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July 1, 2009

**VIA PERSONAL DELIVERY**James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120**Re: Joint Petition for Consolidation of Proceedings and Approval of Energy Efficiency and Conservation Plans of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company**  
**Docket Numbers M-2009-2092222, M-2009-2112952 and M-2009-2112956**

Dear Secretary McNulty:

Metropolitan Edison Company ("Met-Ed"), Pennsylvania Electric Company ("Penelec") and Pennsylvania Power Company ("Penn Power") (collectively, the "FirstEnergy Companies"), hereby submit an original and three copies of the above-mentioned Joint Petition for Consolidation of Proceedings and Approval of Energy Efficiency and Conservation Plans. This filing is being submitted pursuant to 66 Pa. C.S. § 2806.1 and the January 15, 2009 Implementation Order of the Pennsylvania Public Utility Commission ("Commission") in the matter of Energy Efficiency and Conservation Programs at Docket No. M-2008-2069887.

In addition to the enclosed Joint Petition and the instant Transmittal Letter, this filing includes a Table of Contents, Overview of the Plans, Energy Efficiency and Conservation Portfolio/Program Summary Tables and Charts, Program Descriptions, Program Management and Implementation Strategies, Reporting and Tracking Systems, Quality Assurance and Evaluation, Measurement, and Verification, Cost Recovery Mechanisms, Cost Effectiveness Information, Plan Compliance Information, Appendices and a discussion of Other Key Issues.

James J. McNulty, Secretary  
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July 1, 2009

If you have any questions, or require additional information, please feel free to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read "Bradley A. Bingaman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Bradley A. Bingaman

Enclosure

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Joint Petition of Metropolitan Edison  
Company, Pennsylvania Electric Company  
and Pennsylvania Power Company for  
Consolidation of Proceedings and Approval  
of Energy Efficiency and Conservation  
Plans** : : **Docket Nos. M-2009-2092222, M-  
2009-2112952 and M-2009-2112956**

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**JOINT PETITION OF METROPOLITAN EDISON COMPANY,  
PENNSYLVANIA ELECTRIC COMPANY AND  
PENNSYLVANIA POWER COMPANY**

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**Dated: July 1, 2009**

**Counsel for:  
Metropolitan Edison Company,  
Pennsylvania Electric Company and  
Pennsylvania Power Company**

In accordance with the January 15, 2009 Implementation Order of the Pennsylvania Public Utility Commission (“Commission”) in the Matter of Energy Efficiency and Conservation Programs (“EE&C Plans”) at Docket No. M-2008-2069887<sup>1</sup>, Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric Company (“Penelec”) and Pennsylvania Power Company (“Penn Power”) (collectively, the “FirstEnergy Companies” or “Companies”) hereby file this Joint Petition with the Commission requesting approval of the EE&C Plans of the FirstEnergy Companies and authorization for each of the FirstEnergy Companies to implement proposed tariff riders for cost recovery purposes, as described herein.

Further, pursuant to 52 Pa. Code Section 5.81, the FirstEnergy Companies hereby request a consolidated review of the EE&C Plans of the FirstEnergy Companies on the grounds that they present common questions of law and fact and a consolidated review of these plans will avoid unnecessary costs and delay. In support of this Joint Petition, the FirstEnergy Companies state as follows:

**I. INTRODUCTION AND BACKGROUND**

1. On October 15, 2008, Governor Rendell signed House Bill 2200 into law as Act 129 of 2008 (“Act 129”). Act 129 became effective on November 14, 2008, and imposed new requirements on Pennsylvania’s electric distribution companies (“EDCs”) in the areas of energy efficiency and conservation, smart meters, electricity procurement and alternative energy sources.

2. Among other things, Act 129 created an Energy Efficiency and Conservation Program. 66 Pa. C.S. §§ 2806.1 and 2806.2. Act 129 requires an EDC with at least 100,000 customers to adopt and implement a plan, approved by the Commission, to reduce energy

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<sup>1</sup> *Energy Efficiency and Conservation Programs*, Docket No. M-2008-2069887 (Implementation Order entered January 16, 2009) (“Implementation Order”).

demand and consumption within its service territory. Pursuant to Act 129, the EDC plan must be designed to allow the EDC to achieve the following specific reductions in energy consumption and peak demand:

- Reduce electric consumption by at least 1% by May 31, 2011, 66 Pa. C.S. §2806.1(c)(1);
- Reduce electric consumption by at least 3% by May 31, 2013, 66 Pa. C.S. §2806.1(c)(2); and
- Reduce demand by a minimum of 4.5% of the EDC's annual system peak demand for the 100 hours of highest demand by May 31, 2013, 66 Pa. C.S. §2806.1(d)(1).

3. On January 15, 2009, the Commission adopted an Implementation Order establishing standards for the EE&C Plans which are the subject of this Joint Petition. The Implementation Order provided details and specific directives and guidance on Act 129 and the procedures for submitting, reviewing and approving the EDC EE&C plans. Following the passage of Act 129, the Commission conducted an extensive process in implementing the new law. The FirstEnergy Companies have been active participants in the Commission's efforts and have worked with the Commission and other interested parties to develop the rules and processes associated with this endeavor.

4. On May 7, 2009, the Commission issued a Secretarial Letter which was developed in accordance with the Commission's Implementation Order and provided an EE&C Plan template to be used by each EDC in preparing and filing their respective EE&C Plans with the Commission.<sup>2</sup> The template provides a standardized format for an EDC to present and file all

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<sup>2</sup> The Commission also issued Secretarial Letters and Orders seeking input from interested parties on other issues including: procedures for registering and approving conservation service providers and contracts; consumption forecasts and peak demand reduction targets; modification of the existing Technical Reference Manual for use in

the information required by Act 129 and the Commission's Implementation Order relating to an EDC's EE&C Plan.

5. On May 28, 2009 the Commission adopted Standards for the Participation of Demand Side Management Resources in an updated Technical Reference Manual to be used to guide evaluation of savings impacts. (Docket No. M-00051865, Order entered June 1, 2009).

6. Further, on June 23, 2009 the Commission issued its final Order setting forth the nature of the Total Resource Cost ("TRC") test to be used to analyze the costs and benefits of the EE&C plans that EDCs are required to file. (Docket No. M-2009-2108601, Order entered June 23, 2009).

7. The FirstEnergy Companies hereby respectfully submit for approval their EE&C Plans pursuant to Act 129 and the Commission's Implementation Order. The FirstEnergy Companies utilized the template prescribed by the Commission in preparing and filing these EE&C plans. These plans outline the Companies' strategies and programs to be implemented in order to achieve the required reductions in energy consumption and peak demand in accordance with Act 129. Each plan includes a proposed tariff rider that would establish an Energy Efficiency and Conservation Charge Rider ("Tariff Rider") to be utilized to recover the costs associated with the FirstEnergy Companies' EE&C Plans.

8. The FirstEnergy Companies specifically request that the Commission consolidate the FirstEnergy Company's EE&C Plans for review and approval and authorize the FirstEnergy Companies to implement the proposed tariff riders, as described herein.

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evaluating energy efficiency and conservation plans; and modification of the California Total Resource Cost test for ranking and prioritizing EE&C programs under Pennsylvania-specific criteria.

## II. ENERGY EFFICIENCY AND CONSERVATION PLANS

### A. Overview of Plans:

9. The FirstEnergy Companies have developed and are proposing to implement comprehensive EE&C plans that include specific proposals to implement energy efficiency and conservation measures to achieve the required reductions in consumption prescribed by Act 129. The plans describe how the Companies will achieve the requirements of Act 129 and explain how quality assurance and performance will be measured, verified and evaluated.

10. The FirstEnergy Companies have developed EE&C plans that balance near-term energy savings opportunities among all rate classes, as well as longer-term programs that will foster greater energy and demand reduction impacts.

11. The EE&C plans are designed to provide for a minimum of 10% of consumption and demand reductions from units of federal, state and local government.

12. The FirstEnergy Companies have selected by competitive bid and entered into a contract with Black & Veatch Corporation (“Black & Veatch”), a Conservation Service Provider (“CSP”) listed on the Commission’s Registry of Approved CSPs<sup>3</sup>, to assist the Companies with the EE&C plans.<sup>4</sup> The competitive bid and request for proposal process<sup>5</sup>, as well as the standardized CSP contract<sup>6</sup>, utilized by the Companies were approved by Commission staff.

13. The approved CSP contract with Black & Veatch consists of three parts: 1) PUC Approved Standardized CSP Contract, 2) Purchase Order, and 3) CONFIDENTIAL Proposal.

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<sup>3</sup> See, [www.puc.state.pa.us](http://www.puc.state.pa.us); *Implementation of Act 129 of 2008 Phase 2 – Registry of Conservation Service Providers*, Docket No. M-2008-2074154, Final Order entered February 5, 2009.

<sup>4</sup> A description of the work and measures being performed by the CSP, Black & Veatch, along with cost allocations is included in the attached plans. The contract, approved by the Commission and utilized by the FirstEnergy Companies to hire Black & Veatch, is provided in the Appendix of each of the Companies’ plans.

<sup>5</sup> *FirstEnergy Corp. Conservation Service Provider Request for Proposal, Energy Efficiency and Conservation Program* Docket No. M-2008-2069887, Docket No. A-2009-2092222, Secretarial Letter issued March 18, 2009.

<sup>6</sup> *FirstEnergy Corp. Conservation Service Provider Request for Proposal, Energy Efficiency and Conservation Program* Docket No. M-2008-2069887, Docket No. A-2009-2092222, Secretarial Letter issued April 27, 2009.

The Proposal portion of the contract contains confidential employee salary and fee information which will cause competitive harm to the CSP if publicly disseminated. The FirstEnergy Companies hereby request "CONFIDENTIAL" treatment of the Proposal portion of the Approved CSP Contract, pursuant to and in accordance with the approved Commission Template and the Commission's Act 129 Implementation Order.

14. The FirstEnergy Companies have coordinated certain efforts across the service territories of each of the Companies in order to achieve cost efficiencies and offer consistent programs to customers of all three Companies. The coordinated efforts of the FirstEnergy Companies have resulted in a comprehensive set of measures that have been grouped into programs that will enable each of the Companies to separately achieve the goals established under Act 129 for energy savings in 2011 and for energy and demand reductions in 2013, within the mandated spending limitations.

15. The plans include cost estimates to develop and implement the programs and measures, and a tariff rider cost recovery mechanism pursuant to 66 Pa. C.S. §1307 is proposed to ensure full and current recovery of the costs of the plan. A budget showing total planned expenditures by program and customer class is also included in each of the Companies' plans.

16. The FirstEnergy EE&C plans are based upon the requirements and guidance of the Total Resource Cost ("TRC") Test (May 28, 2009), with some minor changes that were requested during the comment period. Notable changes were the use of marginal transmission and distribution costs instead of the full transmission and distribution rates. FirstEnergy, as stated in its Comments filed on June 5, 2009, at Docket No M-2009-2108601, did not have the ability to address all of the changes presented in the final TRC Order entered on June 23, 2009 before filing these plans on July 1, 2009; however, the resulting FirstEnergy plans are cost

effective and compliant under the TRC test required by Act 129 and approved by the Commission in its June 23<sup>rd</sup> Order. The results of the TRC test, as applied to the FirstEnergy Companies' plans, are presented in PUC Table 1 and are expressed as both a net present value and a benefit-cost ratio.

17. Documentation and testimony supporting the Companies' EE&C plans are provided and attached hereto. Specifically, Mr. John E. Paganie (Met-Ed/Penelec/Penn Power Statement No. 1) provides a summary and overview of the FirstEnergy Companies' EE&C plans and process utilized to develop the plans. Mr. George Fitzpatrick (Met-Ed/Penelec/Penn Power Statement No. 2) describes and discusses the specific plans and programs in detail. Mr. Raymond I. Parrish (Met-Ed/Penelec/Penn Power Statement No. 3) provides an overview of the Companies' proposals to recover the costs associated with developing and implementing the EE&C plans through new tariff riders for each of the Companies. The Companies reserve the right to introduce and offer additional witnesses during this proceeding, as needed.

