Low-cost/No-cost Measures:** All equipment serviced will be tested for functionality at the time of installation. In addition, a sample of sites serviced (up to 10% of all sites with no hardware installation) will be inspected by Duquesne Light or CSP staff members that did not participate in delivering the services. All sites with hardware installation will be inspected.

**Capital Investment Measures:** Upon notification of Project completion, Duquesne Light or the CSP will schedule a post-installation inspection to verify completion and ensure the scope of work has not altered from the agreed-upon installation agreement. EM&V data will be reviewed by Consultant to ensure proper Project completion.

- 6.1.3. Describe process for collecting and addressing participating customer, contractor and trade ally feedback (e.g., suggestions and complaints).

All Duquesne Light EE&C programs have requirements for customer satisfaction surveys conducted following customer enrollment and participation. For contractor implemented programs, customers are provided Duquesne Light direct contact information along with an open solicitation for feedback and comments. Depending upon the program and verification plan, for CSP implemented programs, Duquesne Light contacts program participants directly regarding quality assurance and customer satisfaction (e.g., LIEEP Duquesne Light contacts 15% of participants via phone survey). Please see performance indicators for the commercial and industrial umbrella programs and sub-programs in section 6.2 for direct evidence Duquesne Light programs are designed to engage trade allies and that Duquesne Light anticipated being evaluated based on their success at performing same.

Trade associations were specifically invited to Duquesne Light's Act 129 stakeholder meetings and trade association engagement and leveraging is a priority element Duquesne Light utilizes for ranking CSP proposals to provide EE&C services to specific market segments (large office buildings, retail segment, industrial primary metals and chemicals products manufacturing). Active and direct engagement of customers, contractors and trade associations has and will continue to characterize Duquesne Light's EE&C program planning and implementation.

- 6.2. Describe any planned market and process evaluations and how results will be used to improve programs.

Each program has a prepared logic diagram with hypothesized cause and effect linkages and associated performance indicators (for more information about program logic diagrams and performance indicators please see EEC & DR Study). The logic diagram and performance indicators are provided to evaluation contractors to support their work. If it is determined through annual employee and contractor annual evaluations as well as annual internal program audits that program performance indicators are not being addressed and met, corrective actions will be initiated. The following excerpts highlight the focus of performance indicators on market outreach, program participant enrollment and program processes.

Residential Energy Efficiency Rebate Program performance indicators linked to the program logic model includes the following:

1. Appropriate collateral marketing materials created. Coherent outreach strategies developed. Appropriate materials delivered to market outreach implementation team on time.



2. Outreach activities launched on schedule, number of customers contacted, brochures delivered and number of radio spots. Customer perception of the credibility of the information provided. Customer satisfaction with contacts and information provided.
3. Changes in awareness. Knowledge and attitudes of customers with respect to energy efficiency and the likelihood that customer will invest in energy efficiency. Customer stated intentions to adopt recommendations.
4. Number of customers who apply for an incentive. Amount of the incentives for each end use category. Customer satisfaction with application process.
5. Number of applications processed in a timely manner. Cycle times (time from application to approval and time from approval to receipt of payment).
6. Number of applications rejected. Reasons for rejection.
7. Number of applications approved.
8. Measures installed, practices adopted and changes to systems.
9. Annual and life-cycle ex ante estimates of energy and demand impacts.

Residential: Schools Energy Pledge Program performance indicators linked to the program logic model includes the following:

1. Appropriate collateral marketing materials were created and coherent outreach strategies were developed. The percent of schools approached who agree to participate.
2. Quality of the materials prepared (clear, logical, compelling, etc.). Quality of the presentations.
3. Number of students who claim to have delivered the materials. Number of parents who claimed to have received the materials.
4. Changes in awareness, knowledge and attitudes of customers with respect to energy efficiency and likelihood of agreeing to an in-home energy audit. Customer stated intentions to have an energy auditor conduct an energy audit. Use by the customer of Duquesne Light's on-line energy audit resulting from program participation.
5. Percent of parents who sign the pledge. Reasons for not signing the pledge.
6. Number of energy efficiency tool kits prepared and quality of the measures in the toolkits. Clarity of the instructions in the toolkits, kits prepared and delivered on time.
7. Number of toolkits sent to participating homes.
8. Number of students and parents who recall receiving the toolkit. Number of students and parents who understood the instructions in the toolkit.

9. Number of incentives paid to participating schools, time from signed pledges to payment of incentives to participating schools.
10. Verification of the number and types of measures households have installed. Quality of installations, location of installations and customer satisfaction with installations. Customer satisfaction with measure performance.
11. Annual and life-cycle ex ante estimates of energy and demand impacts.

Refrigerator Recycling Program performance indicators linked to the program logic model includes the following:

1. Marketing collateral is created and has a clear and compelling message. It has easy to understand directions on how to participate.
2. Marketing material emphasizes cost to operate the second unit and is placed in appropriate areas to be seen by target audience.
3. Number of applications received and average time to process applications.
4. Number of refrigerators scheduled for pickup and average time from application approval to scheduled pickup.
5. Number of incentive payments made and average time from application approval to incentive payment.
6. Documentation regarding the use of units for 2 years prior to disposal.
7. Prompt payments, correct incentive amounts and customer satisfaction with the program (number of complaints noted).
8. Number of units verified permanently removed from the grid kWh and kW impacts and emissions reductions.
9. Given an increase level of customer awareness about energy efficiency, stated intentions by homeowners to further reduce the energy use in the future.

Low Income Energy Efficiency Program performance indicators linked to the program logic model includes the following:

1. Number of meetings with local governments. Satisfaction with agreements on program design and cost sharing.
2. Appropriate collateral marketing materials created and coherent outreach strategies developed. Appropriate materials delivered to market outreach implementation team on time.
3. Number of potential low-income participants identified.
4. Outreach activities launched on schedule. Extent to which campaign is faithfully implemented. The number of customers contacted, brochures delivered and radio

spots. Customer perception of the credibility of the information provided.  
Customer satisfaction with contacts.

5. Changes in awareness, knowledge and attitudes of customers with respect to energy efficiency and likelihood of agreeing to an in-home energy audit.  
Customer stated intentions to have an energy auditor conduct an energy audit.
6. Number of households agreeing to in-home energy audit. Number of households refusing an in-home energy audit.
7. Number of in-home audits conducted. Period of time between agreeing to an audit and actually receiving the audit (cycle time). Quality of the energy audit.  
Comprehensiveness of the energy audit. Number of missed opportunities.
8. Number of recommended measures and practices. Mix of measures versus practices.
9. Percent of the recommended measures and practices accepted. Types of measure recommendations accepted. Percent of behavioral recommendations accepted.
10. Number and types of measures installed, quality of installations and customer satisfaction with installations. Customer satisfaction with measure performance.
11. Annual and life-cycle ex ante estimates of energy and demand impacts

Commercial / Industrial Umbrella Program and Sub-Program performance indicators linked to the program logic model includes the following:

1. Vendor & trade ally collaboration:
  - a. Number of meetings with vendors & trade allies. Types of vendors and trade allies, collateral and marketing created by parties, coherent outreach strategies, satisfaction of collaborative parties.
  - b. Outreach activities launched.
2. Duquesne Light outreach activities launched on schedule.
3. Subcontractor outreach activities launched on schedule.
4. Number of customers contacted, brochures delivered, number of radio spots, customer perception of credibility of the information provided.
5. Number of audits conducted, types of recommendations made. Number of customers who recall the audit, read the audit report, recall recommendations.
6. Changes in customer awareness, knowledge and attitudes, likelihood customer will invest, customer intentions to adopt recommendations.
7. Number of incentive applications, amount of incentives for each end-use category and customer satisfaction with the application process.

8. Number of applications processed, cycle time (application to approval) cycle time approval to receipt.
  9. Number of applications rejected, reasons for rejection.
  10. Number of applications approved.
  11. Measures installed, practices adopted, changes in systems.
  12. Estimated and confirmed energy and demand impacts.
  13. Reductions at the customer site likely to spill over to other customer sites.
  14. Increase demand and supply for energy efficient technologies, reductions in incremental costs, applicability to potential building code changes, long-term reductions in energy use and related emissions.
- 6.3. Describe strategy for coordinating with the statewide EE&C Plan Evaluator (nature and type of data will be provided in a separate Commission Order).

The following information concerning each program will be provided to the statewide EE&C Plan Evaluator.<sup>25</sup> This information is separate from participant-level data collected in the program-tracking database, PMRS. Information to be provided includes:

- a) Full program descriptions, including operational and/or procedures manuals and activities descriptions and description of program service territory.
- b) Detailed descriptions of tracking system and tracking system operations, including data dictionaries.
- c) A detailed description or map of how data in the tracking system rolls up to the quarterly PA PUC report.
- d) Program management and staff names, titles, work locations, phone numbers, fax numbers, and e-mail addresses.
- e) Program savings objectives.
- f) A program theory and logic model for each program. Program theory characterizes the relevant market(s) and how program activities are expected to change the behavior of the potential participants in the market(s) to increase the adoption of energy efficient technologies and practices. The characterization of the market will include a description of the remaining technical energy and demand potential and the proportion of that potential that the program is expected to achieve at the conclusion of the current funding cycle.
- g) When the program relies on key market factors, trade allies, and other stakeholders to deliver or support the program in order to reach the energy saving

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<sup>25</sup> Recommendations Regarding Evaluation Data Tracking and Reporting Templates, New York State Department of Public Services and New York Evaluation Advisory Group, TecMarket, May 6, 2009

or outreach goals, the administrator should provide a listing, description and contact information for these individuals/organizations.

- h) Name of firms participating in the delivery of the program or program component(s) (e.g., vendors, installers, specifies etc.).
- 6.4. Describe any planned market and process evaluations and how results will be used to improve programs.

Each program has a prepared logic diagram with hypothesized cause and effect linkages and associated performance indicators (for more information about program logic diagrams and performance indicators please see EEC & DR Study). The logic diagram and performance indicators are provided to evaluation contractors to support their work. If it is determined through annual employee and contractor annual evaluations as well as annual internal program audits that program performance indicators are not being addressed and met, corrective actions will be initiated. The following excerpts highlight the focus of performance indicators on market outreach, program participant enrollment and program processes. See also response to Section 6.2.

- 6.5. Describe strategy for coordinating with the statewide EE&C Plan Evaluator (nature and type of data will be provided in a separate Commission Order).

The strategy for coordinating with statewide EE&C Plan Evaluator will be to provide the information addressed under Section 6.3.

**7. Cost-Recovery Mechanism (~5-10 pages with tables)**

*(Objective of this section is to provide detailed description and estimated values for cost recovery mechanism.)*

- 7.1. Provide the amount of total annual revenues as of December 31, 2006, and provide a calculation of the total allowable EE&C costs based on 2% of that annual revenue amount.<sup>26</sup>

**Figure 46: Total Revenues**

	<u>2006 Total</u>	<u>2% of Total</u>
DLC Revenue	\$723,299,451	\$ 14,465,989.02
EGS G&T	\$253,998,128	\$ 5,079,962.56
Act 129 Annual Budget		\$ 19,545,951.58

- 7.2. Description of plan in accordance with 66 Pa. C.S. §§ 1307 and 2806.1 to fund the energy efficiency and conservation measures, to include administrative costs.

The Act allows all EDCs to recover on a full and current basis from customers, through a reconcilable adjustment clause under 66 Pa. C.S. § 1307, all reasonable and prudent costs incurred in the provision or management of its plan. The Act also requires that

<sup>26</sup> See also Commissioner Pizzigrilli’s January 15, 2009 Motion at Docket no. M-2008-2069887, allowing Duquesne Light to include the EGS G & T.

each EDC's plan include a proposed cost-recovery tariff mechanism, in accordance with 66 Pa. C.S. § 1307 to fund all measures and to ensure full and current recovery of prudent and reasonable costs, including administrative costs, as approved by the Commission. To that end, Duquesne Light has designed a surcharge and reconciliation mechanism for all customer segments. The surcharge has been designed in a manner that recovers costs of the programs from the customers who have an opportunity to participate in those programs designed.

7.3. Provide data tables

Tables 6A, 6B, and 6C are populated with all the appropriate data required by the PA PUC.

7.4. Provide and describe tariffs and a Section 1307 cost recovery mechanism. Provide all calculations and supporting cost documentation.

The Company proposes to add Rider No. 15, "Energy Efficiency and Conservation and Demand Response Surcharge," to its tariff. The tariff sets forth the monthly surcharge rates by customer class to recover the program budgets. Since the proposed cost recovery method is different for residential, small and medium C&I and large C&I customer classes, a formula and description of the formula is defined for each customer class surcharge. Five surcharges are defined to recover costs as reasonably close as possible for each customer class and segment within the class, i.e. commercial or industrial customers. The formulas are in accordance with the provisions of a Section 1307 cost recovery surcharge and include reconciliation of over or under collections and interest on the over or under recovery. Duquesne will not impose any interest on over or under collections, per the Commission's Opinion and Order entered October 27, 2009.

7.5. Describe how the cost recovery mechanism will ensure that measures approved are financed by the same customer class that will receive the direct energy and conservation benefits.

The Company proposes to implement five surcharges to recover costs as close as reasonably possible to the customer class receiving the benefit. The costs are first defined for the three specific customer classes – residential, commercial and industrial. Commercial and industrial ("C&I") customers were separated into small and medium C&I and large C&I customer segments because of the diversity in the size of C&I customers in the Company's service territory to allow for more reasonable cost recovery. Small and medium C&I customers are those customers with monthly metered billing demand 300 kW and less. Large C&I customers are those customers with monthly billing metered demand greater than 300 kW. This segmentation of customers is appropriate because it aligns programs and program costs with the current tariff and with the tariff charges for distribution, transmission and default service supply. C&I program costs were then assigned for recovery first based on program description (e.g. Office Buildings – Large). Duquesne will adopt the use of the Peak Load Contribution demand measure in the application of its cost recovery mechanism for Large C&I customers. The tariff modification was filed with the Commission on November 9, 2009 and was approved by a Secretarial Letter issued on November 24, 2009, at Docket No. M-2009-

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2093217. Common program costs applicable to all C&I customers were then allocated based on projected savings.

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## 8. Cost Effectiveness (~5 pages)

*(Objective of this section is to provide detailed description of the cost-effectiveness criteria and analyses. It can refer to appendices with program data.)*

- 8.1. Explain and demonstrate how the proposed plan will be cost effective as defined by the Total Resource Cost Test (TRC) specified by the Commission.

All measures and programs within the proposed EE&C program portfolio have passed the Total Resource Cost ("TRC")<sup>27</sup> test screening with the single exception of the solar program which has been removed per the Opinion and Order entered October 27, 2009 in Docket No. M-2009-2093217.

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This screening metric exceeds Commission requirements that program portfolios pass the TRC allowing for individual measures and programs to fail the test.

The energy efficiency potential forecast, described in Sections 3 and 6 above, forecast technical, economic and achievable energy efficiency potential. Economic potential is defined as technically feasible measures that pass the TRC test. Program measures described herein are selected from the measures comprising forecast economic potential.

Low income programs are typically excused from cost-effectiveness tests and treated as "equity programs" or programs mandated to fulfill an obligation to reach an underserved and disadvantage customer segment. Low income energy efficiency programs are evolving from strictly weatherization programs to more comprehensive "end use" strategies focusing on lighting, appliances and weatherization. Nationally, leading low income programs have been structured to ensure they are cost-effective contributors to energy utilities' resource portfolios. The Low Income Energy Efficiency Program (LIEEP) advanced in this portfolio is patterned after a public agency partnership<sup>28</sup> model wherein local government and energy utility resources are leveraged to create cost-effective programs ultimately providing expanded levels of service. As documented in Table 7B, the LIEEP is a cost-effective program with a TRC of 2.3.

To further document program planning diligence to ensure cost-effectiveness vis-à-vis the TRC test, Tables 7A, 7B, 7C, 7D and 7E have been expanded to include "TRC Cost" supporting TRC test ratio calculation as defined and referenced herein.

<sup>27</sup> The PA PUC adopted the California Public Utilities Commission, California Standard Practice Manual - Economic Analysis of Demand-Side Programs and Projects (SPM) for defining energy efficiency cost-effectiveness. In the SPM, TRC is defined at Chapter 4, page 18.

<sup>28</sup> See EEC & DR Study low income program benchmarking strategy 2 and the Prototype Community Energy Efficiency Program, program number 1241-04, authorized by the California Public Utilities Commission under Rulemaking R.01-08-028.

Additional, measure, program and portfolio cost-effectiveness analytical processes and detail are provided in the Study and its attachments.

8.2. Provide data tables

See Tables 7A through 7E.

**9. Plan Compliance Information and Other Key Issues (~ 5–10 pages)**

*(Objective of this section is to have specific areas in EE&C plan where the Commission can review miscellaneous compliance items required in legislation and address key issues in EE&C plan, portfolio, and program design.)*

9.1. Plan Compliance Issues.<sup>29</sup>

9.1.1. Describe how the plan provides a variety of energy efficiency, conservation, and load management measures and will provide the measures equitably to all classes of customers in accordance with the January 15 Implementation Order.

Program development was initiated by first completing an energy efficiency potential forecast. The energy efficiency potential forecast included detailed information about customer populations in the residential, commercial and industrial sectors. A description of the forecast analysis, inputs for residential, commercial and industrial sector building stock as well as sector measures is provided under Section 3.1.2 of the Plan.

Forecast of annual achievable energy efficiency potential would require annual budgets approximately \$47 million. The Act and Commission implementation orders limit Duquesne Light annual spending to \$19,545,952. The energy efficiency potential forecast was proportionally scaled down to present a mix of measures, representative of regional potential, with program implementation budgets aligned with authorized program spending.

Program funding is allocated among residential, commercial and industrial sectors based on each sector's share of total energy consumption. Low income program funding is treated as a portion of the residential sector. Public agency program funding is treated as a portion of the commercial sector. After allocating required funding to achieve low income and public agency mandates, the residual funding in each sector is applied, using the forecast model, to forecast sector and program impacts and budgets.

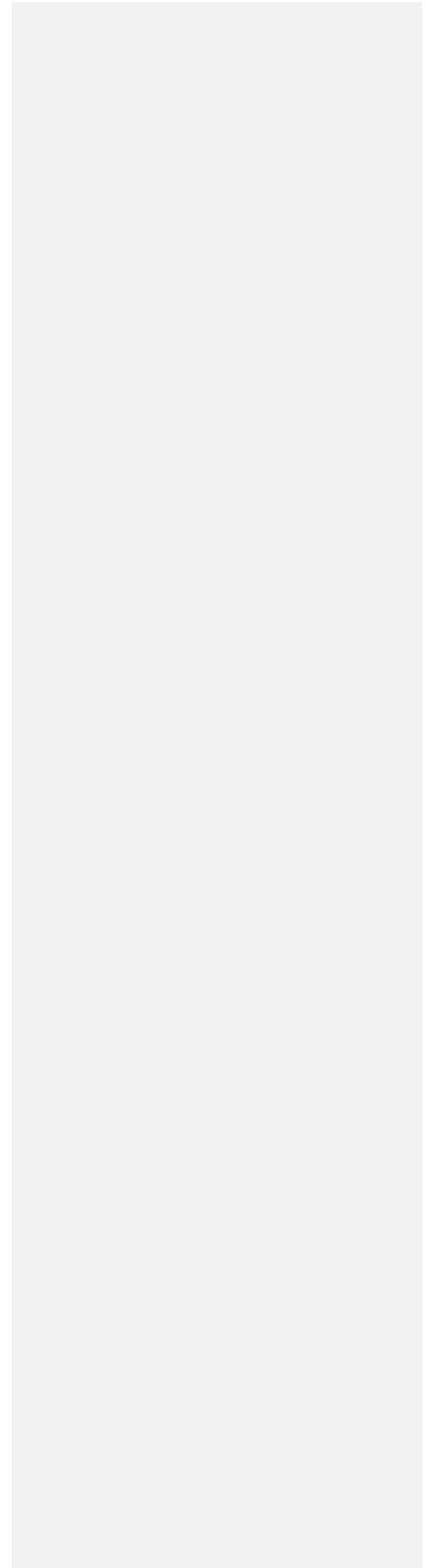
9.1.2. Provide statement delineating the manner in which the EE&C plan will achieve the requirements of the program under 66 Pa. C.S. §§ 2806.1(c) & 2806.1(d).

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<sup>29</sup> These 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.



The following table shows the cumulative portfolio and program reductions in consumption (energy) and peak demand reductions in program years ending May 31, 2011 and May 31, 2013:



**Figure 47: Cumulative Portfolio and Program Reductions in Consumption<sup>30</sup>**

Cumulative Energy (kWh) and Demand (kW) Savings		Program Years Ending		
		May 31, 2011 (kWh)	May 31, 2013 (kWh)	May 31, 2013 (kW)
<b>Program Name</b>				
<b>Residential</b>	Energy Efficiency	50,623,321	118,121,083	54,916
	Residential/Schools	2,025,000	4,725,000	4,253
	Refrigerator Recycling	5,000,503	11,667,840	2,908
	<del>Solar Voltaic Incentives</del>	<del>312,000</del>	<del>624,000</del>	<del>240</del>
	Low-Income Energy Efficiency	12,880,759	30,055,105	12,254
<b>Commercial</b>	Umbrella Program Rebates	8,043,808	18,768,885	4,027
	Office Buildings	46,251,895	108,521,087	22,189
	Healthcare	17,093,091	39,883,880	8,557
	Retail Stores & Restaurants	18,601,305	43,403,046	9,312
	Education	10,557,498	24,634,161	5,285
<b>Industrial</b>	Governmental / Non-Profit	26,920,191	62,813,778	20,187
	Industrial Rebates (umbrella)	3,772,833	8,803,277	1,360
	Primary Metals	25,708,810	59,987,224	9,265
	Chemicals	9,343,007	21,800,349	3,367
<b>Demand Response(DR)</b>	Industrial Rebates (Mixed)	8,335,770	19,450,130	3,004
	Residential DR	229,965	1,388,748	18,595
	Small/Mid Commercial DR	111,974	671,846	7,776
	Large C/I Curtailable Load	172,800	1,036,800	10,800
<b>Total EEC &amp; DR Programs (cumulative)</b>		<del>245,984,531</del>	<del>576,356,241</del>	<del>198,294</del>
		<u>244,151,922</u>	<u>571,349,629</u>	<u>199,182</u>
<b>Mandated Reductions</b>		140,885,117	422,565,351	113,000

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9.1.3. Provide statement delineating the manner in which the EE&C plan will achieve the Low-Income requirements under 66 Pa. C.S. §§ 2806.1(b)(1)(i)(G).