18. In order to determine the percentage consumption reductions required to be achieved by the Companies under Act 129, the FirstEnergy Companies provided forecasting and historical peak load information to the Commission.<sup>7</sup>

19. The energy consumption forecasts approved by the Commission<sup>8</sup> and Act 129 required reductions measured in megawatt hours are provided as follows for each of the Companies:

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<sup>7</sup> Also included in each Company's plan is the Commission approved consumption forecast for the period of June 1, 2009 through May 31, 2010 and the Commission approved average of the companies' 100 highest peak hours during the period of June 1, 2007 through September 30, 2007.

<sup>8</sup> *Energy Consumption and Peak Demand Reduction Targets*, Docket No. M-2008-2069887, Order entered March 30, 2009.

	<b>Forecast</b>	<b>1% Reduction</b>	<b>3% Reduction</b>
<b>Met-Ed</b>	14,865,036	148,650	445,951
<b>Penelec</b>	14,399,289	143,993	431,979
<b>Penn Power</b>	4,772,937	47,729	143,188

20. The average historical peak loads approved by the Commission<sup>9</sup> and Act 129 mandated peak demand reductions as measured in megawatts for each of the Companies are provided as follows:

	<b>Load</b>	<b>4.5% Reduction</b>
<b>Met-Ed</b>	2,644	119
<b>Penelec</b>	2,395	108
<b>Penn Power</b>	980	44

21. In developing the proposed EE&C programs, the FirstEnergy Companies received significant input from various interested parties and stakeholders in Pennsylvania:

a) A Request for Information was issued to existing and potential Conservation Service Providers, asking detailed questions regarding effective program elements, average costs and recommendations for the Companies' consideration in the design of various programs. Twenty-eight entities responded with detailed information and ideas.

b) Three Stakeholder Meetings were held at the Commission's offices in Harrisburg for the Companies to share plan status and obtain input from attendees.

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<sup>9</sup> *Id.*

Numerous insightful discussions took place at all three meetings and in follow-up calls with the design team that resulted in significant improvements to the proposed programs.

c) The Companies shared conceptual plans with Community Based Organizations through a presentation and received valuable feedback from interested participants.

**B. Programs:**

22. The FirstEnergy Companies have designed a diverse suite of programs that range from providing customers with generic information about saving energy to customized information and services to help make changes in specific facilities. The FirstEnergy Companies anticipate these initiatives to be rolled out to customers in three general stages.

a) *Stage 1:* The FirstEnergy Companies will launch and conduct an awareness and education campaign to build consumer understanding and interest in saving energy. For Met-Ed and Penelec, this campaign will make people aware of the transition to market-based rates taking place in 2011 and the opportunities for customers to take advantage of EE&C programs being offered to help mitigate the effects of potential increases in customer bills. For Penn Power, this campaign will focus on informing customers about opportunities to participate in EE&C programs. Included in each program's budget is a share of a first year marketing campaign for that sector. In addition the Companies will utilize the Consumer Education Program approved by the Commission in 2008, at Docket Nos. M-2008-2032261, M-2008-2032262 and M-2008-2032263 to educate customers about the programs.

b) *Stage 2:* All customers will be encouraged to have an energy audit conducted as a starting point to help identify any potential energy efficiency opportunities. The

results of the audits will be used to develop various energy efficiency recommendations that can be pursued by customers.

c). *Stage 3*: The Companies will offer a suite programs that incorporate fixed rebates and incentives, performance contracts, and information that allows a customer to leverage existing loan programs – all of which facilitate the implementation of any recommended measure. These programs (which are described in greater detail in each Company’s EE&C plan and summarized in Witness Fitzpatrick’s testimony) include all of the following:

- Residential:

- Home Energy Audits
- Appliance Turn-in
- Residential Rebates for HVAC and Solar
- Energy Efficient Products Program
- Residential New Construction Program
- Residential Whole-Building Program
- Low Income Residential Program

- Non-Residential:

- Energy Audits and Assessments
- Government & Institutional Programs
- C/I Equipment Program (rebates)
- C/I “Performance Contracting”
- C/I Motors and VSD Program
- Multifamily Housing Program

- Government and Institutional.<sup>10</sup>

- Federal Facilities Program
- Street and Traffic Lighting Conversion Program
- State & Local Government Program
- Schools Program

- Demand Response:

- Residential/Small Commercial Direct Load Control
- Commercial/Industrial Demand Response Program

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<sup>10</sup> If a multi-family facility is operated by a local, state or federal agency, savings as a result of measures for these multi-family facilities may also qualify for Governmental and Institutional prescribed opportunities.

23. The specific program designs listed above cover each of the four major market segments – residential (including low-income), small non-residential, large non-residential and government – using a mix of expanded and new services that take maximum advantage of leveraging opportunities, volume cost efficiencies and a variety of delivery channels that are estimated to result in high levels of customer participation, measured implementation and behavioral change. All of these program designs are presented in detail in the Companies’ EE&C plans attached hereto.

**C. Energy Efficiency and Conservation Charge Rider:**

24. Currently, absent a cost recovery rider, the FirstEnergy Companies do not have a mechanism available to recover the costs associated with developing and implementing EE&C plans and programs. Pursuant to Act 129 (66 Pa.C.S. §2806.1(k)), the Companies are proposing 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 development, provision and management of their energy efficiency and conservation plans.

25. Pursuant to Act 129 (66 Pa.C.S. § 2806.1(a) (11)) the cost recovery mechanism proposed by each of the Companies will ensure that approved measures are financed by the customer class that receives the direct energy and conservation benefit of the measures. Further, the Companies’ plans include cost estimates for implementation of all measures. 66 Pa.C.S. § 2806.1(b) (1) (i) (F).

26. The proposed cost-recovery tariff mechanism included in the Companies’ plans, and in accordance with 66 Pa.C.S. §1307, will ensure full and current recovery of prudent and reasonable costs to fund all program measures, as well as administrative costs, as approved by the Commission. 66 Pa.C.S. § 2806.1(b)(1)(i)(H).

27. The total costs of the Companies' EE&C plans for the 43-month period<sup>11</sup> to be recovered will not exceed 2% of the EDC's total annual revenue as of December 31, 2006 on a comparable 43-month basis: 1) excluding expenditures for Low Income Usage Reduction Programs pursuant to 52 Pa. Code § 58; 2) expenditures included in the Companies' Consumer Education Program Cost Recovery Riders pursuant to Docket Nos. M-2008-2032261, M-2008-2032262, and M-2008-2032263; 3) costs associated with funding the state wide evaluator<sup>12</sup>; and, 4) any other appropriate costs that may be incurred in the future but are unknown today.

28. Total annual revenues are defined as "[a]mounts paid to the electric distribution company for generation, transmission, distribution and surcharges by retail customers." 66 Pa.C.S. § 2806.1(m). The total annual revenues as of December 31, 2006, for each of the FirstEnergy Companies are as follows:

	<b>Total Annual Revenue – 12/31/06</b>
<b>Met-Ed</b>	\$1,243,344,716
<b>Penelec</b>	\$1,148,737,096
<b>Penn Power</b>	\$332,989,436

29. The total amount of EE&C costs permitted to be recovered by the FirstEnergy Companies based on the 2% limitation set forth in Act 129, and excluding expenditures for Low Income Usage Reduction Programs under 52 Pa. Code § 58, are provided as follows:

<sup>11</sup> It is anticipated that the Plan will be approved by the end of October, thus allowing the Companies to launch programs in early November, 2009, that will run until May 31, 2013.

<sup>12</sup> The FirstEnergy Companies intend to recover the costs of the state wide evaluator through the proposed Energy Efficiency and Conservation Charge Rider.

	<b>2% of Total Annual Revenue – 12/31/06</b>
<b>Met-Ed</b>	\$24,866,894
<b>Penelec</b>	\$22,974,742
<b>Penn Power</b>	\$6,659,789

30. A careful and more-detailed estimate of the costs relating to the FirstEnergy Companies' EE&C plans are set forth in each Company's plan attached hereto. The reasonable and prudent costs include expense items relating to all program elements, equipment and facilities, as well as all related administrative costs. The costs include the ongoing costs of the energy efficiency and conservation plans and the incremental costs incurred to design, create and obtain Commission approval of the plans.

31. In this Joint Petition, and as part of the EE&C plans, the FirstEnergy Companies are seeking approval to establish a proposed tariff rider (i.e. Energy Efficiency and Conservation Charge Rider) as a mechanism to recover the costs associated with developing and implementing the EE&C plans. The proposed tariff riders are attached to each Company's plan.

32. Pursuant to the tariff rider, an Energy Efficiency and Conservation Charge ("EEC-C") shall be applied to each kilowatt-hour delivered during a billing month to customers served under the tariff. Some of the highlights of the rider include:

- The EEC-C rates shall be calculated separately for each customer class according to the provisions of the rider;
- The EEC-C rates shall be effective November 1, 2009;

- The EEC-C rates shall remain in effect for the 43-months ending May 31, 2013 (“Computational Period”), unless revised on an interim basis subject to Commission approval;
- The Companies may request Commission approval of interim revisions to the EEC-C rates to become effective 30 days from the date of filing, if it is determined that not changing the EEC-C rate would result in a material over-or-under-collection of all reconcilable costs during the EEC-C Computational Period;
- The Companies shall file an annual report of collections under the rider within 30 days following the conclusion of each EEC-C reconciliation year (12-month period ending May 31 each year during the duration of the proposed EEC riders); and
- Application of the EEC-C rates shall be subject to annual review and audit by the Commission.

33. Following Commission approval, the FirstEnergy Companies request that the Commission authorize the Companies to implement the proposed tariff riders for each Company to become effective on November 1, 2009, and to incorporate the respective riders into the retail electric service tariffs of Met-Ed, Penelec and Penn Power.

34. The FirstEnergy Companies also acknowledge that the Commission has announced a partnership with GDS Associates Inc. Engineers and Consultants to provide long-term, statewide evaluation of electric distribution company (“EDC”) energy efficiency programs. While the costs of this partnership — at this time are unknown to the Companies — it is expected that the Companies will recover the costs to fund this activity through the EEC Riders. However, these

costs must be excluded from the final determination of the Companies' two percent limitation on EEC Programs costs as specified in Act 129.

**D. Implementation Issues:**

35. The FirstEnergy Companies propose to implement programs presented in the proposed EE&C plans in a staged manner as follows:

- Launch customer awareness and educational campaign immediately after approval of the EE&C plan to start to build consumer interest.
- Solicit and secure CSPs and implementation vendors in August/September prior to Commission approval of the plan to enable most programs to launch in November 2009, soon after the plan is approved.

36. The FirstEnergy Companies anticipate a ramp up of programs starting in November 2009. Monthly program kW/kWh TRM-based impacts and costs incurred will be tracked from the conception of each program. To the extent that program/measure market penetration lags behind the expected kW/kWh-cost forecasts, so should the rate at which budgeted costs are incurred. If it is found that one or more programs are not meeting expectations, the companies may shift the focus of programs, measures and/or resources, as provided in their EE&C plans.

37. While Act 129 requires that this proceeding be completed within four months, expedited Commission approval of recovery of start-up costs may be critical to the success of these programs. Fast track approval of cost recovery for particular contracts and programs will enable the FirstEnergy Companies to execute contracts and secure services necessary to perform the tasks outlined in these EE&C plans. Moreover, the postponement of approval for cost recovery for such contracts until completion of the entire review process may delay implementation of programs outlined herein.

38. Consequently, the FirstEnergy Companies specifically request “fast track” approval of any contracts related to the proposed plans and that may be submitted for approval during the review process which follow the preapproved standardized contract template, pursuant to the preapproved request-for-proposal process, that addresses activities necessary to the accomplishment of the proposed EE&C plans and which do not exceed the costs permitted to be recovered by the FirstEnergy Companies based on the 2% limitation set forth in Act 129. A brief description of such contracts and anticipated commencement dates is provided on “Figure 2”, EE&C Plan Timelines, contained in each plan.

**E. Procedural Timeline:**

39. In accordance with Act 129 and the Commission’s Implementation Order, the FirstEnergy Companies anticipate the following procedural timeline to address the EE&C plans:

FirstEnergy Companies file Energy Efficiency and Conservation Plans	July 1, 2009
Plans published in <i>PA Bulletin</i> and on Commission website	July 18, 2009
Answers (Comments, Recommendations) of Interested Parties	20 days after published in <i>PA Bulletin</i> or by August 7, 2009
Public Input Hearing conducted by Administrative Law Judge	65 days after filing of plans or by September 3, 2009
Evidentiary Hearing conducted by Administrative Law Judge	65 days after filing of plans or by September 3, 2009
Briefs	10 days after hearings or by September 14, 2009
Reply Briefs, Revisions to Plan	10 days after Briefs due or by September 24, 2009
Commission Order	By October 29, 2009

**F. Benefits of the Plans:**

40. As demonstrated in the attached plans and testimony, the FirstEnergy Companies’ EE&C plans are consistent with Act 129 and the Commission’s Implementation Order, are in the

public interest, and should benefit customers by providing them with cost effective opportunities to reduce electricity consumption. The FirstEnergy Companies' EE&C plans include the following positive aspects:

- The FirstEnergy Companies' EE&C plans include a variety of EE&C measures and will provide the measures equitably to all customer classes pursuant to 66 Pa. C.S. §2806.1(a)(5).
- The plans include a well-reasoned and balanced test of measures that are tailored to usage and to the potential for savings and reductions for each customer class.
- The plans are cost effective, in accordance with the Total Resource Cost test, and will provide a diverse cross-section of alternatives and reasonable mix of programs that should benefit consumers of all rate classes as required by 66 Pa. C.S. §2806.1(b)(1)(i)(I).
- The plans proposed herein are expected to enable the Companies to meet or exceed the required Act 129 consumption and peak demand reductions based on the Technical Reference Manual and other metric resources to measure the effect of various EE&C measures.
- The estimated costs of the proposed EE&C measures are prudent and reasonable, are being reasonably allocated, and will be recovered from the customer class receiving the direct benefit of such measures.

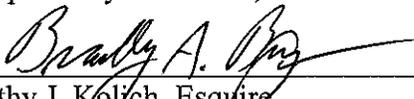
41. The Joint Petitioner's attorneys in this matter are identified below. All correspondence, notices, documents, orders or other communications with respect to the above-captioned proceedings should be addressed to Bradley A. Bingaman, with a copy (electronic if possible) to Kathy J. Kolich and Renardo L. Hicks at the addresses provided below.

**III. CONCLUSION**

WHEREFORE, the FirstEnergy Companies respectfully request that the Commission consolidate the instant matter for review and issue an Order approving the Energy Efficiency and Conservation Plans of Met-Ed, Penelec and Penn Power, and authorizing Met-Ed, Penelec and Penn Power to implement their respective Energy Efficiency and Conservation Charge Riders and Energy Efficiency and Conservation Charge rates, effective on November 1, 2009.

Respectfully submitted,

Dated: July 1, 2009

  
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Pennsylvania Electric Company and Pennsylvania  
Power Company

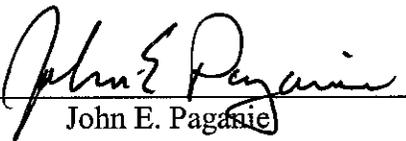
**BEFORE THE  
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: **Docket No. M-2009-2092222**  
:  
:

**VERIFICATION**

I, John E. Paganie, hereby declare that I am Vice President, Customer Service and Energy Efficiency, FirstEnergy Service Company; that as such I am authorized to make this Verification on behalf of Metropolitan Edison Company; that the facts set forth in the foregoing documents are true and correct to the best of my knowledge, information and belief; and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904, relating to unsworn falsifications to authorities.

Date: July 1, 2009

  
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John E. Paganie

**BEFORE THE  
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: :

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a true and correct copy of the foregoing document upon the individuals listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

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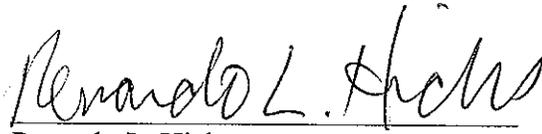
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Dated: July 1, 2009

  
Renardo L. Hicks

**Metropolitan Edison Company**

Energy Efficiency and Conservation Plan

Act 129 of 2008

Docket No. M-2009-2092222

**July 1, 2009**

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**1. OVERVIEW OF PLAN**

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

FirstEnergy has coordinated EE&C development efforts across its three Pennsylvania operating companies: Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric Company (“Penelec”), and Pennsylvania Power Company (“Penn Power”), to achieve cost efficiencies and offer a consistent set of programs to customers served by its three companies. Met-Ed, Penelec and Penn Power are submitting separate Energy Efficiency and Conservation (“EE&C”) plans for Commission approval in accordance with Act 129 of 2008<sup>1</sup> (“Act 129”). 66 Pa. C.S. §2806.1.

Met-Ed has prepared an EE&C Plan (“Plan”) that balances near-term energy savings opportunities among all rate classes with longer-term programs that will create jobs and build capacity for delivering even greater energy and demand reduction impacts. For selected programs, cooperative efforts may go even further such that all the major Pennsylvania electric distribution companies (“EDCs”) subject to Act 129 will offer coordinated statewide programs to their customers. The result of these efforts is a comprehensive set of programs that will enable Met-Ed to achieve the goals established under Act 129 for energy savings by 2011 and for energy and peak demand reductions by 2013, all achieved within the spending caps as required under Act 129 and as prescribed by the Pennsylvania Public Utility Commission (“PUC” or “Commission”). Met-Ed’s goals are highlighted in grey in Met-Ed Tables 1 and 2 below<sup>2</sup>:

**Met-Ed Table 1: FirstEnergy Energy Savings Targets per Act 129**

<b>Energy Consumption Forecasts and Act 129 Mandated Consumption Reductions as Measured in Megawatt-Hours</b>			
<b>EDC</b>	<b>Forecast</b>	<b>1% at 5/31/2011 Reduction</b>	<b>3% at 5/31/2013 Reduction</b>
Penelec	14,399,289	143,993	431,979
Penn Power	4,772,937	47,729	143,188
Met-Ed	14,865,036	148,650	445,951

*Source: Energy Consumption and Peak Demand Reduction Targets, Docket No. M-2008-2069887 (Order entered March 30, 2009).*

<sup>1</sup> Act 129 of 2008 became effective on November 14, 2008, and imposed new requirements on Pennsylvania’s electric distribution companies (“EDCs”) in the areas of energy efficiency and conservation, smart meters, procurement and alternative energy sources. Act 129 requires an EDC with at least 100,000 customers to adopt and implement a plan, approved by the Commission, to reduce energy demand and consumption within its service territory. 66 Pa. C.S. §§ 2806.1 and 2806.2.

<sup>2</sup> In addition to the tables required by the Commission (which are designated as “PUC Tables”), the Company developed additional Tables 1 – 6 which are designated as “Met-Ed Tables” and have been included as additional support.

**Met-Ed Table 2: FirstEnergy Peak Load Reduction Targets per Act 129**

<b>Average Peak Loads Top 100 Hours and Act 129 Mandated Peak Demand Reductions as Measured in Megawatts</b>		
EDC	Load	4.5% Reduction
Penelec	2,395	108 MW
Penn Power	980	44
Met-Ed	2,644	119

Source: *Energy Consumption and Peak Demand Reduction Targets*, Docket No. M-2008-2069887 (Order entered March 30, 2009).

These targets are to be achieved for the expenditure levels noted below in Met-Ed Table 3, which represent the annual spending caps established by Act 129:

**Met-Ed Table 3: FirstEnergy Goals and Spending Caps per Act 129**

<b>Revenues 2006</b>	<b>Met-Ed</b>
<b>Total Revenues</b>	\$1,243,344,716
<b>2% of Revenues</b>	\$ 24,866,894

Met-Ed Table 4a-4c summarizes the programs that are included in this Plan. Detailed descriptions of the programs are provided in Section 2 as required by the Commission template. It is the intention of the Company to attempt to coordinate with other EDCs on a statewide basis those programs marked with an asterisk (\*). Met-Ed Table 5 separately lists the rebate amounts per measure for those programs that involve customer incentives. Other programs were considered and analyzed, as were more energy efficiency technologies, but were eliminated from the EE&C Plan for various reasons, including cost effectiveness.

**Met-Ed Table 4a: Met-Ed EE&C Programs - Residential**

<b>Program</b>	<b>Description</b>	<b>Incentives</b>
<b>Home Energy Audits</b>	Households will be able to identify energy saving opportunities through either an on-line or a professional walk through audit. Those who complete either audit will receive free CFLs and other measures.	The on-line audit is free to participating customers and the participating customers will be offered free CFLs and, for those with electric water heating, two faucet aerators. On-site audits, at a subsidized cost to the participating customer of \$50, includes installation of CFLs and other basic energy saving measures.
<b>Residential Appliance Turn-In Program*</b>	Provides a small incentive to households for turning in older inefficient appliances that are in working order.	There are no costs to participating customers for this program. Incentives per unit are: <ul style="list-style-type: none"> <li>▪ Refrigerators \$50</li> <li>▪ Freezers \$50</li> <li>▪ Room Air Conditioners \$50</li> </ul>
<b>Residential HVAC*</b>	Provides incentives for contractor-installed HVAC systems in existing or new	Incentives range from \$250 for ENERGY STAR qualified Central AC systems at 15 SEER to \$325 for qualified heat pumps at 15 SEER.

Program	Description	Incentives
	residential buildings.	
<b>Residential Energy Efficiency Products Program*</b>	Provides incentives to participating customers and support to retailers that sell energy efficient products. In addition, the program will provide Community education and workshops.	Rebates and incentives range from \$1 for a CFL light up to \$500 for a solar water heater. High efficiency and heat pump water heaters are included in this program.
<b>Residential New Construction*</b>	Encourages builders to achieve highly energy efficient homes through the implementation of contractor-installed HVAC, solar, or other eligible systems in existing or new residential buildings.	Participating customers receive a rebate based on calculation of the overall home’s energy savings over standard options, and can participate in the prescriptive rebates offered under the other residential rebate programs.
<b>Residential Whole Building</b>	Provides comprehensive diagnostic assessments followed by direct installation of selected low cost measures plus various incentives. Customers can tap into both rebates and loans.	Comprehensive On-site audits including blower door tests are at a subsidized cost to the participating customer of \$100. Provides discounted pricing for eligible measures ranging from free kitchen and bathroom faucet aerators to \$300 toward the cost for duct sealing. Participating customers are encouraged to participate in the Keystone Home Loan Program for the balance of project <sup>3</sup> costs as needed.
<b>Multi-Family - Tenants</b>	Tenants in buildings covered under the Penn. Housing Finance Authority (PHFA) program may participate in lighting retrofits.	Tenants will receive CFLs to replace incandescent bulbs in their units. Building owners will receive incentives toward common area lighting.
<b>Residential Direct Load Control</b>	Provides load cycling controls for Residential Central Air Conditioning (“CAC”), as well as controls for electric water heaters and Pool Pumps for customers	Provides installation of load control equipment, an enrollment incentive of \$50 and a participation incentive of \$10/month for each summer month for each control installed. If participating customers also control either the water heater or pool pump the

<sup>3</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 generic offering (e.g. service and/or incentive) available to 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 energy efficient retrofit, new-construction or solar energy projects. The *portfolio* consists of all the programs in the residential, commercial/industrial small, commercial/industrial large, and governmental/non-profit sectors. Residential sector programs include low-income, single-family and some agricultural and/or multi-family housing projects. Commercial/Industrial Small sector programs include small commercial, industrial, some agricultural or multi-family housing, 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.

<b>Program</b>	<b>Description</b>	<b>Incentives</b>
	receiving CAC controls.	participation incentive increases to \$15/month.
<b>Low-Income Residential</b>	This program provides additional electric energy savings measures to the existing WARM program.	Current WARM participants will receive additional CFLs and smart power strips. Low usage customers that don't qualify for the WARM program will be provided CFLs, aerators and energy educational materials.