Act 129 requires low income customer segment program energy savings to be a proportional share of mandated reductions equivalent to the low income segment energy use percentage of Duquesne Light’s total territory energy use. As described in Section 3.2.1 LIEEP description, the low income segment’s proportional share of Duquesne’s total territory energy use is estimated to be approximately 6.1%. As shown above in Section 9.1.2 and the table below, LIEEP projected energy savings exceeds these target savings amounts.

<sup>30</sup> REEP energy savings and demand reduction estimates changed based on increasing annual budgets \$150,000 (previously in Solar PV) and addition of the high-efficiency furnace fan measure. Adding furnace fans shifted the overall measure mix and forecast measure savings in Duquesne's penetration model. This reduced the penetration of other more cost-effective measures (primarily outdoor lighting fixtures) resulting in an overall reduction of projected savings in the Residential sector programs.

**Figure 48: LIEEP Projected Energy Savings**

	2011 (kWh)	2013 (kWh)	2013 (kW)
Mandated Requirements	140,885,117	422,565,351	113,000
Low Income Program Reduction Requirements (6.1%)	8,580,945	25,737,535	6,883
LIEEP Projected Impacts	12,880,759	30,055,105	12,254

9.1.4. Provide statement delineating the manner in which the EE&C plan will achieve the Governmental/non-profit requirements under 66 Pa. C.S. §§ 2806.1(b)(1)(i)(B).

Act 129 requires governmental/non-profit program energy savings be a minimum of 10% of the required reductions in consumption and demand reduction. As shown in the summary table in Section 9.1.2 and the table below, Public Agency Partnership program projected energy and demand reductions exceed the mandated amounts.

**Figure 49: Public Agency Partnership Program Projected Energy and Demand Reductions**

	May 31, 2011 (kWh)	May 31, 2013 (kWh)	May 31, 2013 (kW)
Mandated Requirements	140,885,117	422,565,351	113,000
Governmental/non-profit Requirements (10%)	14,088,512	42,256,535	11,300
Public Agency Partnership Projected Impacts	26,920,191	62,813,778	20,187

9.1.5. Describe how EDC will ensure that no more than two percent of funds available to implement the plan shall be allocated for experimental equipment or devices.

Funds are so limited to reach the goals associated with the Act that experimental equipment or devices have not been planned in the program designs. In the event that customized programs are developed for customers which provide for the use of such equipment or devices, funding will be tracked to ensure that no more than two percent of funds are available for such equipment.

9.1.6. Describe how the plan will be competitively neutral to all distribution customers even if they are receiving supply from an EGS.

The General Assembly intended Act 129 to be competitively neutral, and not disadvantage EDCs that had active retail electric markets. The Commission also notes that, in ascertaining legislative intent, the Commission is to presume that the General Assembly did not intend a result that was impossible to execute, unreasonable or unconstitutional.

Duquesne Light program designs for the customer segments, the implementation plans and tracking mechanisms have been developed regardless of the generation supply for the individual customers. The Plan does not discriminate on the basis of generation supply nor does it provide additional opportunities based on the specifics of a customers generation supply.

9.2. Other Key Issues:

9.2.1. Describe how this EE&C plan will lead to long-term, sustainable energy efficiency savings in the EDC's service territory and in Pennsylvania.

Previous sections of this plan description describe in detail the specific manner in which the program is designed to address specific consumption profiles and respond to diverse customer needs. Since the early seventies, utility-sponsored energy efficiency programs have developed and refined a series of approaches to effectively reduce energy consumption in the residential, commercial and industrial sectors. Critical elements to program success have been identified, tested, and replicated by utilities nationwide. All of the measures that make up the EE&C plan for Duquesne Light will draw upon the lessons learned in these other initiatives and will focus on reducing kWh and kW savings within each specific customer sector.

Duquesne Light believes that all residential approaches (mass market/rebates, schools education program and home performance/retrofits) will be appropriately focused on achieving long-term, sustainable energy efficiency savings. Likewise, programs focused on reducing kWh and kW savings in the commercial sector will primarily achieve reductions through rebates and loans, education, and upstream partnerships. Finally, within the industrial sector, programs will focus on reducing kWh and kW savings through rebates and loans, direct install and technical assistance (comprehensive and custom measure-specific), and upstream partnerships. Simply stated, because the funding levels for each specific measure will be evaluated on the level of savings that can be reasonably achieved over the useful life of the measure, the applicable screening methods strongly favor funding measures that provide longer-term savings.

The Plan will facilitate the selection and installation of energy efficient equipment, foster construction of energy efficient structures, and encourage and reward energy efficient behaviors.

9.2.2. Describe how this EE&C plan, and the EDC, will avoid possible overlaps between programs offered in different Pennsylvania EDC service territories as well as possibly programs offered in neighboring states.

Duquesne Light recognizes that certain opportunities and challenges exist because of the differences in programs that may be offered in adjacent or nearby service territories. Media markets overlap utility service territories so messages that are intended for a particular utility's customers are likely to be received by (and potentially acted upon by) customers of other utility service providers. Such messages can raise awareness of and interest in energy efficiency, therefore the customers of all affected utilities can benefit from such messages, even if they are not served by the sponsoring utility and are not eligible for the advertised programs. To lessen customer confusion, Duquesne Light will clearly identify itself in messages it sponsors, particularly where the messages may overlap into other service areas. The PA PUC should encourage other service providers to clearly identify themselves as the offering utility to minimize customer uncertainty.

Duquesne Light also will ensure that resources devoted for the benefit of its customers are in fact used for its customers. The company will confirm customer accounts prior to disbursing program funds and only pay for measures (whether installed by the customer or on behalf of the customer by a third party) for its customers. Appropriate certifications by customers and third party vendors will be used as appropriate.

- 9.2.3. Describe how this EE&C plan will leverage and utilize other financial resources, including funds from other public and private sector energy efficiency and solar energy programs.

The full scope of relevant information concerning available financial resources and incentives is not always easily discoverable by customers that seek to implement measures. The company will endeavor to stay informed of and fully utilize other financial incentives and resources for the benefit of its customers. Where funds are available to the company to defray expenses associated with approved measures, Duquesne Light will seek to obtain and fully leverage such resources to reduce costs to its customers. Where funds are available to customers directly, the company will communicate the availability of other resources as part of the information it provides concerning its own program measures, and will facilitate customers qualifying for such funds, to the extent practicable. Finally, where other incentives are available (such as tax deductions or credits) to customers, the company will provide customers with relevant information. The project agreements between Duquesne and partnership agencies contain the terms to leverage local agency staff to reach, pre-screen and enroll program participants. The utility and the agency split specified program costs. Patterned after successful programs operating in other parts of the country, a key element is co-funding by Duquesne Light and the Partnership agency of energy efficiency audits and measure implementation.

- 9.2.4. Describe how the EDC will address consumer education on energy efficiency, conservation, solar and solar photovoltaic systems, and geothermal heating, and other measures.

Effective customer education is essential to successfully implementing this initiative. Indeed, comprehensive consumer marketing campaigns will generate

increased understanding of EE benefits and demand for EE measures. Duquesne's customers are diverse. Because the available measures range from simple to comprehensive, no single means of customer communication is likely to succeed in isolation. The benefits of some measures (for instance, consumer-installed efficient lighting) will be easily communicated and easily achieved by customers. Benefits of some other measures (for instance, the life-cycle benefits of industrial process measures) are considerably more complex to calculate and require the involvement of highly skilled contractors or vendors to install. Moreover, sustainable energy savings ultimately are best optimized by combining state-of-the-art equipment and materials with modified personal behaviors. Consequently, Duquesne Light will use an extensive combination of means to ensure that appropriate customer education is achieved.

At the threshold level, customer education begins by raising general awareness of energy efficiency. Duquesne Light believes that this threshold goal is best accomplished by repeatedly exposing its customers to short, positive messages that emphasize the general benefits of embracing energy efficiency. The second step involves contemporaneously communicating the array of measures that are available to customers, coupled with messages encouraging customer participation. These customer education initiatives are best accomplished through repeated communications in mass media as well as through existing channels of customer contacts, such as billing messages, bill inserts, signage in pay stations, messages on hold, and other existing customer communications.

All communications designed to raise awareness and encourage participation should also provide a means for customers to learn more. As the assortment of available measures and the benefits of customer participation are effectively communicated, customers will want to learn more. A primary method of communicating the program details will be interactive web-based communications. Websites offer one of the most cost-effective means of communicating the details in a manner that is easily accessible to a substantial portion of the customer base. In addition to the cost advantage, web-based information is easily updated, and can provide links to extensive existing information. Because a portion of customers are not web-active, printed materials will also be available to customers who request more information.

The School Energy Pledge (SEP) program provides information about energy efficiency at school assemblies and classroom curricula linked to state curriculum standards. The SEP targets approximately 73,000 primary school students (grades K-5) and provides hands-on lessons linking scientific concepts with practical applications. Students take what they've learned at school home where families implemented energy efficiency measures provided through the SEP program.

Finally, customer call center employees and commercial and industrial major account representatives will be trained to respond to customers who have become aware of the available measures and who respond positively to the opportunities to participate.

As a supplement to communications between the company and its customers, it is essential that reliable customer information is available from material and equipment vendors, contractors and installers. The company will work with suppliers, trade associations, community based organization, faith based organizations, contractors, and vendors in the service territory to ensure that accurate, reliable program information is available from these sources as well.

- 9.2.5. Indicate that the EDC will provide a list of all eligible federal and state funding programs available to ratepayers for energy efficiency and conservation.

The federal and state funding sources available to the company's customers for energy efficiency and conservation have been, and are expected to be, changing rapidly. Consequently, the most effective listing of eligible funding sources will be available on the company's website. Listing the eligible programs on the website not only allows the list to be updated rapidly, but can also provide links directly to the websites maintained by the federal and state programs for ease of use by customers.

- 9.2.6. Describe how the EDC will provide the public with information about the results from the programs.

Significant data concerning the results from the programs will also be available to the public on the company's website. This data will include (but not be limited to) information concerning the level of customer participation, the calculated energy savings, description of the associated environmental benefits, and other significant program milestones and information.

## 10. Appendices

- A. Commission approved electricity consumption forecast for the period of June 1, 2009 through May 31, 2010.
- B. Average hourly demand in the EDC's 100 highest peak hours during the period of June 1, 2007 through September 30, 2007.
- C. Approved CSP contract(s).
- D. Program by program calculation of savings and costs for each program year. Include separate sections for each program with sub-sections for each year describing savings and costs information. Cost data should include for each program (and for General Administrative Cost Areas of Planning, Evaluation and Other) and each program year separate budgets for (see Example Tables 6A, 6B, and 6C):
  - Direct Program Costs
    - EDC labor
    - EDC materials and supplies
    - CSP labor
    - CSP materials and supplies
    - Other outside services (define)
    - Customer incentives
    - Other (define)
  - Administrative Costs, including but not limited to costs relating to plan and program development, cost-benefit analysis, measurement and verification, and reporting.
  - Total costs.
  - Cost effectiveness calculations by program and by program year, indicating benefits by category (see Example Table 7A – 7E).
- E. Calculation methods and assumptions. Describe methods used for estimating all program costs, including administrative, marketing, and incentives costs; include key assumptions. Describe assumptions and present all calculations, data and results in a consistent format. Reference Appendix D.
- F. Energy Efficiency and Demand Response Reports



Appendix A

DUQUESNE LIGHT COMPANY							
Monthly Control Area KWH Forecast							
	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
RA	4,274,548	5,411,401	5,328,593	3,645,078	3,406,966	3,760,545	4,553,532
RS	354,805,375	451,458,006	444,543,953	297,577,740	257,697,785	271,130,256	321,326,266
RH	18,467,397	23,285,137	23,415,411	18,055,756	21,157,031	30,475,366	47,515,428
GS	7,577,150	8,269,995	8,564,124	7,235,214	6,784,496	6,574,172	6,798,115
GM < 25 COM	71,070,342	77,492,048	78,331,989	65,785,815	61,248,624	59,221,579	61,194,749
GM < 25 IND	233,505	245,541	249,515	217,930	223,427	216,933	231,137
GM > 25 COM	170,995,579	186,166,670	188,822,118	158,765,204	148,180,728	143,301,101	148,071,612
GM > 25 IND	21,301,687	22,188,099	22,775,216	19,949,952	20,475,788	19,880,049	21,182,454
GMH < 25 COM	4,977,387	5,553,167	5,455,957	4,683,522	4,693,477	5,023,158	6,427,600
GMH < 25 IND	11,669	12,936	13,453	11,437	12,618	13,304	15,385
GMH > 25 COM	16,899,279	18,505,075	18,461,091	15,889,104	15,893,514	17,019,222	21,807,294
GMH > 25 IND	698,150	756,151	772,296	660,748	725,299	761,539	871,322
GL COM	216,257,247	229,525,936	233,747,673	207,377,440	190,552,279	173,713,538	168,181,790
GL IND	75,815,039	75,507,970	78,080,638	71,361,504	71,654,778	68,593,077	69,101,480
GLH COM	41,130,927	44,015,032	44,599,234	38,209,342	37,412,689	39,018,509	40,645,780
GLH IND	5,019,198	5,181,734	5,208,722	4,610,346	4,750,066	4,587,986	4,861,779
L COM	74,598,959	81,343,073	83,298,218	70,920,884	69,822,399	64,792,339	66,059,114
L IND	50,755,994	52,073,076	51,797,279	46,893,700	46,878,874	44,912,186	45,423,805
HVPS	97,680,355	105,357,986	102,983,248	102,481,414	100,031,541	100,043,708	99,767,635
AL COM	6,603	7,053	7,309	7,820	9,524	9,228	11,249
SE	2,326,184	2,290,440	2,125,384	2,361,575	2,213,035	2,339,442	2,304,430
SM RES	32,556	29,774	30,697	31,657	28,112	31,326	29,290
SM COM	101,738	89,657	100,683	91,024	94,501	96,506	90,075
SM LIT	2,328,254	2,402,467	2,367,183	2,281,467	2,385,394	2,340,751	2,504,002
SH	79,096	85,779	78,362	80,999	81,055	73,764	81,861
MTS/UMS (LIT)	835,134	857,194	837,979	852,180	843,710	817,152	859,069
PAL (RES)	5,895	6,343	6,267	6,322	6,200	5,807	5,842
PAL (COM)	110,122	112,164	112,003	109,150	114,500	112,140	116,946
UMS (COM)	1,314,961	1,302,176	1,299,795	1,310,277	1,481,842	1,242,249	1,452,154
<b>Total</b>	<b>1,239,710,330</b>	<b>1,399,532,081</b>	<b>1,403,414,391</b>	<b>1,141,464,601</b>	<b>1,068,860,253</b>	<b>1,060,106,930</b>	<b>1,141,491,196</b>
Residential	377,585,771	480,190,662	473,324,921	319,316,553	282,296,094	305,403,300	373,430,357
Commercial	610,608,961	658,017,926	668,209,103	575,961,017	541,811,768	515,694,848	526,605,841
Industrial	251,515,598	261,323,493	261,880,367	246,187,031	244,752,391	239,008,781	241,454,998

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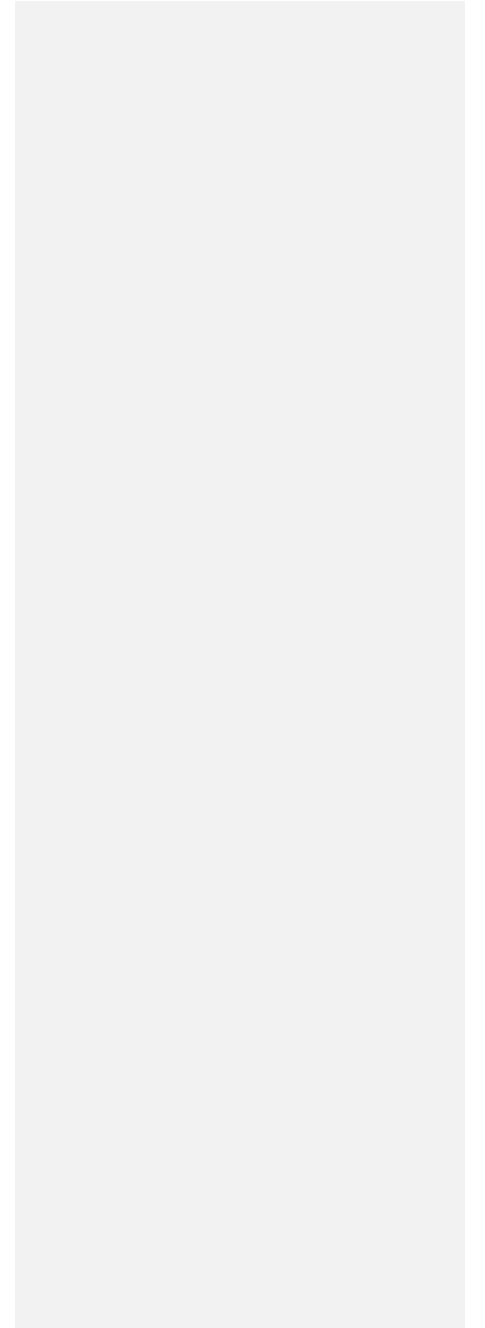
**DUQUESNE LIGHT COMPANY** Page 2 of 2

**Monthly Control Area KWH Forecast**

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Total
RA	3,804,544	3,266,177	3,222,480	2,714,057	2,921,450	46,309,369
RS	274,343,140	235,424,135	231,242,278	201,866,501	234,518,585	3,575,934,019
RH	121,282,498	107,369,610	88,564,708	57,320,187	44,967,106	601,875,635
GS	13,819,499	12,442,082	13,202,476	12,044,887	12,982,280	116,294,490
GM < 25 COM	54,751,048	49,593,955	53,072,385	49,456,543	54,709,796	735,928,873
GM < 25 IND	15,653,268	16,027,917	16,526,234	14,454,899	14,627,608	78,907,915
GM > 25 COM	129,716,391	117,799,919	125,417,218	117,322,621	129,723,441	1,764,282,601
GM > 25 IND	42,006,069	42,708,300	44,238,574	38,920,080	39,322,001	354,948,269
GMH < 25 COM	10,697,509	9,295,725	8,653,697	6,823,017	6,646,966	78,931,181
GMH < 25 IND	2,039,127	1,668,415	1,675,231	1,395,412	1,243,481	8,112,469
GMH > 25 COM	20,500,469	17,777,304	16,467,002	13,026,609	12,715,180	204,961,143
GMH > 25 IND	5,087,392	4,386,637	4,432,511	3,673,797	3,360,042	26,185,884
GL COM	153,749,590	142,927,502	155,983,528	151,039,188	169,244,433	2,192,300,145
GL IND	89,545,133	87,976,337	93,155,544	86,022,751	93,063,742	959,877,992
GLH COM	51,940,634	46,985,539	45,925,302	40,339,712	42,912,377	513,135,078
GLH IND	12,296,817	11,132,864	11,494,670	10,824,436	11,487,346	91,455,963
L COM	56,239,013	52,061,511	56,613,240	56,354,720	61,565,911	793,669,381
L IND	46,573,625	45,941,136	49,565,265	49,275,040	51,251,270	581,341,252
HVPS	97,256,485	87,804,991	101,143,020	92,090,736	94,842,145	1,181,483,264
AL COM	24,224,459	18,549,603	19,476,411	16,956,698	15,654,752	94,920,710
SE	1,633,814	2,077,471	1,872,104	1,956,693	1,851,871	25,352,443
SM RES	439,022	403,065	389,677	454,554	400,108	2,299,839
SM COM	86,879	83,045	86,180	79,882	78,618	1,078,787
SM LIT	1,959,125	1,868,077	2,106,009	1,933,208	2,102,120	26,578,057
SH	443,092	474,541	449,623	430,024	485,429	2,843,626
MTS/UMS (LIT)	703,670	736,595	717,691	687,409	733,548	9,481,330
PAL (RES)	120,938	129,563	127,531	130,087	144,685	695,479
PAL (COM)	90,373	90,714	97,389	93,813	99,263	1,258,578
UMS (COM)	1,179,653	1,032,223	1,183,699	1,131,885	1,137,020	15,067,935
<b>Total</b>	<b>1,232,183,273</b>	<b>1,118,034,954</b>	<b>1,147,101,679</b>	<b>1,028,819,445</b>	<b>1,104,792,574</b>	<b>14,085,511,707</b>

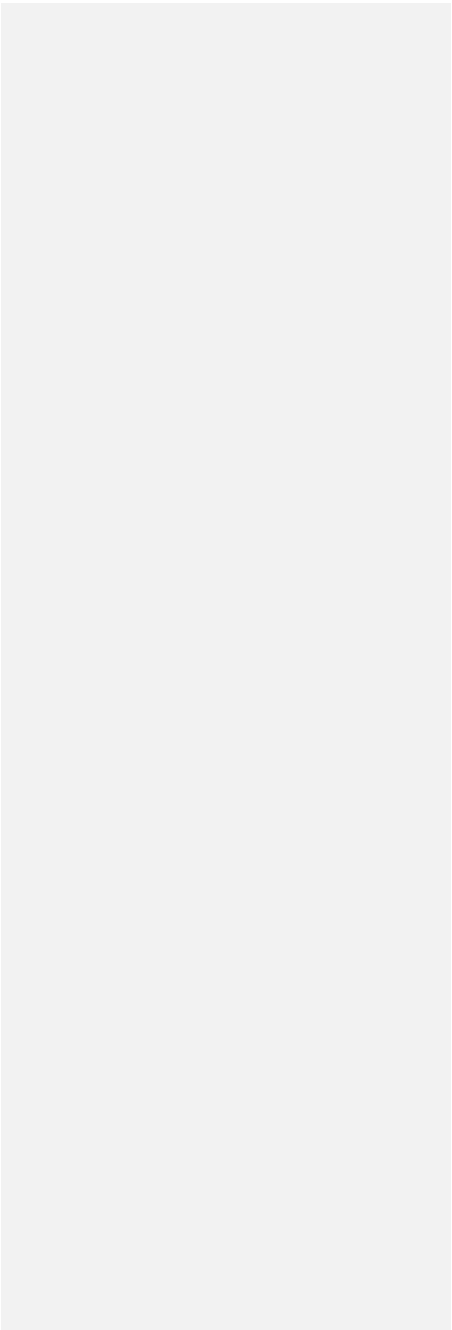
Residential	399,990,141	346,592,549	323,546,675	262,485,386	282,951,933	4,227,114,341
Commercial	521,735,216	473,795,808	501,323,955	469,676,908	512,643,005	6,576,084,357
Industrial	310,457,917	297,646,598	322,231,049	296,657,151	309,197,635	3,282,313,009