**Met-Ed Table 4b: Met-Ed EE&C Programs – Commercial & Industrial**

<b>Program</b>	<b>Description</b>	<b>Incentives</b>
<b>Energy Audit and Technology Assessment Program</b>	Provides a simple walk-through audit for small business with non-complex loads, and a more comprehensive assessment for medium to large non-residential customers. Fixed fee for small businesses and per square foot fee for larger buildings.	Customers receive a basic energy audit. Audits will be advertised and used as an entry to other commercial programs.
<b>C/I Equipment Program*</b>	Provides for the implementation of cost effective, high efficiency standard and non-standard measures.	This program provides incentives for a portion of the incremental technology costs of high efficiency units. In addition, it will provide technical support, rebates, and support access to project financing.
<b>Industrial Motors and Variable Speed Drives</b>	This program is designed to encourage the company's commercial and industrial customers to: <ol style="list-style-type: none"> <li>1. Purchase energy efficient (EE) Motors.</li> <li>2. Install variable speed drives on motors for eligible applications.</li> </ol>	Incentives will be available to customers and through motors distributors. The motor upgrade program's individual incentives per motor range from \$20 to \$400. The variable-speed drive incentive is \$30 per horsepower of the motor being used.
<b>C/I Demand Response Program</b>	This program is designed to address the 100 highest peak load hours in the year, as required under Act 129.	Through PJM and other Demand Markets First Energy will provide payments to companies that reduce load during peak times.
<b>C/I Performance Contracting</b>	Large commercial and industrial (including governmental facilities) customers may elect to secure DSM/EE services through an Energy Services Company that will identify opportunities, implement retrofits and be paid through the savings generated by the project over time.	Met-Ed will identify qualified Energy Services Companies and will pay a portion of the project costs based on measures installed, and associated kWh and kW savings delivered that also support savings goals.

**Met-Ed Table 4c: Met-Ed EE&C Programs – Governmental & Institutional<sup>4</sup>**

<b>Program</b>	<b>Description</b>	<b>Incentives</b>
<b>Federal Facilities Program</b>	Provides for the implementation of cost effective, high efficiency standard and non-standard measures for federal buildings.	For federal facilities that qualify, smaller incentives are offered, due to the fact that most of the costs will be paid for under the Federal Energy Management Program.
<b>Municipal Street Lighting</b>	This program supports conversion of mercury vapor street lights to High Pressure Sodium technology.	Subsidizes the first cost of streetlight conversions normally charged to customers through distribution rates.
<b>Municipal Lighting</b>	This program retrofits traffic and pedestrian signals with LEDs	Provide a rebate of up to \$45 for three light signal retrofits (i.e. Green 8” 25, Red 8” 20) and a rebate of \$25 for a pedestrian signal.
<b>Local and County Government Audits</b>	Provides local and county buildings including schools, with a more comprehensive assessment.	Participating customers receive an energy audit. Audits will be offered free of charge and used as a marketing tool for other commercial programs. These Audits will increase the participation percentage of Government customers.
<b>Local County and State Government, Institutional, Non-Profit and Schools</b>	This program tailors the rebates offered to small and large C/I under the C/I programs by targeted outreach.	Offers the same rebate amounts as are provided under the C/I programs.

The following table lists the planned rebates and customer incentives associated with each of the programs above. Incentives to trade allies and other delivery agents are not included here. More detail is provided in the individual program descriptions in Section 3. It should be noted that for some measures, there will be limits as to the number of units that will be rebated to any one customer or through any one program in order to stay within the budgetary assumptions. In addition, all commercial and industrial rebates require pre-approval by the Company to enable process management and verification of existing equipment.

**Met-Ed Table 5: Met-Ed EE&C Program Rebate Schedule<sup>5</sup>**

<b>Energy Efficiency Program</b>	<b>Technology</b>	<b>Rebate or Incentive Amount</b>
Direct Load Control	Direct Load Control - CAC	Up to \$50 per Year
Direct Load Control	Direct Load Control – Pool Pumps	Up to \$75 per Year

<sup>4</sup> If a multi-family facility is operated by a local, state or federal agency, savings as a result of measures for these multi-family facilities will qualify for Governmental and Institutional prescribed requirements.

<sup>5</sup> All rebates proposed are initial values; maximum values are subject to change based on program experience or other factors.

<b>Energy Efficiency Program</b>	<b>Technology</b>	<b>Rebate or Incentive Amount</b>
Direct Load Control	Direct Load Control – Water Heat	Up to \$75 per Year
Residential Appliance Turn-In Program	Refrigerator/Freezer Recycling	\$50 Payment
Residential Appliance Turn-In Program	Room Air Conditioners	\$50* Payment
Residential Energy Efficient HVAC and Solar Equipment Program	ASHP - SEER 15	\$325** per Unit
Residential Energy Efficient HVAC and Solar Equipment Program	CAC - SEER 15	\$225** per Unit
Residential Energy Efficient HVAC and Solar Equipment Program	CAC- Maintenance	\$25 offer Qualified Service
Residential Energy Efficient HVAC and Solar Equipment Program	EE Ground Source Heat Pump	\$217 per ton
Residential Energy Efficient Products Program	Solar Water Heating	\$500 per Unit
Residential Energy Efficient Products Program	HP Water Heater	\$300 per Unit
Residential Energy Efficient Products Program	EE Water Heater	\$50 per Unit
Residential Energy Efficient Products Program	Programmable Thermostat, if CAC	\$25* per Unit
Residential Energy Efficient Products Program	CFL bulbs regular 15 watts	\$1 off shelf price through retail store
Residential Energy Efficient Products Program	CFL bulbs regular 19 watts	\$1 off shelf price through retail store
Residential Energy Efficient Products Program	Clothes Washer ENERGY STAR®, if home uses Electric Water heater	\$75* per Unit
Residential Energy Efficient Products Program	Dehumidifiers	\$10 per Unit
Residential Energy Efficient Products Program	Freezers ENERGY STAR® -Chest Freezer	\$25* per Unit
Residential Energy Efficient Products Program	Holiday Light Sets	\$20 Max for 6 Boxes \$3.33 per Box
Residential Energy Efficient Products Program	Pump and Motor Single Speed	\$20 per Unit

<b>Energy Efficiency Program</b>	<b>Technology</b>	<b>Rebate or Incentive Amount</b>
Residential Energy Efficient Products Program	Refrigerators-Freezers ENERGY STAR® - Side by Side	\$50* per Unit
Residential Energy Efficient Products Program	Refrigerators-Freezers ENERGY STAR® - Top Freezer	\$50* per Unit
Residential Energy Efficient Products Program	Room Air Conditioners	\$25 per Unit
Residential Energy Efficient Products Program	Smart Strip plug outlet	\$10 per Unit
Residential Energy Efficient Products Program	Torchiere Floor Lamps	\$10 per Unit
Residential New Construction	Residential New Construction - 15% better than energy code	Formula Based on Savings estimated at 70% of Incremental Costs*
Residential New Construction	Residential New Construction - 30% better than energy code	Formula Based on Savings estimated at 70% of Incremental Costs*
Multiple Family	T8-Lighting	\$1 a Watt Rebate base on TRM Table
Governmental Programs	Exterior HID replacement above 250W to 400W HID retrofit	\$0.15 a Watt Rebate base on TRM Table
Governmental Programs	HPT8 4ft 4 lamp, T12 to HPT8	\$0.15 a Watt Rebate base on TRM Table
Governmental Programs	LED Auto Traffic Signals	\$25 Green 8'***, \$20 Red 8'***
Governmental Programs	LED Exit Signs Electronic Fixtures (Retrofit Only)	\$2 a Fixture
Governmental Programs	LED Pedestrian Signals	\$25 per Unit
Governmental Programs	Occupancy Sensors under 500 W	\$2 a Unit
Governmental Programs	Street Lighting - 175 Mercury to 100 HPS	\$200 Offset 1st cost plus initial O&M

<b>Energy Efficiency Program</b>	<b>Technology</b>	<b>Rebate or Incentive Amount</b>
Governmental Programs	Water-Cooled Centrifugal Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	\$50 per Unit
Governmental Programs	Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	\$50 per Unit
Commercial and Industrial Equipment Program	AC <65,000 1 Ph	\$150 per Unit*
Commercial and Industrial Equipment Program	AC 65,000 - 135,000	\$250 per Unit*
Commercial and Industrial Equipment Program	AC 240,000 - 760,000	\$350 per Unit
Commercial and Industrial Equipment Program	Commercial CFL Program	\$1 per Unit
Commercial and Industrial Equipment Program	Clothes Washer CEE Tier1, if Electric Water heater	\$50 per Unit
Commercial and Industrial Equipment Program	Demand-controlled ventilation (DCV)	15% of cost up to \$500
Commercial and Industrial Equipment Program	Efficient Refrigeration Condenser	\$10 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR® Commercial Solid Door Freezers less than 20ft <sup>3</sup>	\$50 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR® Commercial Solid Door Freezers 20 to 48 ft <sup>3</sup>	\$50 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR Commercial Solid Door Refrigerators less than 20ft <sup>3</sup>	\$50 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR® Commercial Solid Door Refrigerators 20 to 48 ft <sup>3</sup>	\$50 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR® Ice Machines less than 500 lbs	\$50 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR® Ice Machines 500 to 1000 lbs	\$150 per Unit

<b>Energy Efficiency Program</b>	<b>Technology</b>	<b>Rebate or Incentive Amount</b>
Commercial and Industrial Equipment Program	ENERGY STAR® Ice Machines more than 1000 lbs	\$200 per Unit
Commercial and Industrial Equipment Program	ENERGY STAR® Steam Cookers or Other Cooking Equipment	Up to \$400 per Unit based on Equipment Savings
Commercial and Industrial Equipment Program	Exterior HID replacement above 175Watt to 400Watt HID retrofit	\$100** per Fixture
Commercial and Industrial Equipment Program	EE Water Heater	\$50 per Unit
Commercial and Industrial Equipment Program	HP Water Heater	\$200 per 100 Gals
Commercial and Industrial Equipment Program	HPT8 4ft 4 lamp, T12 to HPT8	\$0.65 a Watt Rebate base on TRM Table
Commercial and Industrial Equipment Program	LED Exit Signs Electronic Fixtures (Retrofit Only)	\$15 per Fixture
Commercial and Industrial Equipment Program	Occupancy Sensors under 500 W	\$35** Others based on the amount of Controlled Load
Commercial and Industrial Equipment Program	Plug Load Occupancy Sensors Document Stations	\$35** Others based on the amount of Controlled Load
Commercial and Industrial Equipment Program	Commercial Smart Strip Plug Outlet	\$10 per Unit
Commercial and Industrial Equipment Program	Pre Rinse Sprayers	\$35 per Unit
Commercial and Industrial Equipment Program	CAC Refrigerant charging correction	\$25 per Unit
Commercial and Industrial Equipment Program	Refrigeration Commissioning	\$25 per Unit
Commercial and Industrial Equipment Program	Strip curtains for walk-ins - freezer	\$50 per Unit
Commercial and Industrial Equipment Program	Vending Equipment Controller	\$25 per Unit
Commercial and Industrial Equipment Program	Window Film	\$25 per 100 square foot
Commercial and Industrial Equipment Program	Setback/Setup	\$25 per 1000 sq ft conditioned floor area

<b>Energy Efficiency Program</b>	<b>Technology</b>	<b>Rebate or Incentive Amount</b>
Commercial and Industrial Equipment Program	Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	\$25 per Ton
Commercial and Industrial Equipment Program	Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	\$12.50 per Ton
Industrial Motors and Variable Speed Drives	Motors 1 HP 1200	\$20 for <=1 HP
Industrial Motors and Variable Speed Drives	Motors 5 HP 1200	\$54 for >2 <=5 HP
Industrial Motors and Variable Speed Drives	Motors 10 HP 1200	\$70 for >6 <=10 HP
Industrial Motors and Variable Speed Drives	Motors 20 HP 1200	\$113 for >11 <=20 HP Over 20 Based on Formula
Industrial Motors and Variable Speed Drives	Motors 1 HP 3600	\$20 for <=1 HP
Industrial Motors and Variable Speed Drives	Motors 5 HP 3600	\$54 for >2 <=5 HP
Industrial Motors and Variable Speed Drives	Motors 10 HP 3600	\$70 for >6 <=10 HP
Industrial Motors and Variable Speed Drives	Motors 20 HP 3600	\$113 for >11 <=20 HP Over 20 Based on Formula
Industrial Motors and Variable Speed Drives	Water Pumps with VFD's	\$30 per HP
Industrial Motors and Variable Speed Drives	HVAC Fans with VFD's	\$30 per HP
Industrial Motors and Variable Speed Drives	Air Compressors with VFD's	\$30 per HP

\* Program will be subject to a quota for budgetary reasons

\*\* Program will have other rebates based on equipment size and may be subject to quotas for budgetary reasons

The program designs presented in this filing cover each of the four market segments: residential, small non-residential, large non-residential, and government (which includes federal, state, and local government or municipalities/school districts/institutions of higher learning and non-profit entities). The Plan uses a mix of expanded and new services that take maximum advantage of leveraging opportunities, volume cost efficiencies and a variety of delivery channels that are estimated to result in significant levels of customer participation, and allow for the measurement of implementation and behavioral changes.

**Residential Sector Programs** – Residential programs were designed with a progression from general to specific. Home energy audits are expected to serve as a “portal” (but not a requirement) for the other programs, because they serve a dual purpose of providing customers with information upon which they can

act, as well as providing the Company with important baseline information for future impact evaluation. The programs then address a range of first-cost and financing barriers, and tap a variety of delivery channels and vendors. To address the higher first cost of energy efficient appliances and products, rebates are provided. To address the balance of costs associated with projects, households are encouraged to participate in the Keystone Home Loan program. Appliances that can contribute demand reductions at the highest 100 hours of system peak demand will be signed up for a direct load control program that provides a customer incentive for participation. The programs will incorporate monitoring protocols into the implementation process as much as possible so that the measurement and verification (“M&V”) activities for each program are credible but not burdensome.

**Small and Large Non-Residential Sector Programs** – Small and large commercial businesses and industrial customers are similarly addressed by offering targeted information on ways to save energy followed by a choice of prescriptive rebates on selected measures, or a calculated rebate or financing package offered through a third-party vendor. Custom equipment can be addressed either through performance contracts or calculated rebates based upon the estimated amount of energy savings and demand reductions associated with the project. Conservation Service Providers (CSPs), who will act as demand response aggregators, will also be contracted to deliver kW of load reduction during the top 100 load hours of system peak demand.

The Commission identified two special groups for specific targeting through the Act 129 EE&C programs: Government Facilities and Low-Income Households.

**Governmental Sector Programs** –The Plan has program services for three groups -- federal government facilities, local government facilities, schools and facilities operated by non-profit organizations -- all within the Company’s service territory. While all non-residential buildings are eligible for the prescriptive and custom energy efficiency programs, special efforts are targeted at this segment in recognition of their unique decision-making and financing processes for making capital improvements to facilities. To get projects completed, the programs will leverage existing company Area Manager relationships and employ experienced vendors who specialize in working with governmental accounts. Met-Ed will also offer free audits of county and local buildings in order to increase the adoption rates and identify savings potentials.

**Low Income Customer Sector Programs** – Within the residential sector programs is a special category of Low Income Customer Sector Programs. Energy affordability is an increasing concern in Pennsylvania as Met-Ed transitions to market-based rates. The low income customer programs outlined in this Plan will serve a dual purpose of contributing to Act 129 goal attainment and minimizing the percentage of household income that is devoted to energy costs. Enhanced measures and education will be offered in the low income portfolio to give households more control over their energy spending. Maximum effort will be made to capture cost effective electric energy savings as part of the delivery of the existing Low Income Usage Reduction Program (“LIURP”), known as WARM services, by tapping the considerable expertise and existing infrastructure of WARM contractors (Community Based Organizations (“CBOs”) and private contractors). If it is determined that capacity has been reached for these organizations to meet the increased demand and achieve the goals, the Company will enhance the delivery system with additional contractors.

In the low income sector, the existing WARM program has offered comprehensive energy efficiency services to eligible Pennsylvania households for years. The approach being taken in this area of the Plan is to enhance and accelerate the deployment of services to WARM-eligible households by providing additional lighting retrofits and Smart Plug Strips to the package of measures delivered and by adding resources to achieve more savings in each visit. At the time of the home visits, additional Act 129 energy saving equipment will be identified and then mailed directly to the customer’s home. The Company estimates providing services to more than 5,000 Met-Ed homes through the WARM program.

Households with elderly customers and other low use customers sometimes do not qualify for the WARM program even if these customers are within the 150 percent of Federal poverty income guidelines. For these

households, the Company will provide lighting retrofits, aerators and educational materials on behavioral changes that can be made to reduce electricity costs. Additional programs (e.g., appliance recycling, energy efficient products, and load control programs) will also increase availability of subsidized energy efficiency services that, where applicable, will also be offered. The Company estimates that income-qualified low-use customers represent an additional 6,800 households in Met-Ed's service territory.

In short, the EE&C plan will aggressively, yet sensitively, pursue the energy savings available to this special needs groups as an important part of achieving the Company's Act 129 goals, but more importantly, as a way to help these households mitigate the coming effects of the transition to market-based rates.

The Plan also includes:

**Customer Awareness and Education** – Essential to the success of these programs will be a concurrent marketing and educational campaign. Once Commission approval is obtained, Met-Ed will immediately launch an outreach effort that (i) builds awareness and interest in the programs; (ii) communicates ways that customers may participate; and (iii) explains expected benefits and reasons for participating. Included in each program's budget is a share of a first year marketing campaign for that sector with a smaller amount of sustaining marketing resources included for the four year period of the Plan so as to ensure adequate outreach for achieving program goals. In addition, the Company will utilize the Customer Education program approved by the Commission at Docket Nos. M-2008-2032261, M-2008-2032262 and M-2008-2032263. A forthcoming RFP for a Program Management Contractor will include a section requesting a team member with educational expertise in social marketing and consumer behavior change.

**Adherence to the TRC test and the TRM** – Throughout the planning process FirstEnergy has adhered to the requirements of Act 129, beginning with the selection process and timing related to obtaining a CSP for technical support in developing this Plan. The Company, through a competitive bidding selection process, selected Black & Veatch Corporation who has been fully engaged in reviewing and providing commentary on recently released Commission directives, including those related to the requirements and guidance of both the Total Resource Cost Test (May 28, 2009)<sup>6</sup> and Technical Reference Manual (June 1, 2009). As part of this process, the FirstEnergy team has met with Commission Staff, the Office of Consumer Advocate's ("OCA's") energy efficiency advisory expert, Mr. David Hill of Vermont Energy Investment Corporation, OCA staff and other stakeholders both individually and as a group, to discuss the intent and spirit of these directives and how they are being addressed in the Plan. Moreover, Met-Ed has supported the PUC's efforts to contract with a statewide evaluation consultant, and will work with PUC staff and the chosen consultant to develop, as appropriate, additional "custom" or other measures eligible for savings under the TRM. Appendix E lists the savings assumed for non-TRM measures and the public sources used to obtain them.

**Stakeholder Input** – As indicated above, the Company, in an effort to incorporate other points of view, has obtained the input from various stakeholders. This was accomplished in a variety of ways:

- 1) The Company issued a Request For Information (RFI) to CSPs, both registered and un-registered, and implementation vendors, asking detailed questions regarding effective program elements, average costs and recommendations for the Company's consideration in the design of the programs. Twenty-eight organizations responded with detailed information and constructive ideas.

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<sup>6</sup> The FirstEnergy EE&C plans are based upon the requirements and guidance of the Total Resource Cost ("TRC") Test (May 28, 2009), with some minor changes that were requested during the comment period. Notable changes were the use of marginal transmission and distribution costs instead of the full transmission and distribution rates. FirstEnergy, as stated in its Comments filed on June 5, 2009, at Docket No M-2009-2108601, did not have the ability to address all of the changes presented in the final TRC Order entered on June 23, 2009 before filing these plans on July 1, 2009; however, the resulting FirstEnergy plans are cost effective and compliant under the TRC test required by Act 129 and approved by the Commission in its June 23rd Order. The results of the TRC test, as applied to the FirstEnergy Companies' plans, are presented in PUC Table 1 and are expressed as both a net present value and a benefit-cost ratio.

- 2) Three Stakeholder Meetings were held in Harrisburg, Pennsylvania at the offices of the Commission to share the Plan's status and obtain input from attendees. More than 20 stakeholder representatives attended the first meeting, more than 30 stakeholder representatives attended the second meeting and more than 60 stakeholder representatives attended the third meeting. Positive discussions were held both at the meetings and in follow-up conference calls with the design team that resulted in significant improvements to the programs. Stakeholders were also invited via mass emails to provide additional input.
- 3) Community Based Organizations represent and deliver services to the low income sector, an important group with separate Act 129 targets. The project team shared conceptual plans with CBOs and WARM contractors in Pennsylvania via a presentation made at one of their regularly scheduled advisory panel meetings.
- 4) FirstEnergy has communicated with other EDCs as they develop their plans, exchanging ideas and coordinating insights and initiatives where they deemed it practical and appropriate given the limited time available for development of plans.

**Environmental Responsibility** – The Requests for Proposals (RFPs) to implement the Plan will require delivery vendors to take proper care, and include costs for the environmentally responsible disposal of any hazardous materials from old appliances and other energy consuming products. For example, the Company's refrigerator pick up program analysis assumed relatively high disposal cost estimates because it includes costs for the proper disposal of refrigerant chemicals as part of the process. Quotes were obtained from current vendors for this purpose. And, while the company is not replacing CFLs *per se*, its programs relating to lighting will advise consumers of the increasing number of recycling sites available at participating retailers for the proper disposal of CFLs so that the small traces of mercury remains contained<sup>7</sup>.

**Fast Track Plans** – Met-Ed is cognizant of the need to obtain approval of the Plan before programs are launched. Yet, it is concerned that such a delay will lose certain synergies and cost savings opportunities that exist today. Moreover, many of these programs require the development of processes, procedures and/or infrastructure that, if not done in parallel with the approval process, will create delays in the launch of certain programs. As a result, the Company has developed a Fast Track program suite which allows the Company to perform critical path tasks during the approval process, and to take maximum advantage of existing delivery channels by adding electric energy savings measures and services to programs that are already in place, thus avoiding a duplication of efforts if second visits were necessary after the Plan is approved. The Company anticipates that it will submit the details of certain programs included in its Fast Track program suite for individual consideration by the Commission. Such programs may include:

- Approval of the Company's selection of an on-line home energy audit service provider and system, along with related cost recovery, prior to Plan approval.
- Approval of the Company's selection of an M&V/Tracking system service provider and systems, along with related cost recovery, prior to Plan approval.
- Approval of the Company's selection of an appliance recycling service provider, along with related cost recovery, prior to Plan approval.
- Approval of the Company's selection of Program Manager(s) and Energy Education/Communication consultants, along with related cost recovery, prior to Plan approval.

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<sup>7</sup> For example, Home Depot and Lowe's offer CFL recycling locations. Consumers can also find disposal sites via [Recycleabulb.com](http://Recycleabulb.com). The Company will include such information in its lighting educational materials

**Sensitivity to Federal Initiatives** – The Company is aware that certain Federal initiatives and funding opportunities are available and has incorporated such initiatives and opportunities into the Plan.<sup>8</sup> For example, in order to harness the significant energy savings identified through the Company’s market assessment, the Plan accelerates the adoption of CFLs three years before such federal standards for lighting go into effect in 2013. Based upon primary research conducted as part of FirstEnergy’s market assessment, a statistically valid sample of Met-Ed households reported that, on average (as measured by the sample median), residential customers generally have already obtained five to six CFLs for use in their homes. Met-Ed’s plan supports retrofitting at least four additional bulbs per household. As more fully discussed in Section 2, such acceleration will to be accomplished through a variety of program elements that will reach all of the Company’s significant target markets. The Plan also leverages stimulus and other Federal Energy Efficiency funding initiatives that are currently available to Met-Ed customers by assisting local governments within the Met-Ed service territory who are taking advantage of Energy Efficiency Block Grants. Met-Ed will work with these and other potential communities to enhance their prospects for success through free audits for local and county buildings.