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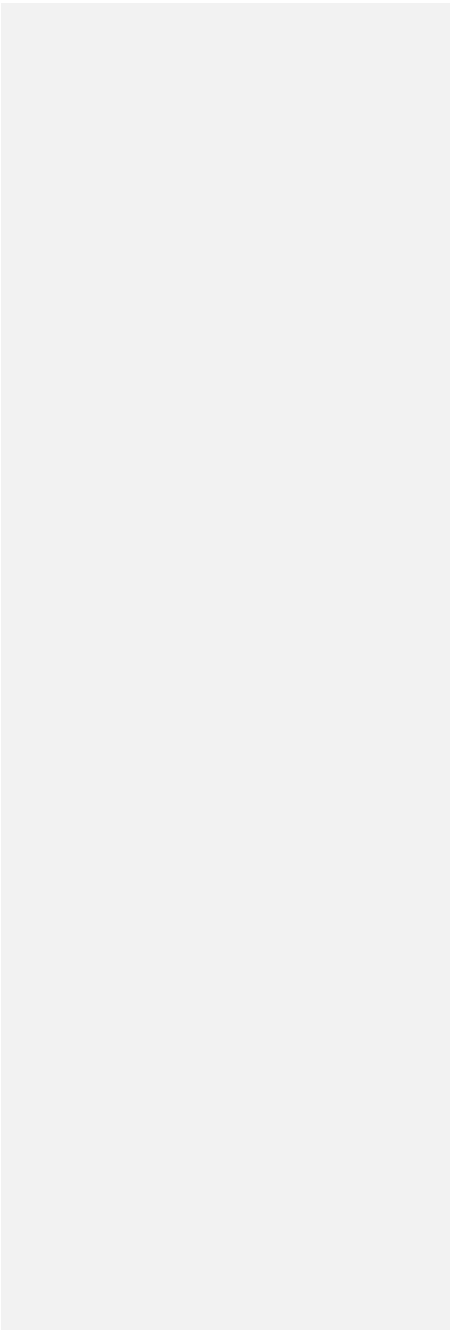
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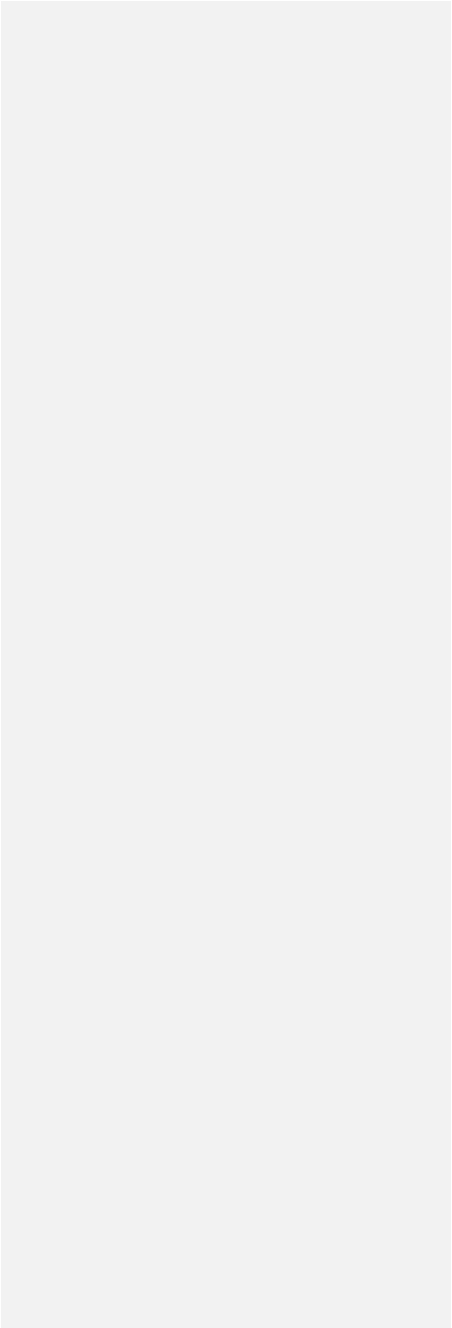
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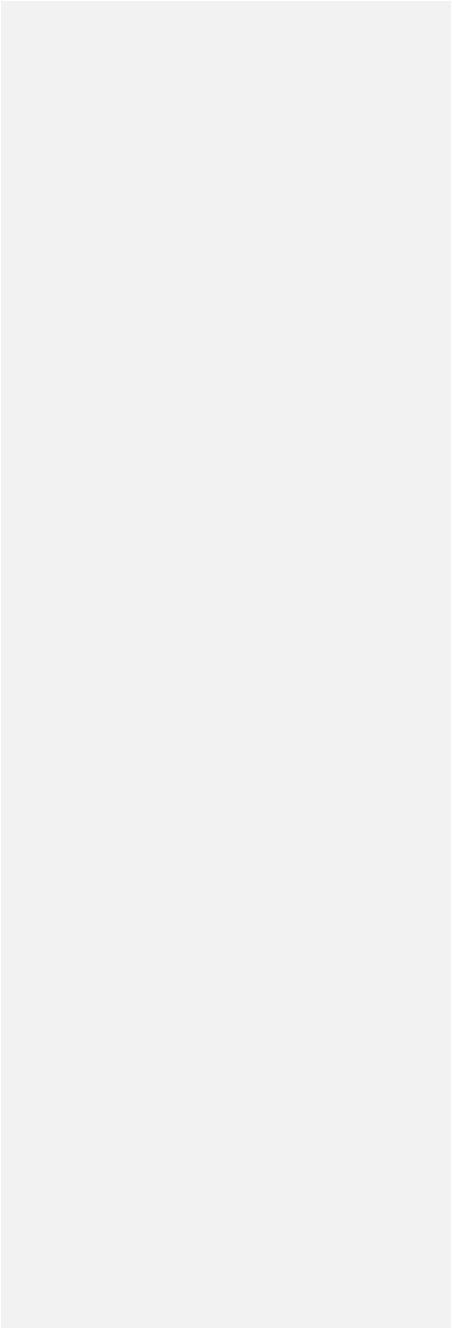
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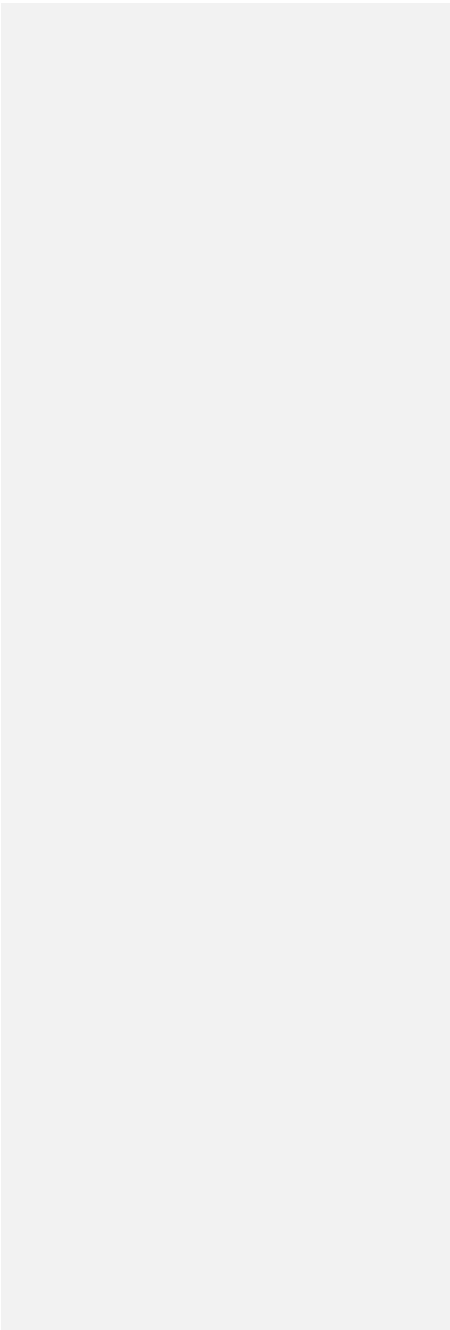
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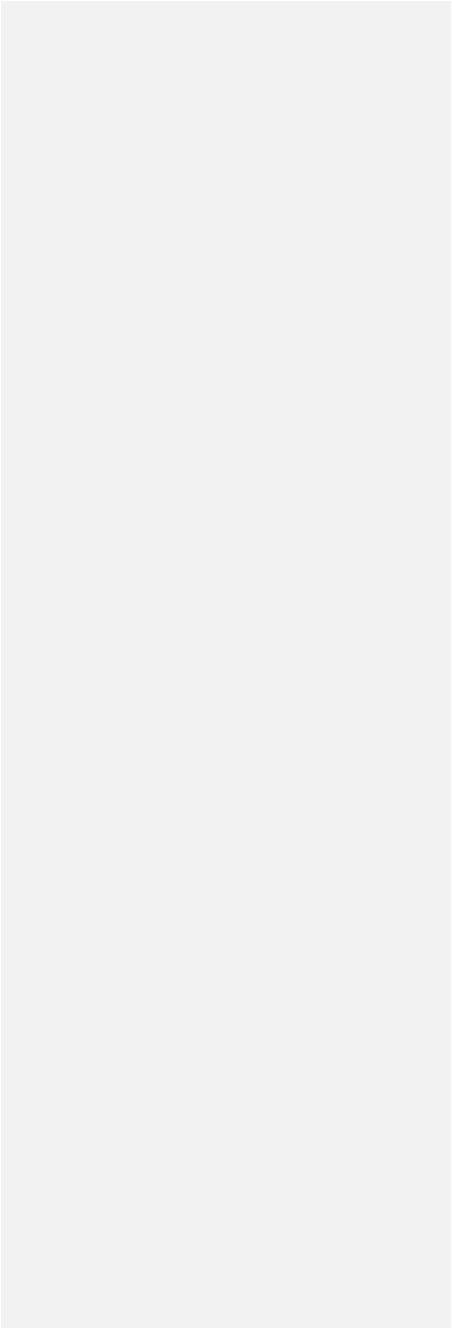
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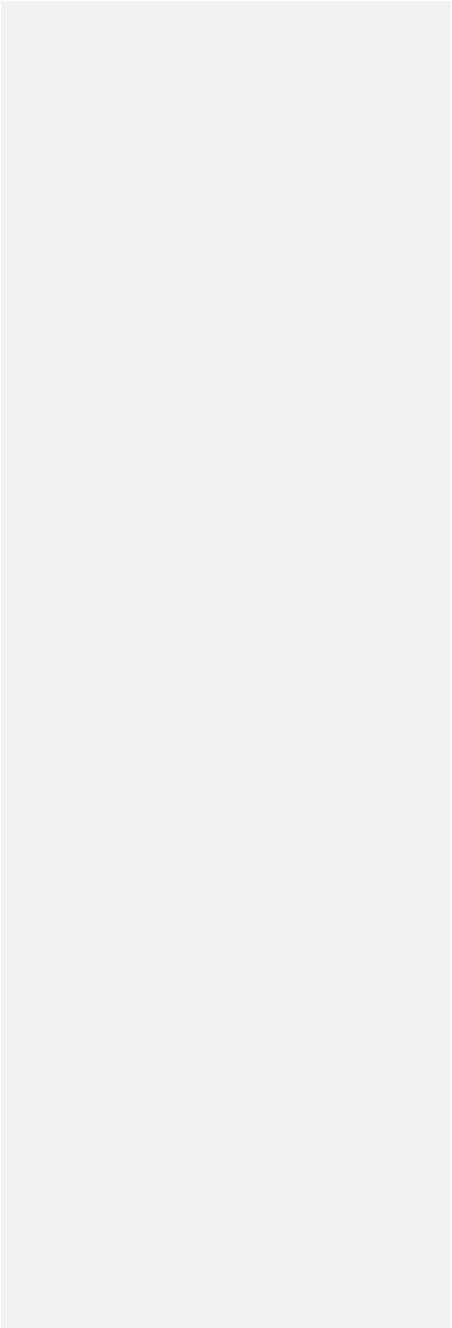
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Appendix B  
**Duquesne Light Company**

**Docket No. M-2008-2069887**

**100 Hours of Highest Load  
 June 1, 2007 through September 30, 2007**

Average (MW) = 2,517.658

Year	Month	Date	Hour	Peak Load - MW
2007	8	08/24/2007	17	2,658.852
2007	8	08/24/2007	16	2,658.461
2007	8	08/08/2007	16	2,650.336
2007	8	08/24/2007	14	2,649.745
2007	8	08/24/2007	15	2,640.474
2007	8	08/08/2007	15	2,639.863
2007	8	08/24/2007	18	2,639.290
2007	8	08/08/2007	17	2,636.454
2007	8	08/23/2007	15	2,607.214
2007	8	08/23/2007	16	2,601.886
2007	8	08/08/2007	14	2,600.879
2007	8	08/02/2007	17	2,599.034
2007	9	09/06/2007	17	2,598.679
2007	6	06/27/2007	15	2,596.968
2007	8	08/02/2007	18	2,594.756
2007	8	08/23/2007	17	2,593.270
2007	8	08/23/2007	14	2,591.785
2007	8	08/24/2007	13	2,584.921
2007	8	08/02/2007	16	2,581.761
2007	9	09/06/2007	18	2,577.345
2007	7	07/09/2007	17	2,572.520
2007	8	08/03/2007	17	2,572.286
2007	6	06/27/2007	16	2,570.634
2007	8	08/24/2007	19	2,569.725
2007	9	09/06/2007	16	2,562.409
2007	8	08/01/2007	17	2,560.919
2007	8	08/02/2007	19	2,559.939
2007	8	08/01/2007	18	2,558.796
2007	7	07/09/2007	18	2,558.274
2007	6	06/27/2007	14	2,557.264
2007	7	07/10/2007	16	2,556.323
2007	8	08/01/2007	16	2,547.410
2007	8	08/02/2007	14	2,547.170
2007	7	07/10/2007	17	2,545.564
2007	8	08/02/2007	15	2,539.639
2007	8	08/08/2007	18	2,539.035
2007	7	07/09/2007	16	2,539.034
2007	8	08/08/2007	13	2,539.021
2007	8	08/03/2007	18	2,536.862
2007	8	08/03/2007	15	2,536.670
2007	7	07/10/2007	15	2,536.481
2007	6	06/27/2007	13	2,535.816
2007	8	08/23/2007	18	2,527.633
2007	8	08/29/2007	17	2,525.971
2007	8	08/03/2007	16	2,524.528
2007	7	07/10/2007	18	2,523.436
2007	8	08/03/2007	14	2,522.920
2007	8	08/03/2007	13	2,521.838
2007	9	09/07/2007	17	2,519.297
2007	9	09/07/2007	16	2,517.444

Appendix B  
**Duquesne Light Company**

**Docket No. M-2008-2069887**

**100 Hours of Highest Load  
 June 1, 2007 through September 30, 2007**

Average (MW) = 2,463.855

Year	Month	Date	Hour	Peak Load - MW
2007	6	06/26/2007	17	2,515.953
2007	8	08/01/2007	19	2,515.665
2007	6	06/27/2007	17	2,515.364
2007	8	08/29/2007	18	2,513.995
2007	8	08/01/2007	15	2,512.344
2007	7	07/09/2007	19	2,508.115
2007	8	08/24/2007	20	2,507.459
2007	9	09/06/2007	15	2,506.116
2007	9	09/06/2007	19	2,505.873
2007	7	07/10/2007	19	2,502.031
2007	8	08/24/2007	21	2,500.758
2007	7	07/09/2007	15	2,496.551
2007	6	06/26/2007	18	2,492.199
2007	6	06/26/2007	16	2,490.716
2007	7	07/10/2007	14	2,486.165
2007	7	07/09/2007	14	2,484.336
2007	8	08/29/2007	16	2,482.850
2007	9	09/07/2007	18	2,482.020
2007	8	08/23/2007	13	2,481.070
2007	9	09/07/2007	15	2,478.903
2007	8	08/02/2007	13	2,477.658
2007	8	08/08/2007	12	2,473.800
2007	6	06/26/2007	15	2,472.235
2007	8	08/29/2007	19	2,466.161
2007	8	08/02/2007	20	2,465.508
2007	8	08/24/2007	12	2,463.327
2007	8	08/01/2007	14	2,461.952
2007	6	06/27/2007	12	2,455.018
2007	9	09/05/2007	17	2,453.472
2007	6	06/18/2007	15	2,452.340
2007	6	06/26/2007	19	2,446.072
2007	9	09/07/2007	14	2,446.016
2007	8	08/06/2007	18	2,444.876
2007	8	08/03/2007	19	2,443.316
2007	8	08/23/2007	19	2,442.884
2007	8	08/09/2007	14	2,439.971
2007	8	08/03/2007	12	2,435.201
2007	9	09/06/2007	14	2,433.345
2007	6	06/18/2007	14	2,432.687
2007	6	06/18/2007	16	2,431.290
2007	9	09/06/2007	20	2,426.513
2007	9	09/05/2007	16	2,424.802
2007	8	08/01/2007	20	2,424.712
2007	8	08/06/2007	19	2,418.690
2007	8	08/29/2007	15	2,417.541
2007	8	08/06/2007	17	2,416.294
2007	6	06/26/2007	14	2,414.279
2007	6	06/18/2007	17	2,411.807
2007	7	07/31/2007	17	2,411.595
2007	7	07/09/2007	13	2,410.921

Appendix C

**CSP SERVICES AGREEMENT**

This CSP Services Agreement, dated \_\_\_\_\_, 2009, is made by and between Duquesne Light Company (“DLC” or “Company”) and \_\_\_\_\_ (“CSP” or “\_\_\_”).

WHEREAS, CSP is in the business of providing information and technical assistance on measures to enable a person to increase energy efficiency or reduce energy consumption services in the utility industry; and

WHEREAS, DLC is an electric distribution company (“EDC”) in Pennsylvania; and

WHEREAS, Act 129 of House Bill 2200 was signed into law by Governor Rendell on October 15, 2008, requiring each EDC to create and submit an energy efficiency and conservation plan by July 1, 2009, and the Pennsylvania Public Utility Commission (“Commission”) is developing procedures to implement a process for review of EDC filings; and

WHEREAS, CSP has prepared and submitted to DLC proposals, CSP’s Proposal for Energy Efficiency and Conservation and Demand Side Response Initiative, dated \_\_\_\_\_, a copy of which is attached hereto as Exhibit A (the “Proposals”), to provide services regarding the implementation of an EE/Conservation Plan as required for the energy efficiency and conservation and demand side response initiatives recently mandated in the Commonwealth of Pennsylvania by Act 129 of House Bill 2200 (the “Plan”); and

WHEREAS, CSP certifies that it was approved by and is a member of the Commission’s Registry of Conservation Service Providers and will maintain such registration with the Commission for the term of the contract; and

WHEREAS, DLC is relying upon the skill and expertise of CSP to implement the Plan as identified in the Proposals and to meet the needs of DLC and to provide the services necessary for the proper and effective energy efficiency and conservation plan compliance.

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NOW, THEREFORE, in consideration of the premises and of the mutual benefits and covenants contained herein, the parties hereto, intending to be legally bound hereby, agree as follows:

1. **DEFINITIONS**

**“Applicable Law”** means any applicable constitution, charter, act, statute, law, ordinance, code, rule regulation, judgment, decree, writ, order, permit, approval or the like of any Governmental Authority.

**“Company”** shall mean Duquesne Light Company.

**“Company’s Site”** shall mean 411 Seventh Avenue, Pittsburgh, PA 15219.

**“Price”** shall mean the purchase price or prices stated in Exhibit C of the CSP Agreement.

**“CSP Agreement”** shall mean this Agreement, along with Exhibits dated \_\_\_\_\_).

**“Services”** shall mean CSP services, Work Product and any other work performed by CSP necessary to fulfill CSP’s obligations under the CSP Agreement.

**“Subcontractor”** shall mean vendors, suppliers and subcontractors of any tier and any other persons or entities contracting directly or indirectly with CSP for or in regard to the CSP Agreement.

**“Work”** shall mean CSP services. Work Product and other work performed by Contractor as necessary to fulfill CSP’s obligations under the CSP Agreement.

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“**Work Product**” shall mean studies, reports, evaluations, designs, drawings, procedures, specifications, plans and all other documentation and deliverables which are prepared, produced or acquired by CSP for the Work or at the request or direction of Company in connection with the Plan’s requirements for reduction in demand and consumption.

**2. ENGAGEMENT OF CSP; CSP’S WORK**

Subject to the terms and conditions of this CSP Agreement, DLC hereby engages CSP to properly and completely design, submit and assist with the implementation of an energy efficiency and conservation plan in compliance with Act 129 of House Bill 2200. CSP shall perform the Work in a professional and workmanlike manner and with accuracy and reasonable care and skill. Specifically, the Services to be provided are shown on Exhibit C.

**3. CSP’S ACKNOWLEDGMENT**

CSP, by performing the Work and/or delivering the Work Product, by any performance under this CSP Agreement and/or by written acknowledgement, accepts the offer contained in this Agreement and such acceptance of the offer is expressly limited to the terms and conditions as set forth herein. Any term or condition proposed by CSP, in the Proposals or otherwise, which is different from, conflicts with or adds to any of the provisions of this CSP Agreement, shall be deemed to materially alter the provisions of this CSP Agreement and is hereby objected to and rejected by DLC. Except as expressly provided herein, under no circumstances shall any term and/or condition of the Proposal or CSP’s sales documents or otherwise become part of this CSP Agreement.

**4. PROJECT SCHEDULE**

(a) CSP shall design, submit and assist with the implementation of an energy efficiency and conservation plan to meet all the needs and requirements of DLC, applicable laws and applicable standards, to achieve all the requirements identified in the Proposals and to allow DLC to properly and efficiently implement a Plan as defined in the Scope and Exhibit C. Company shall be entitled to implement adequate provisions and procedures for

Appendix C

monitoring performance quality and rate of progress. Such is set forth in more detail in Exhibit C.