***1.2. Summary description of process used to develop the EE&C plan and key assumptions used in preparing the plan***

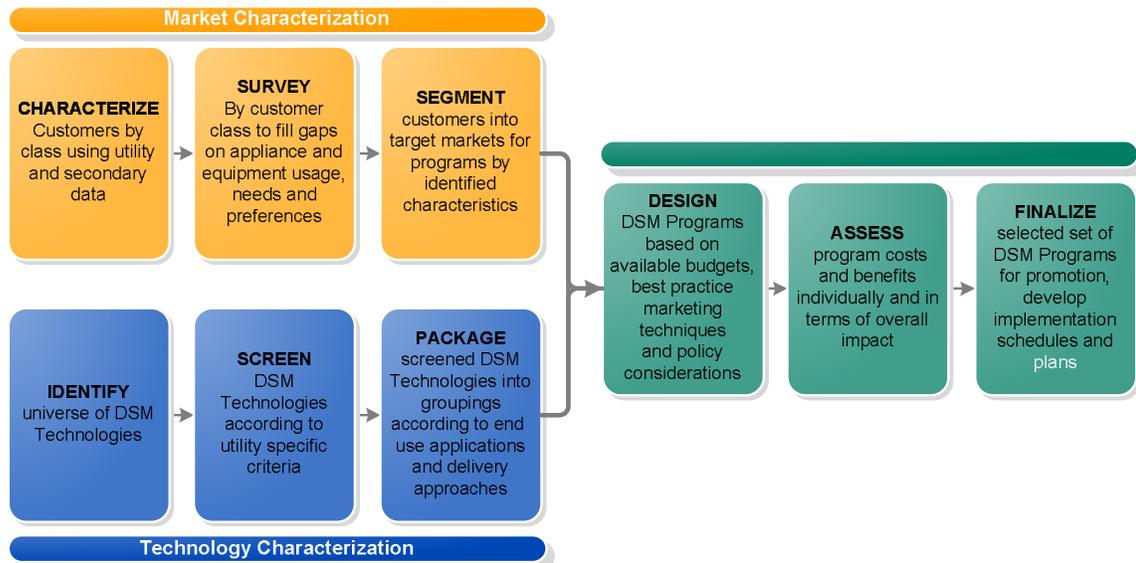
**Process**

Figure 1, below illustrates the process undertaken by the planning team to develop the EE&C Plan:

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<sup>8</sup> While the Company has incorporated the concept of Federal funding and initiatives into the Plan, the Plan assumes that such funding opportunities will exist only in the early years of this long term Plan. Thus, the portfolio of programs were developed to stand on their own, irrespective of such initiatives and funding.

**Figure 1: FirstEnergy EE&C Plan Development Process**



- External stakeholder experience and opinions captured in Stakeholder meetings;
- CSP and implementation vendor experience in delivering programs captured in a Request for Information survey;
- Industry experience as reflected in the literature and previous contractor evaluation studies; and
- Customer attitudes and preferences through mail and telephone surveys and interviews.

Stakeholder input was obtained through three Stakeholder meetings, followed by conference calls with interested organizations. In addition to the discussions that took place during the Stakeholder meetings, the Company met with individual stakeholders in separate meetings. Specifically, the FirstEnergy team, in response to a specific request, discussed program concepts with the Pennsylvania Housing Finance Authority in the development of the Multifamily Buildings program, discussed a variety of issues with the Office of Consumer Advocate, and discussed technologies and techniques for improving the efficiency of municipal water systems generally and pumping in particular with American Water Company. Further, written comments to the proposed portfolio of programs were received from organizations such as the Department of Environmental Protection, some Community Based Organizations and others.

To capture customer data, FirstEnergy commissioned primary research for three Pennsylvania affiliates, including 300 C/I phone surveys, and over 1200 residential mail surveys; with 100 completed surveys of commercial industrial customers, and just over 400 mail surveys of residential customers analyzed for this study. Interviews were held with Managed Account representatives, National Account representatives and Area Managers to capture needed information on the Company’s largest customers and local governments.

On a parallel track, the team evaluated 113 EE&C measures, along with additional energy efficiency measures based upon consultant input. To support that modeling effort, FirstEnergy solicited direct input from CSPs and other energy efficiency program vendors through a Request for Information (“RFI”) to gather recommendations relative to the nature of program offerings as well as the incentives and costs of various program elements to be used in program modeling. Program modeling was augmented with a significant

amount of data obtained from 28 responses to the RFI. Other information was collected as part of the market research of retail stores in the Met-Ed services territory that sought product availability and pricing for selected energy efficient appliances.

Using all of the data collected, the team developed models to be utilized to assess costs and benefits utilizing the final TRM information that was issued on June 1, 2009.

### **Assumptions and Priorities**

There are both universal and program specific assumptions that must be made when modeling the EE&C programs, including discount rates and avoided costs, as well as program specific assumptions involving customer participating levels, forecasted budgets for tasks such as marketing and program administration, and other start up costs. Details surrounding these and other assumptions underlying this Plan are available upon request. In addition, when designing the Plan, the Company pursued the following priorities:

- Seek out near-term “shovel ready” opportunities;
- Focus on previously verified projects first (i.e., those with high confidence level related to the timing and quantity of results);
- Leverage other funding sources to stay within the funding cap;
- Build market share with lower reliability programs and those requiring more lead time; and
- Pursue savings that are easily proven.

While modeling assumptions yielded results that appear to support program success within budget, the Company notes the context within which these programs will be implemented over the next four to five years, all of which have material risks associated with them. Some of these risks include:

- The economic impact of continued high unemployment rates causes concern that business and government accounts may not support the pace of investment required to achieve the goals, and slow the pace of mass market penetration;
- With the exception of low-income programs, programs will be new with no historical basis for participation rates or experience which may cause installation rates to be lower than modeled, particularly in the early years;
- A project may require higher rebate subsidies or full financing, which may make some programs marginally cost effective or exceed program funding constraints; and
- Reliance on large projects that can leverage other funding.

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

**PUC Table 1: Portfolio Summary of Lifetime Costs and Benefits**

<b>Portfolio Summary of Lifetime Costs and Benefits</b> 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)
<b>Residential</b> <i>(exclusive of Low-Income)</i>	7.52%	85,524,151	178,009,081	92,484,930	2.08
<b>Residential Low- Income</b>	7.52%	307,738	759,547	451,809	2.47
<b>Commercial/ Industrial Small</b>	7.52%	36,387,406	101,357,395	64,969,988	2.79
<b>Commercial/ Industrial Large</b>	7.52%	26,276,912	33,528,580	7,251,669	1.28
<b>Governmental/ Non-Profit</b>	7.52%	21,639,072	39,651,001	18,011,929	1.83
<b>Total</b>		<b>170,135,279</b>	<b>353,305,604</b>	<b>183,170,324</b>	2.08

**PUC Table 2: Summary of Portfolio Energy and Demand Savings**

Summary of Portfolio Energy and Demand Savings Program Year is June 1 – May 31									
MWh Saved for Consumption Reductions kW Saved for Peak Load Reductions	Program Year 2010		Program Year 2011		Program Year 2012		Program Year 2013		
	MWh Saved	kW Saved							
Baseline <sup>1</sup>	14,623,932	2,644,000	14,623,932	2,644,000	14,623,932	2,644,000	14,623,932	2,644,000	
Residential Sector (exclusive of Low-Income) - Cumulative Projected Portfolio Savings <sup>2</sup>	15,619	6,601	91,621	35,661	167,599	64,165	239,162	76,644	
Residential Low-Income Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	204	8	810	49	1,420	89	1,962	129	
Commercial/Industrial Small Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	7,859	2,951	45,596	16,209	83,332	29,466	121,051	42,722	
Commercial/Industrial Large Sector - Cumulative Net Weather Adjusted Savings <sup>2</sup>	1,878	599	11,768	3,592	21,658	6,585	31,548	9,579	
Governmental/Non-Profit Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	3,478	865	21,403	5,125	39,300	9,364	51,255	12,689	
PJM Peak Demand				10,000		10,000			
EE&C Plan Total - Cumulative Projected Savings	29,038	11,024	171,198	70,636	313,309	119,670	447,737	141,762	
Percent Reduction From Baseline (MWh)	0.2%	0.4%	1%	2.7%	2.1%	4.5%	3.1%	5%	
Commission Identified Goal			146,239					438,718	118,980
Percent Savings Due to Portfolio Above or Below Commission Goal <sup>3</sup>			17%					2%	1%

<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.  
<sup>3</sup> KW savings depicted for 2013 as 1% above goal are due to savings accumulated from energy efficiency programs that run beyond the summer period of 2012 (June 1 – September 30)

**PUC Table 3: Summary of Portfolio Costs**

<b>Summary of Portfolio Costs Program Year is June 1 – May 31</b>				
	<b>Program Year 2010</b>	<b>Program Year 2011</b>	<b>Program Year 2012</b>	<b>Program Year 2013</b>
	<b>Portfolio Budget (\$)</b>	<b>Portfolio Budget (\$)</b>	<b>Portfolio Budget (\$)</b>	<b>Portfolio Budget (\$)</b>
Residential Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	5,518,912	23,072,946	22,633,898	9,086,971
Residential Low-Income Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	55,254	90,655	91,920	69,909
Commercial/Industrial Small Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	749,039	3,323,147	3,323,147	3,323,147
Commercial/Industrial Large Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	319,719	1,446,259	1,446,259	1,446,259
Governmental/Non-Profit Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	605,222	2,571,117	2,570,487	2,196,325
PJM Peak Demand Program		1,200,000	1,200,000	
<b>Total Portfolio Annual Budget</b>	<b>7,248,146</b>	<b>31,704,124</b>	<b>31,265,711</b>	<b>16,122,612</b>

***1.4. Summary of program implementation schedule over four year plan period***

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

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

The start-up period will include a Program Set Up Period:

Program Set Up – Immediately following contract award and the kick-off meeting(s) as set forth in the proposed time line below, the Company and Program Manager(s) will work together to modify the Start-up Plan submitted with the successful bidders' bid proposals in order to develop the systems and procedures needed to operate the energy efficiency programs. The Start-up Plan will include, at a minimum:

- Determining the required information transfers between the Program Manager(s), the Company and the Company's other energy efficiency or tracking system contractors;
- Creating, installing and testing necessary data collection systems for program operation and evaluation;
- Establishing a toll-free number and processes for the Company to transfer calls it receives related to the programs;
- Developing detailed processes for managing rebate/incentive applications, rebate/incentive payment processes, reporting procedures, data collection and data recording processes, internal billing and related documentation to be sent to the Company for processing;
- Developing electronic payment between the Company and the Program Manager(s);
- Plans for development and launching promotional strategies, including creation of a website;
- Creating a check processing system (if deemed appropriate); and
- Ensuring all other preparations needed before the programs are launched.

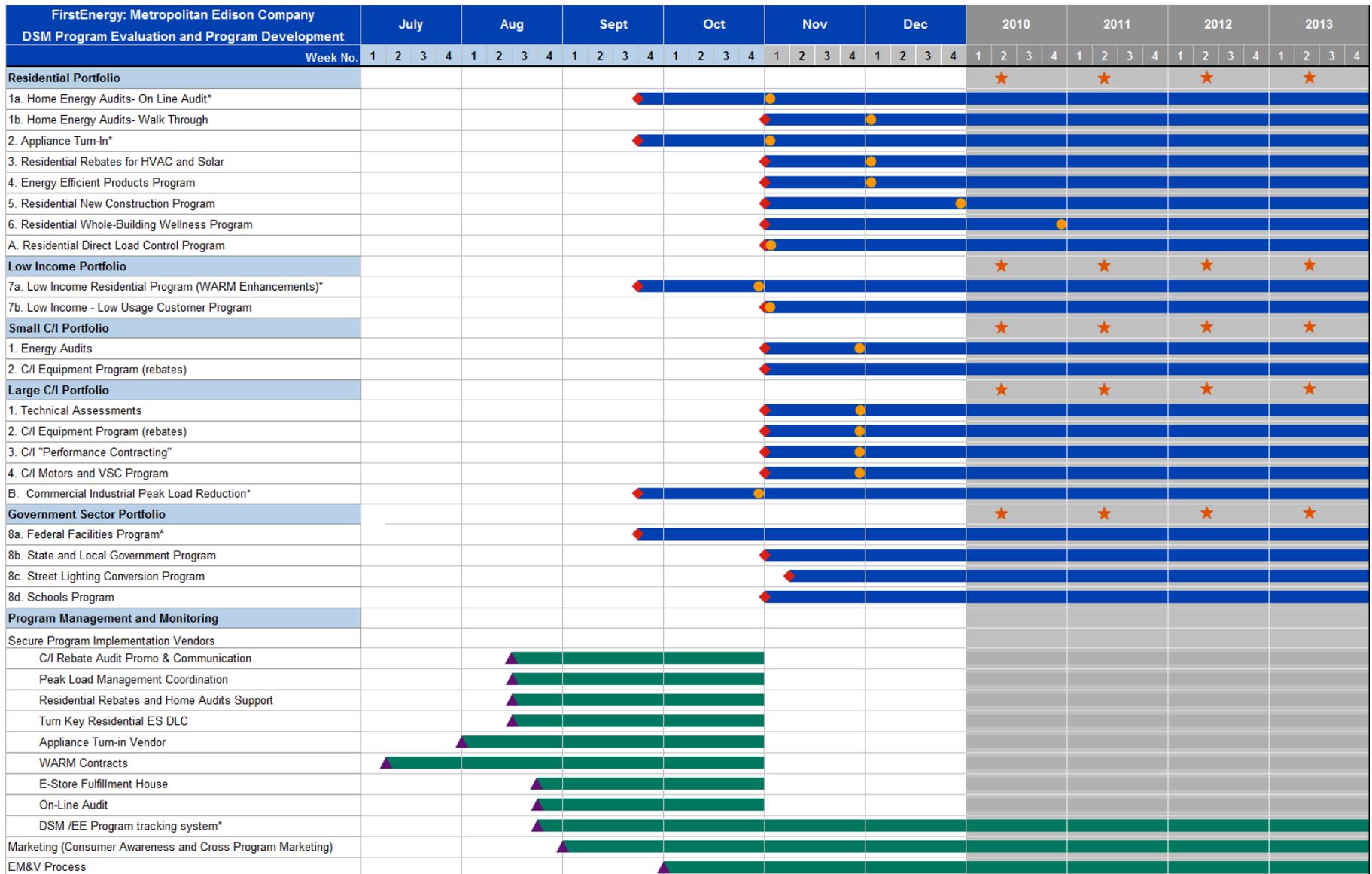
During program set-up, the Program Manager(s) will meet with the Company, its consultant, and tracking system contractors as necessary and appropriate in order to properly introduce the applicable program into the Company's overall comprehensive Plan.

Program Manager(s) will submit a start-up plan with their bid proposal. It is anticipated that the plan submitted may be modified at the kick-off meeting. The start up plan will include, at a minimum:

- Organization chart and description of management roles and responsibilities;
- Description and dates of program launch milestones;

- Description of a plan for use of any subcontractors;
- Plan to detail a specific communications strategy; and
- Plan to facilitate or support program tracking systems and reporting.

**Figure 2: Met-Ed EE&C Plan Proposed Timeline**



\* Pending Commission pre-approval for fast tracking

KEY: ■ Duration of program      ● Participation begins      ★ Annual Report to Commission and Annual Plan Update  
◆ Program Launch      ▲ Select Vendor and Start Program Costs (deferral)

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

Met-Ed intends to implement certain of the Plan's programs in a staged manner as follows:

- Launch customer awareness and educational campaign immediately after approval of the EE&C Plan in order to start building consumer interest.
- Solicit and secure CSPs and implementation vendors in August/September so as to enable a timely program launch once the Plan is approved. Contracts with selected vendors will be contingent upon Commission approval of the programs.
- Seek Commission pre-approval to recover start-up costs associated with the Fast Track suite of programs that were discussed above.

Met-Ed will oversee a range of contractors and vendors in the delivery of the programs. CSPs engaged by the Company to manage programs or deliver program services will have undergone a competitive bidding process through FirstEnergy or another EDC. Low income residential programs will be served by a mix of Community Based Organizations and private vendors under contract with the Company. The Company will seek a vendor or group of vendors to deliver services to existing residential homes and small commercial customers. Non-residential audits will most likely be performed by a mix of private auditing firms and specialized engineering firms that have the expertise to identify opportunities for specific industries. A performance contracting option will be available to both non-residential businesses and government facilities who wish to pursue comprehensive rather than equipment-specific retrofits. Vendors who hold current awards in the Energy Services Performance Contracting program will generally be responsible for Federal facilities.

***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.***

FirstEnergy is committed to designing and implementing robust processes, organizations and systems that achieve the energy savings and demand reduction goals established in Act 129. The Company plans to use a two-fold approach to ensure the quality of its EE&C Plan program during the design and implementation:

- Developing processes to clearly detail the steps to meet EE&C goals while complying with applicable requirements; and,
- Devising and implementing control points at various stages of these processes to establish and maintain quality.

Section 6 of this report presents detailed plans regarding the data management quality assurance and evaluation processes for the EE&C Plan. Each program description in Section 2 provides a brief description of the planned evaluation monitoring and verification steps intended for each program. Further, the Company is committed to working with the statewide Evaluation Contractor to support their efforts at evaluating the programs. The Company will conduct process evaluations at the six to twelve month mark as a way to gauge progress toward the achievement of goals and identify issues requiring mid-course correction. All programs will benefit from periodic feedback from vendor-conducted customer satisfaction surveys. In addition to making interim adjustments to programs as suggested by these feedback activities, the Company will propose any major changes it feels are required in its annual reporting to the Commission.

***1.7. Summary description of cost recovery mechanism***

The Company's proposed Energy Efficiency and Conservation Charge Rider ("EEC-C Rider") is included as Appendix H. The EEC-C rates are expressed as a price per kilowatt-hour ("kWh") and will be billed on that basis. The EEC-C rates will be calculated and stated separately for the residential, commercial and industrial commercial classes. The Company is proposing that the EEC-C Rider would become effective immediately upon the conclusion of this proceeding with service rendered on or after November 1, 2009. The EEC-C rates are capped at the 2% limit by class based on 2006 revenue. The rates would remain in place for the length of the Company's Energy Efficiency and Conservation Plans. However, upon determination that the EEC-C rates would result in material over- or under-collections of recoverable costs incurred or expected to be incurred during the program period (November 1, 2009 through December 31, 2013), the Company may request that the Commission approve interim revisions to the EEC-C rates to be effective thirty days from the date of filing. An interim change in the EEC-C rates may address a re-allocation of program expenses between customer classes. The EEC-C rider meets the requirements of 66 Pa. C.S. § 1307 as required by the Commission's Implementation Order and Act 129.

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

**2.1. Residential, Commercial/Industrial Small, Commercial/Industrial Large and Governmental/Non-profit Portfolio Summaries (See PUC Table 4).**

**PUC Table 4: Program Summaries**

Table 4: Program Summaries								
	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)	Demand Reduction	RES	Reduce Residential Central Air Conditioning (CAC) Load over the highest 100 load hours	4	16,829	30,368	0.4%	
	Home Energy Audits	RES	Available through two levels: 1) self-administered on-line audit and 2) a walk-through on-site audit performed by auditor.	4	477,488	5,086	12.0%	
	Appliance Turn-In	RES	Provide incentive to households for turning in older inefficient appliances and lighting equipment.	4	502,229	9,926	12.6%	
	EE HVAC & Solar	RES	Provide incentives supporting implementation of contractor-installed HVAC, solar or other eligible systems.	4	181,817	13,374	4.6%	
	EE Products	RES	Provides financial incentives and support to retailers that sell energy efficient products, such as Energy Star® qualified appliances or compact fluorescent light bulbs.	4	553,255	11,033	13.9%	
	New Construction	RES	Provides incentives to builders for achieving Energy STAR Homes status, or the Home Energy Rating System Program (HERS) associated with a highly energy efficient home.	4	110,220	6,221	2.8%	
	Whole Building Comprehensive	RES	Provides comprehensive diagnostic assessments followed by direct installation of selected low cost measures plus incentives to households for implementation of measures addressing building shell, appliances and other energy consuming features. Customers can tap into prescriptive rebates as well as the Keystone Loan program.	4	22,973	526	0.6%	
	Multiple Family	RES	This program seeks to motivate the multifamily property owner/manager and landlords toward installing energy efficient products.	4	8,461	111	0.2%	
	<b>Totals for Residential Sector</b>					<b>1,873,273</b>	<b>76,644</b>	<b>46.9%</b>
Residential Low-Income Sector Programs	Low-Income	RES	This program is an enhancement to the existing Low-Income Usage Reduction Program, known as the WARM program that will provide additional electric energy savings measures and services.	4	53,590	485	1.3%	
	<b>Totals for Low-Income Sector</b>					<b>53,590</b>	<b>485</b>	<b>1.3%</b>

Table 4: Program Summaries							
	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 %
Commercial/ Industrial Small Portfolio Programs	Energy Audit	Small C&I	Provides two levels of energy audit services 1) a simple walk-through audit for small business with non-complex loads, and 2) a more comprehensive assessment for medium to large non-residential customers to help identify existing end uses of energy and find specific ways in which energy savings can be achieved.	4	141,574	6,418	3.5%
	Equipment Rebate	Small C&I	Provides for the implementation of cost effective, high efficiency non-standard measures through the authorized Conservation Service Provider (CSP) contractor network for local, state and federal buildings, as well as for institutional customers.	4	1,012,858	36,306	25.4%
	Multiple Family	Small C&I	This program seeks to motivate the multifamily property owner/manager and landlords toward installing energy efficient products.	4	11,216	237	0.3%
	<b>Totals for C/I Small Sector</b>					<b>1,165,648</b>	<b>42,961</b>
Commercial/ Industrial Large Portfolio Programs	Equipment Rebate	Large C&I	Provides for the implementation of cost effective, high efficiency non-standard measures through the authorized Conservation Service Provider (CSP) contractor network for local, state and federal buildings, as well as for institutional customers.	4	303,364	9,385	7.6%
	Industrial Motors and VSD	Large C&I	This program is designed to encourage the company's commercial and industrial customers to: 1. Upgrade their existing motors to NEMA Premium® motors when switching out old motors due to breakdowns and or programmed replacements 2. Install variable speed drives on motors that do not always operate at the same speed.	4	89,703	193	2.2%
	<b>Totals for C/I Large Sector</b>					<b>393,067</b>	<b>9,579</b>
Governmental/ Non-Profit Portfolio Programs	Governmental & Institutional	Gov't	This program involves a feasibility study to identify energy savings opportunity to expedite the Federal and municipal agencies taking action. Provides for the implementation of cost effective, high efficiency standard and non-standard measures through a Conservation Service Provider (CSP) for local, state and federal buildings, as well as for institutional customers.	4	494,579	12,452	12.4%
	<b>Totals for Gov't/NP Sector Programs</b>					<b>505,795</b>	<b>12,689</b>
<b>Total for Plan</b>					<b>3,991,373</b>	<b>142,358</b>	<b>100.0%</b>

**2.2. Plan data: Costs, Cost-effectiveness and Savings by program, sector and portfolio**

See PUC Tables 1-4

**2.3. Budget and Parity Analysis**

**PUC Table 5: Budget and Parity Analysis**

<b>Customer Class</b>	<b>Average Annualized Budget</b>	<b>% of Total EDC Budget</b>	<b>% of Total Budget Allocating Government &amp; Other</b>	<b>% of Total Customer Revenue</b>	<b>Difference</b>
<b>Residential</b>	16,831,459	69.85%			
<b>Residential Low Income</b>	85,880	0.36%			
<b>Residential Subtotal</b>	16,917,339	70.21%	70.21%	43.7%	27%
<b>C&amp;I Small</b>	2,991,204	12.41%	18.8%	23.6%	-5%
<b>C&amp;I Large</b>	1,300,046	5.40%	11.0%	32.7%	-22%
<b>C&amp;I Subtotal</b>	4,291,250	17.81%	29.8%	56.3%	-27%
<b>Governmental/Non-Profit (1)</b>	2,216,693	9.20%			
<b>Governmental/Non-Profit Subtotal</b>	2,216,693	9.20%			
<b>Residential/C&amp;I/Governmental/Non-Profit Subtotal</b>	23,425,282	97.22%			
<b>Other Expenditures</b>					
<b>Other Expenditures Subtotal</b>	669,767	2.78%			
<b>EDC TOTAL</b>	<b>24,095,049</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0%</b>