(b) (i) Except as expressly set forth herein, CSP is authorized to commence the Work and shall perform the Work in accordance with and within the time schedule contained in the project schedule attached hereto as Exhibit B (the "Project Schedule").

(ii) If at any time CSP determines that it is behind schedule or is unable to meet any milestone set forth in the Project Schedule, CSP shall, within five (5) days of its knowledge of such delay, promptly notify DLC, in writing, of any anticipated material departure from the Project Schedule and if CSP has reason to believe that a milestone or the Completion Date will not be met and shall specify in said notice corrective action planned by CSP to timely complete the Work or any portion thereof; provided, however, that such notice shall not relieve Vendor of any of its obligations under the CSP Agreement or its obligations to take all actions necessary to achieve the timely and proper completion of the Work. At all times, CSP shall take such actions as may be necessary to facilitate the timely and proper completion of the Work on or prior to any applicable milestones set forth in the Project Schedule or by the Completion Date.

(iii) CSP understands and agrees that time is of the essence with respect to the dates and times set forth in the Project Schedule, including, but not limited to, the Completion Date, and for performance of the Work.

**5. PRICE AND PAYMENT**

The price or compensation to be paid to CSP shall be as was bid by CSP Provider and accepted herein by Company upon acceptable performance of the Services. Those payment arrangements are shown in Exhibit D. Compensation shall be performance based, and rewards are provided for achieving successful results and deductions are made for not achieving successful results, as agreed to in Exhibit D.

Unless otherwise agreed upon, statements must be submitted monthly, within 30 days after the end of a billing month. Itemized statements for services and expenses should be submitted directly to Michele Sandoe, Duquesne Light Company, 411 Seventh Avenue, Mail Drop 6-1, Pittsburgh, PA 15219. If any (portion) of the Work does not conform to the requirements of the CSP Agreement upon inspection by Company, a corresponding portion of the Price may be withheld by Company until the nonconformity is corrected. Invoices shall be paid within 45 days.



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6. **WARRANTIES**

CSP represents, warrants and guarantees that the Work provided under the CSP Agreement shall be: (a) provided in accordance with, and conform to, the requirements of the CSP Agreement; (b) provided in accordance with the standard of care consistent with generally accepted industry practices and procedures in CSP's particular area of expertise; and (c) suitable for the specified purposes.

CSP represents, warrants and guarantees that it is not an affiliate of Duquesne or any other Pennsylvania EDC. If CSP should merge with a Pennsylvania EDC during the term of the CSP Agreement, then the CSP shall immediately notify Duquesne and provide for automatic termination of the CSP Agreement.

CSP represents, warrants and guarantees that it will conduct criminal background checks for all employees of the CSP that will enter a customer's premises or otherwise have personal contact with an EDC customer.

If, during the sixty-day period following completion of the Work, it is shown there is an error in the Work caused solely by CSP's failure to meet such standards and Company has notified CSP in writing of such error within that period, CSP shall re-perform, at no additional cost to Company, such Work as may be necessary to remedy such error.

Company shall have no liability for defects in the Work attributable to CSP's reliance upon or use of data, design criteria, drawings, specifications or other information furnished by Company.

6. **OWNERSHIP RIGHTS**

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CSP warrants that the Work shall not infringe or misappropriate the intellectual property rights of any third parties. Company shall have exclusive use of and own title, rights and interests in and to all Work. All Work shall be considered “work made for hire.”

At all times, each party shall retain all of its rights in its drawings details, designs, specifications, databases, computer software, copyrights, trade and service marks, patents, trade secrets, and any other proprietary property.

**7. FACILITIES, SUPPLIES AND EQUIPMENT**

To the extent that CSP’s Work must be performed at Company’s Site, Company shall furnish the facilities, supplies and equipment which Company determines are reasonably required for CSP to perform Work under the CSP Agreement.

**8. TERMINATION**

Company may terminate all or part of the CSP Agreement if CSP: performs below acceptable standards, abandons the work; becomes bankrupt or insolvent; is unable to obtain a bond, if required; assigns the CSP Agreement or subcontracts any portion thereof without Company’s written consent; or otherwise breaches or fails to comply with the CSP Agreement; provided, however, that prior to such termination, Company must have notified CSP in writing of its intent to terminate the CSP Agreement and the reasons therefore, and CSP must have failed to cure such non-compliance within ten (10) days after receipt of such notice. If Company so terminates the CSP Agreement, Company may complete or contract with a third party to complete all or part of the Work, and CSP shall be liable to Company for the excess costs to complete all or such part of the Work and any other damage resulting from CSP’s non-compliance or breach. Company may suspend all payments to CSP in order to protect ratepayer funds pursuant to Commission order.

Company may, at any time, also terminate by written notice all or part of the CSP Agreement due to modification of its Energy Efficiency/Conservation plan. Upon receipt of such notice, CSP shall bring the work to a prompt conclusion. Company shall pay CSP a proportionate amount of the price due to CSP for the portion of the Work completed up to the effective date of the termination plus costs necessarily incurred directly as a result of the termination, subject to Company’s right to audit CSP’s books and records. Such payment by Company, however, shall not exceed the total price for the Work set forth in the CSP Agreement.

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In all cases, Company may require CSP to transfer title and deliver to Company any contracts, rights, goods, equipment or Work Product produced, received or acquired by CSP for the performance of the CSP Agreement.

**9. INDEMNIFICATION**

CSP shall defend, indemnify and hold harmless Company, its directors, officers, employees, agents, successors and assigns and customers and users of the goods, equipment and services, from and against, and shall pay, all losses, damages (including consequential, indirect and punitive), costs, liabilities, suits, claims and actions, and all related expenses (including attorneys' fees and expenses and the actual costs of litigation) by reason of injury or death to any person or damage to any property or any accident or event arising or relating to the performance of the CSP Agreement or arising from or relating to the goods, equipment or services or from any other cause to the extent not attributable to the negligence or willful misconduct of Company.

**10. INTELLECTUAL PROPERTY INDEMNIFICATION**

CSP represents and warrants that all goods, equipment and services shall not and do not infringe any United States or foreign patent, trademark, copyright or other intellectual property right of any third party. CSP shall defend, indemnify and hold harmless Company and its directors, officers, employees, agents, successors and assigns from and against, and shall pay, all losses, damages (including consequential, indirect and punitive), costs, liabilities, suits, claims and actions, and all related expenses (including attorneys' fees and expenses and the actual costs of litigation) based on or arising from an allegation or claim that any goods, equipment or services or parts thereof furnished by CSP infringe or misappropriate the rights of others; and/or if their use by Company is enjoined, CSP shall at Company's option and CSP 's expense either: (a) procure for Company the right to continue using the goods, equipment and services or parts thereof; (b) replace the same with substantially equivalent goods, equipment or services or parts thereof that do not infringe or misappropriate the rights of others; (c) modify the same so they no longer infringe or misappropriate the rights of others; or (iv) refund the price and the transportation and installation costs to Company.

CSP shall obtain from all Subcontractors similar indemnity protection for Company.

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**11. LIMITATION OF LIABILITY**

Company shall not be liable to CSP for any indirect, incidental, special, liquidated, punitive or consequential damages or damages for delay in performance and/or failure to perform, irrespective of whether claims or actions for such damages are based upon contract, tort, negligence, strict liability, warranty or otherwise. CPS's liability for performance shall be limited as set forth in the compensation section except for acts of negligence, misconduct, or intentional acts.

**12. CHANGES**

Company may, at any time by a written change order, make changes to the scope of the CSP Agreement ("Change Order"). If any change results in a increase or decrease in the quantity or cost of the goods, equipment or services or otherwise materially affects the CSP Agreement, the Change Order will include an equitable adjustment in the price, the schedule and/or any other affected provisions. Any objection by CSP to the equitable adjustment set forth in a Change Order must be asserted within seven (7) business days after receipt of the Change Order by CSP. Notwithstanding such objection, if directed by Company, CSP shall proceed with the change and performance of the Work.

**13. SUSPENSION OR INTERRUPTION OF WORK**

Company may direct CSP, in writing, to suspend or interrupt all or any part of the Work for such period of time as Company may determine to be appropriate. CSP shall mitigate the costs of such suspension or interruption. Company agrees to reimburse CSP for those expenses necessarily and directly incurred as a result of such suspension or interruption, subject to Company's right to audit CSP's books and records.

**14. CONFLICTS, ERRORS AND OMISSIONS**

Appendix C

In the event CSP becomes aware of any conflict, error or omission in the documents comprising the CSP Agreement, CSP shall promptly bring the discrepancy to the attention of Company. Such discrepancy shall be resolved by Company in its sole discretion.

**15. INSPECTIONS; MONITORING PERFORMANCE QUALITY AND RATE OF PROGRESS**

Company may inspect, at all reasonable times, the progress of the Work, including work performed at CSP's or Subcontractor's facilities. Also, if the CSP Agreement, laws, ordinances, rules, regulations or orders of any governmental authority require any portion of the Work to be inspected, tested or approved, CSP shall give Company reasonable notice to permit Company to observe such inspection, testing or approval. CSP shall provide Company with periodic status reports during the course of the Work.

**16. COST ACCOUNTS AND INFORMATION/AUDITS**

CSP shall maintain detailed separate cost data for each CSP Agreement in accordance with generally accepted accounting principles. CSP's records pertaining to the cost of the Work (other than fixed prices agreed to prior to performance of the Work) and CSP's tax records shall be open at all reasonable times for inspection or audit by Company or its representative(s). Company or its representative(s) shall, at all reasonable times, have access to the premises, materials, instructions, working papers, plans, drawings, specifications, memoranda and other information of CSP pertaining to the Work. All CSP's purchase orders or contracts with Subcontractors shall provide that Company or its representative(s) shall have the right to audit Subcontractors' charges to CSP. Company's rights under this Article shall terminate five (5) years after expiration of the warranty periods.

**17. INSURANCE**

Prior to commencing any portion of the Work, CSP shall properly maintain the following coverage: Statutory Workers' Compensation Insurance in full compliance with the Workers' Compensation and Occupational Disease Acts of each and every state in which Work is to be performed and U.S. Longshoremen's and Harbor Workers' Compensation Acts, if applicable; Employer's Liability Insurance with a limit of not less than \$500,000; Comprehensive General Liability Insurance including Premises-Operation Independent Contractor's Protective, Products, Completed Operation, and Blanket Contractual Liability

Appendix C

coverages with a combined single limit of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; Excess Umbrella Liability Insurance with a single limit of not less than \$2,000,000; and Automobile Liability Insurance covering all owned, hired and non-owned vehicles with a combined single limit of not less than \$1,000,000 per occurrence. CSP shall provide Company with a certificate of insurance specifically evidencing the coverages required above, naming the Company as an additional insured, except under the Workers' Compensation Policy, and stating the policy numbers and the inception and expiration dates of all policies. The certificate of insurance shall also provide for thirty (30) days' prior written notice to Company in the event of cancellation or any material alteration of any policy. The certificate of insurance shall be furnished to Company prior to commencement of any portion of the Work. The Property Damage Liability Insurance shall include the Broad Form Comprehensive General Liability coverage.

**18. TAXES**

The price set forth in the CSP Agreement shall include, unless otherwise expressly set forth in the CSP Agreement, all federal state and local sales and use taxes applicable to the manufacture and/or sale of the goods and equipment and/or the performance of the services.

Company will provide to CSP, upon CSP 's request, a tax exemption certificate for taxes for the Work that are exempt under Pennsylvania's Sales and Use Tax laws.

Upon Company's request, CSP shall provide evidence satisfactory to Company of the payment of any taxes which CSP is required to pay. CSP shall also provide to Company such additional information as Company may request to facilitate the determination of taxes for which Company is responsible, if any.

**19. CONFIDENTIAL/PROPRIETARY INFORMATION**

CSP agrees to treat as confidential and proprietary any of Company's information which is not generally known to the public and to exercise the same care to prevent the disclosure of such information as CSP exercises to prevent disclosure of its own proprietary and confidential information; however, CSP may disclose such information as required by law or court order. Furthermore, Company's information shall be utilized by CSP only in connection with performance of CSP's obligations under the CSP Agreement.

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**20. PUBLICITY**

CSP shall not use Company's name nor issue any publicity releases, including but not limited to, news releases and advertising, relating to the CSP Agreement and Services without the prior written consent of Company.

**21. FORCE MAJEURE**

Neither party shall be liable for any failure or delay in performing its obligations under the CSP Agreement, or for any loss or damage resulting therefrom, due to causes beyond its reasonable control, including but not limited to, acts of God, public enemy or government, riots, fires, natural catastrophe, strikes or epidemics. In the event of such failure or delay, the date of delivery or performance shall be extended for a period not to exceed the time lost by reason of the failure or delay; provided that Company may terminate the CSP Agreement if the period of failure or delay exceeds fifteen (15) days. Company shall have no obligation to make any payments to CSP during the period of failure or delay. Each party shall notify the other promptly of any failure or delay in, and the effect on, its performance.

**22. ASSIGNMENT**

CSP shall not assign the CSP Agreement, in whole or in part, nor contract with any Subcontractor for the performance of the same or any of its parts, without first obtaining Company's written consent. Company's consent shall not be construed as discharging or releasing, nor shall it discharge or release, CSP in any way from the performance of the Work or the fulfillment of any obligation under the CSP Agreement.

**23. NOTICES**

Any notice required under the CSP Agreement shall be in writing and sent to the CSP and Company at their respective addresses identified below:

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If to DLC: c/o Michele Sandoe  
Duquesne Light Company  
411 Seventh Avenue, Mail Drop 6-1,  
Pittsburgh, PA 15219.  
Via e-mail: [msandoe@duqlight.com](mailto:msandoe@duqlight.com)

If to CSP:

**24. INDEPENDENT CONTRACTOR**

CSP shall operate as an independent contractor in the performance of the CSP Agreement and not as an agent or employee of Company. CSP shall ensure that neither it nor its agents or employees shall act or hold themselves out as agents or employees of Company. CSP shall have complete control of its agents and employees engaged in the performance of the Work.

**25. PRIORITY OF DOCUMENTS**

In the event of conflict among the various documents comprising the CSP Agreement, the conflict shall be resolved according to the priority given to the documents in the Purchase Order. If no priority is indicated in the Purchase Order, the conflict shall be resolved according to Article 16, Conflicts, Errors and Omissions.

**26. SEVERABILITY**



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If any provision(s) of the CSP Agreement is prohibited by law or held to be invalid, illegal or unenforceable, the remaining provisions thereof shall not be affected, and the CSP Agreement shall continue in full force and effect as if such prohibited, illegal or invalid provisions had never constituted a part thereof, with the remaining provisions of the CSP Agreement being enforced to the fullest extent possible.

**27. SURVIVAL**

The obligations and rights of the parties pursuant to the Warranties, Liens, Indemnification, Intellectual Property Indemnification, Limitation of Liability, Cost Accountants and Information/Audits and Confidential/Proprietary Information shall survive the expiration or early termination of the CSP Agreement.

**28. MBE/WBE**

It is the policy of Company to stimulate the growth of Certified Minority, Women and Disabled Business Enterprises (MBEs, WBEs and DBEs) by encouraging their participation in Company's procurement activities and by affording them an equal opportunity to compete for Company's procurements. CSP agrees to carry out this policy to the fullest extent consistent with the requirements of the CSP Agreement (a) through the award of subcontracts to MBEs, WBEs and DBEs or (b) if CSP is a MBE, WBE or DBE, through the use of its own forces. CSP shall include this policy as a provision in all subcontracts.

**29. LAWS, CODES, RULES, REGULATIONS**

CSP and its Subcontractors, at their own expense, shall obtain all necessary licenses and permits and shall comply with all applicable federal, state and local laws, statutes, ordinances, codes, rules and regulations relating to performance of the Work and the CSP Agreement, including but not limited to, safety, products liability, environment, labor standards and workers' compensation laws.

CSP and its Subcontractors shall also comply with Company's policies, rules and procedures.

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**30. HAZARDOUS AND DANGEROUS GOODS**

For any goods or equipment provide by CSP pursuant to the CSP Agreement which are defined as hazardous or dangerous under any applicable law, rule or regulation, CSP shall provide Company with hazardous warning and safety handling information, including Material Safety Data Sheets, and appropriate labeling for all such goods and equipment.

**31. ELECTRIC COMMERCE**

At Company's request, Company and CSP may facilitate business transactions for the CSP Agreement by electronically transmitting data. Any data digitally signed pursuant to this Article and electronically transmitted shall be as legally sufficient as a written and signed paper document exchanged between the parties, notwithstanding any legal requirement that the document be in writing or signed.

**32. GOVERNING LAW/JURISDICTION**

The CSP Agreement shall be governed by and interpreted in accordance with the laws of the Commonwealth of Pennsylvania, excluding the choice of law and conflicts of law provisions. Any litigation arising from or relating to the CSP Agreement shall only be filed in state or federal court in and for Allegheny County, Pennsylvania and CSP hereby consents and submits to the exclusive jurisdiction of such courts.

**33. ENTIRE AGREEMENT**

The CSP Agreement contains the entire understanding and agreement of Company and CSP with respect to the subject matter hereof and supersedes and replaces all prior agreements and commitments with respect thereto. There are no oral understandings, terms or conditions and neither Company nor CSP has relied upon any representation, express or implied, not contained in the CSP Agreement.

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**34. AMENDMENT**

Except as expressly set forth herein, no provision of the CSP Agreement may be changed, modified, waived, terminated or amended except by written instrument executed as appropriate by Company and/or CSP.

**35. WAIVER**

Any failure of Company to enforce any of the provisions of the CSP Agreement or to require compliance with any of its terms at any time during the term of the CSP Agreement shall in no way affect the validity of the CSP Agreement, or any part thereof, and shall not be deemed a waiver of the right of Company thereafter to enforce any and each such provision.

**36. CAPTIONS**

The captions contained in the CSP Agreement are for convenience and reference only and in no way define, describe, extend or limit the scope or intent of the CSP Agreement or the intent of any provision contained therein.

IN WITNESS WHEREOF, the parties have executed this Agreement on the respective dates entered below.

DUQUESNE LIGHT COMPANY

CSP

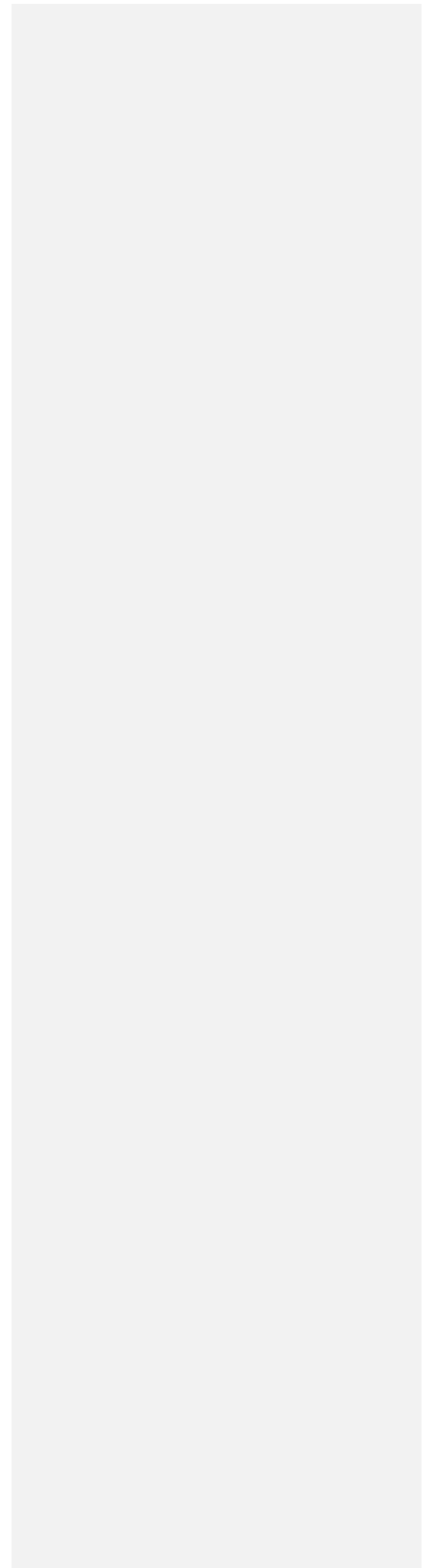
By: \_\_\_\_\_ By: \_\_\_\_\_

Name: \_\_\_\_\_ Name: \_\_\_\_\_

**Appendix C**

Title: \_\_\_\_\_ Title: \_\_\_\_\_

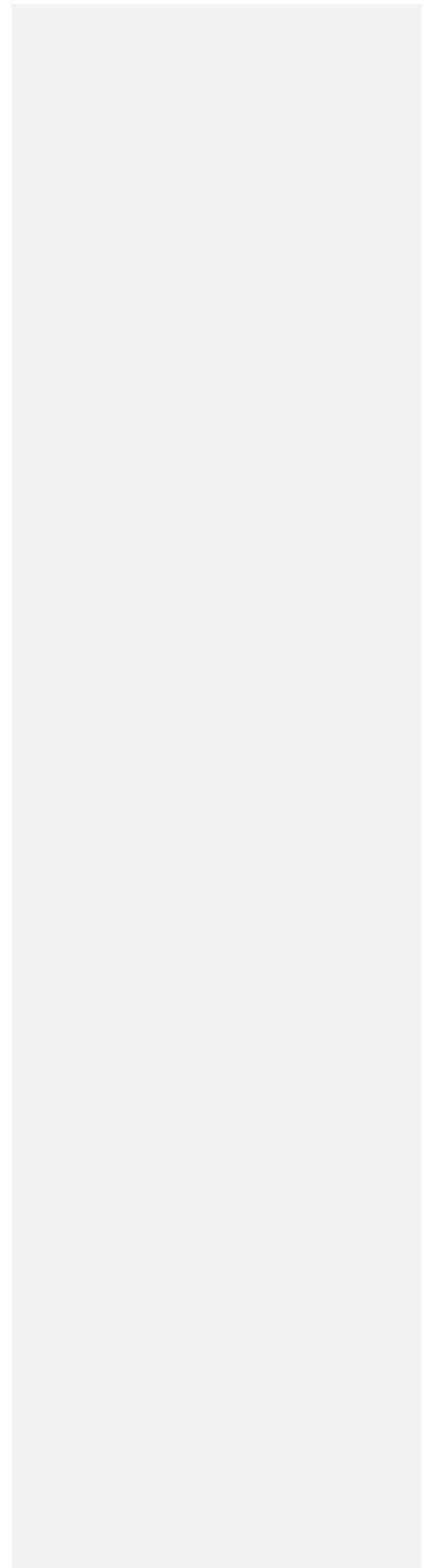
Date: \_\_\_\_\_ Date: \_\_\_\_\_



**Appendix C**

**Exhibit A**

**Bid Materials Sent, Received and Accepted**



Appendix C

**Exhibit B**

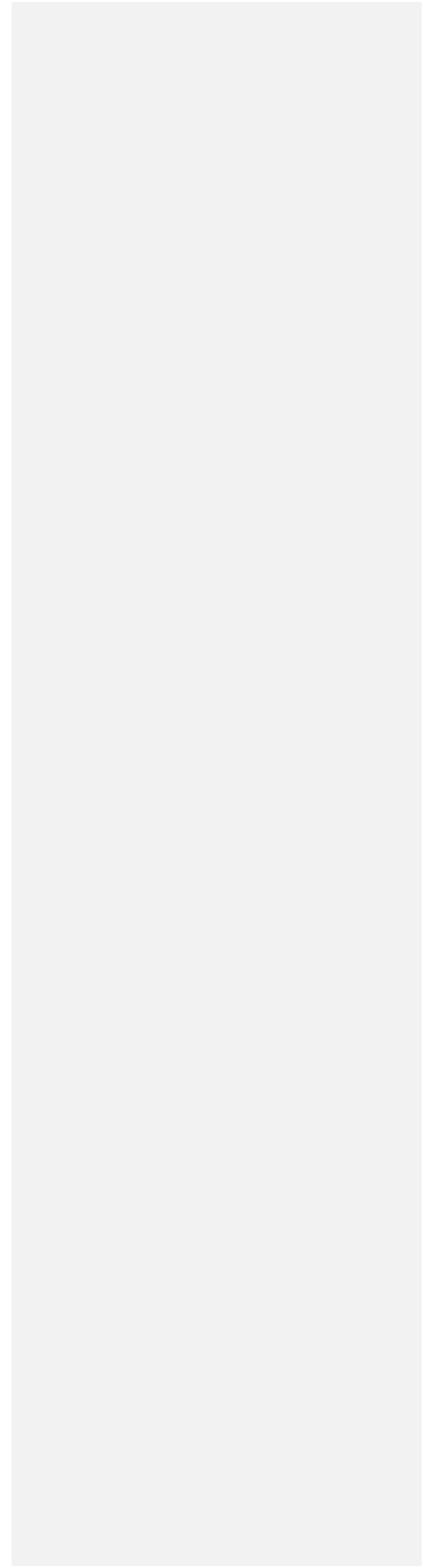
**Project Schedule**

- **Phase 1** -

**Phase 2** -

- **Phase 3** -

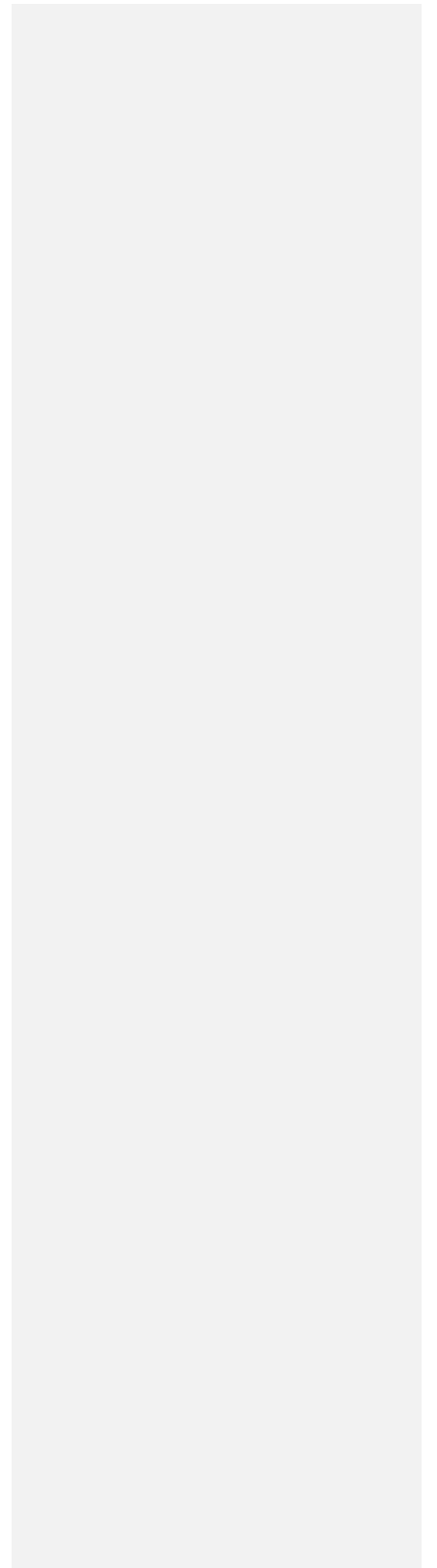
**Phase 4** -



Appendix C

**Exhibit C**

**Scope of Work**

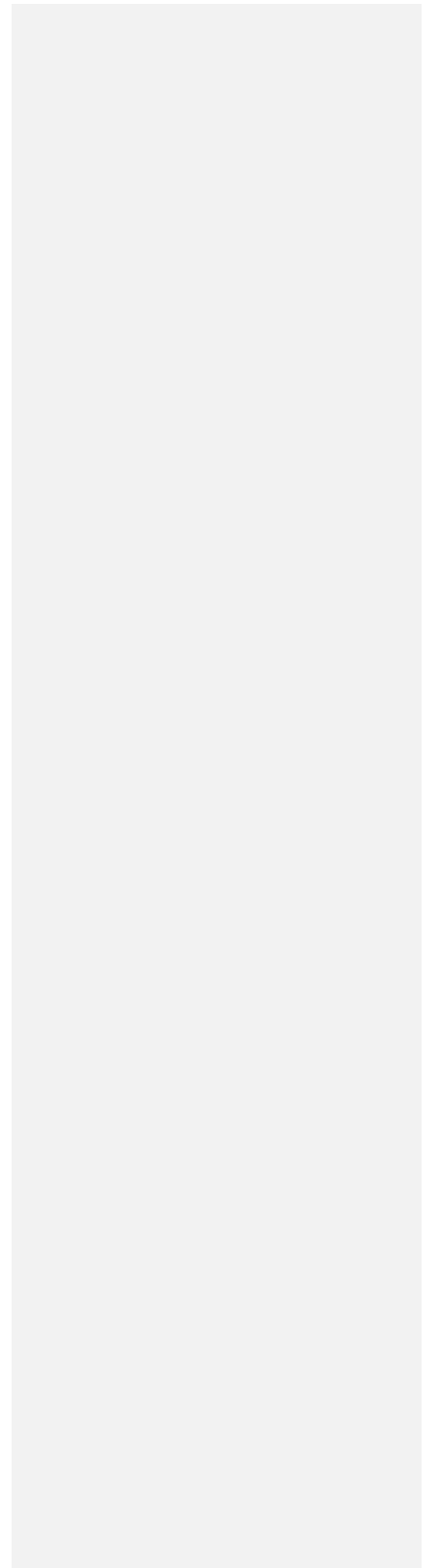


Appendix C

**Exhibit D**

**Compensation**

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Program Name	Year	Savings kWh	Savings kW	Admin Cost EDC (Portfolio)	Direct Program Costs					Total Program Cost	TRC Cost	Program Benefits	Benefits				TRC	
					EDC Labor	EDC Materials	CSP Labor	CSP Materials	Incentives				Capacity		Energy			
													Generation	Trans/Dist	Peak	Off Peak		
Residential Energy Efficiency	2009	16,874,440	7,845	\$74,452	\$328,333	\$6,701	\$328,333	\$6,701	\$1,489,038	\$2,233,557	\$5,202,840	\$14,572,624	\$2,970,292	\$1,296,163	\$6,750,996	\$3,555,173	2.8	
	2010	33,748,881	15,690	\$74,452	\$328,333	\$6,701	\$328,333	\$6,701	\$2,978,075	\$3,722,594	\$9,785,248	\$29,145,248	\$5,940,583	\$2,592,325	\$13,501,992	\$7,110,347	3.0	
	2011	33,748,881	15,690	\$74,452	\$328,333	\$6,701	\$328,333	\$6,701	\$2,978,075	\$3,722,594	\$9,785,248	\$29,145,248	\$5,940,583	\$2,592,325	\$13,501,992	\$7,110,347	3.0	
	2012	33,748,881	15,690	\$74,452	\$328,333	\$6,701	\$328,333	\$6,701	\$2,978,075	\$3,722,594	\$9,785,248	\$29,145,248	\$5,940,583	\$2,592,325	\$13,501,992	\$7,110,347	3.0	
Residential: Schools Energy Pledge	2009	675,000	608	\$34,267	\$0	\$0	\$302,232	\$6,168	\$90,000	\$432,667	\$357,137	\$715,540	\$145,846	\$63,644	\$333,993	\$172,057	2.0	
	2010	1,350,000	1,215	\$34,267	\$0	\$0	\$302,232	\$6,168	\$180,000	\$522,667	\$410,167	\$1,431,081	\$291,693	\$127,288	\$667,986	\$344,114	3.5	
	2011	1,350,000	1,215	\$34,267	\$0	\$0	\$302,232	\$6,168	\$180,000	\$522,667	\$410,167	\$1,431,081	\$291,693	\$127,288	\$667,986	\$344,114	3.5	
	2012	1,350,000	1,215	\$34,267	\$0	\$0	\$302,232	\$6,168	\$180,000	\$522,667	\$410,167	\$1,431,081	\$291,693	\$127,288	\$667,986	\$344,114	3.5	
Refrigerator Recycling	2009	1,666,834	415	\$10,453	\$0	\$0	\$92,194	\$1,882	\$209,056	\$313,584	\$347,861	\$957,045	\$195,071	\$85,124	\$392,888	\$283,962	2.8	
	2010	3,333,669	831	\$10,453	\$0	\$0	\$92,194	\$1,882	\$418,112	\$522,640	\$627,167	\$1,914,090	\$390,143	\$170,249	\$785,775	\$567,923	3.1	
	2011	3,333,669	831	\$10,453	\$0	\$0	\$92,194	\$1,882	\$418,112	\$522,640	\$627,167	\$1,914,090	\$390,143	\$170,249	\$785,775	\$567,923	3.1	
	2012	3,333,669	831	\$10,453	\$0	\$0	\$92,194	\$1,882	\$418,112	\$522,640	\$627,167	\$1,914,090	\$390,143	\$170,249	\$785,775	\$567,923	3.1	
Low Income Energy Efficiency	2009	4,293,586	1,751	\$47,876	\$110,593	\$2,257	\$110,593	\$2,257	\$547,150	\$820,725	\$1,346,309	\$2,873,347	\$585,665	\$255,570	\$1,275,273	\$756,839	2.1	
	2010	8,587,173	3,501	\$27,357	\$120,647	\$2,462	\$120,647	\$2,462	\$1,094,299	\$1,367,874	\$2,464,638	\$5,746,694	\$1,171,330	\$511,140	\$2,550,546	\$1,513,677	2.3	
	2011	8,587,173	3,501	\$25,314	\$121,648	\$2,483	\$121,648	\$2,483	\$1,094,299	\$1,367,874	\$2,464,638	\$5,746,694	\$1,171,330	\$511,140	\$2,550,546	\$1,513,677	2.3	
	2012	8,587,173	3,501	\$23,253	\$122,658	\$2,503	\$122,658	\$2,503	\$1,094,299	\$1,367,874	\$2,464,638	\$5,746,694	\$1,171,330	\$511,140	\$2,550,546	\$1,513,677	2.3	
<del>Solar Voltaic Incentives</del>	<del>2009</del>	<del>156,000</del>	<del>60</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$150,000</del>	<del>\$150,000</del>	<del>\$480,000</del>	<del>\$138,411</del>	<del>\$28,212</del>	<del>\$12,311</del>	<del>\$55,319</del>	<del>\$42,570</del>	<del>0.3</del>	
	<del>2010</del>	<del>156,000</del>	<del>60</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$150,000</del>	<del>\$150,000</del>	<del>\$480,000</del>	<del>\$141,218</del>	<del>\$28,784</del>	<del>\$12,561</del>	<del>\$56,440</del>	<del>\$43,433</del>	<del>0.3</del>	
	<del>2011</del>	<del>156,000</del>	<del>60</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$150,000</del>	<del>\$150,000</del>	<del>\$480,000</del>	<del>\$143,525</del>	<del>\$29,254</del>	<del>\$12,766</del>	<del>\$57,363</del>	<del>\$44,142</del>	<del>0.3</del>	
	<del>2012</del>	<del>156,000</del>	<del>60</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$0</del>	<del>\$150,000</del>	<del>\$150,000</del>	<del>\$480,000</del>	<del>\$145,832</del>	<del>\$29,725</del>	<del>\$12,971</del>	<del>\$58,285</del>	<del>\$44,852</del>	<del>0.3</del>	
Demand Response: Residential A/C Cycling	2009	0	0	\$48,338	\$39,662	\$0	\$0	\$0	\$0	\$88,000	\$88,000	\$0					0.0	
	2010	229,965	6,138	\$48,338	\$262,224	\$0	\$83,342	\$67,373	\$164,688	\$625,966	\$625,966	\$647,178						1.0
	2011	462,164	6,198	\$48,338	\$263,446	\$0	\$167,494	\$135,400	\$330,977	\$945,655	\$945,655	\$1,296,824						1.4
	2012	696,619	6,258	\$48,338	\$264,680	\$0	\$252,464	\$204,088	\$498,881	\$1,268,450	\$1,268,450	\$1,954,702						1.5
Commercial Umbrella (Small)	2009	786,115	169	\$3,358	\$29,617	\$604	\$0	\$0	\$67,159	\$100,739	\$245,173	\$638,653	\$130,175	\$56,805	\$316,758	\$134,915	2.6	
	2010	1,572,229	337	\$3,358	\$29,617	\$604	\$0	\$0	\$134,318	\$167,898	\$490,346	\$1,277,305	\$260,349	\$113,610	\$633,516	\$269,830	2.6	
	2011	1,572,229	337	\$3,358	\$29,617	\$604	\$0	\$0	\$134,318	\$167,898	\$490,346	\$1,277,305	\$260,349	\$113,610	\$633,516	\$269,830	2.6	
	2012	1,572,229	337	\$3,358	\$29,617	\$604	\$0	\$0	\$134,318	\$167,898	\$490,346	\$1,277,305	\$260,349	\$113,610	\$633,516	\$269,830	2.6	
Office Buildings (Small)	2009	5,317,298	970	\$25,156	\$0	\$0	\$221,878	\$4,528	\$430,126	\$681,689	\$1,658,356	\$4,319,862	\$880,504	\$384,230	\$2,142,559	\$912,569	2.6	
	2010	10,634,596	1,940	\$21,456	\$0	\$0	\$189,244	\$3,862	\$859,251	\$1,073,814	\$3,316,712	\$8,639,724	\$1,761,008	\$768,461	\$4,285,118	\$1,825,138	2.6	
	2011	10,634,596	1,940	\$21,156	\$0	\$0	\$186,598	\$3,808	\$845,251	\$1,056,814	\$3,316,712	\$8,639,724	\$1,761,008	\$768,461	\$4,285,118	\$1,825,138	2.6	
	2012	10,634,596	1,940	\$20,756	\$0	\$0	\$183,070	\$3,736	\$834,251	\$1,041,814	\$3,316,712	\$8,639,724	\$1,761,008	\$768,461	\$4,285,118	\$1,825,138	2.6	
Retail Segments (Small)	2009	1,817,890	390	\$7,765	\$0	\$0	\$68,490	\$1,398	\$155,305	\$232,958	\$566,963	\$1,476,884	\$301,029	\$131,362	\$732,503	\$311,991	2.6	
	2010	3,635,780	780	\$7,765	\$0	\$0	\$68,490	\$1,398	\$310,611	\$388,264	\$1,133,925	\$2,953,769	\$602,057	\$262,723	\$1,465,006	\$623,982	2.6	
	2011	3,635,780	780	\$7,765	\$0	\$0	\$68,490	\$1,398	\$310,611	\$388,264	\$1,133,925	\$2,953,769	\$602,057	\$262,723	\$1,465,006	\$623,982	2.6	
	2012	3,635,780	780	\$7,765	\$0	\$0	\$68,490	\$1,398	\$310,611	\$388,264	\$1,133,925	\$2,953,769	\$602,057	\$262,723	\$1,465,006	\$623,982	2.6	
Education (Small)	2009	1,031,775	221	\$4,407	\$38,873	\$793	\$0	\$0	\$88,146	\$132,219	\$321,790	\$838,232	\$170,854	\$74,557	\$415,745	\$177,076	2.6	
	2010	2,063,551	443	\$4,407	\$38,873	\$793	\$0	\$0	\$176,293	\$220,366	\$643,579	\$1,676,463	\$341,708	\$149,113	\$831,490	\$354,152	2.6	
	2011	2,063,551	443	\$4,407	\$38,873	\$793	\$0	\$0	\$176,293	\$220,366	\$643,579	\$1,676,463	\$341,708	\$149,113	\$831,490	\$354,152	2.6	
	2012	2,063,551	443	\$4,407	\$38,873	\$793	\$0	\$0	\$176,293	\$220,366	\$643,579	\$1,676,463	\$341,708	\$149,113	\$831,490	\$354,152	2.6	

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Program Name	Year	Savings kWh	Savings kW	Admin Cost EDC (Portfolio)	Direct Program Costs					Total Program Cost	TRC Cost	Program Benefits	Benefits				
					EDC Labor	EDC Materials	CSP Labor	CSP Materials	Incentives				Capacity		Energy		
													Generation	Trans/Dist	Peak	Off Peak	TRC
Industrial Umbrella (Small)	2009	368,716	57	\$3,683	\$32,481	\$663	\$0	\$0	\$33,124	\$69,950	\$65,542	\$248,613	\$50,674	\$22,113	\$100,300	\$75,525	3.8
	2010	737,432	114	\$4,825	\$42,557	\$869	\$0	\$0	\$43,399	\$91,650	\$131,084	\$497,225	\$101,348	\$44,226	\$200,601	\$151,051	3.8
	2011	737,432	114	\$4,825	\$42,557	\$869	\$0	\$0	\$43,399	\$91,650	\$131,084	\$497,225	\$101,348	\$44,226	\$200,601	\$151,051	3.8
	2012	737,432	114	\$4,825	\$42,557	\$869	\$0	\$0	\$43,399	\$91,650	\$131,084	\$497,225	\$101,348	\$44,226	\$200,601	\$151,051	3.8
Industrial Mixed (Small)	2009	2,778,590	429	\$27,752	\$0	\$0	\$244,774	\$4,995	\$249,615	\$527,137	\$493,917	\$1,873,509	\$381,871	\$166,639	\$755,850	\$569,148	3.8
	2010	5,557,180	858	\$36,361	\$0	\$0	\$320,706	\$6,545	\$327,048	\$690,661	\$987,833	\$3,747,018	\$763,743	\$333,279	\$1,511,700	\$1,138,297	3.8
	2011	5,557,180	858	\$36,361	\$0	\$0	\$320,706	\$6,545	\$327,048	\$690,661	\$987,833	\$3,747,018	\$763,743	\$333,279	\$1,511,700	\$1,138,297	3.8
	2012	5,557,180	858	\$36,361	\$0	\$0	\$320,706	\$6,545	\$327,048	\$690,661	\$987,833	\$3,747,018	\$763,743	\$333,279	\$1,511,700	\$1,138,297	3.8
Demand Response: Small & Mid-Sized C/I	2009	0	0	\$17,029	\$22,971	\$0	\$0	\$0	\$0	\$40,000	\$40,000	\$0					0.0
	2010	111,974	2,592	\$17,029	\$105,971	\$0	\$25,110	\$20,250	\$51,840	\$220,200	\$220,200	\$276,473					1.3
	2011	223,949	2,592	\$17,029	\$105,971	\$0	\$50,220	\$40,500	\$103,680	\$317,400	\$317,400	\$552,946					1.7
	2012	335,923	2,592	\$17,029	\$105,971	\$0	\$75,330	\$60,750	\$155,520	\$414,600	\$414,600	\$829,419					2.0
Commercial Umbrella (Large)	2009	1,895,155	407	\$8,095	\$71,401	\$1,457	\$0	\$0	\$161,906	\$242,859	\$591,060	\$1,539,655	\$313,823	\$136,945	\$763,636	\$325,252	2.6
	2010	3,790,309	813	\$8,095	\$71,401	\$1,457	\$0	\$0	\$323,812	\$404,766	\$1,182,120	\$3,079,311	\$627,646	\$273,889	\$1,527,272	\$650,503	2.6
	2011	3,790,309	813	\$8,095	\$71,401	\$1,457	\$0	\$0	\$323,812	\$404,766	\$1,182,120	\$3,079,311	\$627,646	\$273,889	\$1,527,272	\$650,503	2.6
	2012	3,790,309	813	\$8,095	\$71,401	\$1,457	\$0	\$0	\$323,812	\$404,766	\$1,182,120	\$3,079,311	\$627,646	\$273,889	\$1,527,272	\$650,503	2.6
Office Buildings (Large)	2009	10,100,000	2,200	\$40,700	\$0	\$0	\$358,974	\$7,326	\$887,000	\$1,294,000	\$3,149,983	\$8,205,409	\$1,672,482	\$729,830	\$4,069,707	\$1,733,389	2.6
	2010	20,200,000	4,400	\$44,400	\$0	\$0	\$391,608	\$7,992	\$1,775,000	\$2,219,000	\$6,299,965	\$16,410,818	\$3,344,965	\$1,459,661	\$8,139,413	\$3,466,779	2.6
	2011	20,400,000	4,400	\$44,700	\$0	\$0	\$394,254	\$8,046	\$1,789,000	\$2,236,000	\$6,299,965	\$16,410,818	\$3,344,965	\$1,459,661	\$8,139,413	\$3,466,779	2.6
	2012	20,600,000	4,400	\$45,100	\$0	\$0	\$397,782	\$8,118	\$1,800,000	\$2,251,000	\$6,299,965	\$16,410,818	\$3,344,965	\$1,459,661	\$8,139,413	\$3,466,779	2.6
Healthcare (Large)	2009	5,697,697	1,222	\$24,338	\$214,663	\$4,381	\$0	\$0	\$486,764	\$730,146	\$1,776,995	\$4,628,904	\$943,495	\$411,718	\$2,295,837	\$977,854	2.6
	2010	11,395,394	2,445	\$24,338	\$214,663	\$4,381	\$0	\$0	\$973,528	\$1,216,910	\$3,553,990	\$9,257,809	\$1,886,990	\$823,436	\$4,591,675	\$1,955,708	2.6
	2011	11,395,394	2,445	\$24,338	\$214,663	\$4,381	\$0	\$0	\$973,528	\$1,216,910	\$3,553,990	\$9,257,809	\$1,886,990	\$823,436	\$4,591,675	\$1,955,708	2.6
	2012	11,395,394	2,445	\$24,338	\$214,663	\$4,381	\$0	\$0	\$973,528	\$1,216,910	\$3,553,990	\$9,257,809	\$1,886,990	\$823,436	\$4,591,675	\$1,955,708	2.6
Retail Segments (Large)	2009	4,382,545	940	\$18,720	\$0	\$0	\$165,114	\$3,370	\$748,816	\$561,612	\$1,366,826	\$3,560,453	\$725,716	\$316,685	\$1,765,908	\$752,144	2.6
	2010	8,765,090	1,881	\$18,720	\$0	\$0	\$165,114	\$3,370	\$748,816	\$936,020	\$2,733,652	\$7,120,906	\$1,451,432	\$633,369	\$3,531,816	\$1,504,288	2.6
	2011	8,765,090	1,881	\$18,720	\$0	\$0	\$165,114	\$3,370	\$748,816	\$936,020	\$2,733,652	\$7,120,906	\$1,451,432	\$633,369	\$3,531,816	\$1,504,288	2.6
	2012	8,765,090	1,881	\$18,720	\$0	\$0	\$165,114	\$3,370	\$748,816	\$936,020	\$2,733,652	\$7,120,906	\$1,451,432	\$633,369	\$3,531,816	\$1,504,288	2.6
Education (Large)	2009	2,487,390	534	\$10,625	\$93,713	\$1,913	\$0	\$0	\$212,502	\$318,753	\$775,766	\$2,020,798	\$411,893	\$179,740	\$1,002,272	\$426,893	2.6
	2010	4,974,781	1,067	\$10,625	\$93,713	\$1,913	\$0	\$0	\$425,004	\$531,255	\$1,551,532	\$4,041,595	\$823,786	\$359,480	\$2,004,544	\$853,785	2.6
	2011	4,974,781	1,067	\$10,625	\$93,713	\$1,913	\$0	\$0	\$425,004	\$531,255	\$1,551,532	\$4,041,595	\$823,786	\$359,480	\$2,004,544	\$853,785	2.6
	2012	4,974,781	1,067	\$10,625	\$93,713	\$1,913	\$0	\$0	\$425,004	\$531,255	\$1,551,532	\$4,041,595	\$823,786	\$359,480	\$2,004,544	\$853,785	2.6
Industrial Umbrella (Large)	2009	888,895	137	\$8,878	\$78,305	\$1,598	\$0	\$0	\$79,854	\$168,636	\$158,008	\$599,352	\$122,164	\$53,309	\$241,803	\$182,076	3.8
	2010	1,777,790	275	\$11,632	\$102,597	\$2,094	\$0	\$0	\$104,626	\$220,948	\$316,017	\$1,198,704	\$244,328	\$106,619	\$483,606	\$364,151	3.8
	2011	1,777,790	275	\$11,632	\$102,597	\$2,094	\$0	\$0	\$104,626	\$220,948	\$316,017	\$1,198,704	\$244,328	\$106,619	\$483,606	\$364,151	3.8
	2012	1,777,790	275	\$11,632	\$102,597	\$2,094	\$0	\$0	\$104,626	\$220,948	\$316,017	\$1,198,704	\$244,328	\$106,619	\$483,606	\$364,151	3.8

Section 10 - Appendix D

Program Name	Year	Savings kWh	Savings kW	Admin Cost EDC (Portfolio)	Direct Program Costs					Total Program Cost	TRC Cost	Program Benefits	Benefits				TRC
					EDC Labor	EDC Materials	CSP Labor	CSP Materials	Incentives				Capacity		Energy		
													Generation	Trans/Dist	Peak	Off Peak	
Primary Metals (Large)	2009	8,569,603	1,324	\$85,592	\$0	\$0	\$754,922	\$15,407	\$769,851	\$1,625,772	\$1,523,316	\$5,778,193	\$1,177,751	\$513,942	\$2,331,158	\$1,755,342	3.8
	2010	17,139,207	2,647	\$112,144	\$0	\$0	\$989,108	\$20,186	\$1,008,668	\$2,130,105	\$3,046,632	\$11,556,385	\$2,355,501	\$1,027,883	\$4,662,317	\$3,510,684	3.8
	2011	17,139,207	2,647	\$112,144	\$0	\$0	\$989,108	\$20,186	\$1,008,668	\$2,130,105	\$3,046,632	\$11,556,385	\$2,355,501	\$1,027,883	\$4,662,317	\$3,510,684	3.8
	2012	17,139,207	2,647	\$112,144	\$0	\$0	\$989,108	\$20,186	\$1,008,668	\$2,130,105	\$3,046,632	\$11,556,385	\$2,355,501	\$1,027,883	\$4,662,317	\$3,510,684	3.8
Chemicals (Large)	2009	3,114,336	481	\$31,106	\$0	\$0	\$274,351	\$5,599	\$279,776	\$590,832	\$553,598	\$2,099,891	\$428,014	\$186,775	\$847,181	\$637,920	3.8
	2010	6,228,671	962	\$40,755	\$0	\$0	\$359,458	\$7,336	\$366,566	\$774,116	\$1,107,196	\$4,199,781	\$856,028	\$373,550	\$1,694,363	\$1,275,841	3.8
	2011	6,228,671	962	\$40,755	\$0	\$0	\$359,458	\$7,336	\$366,566	\$774,116	\$1,107,196	\$4,199,781	\$856,028	\$373,550	\$1,694,363	\$1,275,841	3.8
	2012	6,228,671	962	\$40,755	\$0	\$0	\$359,458	\$7,336	\$366,566	\$774,116	\$1,107,196	\$4,199,781	\$856,028	\$373,550	\$1,694,363	\$1,275,841	3.8
Demand Response: Curtailable Load for Large C/I	2009	0	0	\$6,918	\$53,082	\$0	\$0	\$0	\$0	\$60,000	\$60,000	\$0					0.0
	2010	172,800	3,600	\$6,918	\$53,082	\$0	\$4,320	\$1,800	\$46,656	\$112,776	\$112,776	\$388,656					3.4
	2011	345,600	3,600	\$6,918	\$53,082	\$0	\$8,640	\$3,600	\$93,312	\$165,552	\$165,552	\$777,312					4.7
	2012	518,400	3,600	\$6,918	\$53,082	\$0	\$12,960	\$5,400	\$139,968	\$218,328	\$218,328	\$1,165,968					5.3
Public Agency (Large)	2009	8,973,397	2,884	\$57,913	\$510,796	\$10,424	\$0	\$0	\$1,158,267	\$1,737,401	\$2,621,204	\$6,461,545	\$1,317,036	\$574,722	\$2,935,041	\$1,634,745	2.5
	2010	17,946,794	5,768	\$57,913	\$510,796	\$10,424	\$0	\$0	\$2,316,535	\$2,895,668	\$5,242,409	\$12,923,090	\$2,634,072	\$1,149,445	\$5,870,082	\$3,269,491	2.5
	2011	17,946,794	5,768	\$57,913	\$510,796	\$10,424	\$0	\$0	\$2,316,535	\$2,895,668	\$5,242,409	\$12,923,090	\$2,634,072	\$1,149,445	\$5,870,082	\$3,269,491	2.5
	2012	17,946,794	5,768	\$57,913	\$510,796	\$10,424	\$0	\$0	\$2,316,535	\$2,895,668	\$5,242,409	\$12,923,090	\$2,634,072	\$1,149,445	\$5,870,082	\$3,269,491	2.5
<b>Total</b>		<del>576,356,241</del>	<del>198,294</del>	<del>\$2,468,106</del>	<del>\$7,554,598</del>	<del>\$125,946</del>	<del>\$13,586,150</del>	<del>\$802,553</del>	<del>\$53,646,453</del>	<del>\$78,183,806</del>	<del>\$170,882,261</del>	<del>\$317,101,222</del>					1.9
		571,349,629	199,182	\$2,480,106	\$7,607,518	\$127,026	\$13,639,070	\$803,633	\$53,526,453	\$78,183,806	\$170,937,341	\$317,090,302					

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## **Appendix E**

**Calculation methods and assumptions. Describe methods used for estimating all program costs, including administrative, marketing, and incentives costs; include key assumptions. Describe assumptions and present all calculations, data and results in a consistent format. Reference Appendix D.**

As described under Sections 1 and 3, the program planning process was initiated by first performing an energy efficiency potential forecast. The energy efficiency potential forecast inputs, assumptions and analytical methodology are documented in The EEC & DR Study. Forecast findings include annual achievable energy and demand savings, programs costs and cost-effectiveness calculations. As described in exhaustive detail above and in the Study, through use of the forecast model, program planning was performed.

Program planning incorporated planning assumptions identical to those identified in the Study. Program impact projections are based on proportional scaling of forecast annual achievable savings impacts and demand reductions. Key planning assumptions include customer sector statistics, applicable measures and measure savings; end-use saturations, customer retail rates, utility avoided costs, emissions rates and baseline planning budget allocations of administration costs and incentive costs, as well as measure incentive levels and are described in EEC & DR Study Energy Efficiency Potential Forecast, Summary of Analytical Steps, Step – 1 Develop key Energy Efficiency Forecast Inputs and Assumptions and referenced in Study Attachments 1 through 14.

The program planning process incorporates measure specific market saturations, annual energy savings, peak period demand reductions, estimated operating life, annual hourly savings profiles, incremental costs, incentive amounts and program administrative costs for 57 residential customer measures, 78 commercial customer measures and 136 industrial customer measures applied in 6 residential dwelling types, 10 commercial building types and 16 industrial market segments; 3,298 unique measure/building applications. The analysis processes, key assumptions, calculations and findings are presented in the Study as well as by reference to more than 130 pages of supporting attachments. Please refer to the description of the analytical process in Section 3 as well to the multiple references provided therein that documents all “calculations, data and results” requested.





**Table 1.3: Portfolio Impacts - Cumulative 2009-2012 Savings**

	Cumulative Goals				Cumulative Program Administrators Projections (Compliance Filing or as Revised)				Installed Savings - TYD (Cumulative, Inception-to-Date)				Installed Savings - % of Goal (% of Cumulative Goals)			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
	Residential - Net Summer Peak kW															
Residential - Net Annual kWh																
Large Commercial / Industrial - Net Summer Peak kW																
Large Commercial / Industrial - Net Annual kWh																
Small Commercial / Industrial - Net Summer Peak kW																
Small Commercial / Industrial - Net Annual kWh																
Solar Voltaic - Net Summer Peak kW																
Solar Voltaic - Net Annual kWh																
Low Income - Net Summer Peak kW																
Low Income - Net Annual kWh																
Governmental / Non-profit - Net Summer Peak kW																
Governmental / Non-profit - Net Annual kWh																

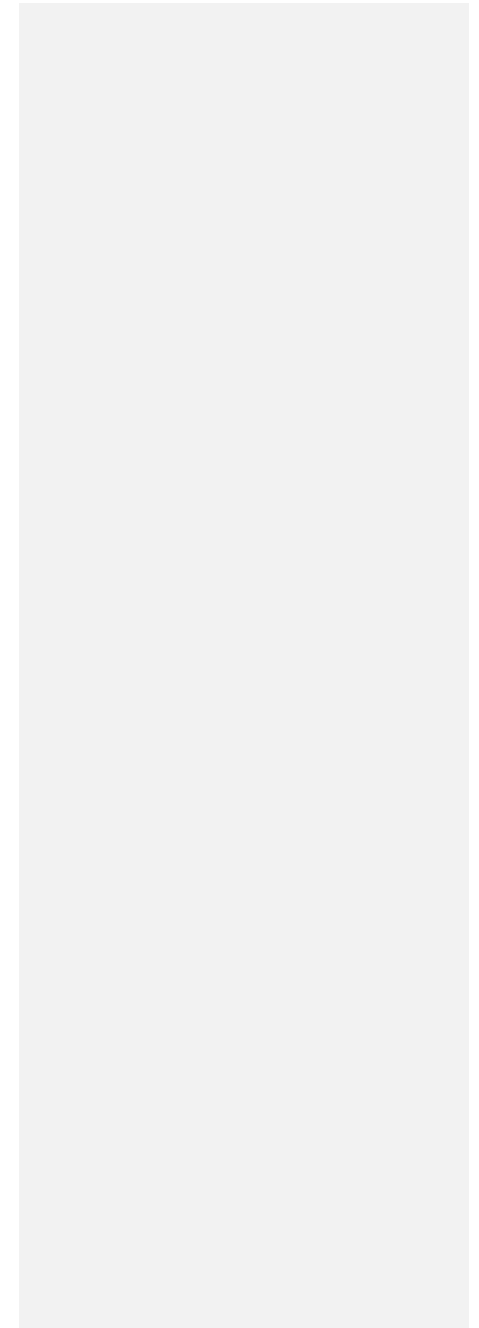
**Table 1.4: Portfolio Impacts - Aggregated End Use**

	Annual kWh	Peak kW
<b>Residential</b>		
Appliances		
Consumer Electronics		
Cooking Appliances		
HVAC		
Lighting		
Pool Pump		
Refrigeration		
Water Heating		
Other		
Low Income		
Demand Response		
<b>Large Commercial/Industrial</b>		
HVAC		
Lighting		
Office		
Process		
Refrigeration		
Other		
Other - Demand Response		
<b>Small Commercial/Industrial</b>		
HVAC		
Lighting		
Office		
Process		
Refrigeration		
Other		
Other - Demand Response		
<b>Solar Voltaic</b>		
<b>Governmental / Non-profit</b>		
<b>Total Portfolio</b>		



**Table 1.5: Portfolio Impacts - Market Sector**

	Annual kWh
<b>Residential</b>	
Single Family	
Multi Family	
Mobile Homes	
<b>Commercial/Industrial</b>	
Commercial	
Industrial	
Other - Demand Response	
<b>Low Income Energy Efficiency</b>	
<b>Public Agency Energy Efficiency</b>	
<b>Total Portfolio</b>	



Appendix F

**Duquesne Light Company  
Demand Response Program Report  
Aggregate Measurement and Reporting of Program Results  
Year XXXX**

For Period May 1 to September 30

Program Description	Program Indices	Residential	Small C/I	Large C/I
	<b>A. Proposed</b>			
	1) Total kW Available			
	2) Total kW Reduction			
	a) Actual kW Reduction Commitment			
	b) Estimate kW Reduction Commitment			
	3) Total Estimated Opportunity Hours			
	4) Total kWh Potential			
	<b>B. Actual</b>			
	5) Total kWh Reduction			
	6) Total Opportunity Hours			
	7) Average kW Reduction			
	8) kW Reduction @ System Peak			
	9) # Customers Eligible to Participate			
	10) # Customers in Program			
	11) # Customers Reducing Load			
	<b>C. Program Results</b>			
	12) % kW Participation			
	13) % kWh Potential Achieved			
	14) % Customers Participating			

a) Information in subsection A to be filed in conjunction with the Annual Resource Planning Report filing by May 1 each year.

b) Information in subsections B and C to be filed by December 1 each year.

Appendix F

**Duquesne Light Company**  
**Energy Efficiency and Demand Response Summary Report**  
**Quarter Ending XX, Program Year XXXX**

**EEC & DR Programs - 2009-2012 Savings**

*(Cumulative, Inception-to-Date)*

<b>Energy Efficiency Programs</b>	2009 Installed	2010 Installed	2010 Goal	% of Goal	2011 Installed	2012 Installed	2012 Goal	% of Goal
Energy Efficiency Program - Net Summer Peak kW								
Energy Efficiency Program - Net Annual kWh								
Low Income - Net Summer Peak kW							6,883	
Low Income - Net Annual kWh			8,580,945				25,737,535	
Governmental / Non-profit - Net Summer Peak kW							11,300	
Governmental / Non-profit - Net Annual kWh			14,088,512				42,256,535	
Total Energy Efficiency Program - Net Summer Peak kW							113,000	
Total Energy Efficiency Program - Net Annual kWh			140,885,117				422,565,351	

<b>Demand Response Programs</b>	2009 Installed	2010 Installed			2011 Installed	2012 Installed	2012 Goal	% of Goal
Demand Response Program - Net Summer Peak kW								
Demand Response Program - Net Annual kWh								

<b>Total EEC &amp; DR Programs</b>	2009 Installed	2010 Installed	2010 Goal	% of Goal	2011 Installed	2012 Installed	2012 Goal	% of Goal
EEC & DR Program - Net Summer Peak kW								
EEC & DR Program - Net Annual kWh								
Low Income - Net Summer Peak kW							6,883	
Low Income - Net Annual kWh			8,580,945				25,737,535	
Governmental / Non-profit - Net Summer Peak kW							11,300	
Governmental / Non-profit - Net Annual kWh			14,088,512				42,256,535	
Total EEC & DR Programs - Net Summer Peak kW							113,000	
Total EEC & DR Programs - Net Annual kWh			140,885,117				422,565,351	

## **11. Tables for Pennsylvania EDC Energy Efficiency and Conservation Plans**

To be submitted by EDCs by July 1, 2009

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### **Contents**

- The tables attached on this word document are for illustrative purposes only.
  - A master excel spreadsheet is uploaded on the Commission website. Each EDC is directed to use the master spreadsheet when populating the following tables.
1. Portfolio Summary of Lifetime Costs and Benefits
  2. Summary of Portfolio Energy and Demand Savings
  3. Summary of Portfolio Costs
  4. Program Summaries
  5. Budget and Parity Analysis Summary
  6. Cost Recovery
    - A. Portfolio-Specific Assignment of EE&C Costs
    - B. Allocation of Common Costs to Applicable Customer Sector
    - C. Summary of Portfolio EE&C Costs
  7. TRC Benefits Table (7A – 7E)

**Table 1: Portfolio Summary of Lifetime Costs and Benefits**

**Notes:**

o Net Lifetime Benefits, and TRC per the California Standard Practice Manual

Portfolio	Discount Rate	Total Discounted Lifetime Costs (\$000)	Total Discounted Lifetime Benefits (\$000)	Total Discounted Net Lifetime Benefits (\$000)	Cost-Benefit Ratio	TRC[1]
Residential (exclusive of Low-Income)	6.9%	\$15,022,964	\$95,104,171	\$80,081,207	6.3	3.1
Residential Low- Income	6.9%	\$4,131,925	\$16,933,805	\$12,801,880	4.1	2.3
Commercial/ Industrial Small	6.9%	\$8,068,451	\$55,005,460	\$46,937,009	6.8	2.9
Commercial/ Industrial Large	6.9%	\$34,701,408	\$204,662,623	\$169,961,215	5.9	2.9
Governmental/ Non-Profit	6.9%	\$8,746,918	\$37,827,759	\$29,080,841	4.3	2.5
Total Energy Efficiency	6.9%	\$70,671,665	\$409,533,818	\$338,862,153	5.8	2.9
<del>Solar Voltaics</del>	<del>6.9%</del>	<del>\$509,231</del>	<del>\$377,074</del>	<del>(\$132,156)</del>	<del>0.7</del>	<del>0.3</del>
Res. A/C Cycling	6.9%	\$2,375,511	\$3,124,717	\$749,206	1.3	1.3
Small C&I A/C Cycling	6.9%	\$807,412	\$1,421,451	\$614,040	1.8	1.8
Large C&I DR	6.9%	\$457,519	\$1,998,226	\$1,540,706	4.4	4.4
Total DR	6.9%	\$3,640,442	\$6,544,394	\$2,903,952	1.8	1.8
EE and DR	6.9%	\$74,312,107	\$416,078,212	\$341,766,105	5.6	2.9

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**Table 2: Summary of Portfolio Energy and Demand Savings**

o Program Year is June 1 – May 31

	Program Year 2009		Program Year 2010		Program Year 2011		Program Year 2012	
	MWh Saved	kW Saved	MWh Saved	kW Saved	MWh Saved	kW Saved	MWh Saved	kW Saved
<i>MWh Saved for Consumption Reductions</i> <i>kW Saved for Peak Load Reductions</i>								
Baseline <sup>1</sup>			14,085,512				14,085,512	2,518,000
Residential Sector (exclusive of Low- Income) - Cumulative Projected Portfolio Savings <sup>2</sup>	<del>19,372</del>	<del>8,928</del>	<del>57,961</del>	<del>26,724</del>	<del>96,549</del>	<del>44,520</del>	<del>135,138</del>	<del>62,316</del>
Residential Low-Income Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	19,127	9,172	56,128	27,183	93,130	45,194	130,131	63,204
Commercial/Industrial Small Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	4,294	1,751	12,881	5,252	21,468	8,753	30,055	12,254
Commercial/Industrial Large Sector - Cumulative Net Weather Adjusted Savings <sup>2</sup>	12,100	2,236	36,301	6,708	60,502	11,180	84,703	15,652
Governmental/ Non-Profit Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	37,136	7,245	111,407	21,735	185,878	36,224	260,549	50,714
EEC Plan Total - Cumulative Projected Savings	8,973	2,884	26,920	8,652	44,867	14,420	62,814	20,187
	<del>81,630</del>	<del>23,281</del>	<del>243,637</del>	<del>69,529</del>	<del>405,845</del>	<del>115,770</del>	<del>568,252</del>	<del>162,011</del>
Demand Response: Residential A/C Cycling	81,875	23,043	245,470	69,070	409,264	115,096	573,259	161,123
Demand Response: Small & Mid-Sized C/I	0	0	230	6,138	692	12,336	1,389	18,595
Demand Response: Curtailable Load for Large C/I	0	0	112	2,592	336	5,184	672	7,776
DR Plan Total - Cumulative Projected Savings	0	0	515	12,330	1,546	24,720	3,097	37,171
EEC & DR Plan Total - Cumulative Projected Savings	<del>81,630</del>	<del>23,287</del>	<del>244,152</del>	<del>81,859</del>	<del>407,391</del>	<del>140,490</del>	<del>571,350</del>	<del>199,182</del>
	81,875	23,043	245,985	81,400	410,811	139,817	576,356	198,294
Percent Reduction From Baseline			1.7%				4.1%	7.9%
Commission Identified Goal			140,885				422,565	113,000
Percent Savings Due to Portfolio Above or Below Commission Goal			<del>74%</del>				<del>36%</del>	43%
			73%				34%	

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<sup>1</sup> Commission approved Consumption Forecast and Peak Demand Forecast per Section H of the January 15 Implementation Order. (Template Section 10A & 10B)

<sup>2</sup> Adjusted for weather and extraordinary load as applicable.

**Table 3: Summary of Portfolio Costs**

o Program year is June 1 – May 31

	Program Year 2009		Program Year 2010		Program Year 2011		Program Year 2012	
	Portfolio Budget	% Budget	Portfolio Budget	% Budget	Portfolio Budget	% Budget	Portfolio Budget	% Budget
Residential Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	\$3,217,807	24.5%	\$5,543,866	26.1%	\$5,863,555	27.1%	\$6,186,351	27.9%
Residential Low-Income Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	\$820,725	6.2%	\$1,367,874	6.5%	\$1,367,874	6.3%	\$1,367,874	6.2%
Commercial/Industrial Small Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	\$47,291	0.4%	\$2,852,852	13.5%	\$2,933,052	13.5%	\$3,015,252	13.6%
Commercial/Industrial Large Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	\$7,330,011	55.7%	\$8,545,896	40.3%	\$8,615,672	39.7%	\$8,683,448	39.2%
Governmental/Non-Profit Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	\$1,737,401	13.2%	\$2,895,668	13.7%	\$2,895,668	13.4%	\$2,895,668	13.1%
Total Portfolio Annual Budget	\$13,153,234	100.0%	\$21,206,156	100.0%	\$21,675,821	100.0%	\$22,148,593	100.0%

**Table 4: Program Summaries**

o Add additional rows to list more programs.

	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)	<i>Residential Energy Efficiency</i>	Residential	Reduces cost barrier of homeowners and renters to adopting energy efficiency upgrades. Provides prescriptive rebates on EEC products focused on lighting..	4	118,121	54,916	87%	20%
	<i>Residential: Schools Energy Pledge</i>	Residential	Energy savings take place at home when families adopt energy efficiency measures promoted at school. Offers curriculum, measures and school incentives.	4	4,725	4,253	3%	1%
	<i>Refrigerator Recycling</i>	Residential	The program is offered as a cooperative effort between Allegheny Power and DLCo using a single contractor to provide recycling services in the territories.	4	11,668	2,908	9%	2%
	<del><i>Photovoltaic Incentives</i></del>	Residential	<del>The program provides incentives to promote the purchase and installation of solar photovoltaic on-site generation technologies.</del>	<del>4</del>	<del>624</del>	<del>240</del>	<del>0.5%</del>	<del>0.1%</del>
	<i>Demand Response: Residential A/C Cycling</i>	Residential	CSP Installs load cycling switches on the air conditioner condensing units for summer cycling. Customers receive bill credit incentives.	3	1,389	18,595	1%	0.24%
	Totals for Residential Sector					131,520	81,799	100%

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**Table 4: Program Summaries**

o Add additional rows to list more programs.

Residential Low-Income Sector Programs	<i>Low Income Energy Efficiency</i>	Low-Income	Energy efficiency partnerships with regional housing authorities. Develops project agreements to implement measures co-funded by DLCo and public agencies	4	30,055	12,254	100%	5%
	Totals for Low-Income Sector				30,055	12,254	100%	-

**Table 4: Program Summaries**

o Add additional rows to list more programs.

Commercial/ Industrial Small Sector Programs	<i>Commercial Umbrella (Small)</i>	Commercial	Serves all commercial customers and establishes the terms, conditions and incentive levels for the remaining commercial sub-programs.	4	5,503	1,181	6%	1%
	<i>Office Buildings (Small)</i>	Commercial	Contractor/CSP serves <300kW small office buildings providing energy audits, program assistance and incentives per the commercial sector umbrella program.	4	37,221	6,789	44%	6%
	<i>Retail Segments (Small)</i>	Commercial	Contractor/CSP services and incentives for retail stores, grocery stores and restaurants <300kW. Incentives per the commercial sector umbrella program.	4	12,725	2,730	15%	2%
	<i>Education (Small)</i>	Commercial	Energy audits, program assistance and incentives for community colleges and primary schools. Incentives per the commercial sector umbrella program.	4	7,222	1,550	8%	1%
	<i>Industrial Umbrella (Small)</i>	Industrial	Serves all industrial customers and establishes the terms, conditions and incentive levels for the remaining industrial sub-programs.	4	2,581	399	3%	0.4%
	<i>Industrial Mixed (Small)</i>	Industrial	By stakeholder request, provides CSP services and incentives to small industrial customers <300kW. Incentive levels per the industrial umbrella program.	4	19,450	3,004	23%	3%
	<i>Demand Response: Small &amp; Mid-Sized Commercial/Industrial</i>	Small C&I	CSP Installs load cycling switches on the air conditioner condensing units offices, retail and restaurant facilities <300 kW. Customers receive bill credit incentives.	3	672	7,776	0.8%	0.12%
	<i>Totals for C/I Small Sector</i>				85,375	23,428	99%	-

**Table 4: Program Summaries**

o Add additional rows to list more programs.

Commercial/ Industrial Large Sector Programs	<i>Commercial Umbrella (Large)</i>	Commercial	Serves all commercial customers and establishes the terms, conditions and incentive levels for the remaining commercial sub-programs.	4	13,266	2,846	5%	2%
	<i>Office Buildings (Large)</i>	Commercial	Contractor/CSP serves >=300kW large office buildings providing energy audits, program assistance and incentives per the commercial sector umbrella program.	4	71,300	15,400	27%	12%
	<i>Healthcare (Large)</i>	Commercial	Engages regional health care systems, provides framework for comprehensive energy management at medical office buildings and acute care facilities.	4	39,884	8,557	15%	7%
	<i>Retail Segments (Large)</i>	Commercial	Contractor/CSP services and incentives for retailers stores, grocery stores and restaurants >=300kW. Incentives per the commercial sector umbrella program.	4	30,678	6,582	12%	5%
	<i>Education (Large)</i>	Commercial	Energy audits, program assistance and incentives for colleges and universities. Incentives per the commercial sector umbrella program.	4	17,412	3,736	7%	3%
	<i>Industrial Umbrella (Large)</i>	Industrial	Serves all industrial customers and establishes the terms, conditions and incentive levels for the remaining industrial sub-programs.	4	6,222	961	2%	1%
	<i>Primary Metals (Large)</i>	Industrial	Specilaized contractor/CSP services and incentives for primary metals product manufacturing. Incentive levels per the industrial umbrella program.	4	59,987	9,265	23%	10%
	<i>Chemicals (Large)</i>	Industrial	Specilaized contractor/CSP services and incentives for chemical products manufacturing. Incentive levels per the industrial umbrella program.	4	21,800	3,367	8%	4%
	<i>Demand Response: Curtailable Load for Large Commercial/Industrial</i>	Large C&I	Customers reduce summer load when called. They receive communications system at half-price and incentives based on wholesale energy prices.	3	1,037	10,800	0.4%	0.18%
	<i>Totals for C/I Large Sector</i>				261,586	61,514	100%	-

**Table 4: Program Summaries**

o Add additional rows to list more programs.

Governmental / Non-Profit Sector Programs	Public Agency (Large)	Public Agencies	Partnerships are formed via MOU with local governmental agencies. Working groups develop project agreements to co-fund agreed to projects.	4	62,814	20,187	100%	10.90%
	Totals for Gov't/NP Sector Programs				62,814	20,187	100%	-

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<b>Total for Portfolio</b>					<del>576,356</del>	<del>198,294</del>	-	100%
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**Table 5: Budget and Parity Analysis Summary**  
 o Through program year 2012

Customer Class	Budget	% of Total EDC Budget	% of Total Budget Excluding Other Expenditures	% of Total Customer Revenue	Difference
Residential	\$20,811,579	26.6%	26.6%	47.8%	
Residential Low Income	\$4,924,348	6.3%	6.3%	6.3%	
<b>Residential Subtotal</b>	<b>\$25,735,926</b>	<b>32.9%</b>	<b>32.9%</b>	<b>54.1%</b>	<b>-21.2%</b>
C&I Small	\$10,585,848	13.5%	13.5%	12.1%	
C&I Large	\$31,437,626	40.2%	40.2%	28.6%	
<b>C&amp;I Subtotal</b>	<b>\$42,023,474</b>	<b>53.7%</b>	<b>53.7%</b>	<b>40.7%</b>	<b>13.0%</b>
Governmental/Non-Profit	\$10,424,406	13.3%	13.3%	5.2%	
Governmental/Non-Profit Subtotal	\$10,424,406	13.3%	13.3%	5.2%	8.2%
<b>Residential/C&amp;I/Governmental/Non-Profit Subtotal</b>	<b>\$78,183,806</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	
Other Expenditures					
<b>Other Expenditures Subtotal</b>	<b>0</b>	<b>0.0%</b>			
<b>EDC TOTAL</b>	<b>\$78,183,806</b>	<b>100.0%</b>			

**Table 6A: Portfolio-Specific Assignment of EE&C Costs <sup>1</sup>**

**Table 6A: Portfolio-Specific Assignment of EE&C Costs <sup>1</sup>**

<b>Residential Portfolio</b>						
EE&C Program <sup>2</sup>	Cost Elements (\$) <sup>3</sup>					Totals
	Portfolio	Program	Incentives			
Residential Energy Efficiency	<del>\$297,808</del>	<del>\$2,680,268</del>	<del>\$10,423,264</del>			<del>\$13,401,339</del>
	<del>\$309,868</del>	<del>\$2,788,268</del>	<del>\$10,963,264</del>			<del>\$14,061,339</del>
Residential: Schools Energy Pledge	\$137,067	\$1,233,600	\$630,000			\$2,000,667
Refrigerator Recycling	\$41,811	\$376,300	\$1,463,391			\$1,881,502
Low Income Energy Efficiency	\$123,800	\$970,499	\$3,830,048			\$4,924,348
<del>Solar Voltaic Incentives</del>	<del>\$0</del>	<del>\$0</del>	<del>\$600,000</del>			<del>\$600,000</del>
Demand Response: Residential A/C Cycling	\$193,352	\$1,740,172	\$994,546			\$2,928,070
<b>Totals</b>	<del>\$793,838</del>	<del>\$7,000,839</del>	<del>\$17,941,249</del>			\$25,735,926

\* Program Administration cost includes marketing and outreach costs.

**Small Commercial/Industrial Portfolio**

EE&C Program <sup>2</sup>	Cost Elements (\$) <sup>3</sup>					Totals
	Portfolio Administration	Program Administration*	Incentives			
Commercial Umbrella (Small)	\$13,432	\$120,886	\$470,114			\$604,432
Office Buildings (Small)	\$88,525	\$796,726	\$2,968,880			\$3,854,131
Retail Segments (Small)	\$31,061	\$279,550	\$1,087,138			\$1,397,749
Education (Small)	\$17,629	\$158,663	\$617,024			\$793,317
Industrial Umbrella (Small)	\$18,158	\$163,422	\$163,320			\$344,900
Industrial Mixed (Small)	\$136,836	\$1,231,524	\$1,230,759			\$2,599,119
Demand Response: Small & Mid-Sized C/I	\$68,116	\$613,044	\$311,040			\$992,200
<b>Totals</b>	\$373,757	\$3,363,815	\$6,848,275			\$10,585,848

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**Table 6A: Portfolio-Specific Assignment of EE&C Costs <sup>1</sup>**

Large Commercial/Industrial Portfolio						
EE&C Program <sup>2</sup>	Cost Elements (\$) <sup>3</sup>					Totals
	Portfolio Administration	Program Administration*	Incentives			
Commercial Umbrella (Large)	\$32,381	\$291,431	\$1,133,344			\$1,457,156
Office Buildings (Large)	\$174,900	\$1,574,100	\$6,251,000			\$8,000,000
Healthcare (Large)	\$97,353	\$876,175	\$3,407,347			\$4,380,875
Retail Segments (Large)	\$74,882	\$673,935	\$2,620,857			\$3,369,674
Education (Large)	\$42,500	\$382,503	\$1,487,514			\$1,912,517
Industrial Umbrella (Large)	\$43,775	\$393,975	\$393,731			\$831,481
Primary Metals (Large)	\$422,023	\$3,798,211	\$3,795,853			\$8,016,088
Chemicals (Large)	\$153,370	\$1,380,333	\$1,379,476			\$2,913,179
Demand Response: Curtailable Load for Large C/I	\$27,672	\$249,048	\$279,936			\$556,656
<b>Totals</b>	\$1,068,857	\$9,619,711	\$20,749,057			\$31,437,626

Public Agency Portfolio						
EE&C Program <sup>2</sup>	Cost Elements (\$) <sup>3</sup>					Totals
	Portfolio Administration	Program Administration*	Incentives			
Public Agency (Large)	\$231,653	\$2,084,881	\$8,107,871			\$10,424,406
<b>Totals</b>	\$231,653	\$2,084,881	\$8,107,871			\$10,424,406

<b>Totals</b>	<del>\$2,468,106</del>	<del>\$22,069,247</del>	<del>\$53,646,453</del>			\$78,183,806
	\$2,480,106	\$22,177,247	\$53,526,453			

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

Common Cost Element <sup>1</sup>	Total Cost (\$)	Basis for Cost Allocation <sup>2</sup>	Class Cost Allocaton (\$)			
			Residential (Including Low-Income)	Commercial/Industrial -- Small	Commercial/Industrial -- Large	Governmental/Non-profit
Portfolio Administration	\$2,468,106	10% Program Administration	\$793,838	\$373,757	\$1,068,857	\$231,653
<b>Totals</b>	\$2,468,106		\$793,838	\$373,757	\$1,068,857	\$231,653

**Notes:**

<sup>1</sup> List all identified cost elements that are determined to be applicable to multiple customer sectors, or are common across all sectors. Because cost elements may vary for each EDC and program, the EDC should designate cost elements at its discretion, an

<sup>2</sup> Provide a brief explanation of the methodology used to allocate each common cost element to the applicable customer sectors.

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

Common Cost Element <sup>1</sup>	Total Cost (\$)	Basis for Cost Allocation <sup>2</sup>	Class Cost Allocation (\$)			
			Residential (Including Low-Income)	Commercial/Industrial -- Small	Commercial/Industrial -- Large	Governmental/Non-profit
Portfolio Administration	\$2,480,106	10% Program Administration	\$805,838	\$373,757	\$1,068,857	\$231,653
<b>Totals</b>	\$2,480,106		\$805,838	\$373,757	\$1,068,857	\$231,653

**Notes:**

<sup>1</sup> List all identified cost elements that are determined to be applicable to multiple customer sectors, or are common across all sectors. Because cost elements may vary for each EDC and program, the EDC should designate cost elements at its discretion, and

<sup>2</sup> Provide a brief explanation of the methodology used to allocate each common cost element to the applicable customer sectors.

**Table 6C: Summary of Customer Sector EE&C Costs**

Customer Class	Total Sector Portfolio-specific Costs <sup>1</sup>	Total Common Costs <sup>2</sup>	Total of All Costs
Residential (Including Low-Income)	\$24,942,088	\$793,838	\$25,735,926
Commercial/Industrial -- Small	\$10,212,091	\$373,757	\$10,585,848
Commercial/Industrial -- Large	\$30,368,769	\$1,068,857	\$31,437,626
Governmental/Non-profit	\$10,192,752	\$231,653	\$10,424,406
<b>Totals</b>	\$75,715,700	\$2,468,106	\$78,183,806

**Notes:**

<sup>1</sup> Cost figures are to be carried over from the last column ("Totals") of Table 7A.

<sup>2</sup> Cost figures are to be carried over from the bottom row ("Totals") of Table 7B.

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**Table 6C: Summary of Customer Sector EE&C Costs**

Customer Class	Total Sector Portfolio-specific Costs <sup>1</sup>	Total Common Costs <sup>2</sup>	Total of All Costs
Residential (Including Low-Income)	\$24,930,088	\$805,838	\$25,735,926
Commercial/Industrial -- Small	\$10,212,091	\$373,757	\$10,585,848
Commercial/Industrial -- Large	\$30,368,769	\$1,068,857	\$31,437,626
Governmental / Non-Profit	\$10,192,752	\$231,653	\$10,424,406
<b>Totals</b>	\$75,703,700	\$2,480,106	\$78,183,806

**Notes:**

<sup>1</sup> Cost figures are to be carried over from the last column ("Totals") of Table 7A.

<sup>2</sup> Cost figures are to be carried over from the bottom row ("Totals") of Table 7B.

**Table 7A: TRC Benefits Table**

o Submit yearly projections for each program thru final year of that program for TRC evaluation.

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Residential	TRC Benefits By Program Per Year (\$000)													
	Program	Program Year	TRC	Program TRC Costs (\$000)	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load		MWh Saved	
							Annual		Annual		Annual	Lifetime	Annual	Lifetime
							Generation	Trans/Dist	Peak	Off Peak				
Residential Energy Efficiency	2009	2.8	\$5,203	\$2,234	\$14,573	\$2,970	\$1,296	\$6,751	\$3,555	7,845	7,845	16,874	232,043	
	2010	3.0	\$9,785	\$3,723	\$29,145	\$5,941	\$2,592	\$13,502	\$7,110	15,690	15,690	33,749	464,086	
	2011	3.0	\$9,785	\$3,723	\$29,145	\$5,941	\$2,592	\$13,502	\$7,110	15,690	15,690	33,749	464,086	
	2012	3.0	\$9,785	\$3,723	\$29,145	\$5,941	\$2,592	\$13,502	\$7,110	15,690	15,690	33,749	464,086	
Res./Schools Energy Pledge	2009	2.0	\$357	\$433	\$716	\$146	\$64	\$334	\$172	608	608	675	4,320	
	2010	3.5	\$410	\$523	\$1,431	\$292	\$127	\$668	\$344	1,215	1,215	1,350	8,640	
	2011	3.5	\$410	\$523	\$1,431	\$292	\$127	\$668	\$344	1,215	1,215	1,350	8,640	
	2012	3.5	\$410	\$523	\$1,431	\$292	\$127	\$668	\$344	1,215	1,215	1,350	8,640	
Refrigerator Recycling	2009	2.8	\$348	\$314	\$957	\$195	\$85	\$393	\$284	415	415	1,667	13,335	
	2010	3.1	\$627	\$523	\$1,914	\$390	\$170	\$786	\$568	831	831	3,334	26,669	
	2011	3.1	\$627	\$523	\$1,914	\$390	\$170	\$786	\$568	831	831	3,334	26,669	
	2012	3.1	\$627	\$523	\$1,914	\$390	\$170	\$786	\$568	831	831	3,334	26,669	
<del>Photovoltaic Incentives</del>	<del>2009</del>	<del>0.3</del>	<del>\$480</del>	<del>\$150</del>	<del>\$138</del>	<del>\$28</del>	<del>\$12</del>	<del>\$55</del>	<del>\$43</del>	<del>60</del>	<del>60</del>	<del>156</del>	<del>2,340</del>	
	<del>2010</del>	<del>0.3</del>	<del>\$480</del>	<del>\$150</del>	<del>\$141</del>	<del>\$29</del>	<del>\$13</del>	<del>\$56</del>	<del>\$43</del>	<del>60</del>	<del>60</del>	<del>156</del>	<del>2,340</del>	
	<del>2011</del>	<del>0.3</del>	<del>\$480</del>	<del>\$150</del>	<del>\$144</del>	<del>\$29</del>	<del>\$13</del>	<del>\$57</del>	<del>\$44</del>	<del>60</del>	<del>60</del>	<del>156</del>	<del>2,340</del>	
	<del>2012</del>	<del>0.3</del>	<del>\$480</del>	<del>\$150</del>	<del>\$146</del>	<del>\$30</del>	<del>\$13</del>	<del>\$58</del>	<del>\$45</del>	<del>60</del>	<del>60</del>	<del>156</del>	<del>2,340</del>	
Demand Response: Residential A/C Cycling	2009	0.0	\$88	\$88	\$0					0	0	0		
	2010	1.0	\$626	\$626	\$647					6,138	6,138	230	230	
	2011	1.4	\$946	\$946	\$1,297					6,198	6,198	462	462	
	2012	1.5	\$1,268	\$1,268	\$1,955					6,258	6,258	697	697	
<b>Total</b>	All		<del>\$43,224</del>	<del>\$20,812</del>	<del>\$118,184</del>	<del>\$23,294</del>	<del>\$10,165</del>	<del>\$52,573</del>	<del>\$28,253</del>	80,911	80,911	136,527	1,758,632	
			\$41,548	\$20,812	\$118,180	\$23,294	\$10,165	\$52,607	\$28,216	81,799	81,799	131,520	1,749,2	

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**Table 7B: TRC Benefits Table**

o Submit yearly projections for each program thru final year of that program for TRC evaluation.

<b>Residential Low-Income</b>		<b>TRC Benefits By Program Per Year (\$000)</b>											
Program	Program Year	TRC	Program TRC Costs	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in		MWh Saved	
						Generator	Trans/Dist	Annual		Annual	Lifetime	Annual	Lifetime
								Peak	Off Peak				
<i>Low Income Energy Efficiency</i>	2009	2.1	\$1,346	\$821	\$2,873	\$586	\$256	\$1,275	\$757	1,751	1,751	4,294	42,653
	2010	2.3	\$2,465	\$1,368	\$5,747	\$1,171	\$511	\$2,551	\$1,514	3,501	3,501	8,587	85,307
	2011	2.3	\$2,465	\$1,368	\$5,747	\$1,171	\$511	\$2,551	\$1,514	3,501	3,501	8,587	85,307
	2012	2.3	\$2,465	\$1,368	\$5,747	\$1,171	\$511	\$2,551	\$1,514	3,501	3,501	8,587	85,307
<b>Total</b>	All	2.3	\$8,740	\$4,924	\$20,113	\$4,100	\$1,789	\$8,927	\$5,298	12,254	12,254	30,055	298,573

**Table 7C: TRC Benefits Table**

o Submit yearly projections for each program thru final year of that program for TRC evaluation.

Commercial/Industrial Small		TRC Benefits By Program Per Year (\$000)											
Program	Program Year	TRC	Program TRC Costs	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in		MWh Saved	
						Annual		Annual		Annual	Lifetime	Annual	Lifetime
						Generator	Trans/Dist	Peak	Off Peak				
<i>Commercial Umbrella (Small)</i>	2009	2.6	\$245	\$101	\$639	\$130	\$57	\$317	\$135	169	169	786	9,628
	2010	2.6	\$490	\$168	\$1,277	\$260	\$114	\$634	\$270	337	337	1,572	19,256
	2011	2.6	\$490	\$168	\$1,277	\$260	\$114	\$634	\$270	337	337	1,572	19,256
	2012	2.6	\$490	\$168	\$1,277	\$260	\$114	\$634	\$270	337	337	1,572	19,256
<i>Office Buildings (Small)</i>	2009	2.6	\$1,658	\$682	\$4,320	\$881	\$384	\$2,143	\$913	970	970	5,317	55,362
	2010	2.6	\$3,317	\$1,074	\$8,640	\$1,761	\$768	\$4,285	\$1,825	1,940	1,940	10,635	110,725
	2011	2.6	\$3,317	\$1,057	\$8,640	\$1,761	\$768	\$4,285	\$1,825	1,940	1,940	10,635	110,725
	2012	2.6	\$3,317	\$1,042	\$8,640	\$1,761	\$768	\$4,285	\$1,825	1,940	1,940	10,635	110,725
<i>Retail Segments (Small)</i>	2009	2.6	\$567	\$233	\$1,477	\$301	\$131	\$733	\$312	390	390	1,818	22,265
	2010	2.6	\$1,134	\$388	\$2,954	\$602	\$263	\$1,465	\$624	780	780	3,636	44,531
	2011	2.6	\$1,134	\$388	\$2,954	\$602	\$263	\$1,465	\$624	780	780	3,636	44,531
	2012	2.6	\$1,134	\$388	\$2,954	\$602	\$263	\$1,465	\$624	780	780	3,636	44,531
<i>Education (Small)</i>	2009	2.6	\$322	\$132	\$838	\$171	\$75	\$416	\$177	221	221	1,032	12,637
	2010	2.6	\$644	\$220	\$1,676	\$342	\$149	\$831	\$354	443	443	2,064	25,274
	2011	2.6	\$644	\$220	\$1,676	\$342	\$149	\$831	\$354	443	443	2,064	25,274
	2012	2.6	\$644	\$220	\$1,676	\$342	\$149	\$831	\$354	443	443	2,064	25,274
<i>Industrial Umbrella (Small)</i>	2009	3.8	\$66	\$70	\$249	\$51	\$22	\$100	\$76	57	57	369	3,688
	2010	3.8	\$131	\$92	\$497	\$101	\$44	\$201	\$151	114	114	737	7,376
	2011	3.8	\$131	\$92	\$497	\$101	\$44	\$201	\$151	114	114	737	7,376
	2012	3.8	\$131	\$92	\$497	\$101	\$44	\$201	\$151	114	114	737	7,376
<i>Industrial Mixed (Small)</i>	2009	3.8	\$494	\$527	\$1,874	\$382	\$167	\$756	\$569	429	429	2,779	27,791
	2010	3.8	\$988	\$691	\$3,747	\$764	\$333	\$1,512	\$1,138	858	858	5,557	55,582
	2011	3.8	\$988	\$691	\$3,747	\$764	\$333	\$1,512	\$1,138	858	858	5,557	55,582
	2012	3.8	\$988	\$691	\$3,747	\$764	\$333	\$1,512	\$1,138	858	858	5,557	55,582
<i>DR: Small &amp; Mid-C&amp;I</i>	2009	0.0	\$40	\$40	\$0								
	2010	1.3	\$220	\$220	\$276					2,592	2,592	112	
	2011	1.7	\$317	\$317	\$553					2,592	2,592	224	
	2012	2.0	\$415	\$415	\$829					2,592	2,592	336	
<b>Total</b>	All	2.8	\$24,454	\$10,586	\$67,429	\$13,406	\$5,850	\$31,246	\$15,269	23,428	23,428	85,375	919,602

**Table 7D: TRC Benefits Table**

o Submit yearly projections for each program thru final year of that program for TRC evaluation.

Commercial/Industrial Large		TRC Benefits By Program Per Year (\$000)											
Program	Program Year	TRC	Program TRC Costs (\$000)	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load		MWh Saved	
						Annual	Trans/Dist	Annual	Off Peak	Annual	Lifetime	Annual	Lifetime
<i>Commercial Umbrella (Large)</i>	2009	2.6	\$591	\$243	\$1,540	\$314	\$137	\$764	\$325	407	407	1,895	23,212
	2010	2.6	\$1,182	\$405	\$3,079	\$628	\$274	\$1,527	\$651	813	813	3,790	46,423
	2011	2.6	\$1,182	\$405	\$3,079	\$628	\$274	\$1,527	\$651	813	813	3,790	46,423
	2012	2.6	\$1,182	\$405	\$3,079	\$628	\$274	\$1,527	\$651	813	813	3,790	46,423
<i>Office Buildings (Large)</i>	2009	2.6	\$3,150	\$1,294	\$8,205	\$1,672	\$730	\$4,070	\$1,733	2,200	2,200	10,100	133,467
	2010	2.6	\$6,300	\$2,219	\$16,411	\$3,345	\$1,460	\$8,139	\$3,467	4,400	4,400	20,200	266,934
	2011	2.6	\$6,300	\$2,236	\$16,411	\$3,345	\$1,460	\$8,139	\$3,467	4,400	4,400	20,200	266,934
	2012	2.6	\$6,300	\$2,251	\$16,411	\$3,345	\$1,460	\$8,139	\$3,467	4,400	4,400	20,200	266,934
<i>Healthcare (Large)</i>	2009	2.6	\$1,777	\$730	\$4,629	\$943	\$412	\$2,296	\$978	1,222	1,222	5,698	69,785
	2010	2.6	\$3,554	\$1,217	\$9,258	\$1,887	\$823	\$4,592	\$1,956	2,445	2,445	11,395	139,569
	2011	2.6	\$3,554	\$1,217	\$9,258	\$1,887	\$823	\$4,592	\$1,956	2,445	2,445	11,395	139,569
	2012	2.6	\$3,554	\$1,217	\$9,258	\$1,887	\$823	\$4,592	\$1,956	2,445	2,445	11,395	139,569
<i>Retail Segments (Large)</i>	2009	2.6	\$1,367	\$562	\$3,560	\$726	\$317	\$1,766	\$752	940	940	4,383	53,677
	2010	2.6	\$2,734	\$936	\$7,121	\$1,451	\$633	\$3,532	\$1,504	1,881	1,881	8,765	107,354
	2011	2.6	\$2,734	\$936	\$7,121	\$1,451	\$633	\$3,532	\$1,504	1,881	1,881	8,765	107,354
	2012	2.6	\$2,734	\$936	\$7,121	\$1,451	\$633	\$3,532	\$1,504	1,881	1,881	8,765	107,354
<i>Education (Large)</i>	2009	2.6	\$776	\$319	\$2,021	\$412	\$180	\$1,002	\$427	534	534	2,487	53,677
	2010	2.6	\$1,552	\$531	\$4,042	\$824	\$359	\$2,005	\$854	1,067	1,067	4,975	107,354
	2011	2.6	\$1,552	\$531	\$4,042	\$824	\$359	\$2,005	\$854	1,067	1,067	4,975	107,354
	2012	2.6	\$1,552	\$531	\$4,042	\$824	\$359	\$2,005	\$854	1,067	1,067	4,975	107,354
<i>Industrial Umbrella (Large)</i>	2009	3.8	\$158	\$169	\$599	\$122	\$53	\$242	\$182	137	137	889	8,891
	2010	3.8	\$316	\$221	\$1,199	\$244	\$107	\$484	\$364	275	275	1,778	17,781
	2011	3.8	\$316	\$221	\$1,199	\$244	\$107	\$484	\$364	275	275	1,778	17,781
	2012	3.8	\$316	\$221	\$1,199	\$244	\$107	\$484	\$364	275	275	1,778	17,781
<i>Primary Metals (Large)</i>	2009	3.8	\$1,523	\$1,626	\$5,778	\$1,178	\$514	\$2,331	\$1,755	1,324	1,324	8,570	85,711
	2010	3.8	\$3,047	\$2,130	\$11,556	\$2,356	\$1,028	\$4,662	\$3,511	2,647	2,647	17,139	171,423
	2011	3.8	\$3,047	\$2,130	\$11,556	\$2,356	\$1,028	\$4,662	\$3,511	2,647	2,647	17,139	171,423
	2012	3.8	\$3,047	\$2,130	\$11,556	\$2,356	\$1,028	\$4,662	\$3,511	2,647	2,647	17,139	171,423
<i>Chemicals (Large)</i>	2009	3.8	\$554	\$591	\$2,100	\$428	\$187	\$847	\$638	481	481	3,114	31,149
	2010	3.8	\$1,107	\$774	\$4,200	\$856	\$374	\$1,694	\$1,276	962	962	6,229	62,298
	2011	3.8	\$1,107	\$774	\$4,200	\$856	\$374	\$1,694	\$1,276	962	962	6,229	62,298
	2012	3.8	\$1,107	\$774	\$4,200	\$856	\$374	\$1,694	\$1,276	962	962	6,229	62,298
<i>DR: Curtailable Large C&amp;I</i>	2009	0.0	\$60	\$60	\$0					0	0	0	0
	2010	3.4	\$113	\$113	\$389					3,600	3,600	173	
	2011	4.7	\$166	\$166	\$777					3,600	3,600	346	
	2012	5.3	\$218	\$218	\$1,166					3,600	3,600	518	
<b>Total</b>	All	2.9	\$69,826	\$31,438	\$201,361	\$40,567	\$17,703	\$93,223	\$47,536	61,514	61,514	260,986	3,216,976

**Table 7E: TRC Benefits Table**

o Submit yearly projections for each program thru final year of that program for TRC evaluation.

Governmental/Non-Profit	TRC Benefits By Program Per Year (\$000)													
	Program	Program Year	TRC	Program TRC Costs (\$000)	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in		MWh Saved	
							Annual		Annual		Annual	Lifetime	Annual	Lifetime
							Generation	Trans/Dist	Peak	Off Peak				
<i>Public Agency (Large)</i>	2009	2.5	\$2,621	\$1,737	\$6,462	\$1,317	\$575	\$2,935	\$1,635	2,884	2,884	8,973	96,677	
	2010	2.5	\$5,242	\$2,896	\$12,923	\$2,634	\$1,149	\$5,870	\$3,269	5,768	5,768	17,947	193,354	
	2011	2.5	\$5,242	\$2,896	\$12,923	\$2,634	\$1,149	\$5,870	\$3,269	5,768	5,768	17,947	193,354	
	2012	2.5	\$5,242	\$2,896	\$12,923	\$2,634	\$1,149	\$5,870	\$3,269	5,768	5,768	17,947	193,354	
<b>Total</b>	All	2.5	\$18,348	\$10,424	\$45,231	\$9,219	\$4,023	\$20,545	\$11,443	20,187	20,187	62,814	676,738	



## 12. Gantt Charts of Program Schedule Summary

### Chart 1: Gantt Chart of Program Schedule Summary (For Section 1.4)

Chart will be formatted to fit on one 8½ - 11 page

It will use color to differentiate schedule items

Provide a separate chart for each Portfolio that includes:

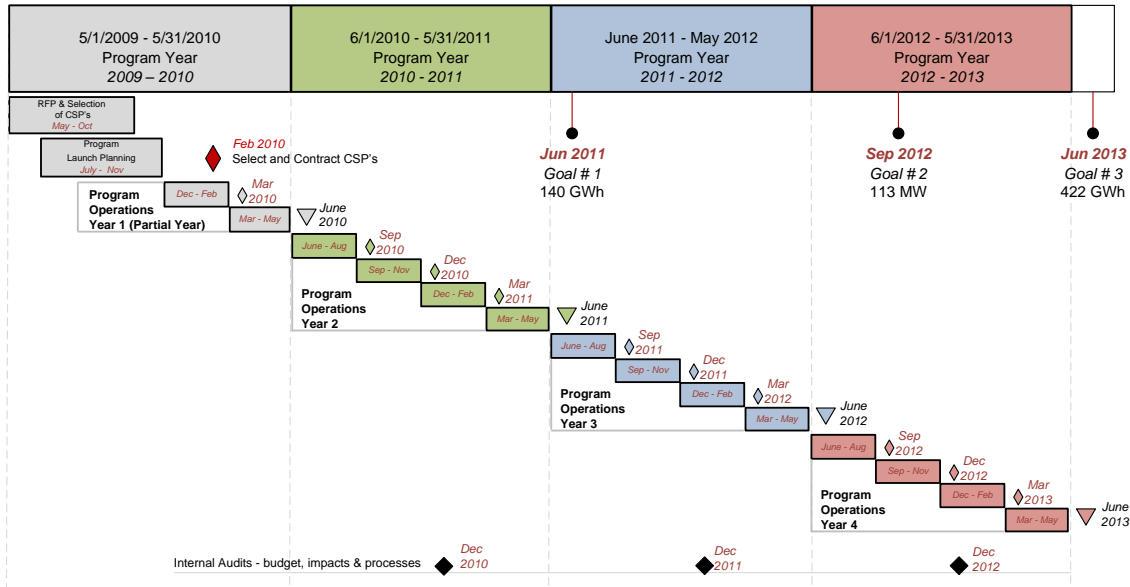
- Start and completion dates for the launch and close of Residential Portfolio programs for Program Years 2009, 2010, 2011 and 2012
- Start and completion dates for the launch and close of Commercial/Industrial Small portfolio programs for Program Years 2009, 2010, 2011 and 2012
- Start and completion dates for the launch and close of Commercial/Industrial Large portfolio programs for Program Years 2009, 2010, 2011 and 2012
- Start and completion dates for the launch and close of Governmental/Non-Profit Small portfolio programs for Program Years 2009, 2010, 2011 and 2012

As well, include the following for each chart:

- Start and completion dates for design of each Program Year
- Dates at which CSPs will be selected and placed under contract for each portfolio
- Dates at which EDC will provide annual program reports to Commission



Section 12, Chart 1  
 Energy Efficiency and Conservation Plans  
 Gantt Chart of Program Schedule Summary  
 Residential Portfolio Programs



Assumptions:

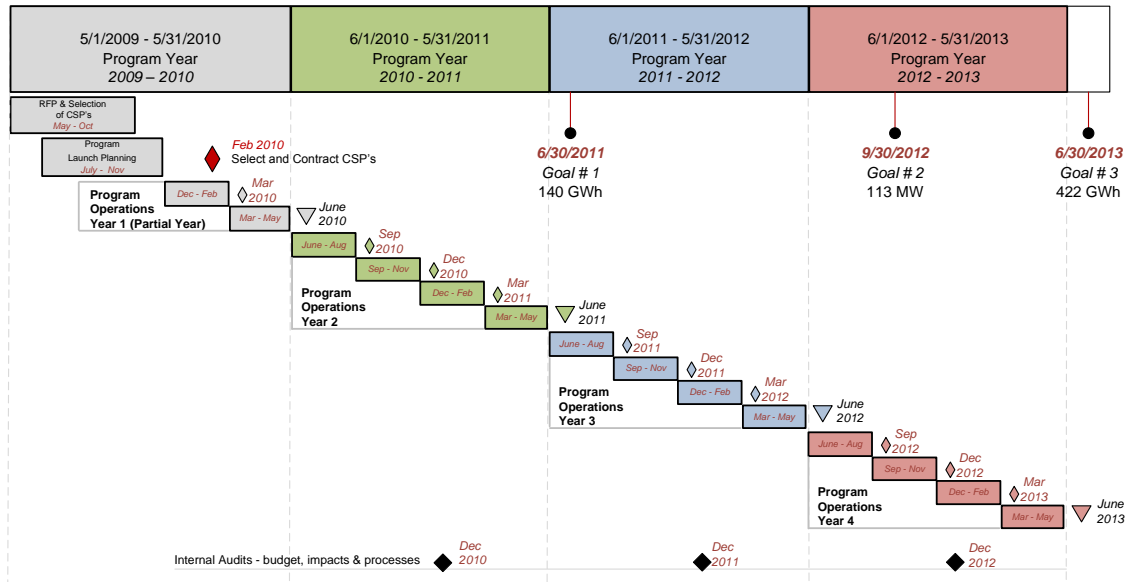
Duquesne Light Company filing of plans on July 1, 2009  
 Pennsylvania Public Utility Commission Approval of plans on November 1, 2009

Key	
◇	Quarterly Report
▽	Annual Report PUC
◆	Internal Audit

Note: Program Year Ending May 31



Section 12, Chart 2  
 Energy Efficiency and Conservation Plans  
 Gantt Chart of Program Schedule Summary  
 Small Commercial and Industrial Portfolio Programs



Assumptions:

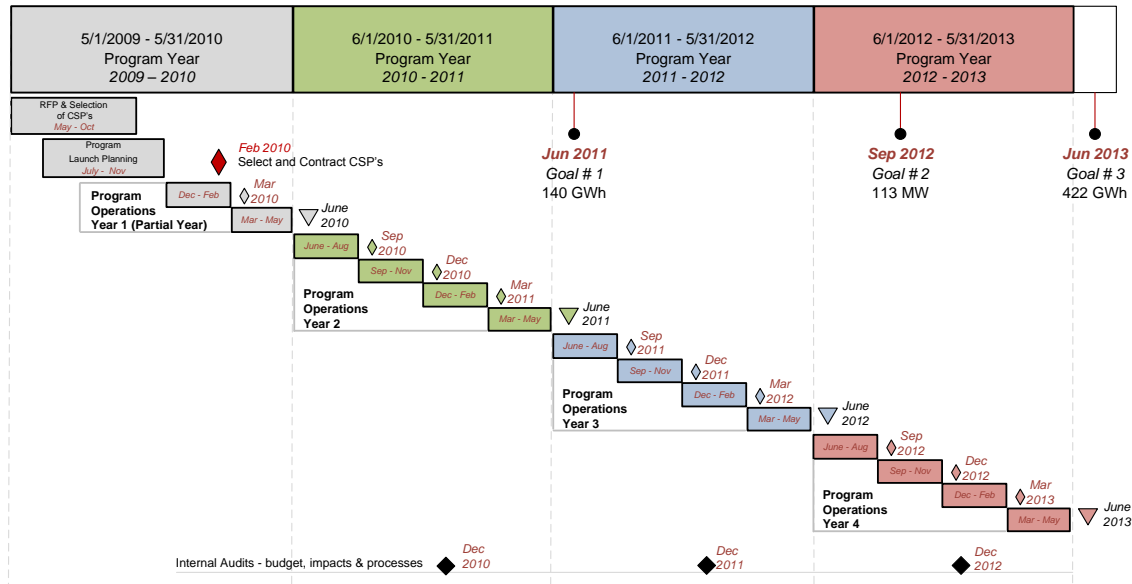
Duquesne Light Company filing of plans on July 1, 2009  
 Pennsylvania Public Utility Commission Approval of plans on November 1, 2009  
 Small commercial/industrial customers are covered by these programs

Key	
◇	Quarterly Report
▽	Annual Report PUC
◆	Internal Audit

Note: Program Year Ending May 31



Section 12, Chart 3  
 Energy Efficiency and Conservation Plans  
 Gantt Chart of Program Schedule Summary  
 Large Commercial and Industrial Portfolio Programs



Assumptions:

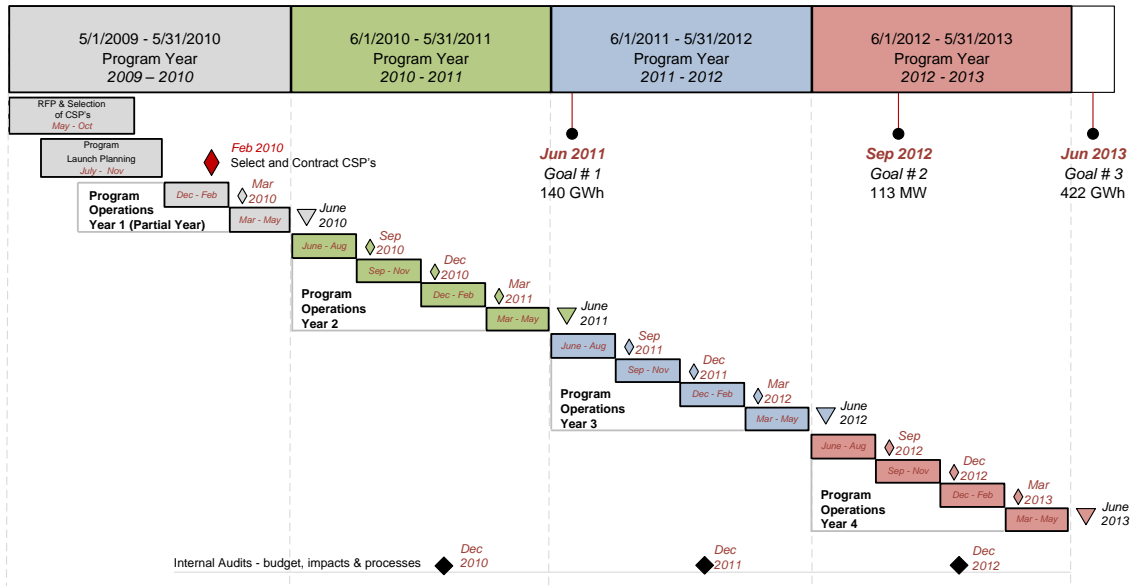
Duquesne Light Company filing of plans on July 1, 2009  
 Pennsylvania Public Utility Commission Approval of plans on November 1, 2009  
 Large commercial/industrial customers are covered by these programs

Key	
◇	Quarterly Report
▽	Annual Report PUC
◆	Internal Audit

Note: Program Year Ending May 31



Section 12, Chart 4  
 Energy Efficiency and Conservation Plans  
 Gantt Chart of Program Schedule Summary  
 Governmental/Non-Profit Portfolio Programs



Assumptions:

Duquesne Light Company filing of plans on July 1, 2009  
 Pennsylvania Public Utility Commission Approval of plans on November 1, 2009  
 Includes large hospital and education customers

Key	
◇	Quarterly Report
▽	Annual Report PUC
◆	Internal Audit

Note: Program Year Ending May 31