(1) Governmental is served as part of C&I Small and C&I Large rate classes

### **3. Program Descriptions**

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

The process followed in selecting the programs in this Plan proceeded from examination of technologies and consideration of customer opportunities. Figure 1 in section 1.2 depicted the generic process followed. The steps followed in this process are described below:

1. A large list of DSM/EE technologies underwent an intuitive screening process carried out by a panel of DSM experts using criteria that included elimination of gas measures, elimination of fuel switching measures, ranking of commercial availability, meeting the utility's load reduction objectives. Technologies were ranked along these criteria and the top ones carried through for economic analysis.
2. Consumer research was conducted to identify likelihood of participation/technology adoption, barriers to adoption and potential interest in specific services for overcoming those barriers. Current conservation behavior was also measured.
3. Program characteristics were developed at the technology level, including for example (on the cost side) incentive amounts, marketing, administration, vendor costs, incremental measure costs, and the availability of tax incentives or other benefits. On the benefits side, values were taken from the TRM for those measures covered, and were calculated using formulas identified in the TRM for weather-sensitive measures.
4. Technologies were grouped by sector and the end uses addressed (lighting, HVAC, etc.) and considered in light of each of the program types in which the measures might be implemented. Thus CFLs appear in residential audits, low income and business programs and have specific rebate amounts and costs associated with each case.
5. The economic modeling then was carried out and TRC values determined for each grouping.
6. Program designs were then finalized taking into consideration whether each program:
  - Achieves the goals set for in Act 129 and approved by the Commission;
  - Promotes energy savings and demand reduction in a cost effective manner;
  - Passes the TRC as stipulated in the TRM;
  - Is an equitable Plan (i.e., offers technologies and services to all customer segments);
  - Meets the regulatory requirements of Act 129;
  - Simplicity (i.e., easy for customers, CSPs and trade allies to participate);
  - Uses proven delivery strategies;
  - Provides flexibility to address prescriptive as well as customer projects; and
  - Leverages existing delivery channels that are working well.
7. Once all programs were designed and evaluated, the Plan was examined to ensure that the Plan met these same criteria.

The EE&C Plan includes a suite of programs that move from the general to the specific, from providing customers with generic information about saving energy to customized information and services to help them make changes in their own specific homes and facilities. Upon Commission approval, the Company will launch an outreach effort to build customer awareness and interest in the programs and saving energy. This campaign will also make people aware of the transition that will be taking place in 2011 to market-based rates and the ability for customers to take advantage of the programs being offered to help mitigate the effects of any increases on consumer bills.

The next step is to encourage customers – residential and non-residential - to have an energy audit as a starting point in order to identify potential energy efficiency opportunities. These audits will serve a dual purpose, providing both important “as-found” characteristics of homes and equipment before the installation

of measures, as well as important information on the age and nature of equipment being replaced. Audits for the residential sector can be accessed on line, or through the use of a contractor who will conduct a walk-through assessment of the home. In the commercial sector, smaller businesses will have access to a walk-through audit performed for a fixed fee, while larger or more complex businesses will be offered a technical assessment done by a certified contractor. These assessments are typically priced on a per square foot basis. Regardless of customer segment, the audit contractors will install lighting upgrades and (for residential) faucet aerators so that customers can immediately start to realize energy savings.

To facilitate implementation of recommended measures, Met-Ed will also offer a suite of programs that incorporate fixed rebates and calculated incentives, performance contracts and arranged loans (initially only through the statewide Keystone Home Loan Program) to offset costs associated with the customer's actions. For eligible low income customers, most measures are provided free of charge. Customers are also given incentives for removing second refrigerators, freezers and old inefficient room air conditioners from the system, and for replacing old inefficient appliances (e.g. central air conditioners, room air conditioners) with newer, qualifying energy efficient models.

Finally, for selected appliances and equipment, such as central air conditioning, pool pumps and water heating, Met-Ed will install communications devices that will enable customers to participate in demand response programs. It is critical that the Company builds the capacity for reducing peak load at the 100 hours of highest demand. To that aim, the Company has proposed a peak load reduction program that leverages the capabilities PJM curtailment service providers (PJM-CSPs) provide their customers. Met-Ed has a Residential Time of Use Rate in place and has proposed a voluntary real time pricing rate option for default service customers on rate schedules GS-Small and GS-Medium, as well as a real-time default service rate for customers on rates GS-Large, GP and TP in its pending Default Service Proceeding at Docket Nos. P-2009-2093053 and P-2009-2093054. Met-Ed will continue to encourage customers to take advantage of these load shifting initiatives as a way to fully benefit from these special rates.<sup>9</sup> Figure 3 summarizes this process for the residential sector programs, while Figure 4 does the same for the non-residential sector programs.

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<sup>9</sup> Although rates are not described in this filing as programs, separate monitoring and verification protocols will be developed in order to assess the impacts associated with these rates so that the company may include their contributions toward the Act 129 targets.

Figure 3: Residential Sector Process

### Residential Sector Process

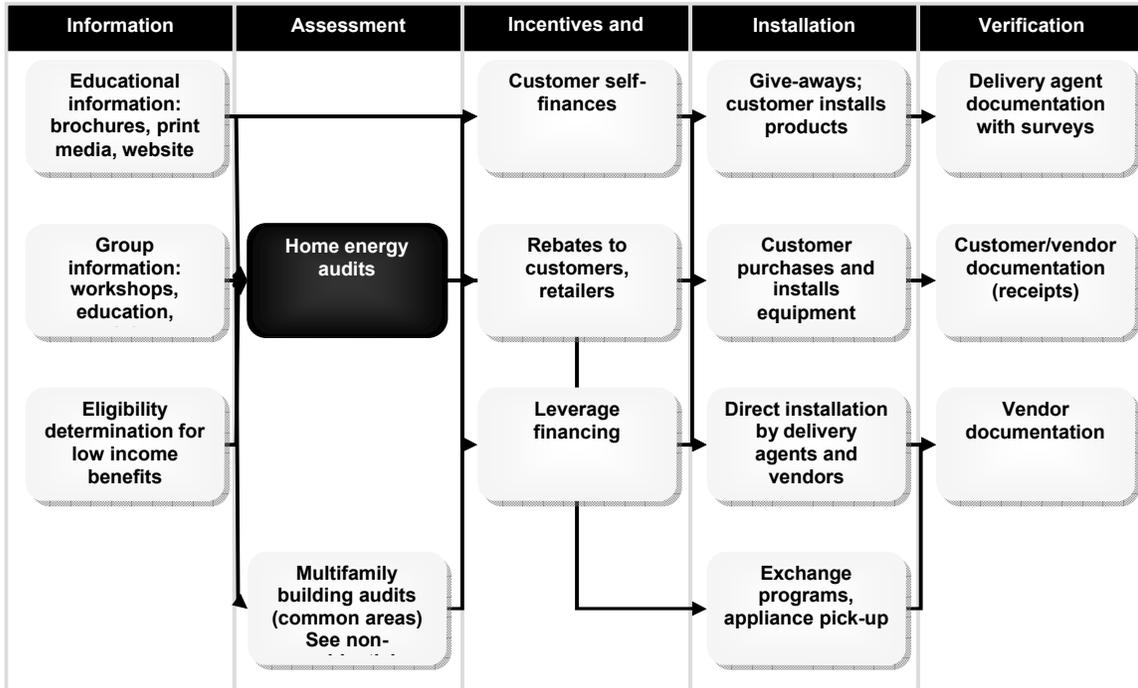
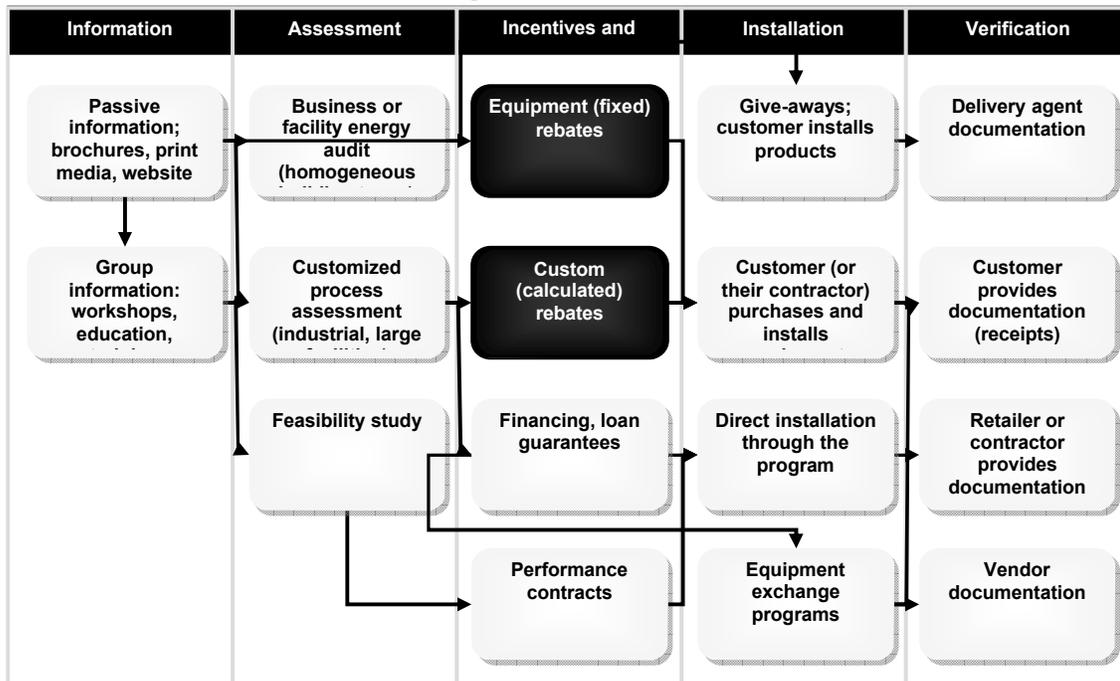


Figure 4: Non-Residential Sector Process

### Non-Residential Program Process



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

The following sections describe general metrics for each program sector. The individual program descriptions contain preliminary M&V protocols for each program.

**Residential**

Fundamental metrics for program performance include the number of participants, kWh savings, kW peak load reductions, dollars spent, dollars per kWh saved, and dollars per kW of peak load reduction. Additional program metrics for the residential portfolio will follow the designations common to logic modeling of Immediate (Near Term), Intermediate and Long Term metrics.

Immediate Metrics – (numeric, mostly counts) Numbers of customers having an audit, inquiring about a program, registering for a program, or attending an educational event; numbers of trade allies getting trained and certified (certified contractors; numbers of trade allies participating in EE equipment programs).

Intermediate Metrics – (measured via surveys, follow up calls, participation rates, documented kWh savings, application forms, etc.) Number of customers taking action via installing measure(s) and participating in programs, making behavioral changes; number of measures installed; amount of additional non-program measures installed (e.g., the extent to which customers purchase additional CFLs or other measures on their own beyond what is provided through a program).

Long-Term Metrics – (Calculated via TRM savings estimates and other deemed savings until Statewide Evaluator conducts third-party evaluation) kWh savings, kW reductions observed, customer satisfaction levels, self-reported behaviors, perceptions of non-energy benefits such as increased comfort, customer health, home safety, improved bill payment histories, other outcomes; \$/kWh and \$/kW.

**Non-Residential**

Fundamental metrics for program performance in this segment are the same as residential above, and include the number of participants, kWh savings, kW peak load reductions, dollars spent, dollars per kWh saved and dollars per kW of peak load reduction. Additional Program metrics for non-residential sector programs are similar to those for residential; however they will take into account the different levels of decision makers that commonly exist on the non-residential side.

Immediate Metrics – Number of customers participating in an audit, registering for other services; number of vendors making inquiries about the programs and seeking to participate in some way.

Intermediate Metrics – Number of customers that have had audits and/or installed some of the recommendations; satisfaction levels; self-reported additional actions taken; and behavioral changes made.

Long Term Metrics – Energy savings and peak load reductions.

**Demand Response**

Immediate Metrics – Number of customers signing up for the programs.

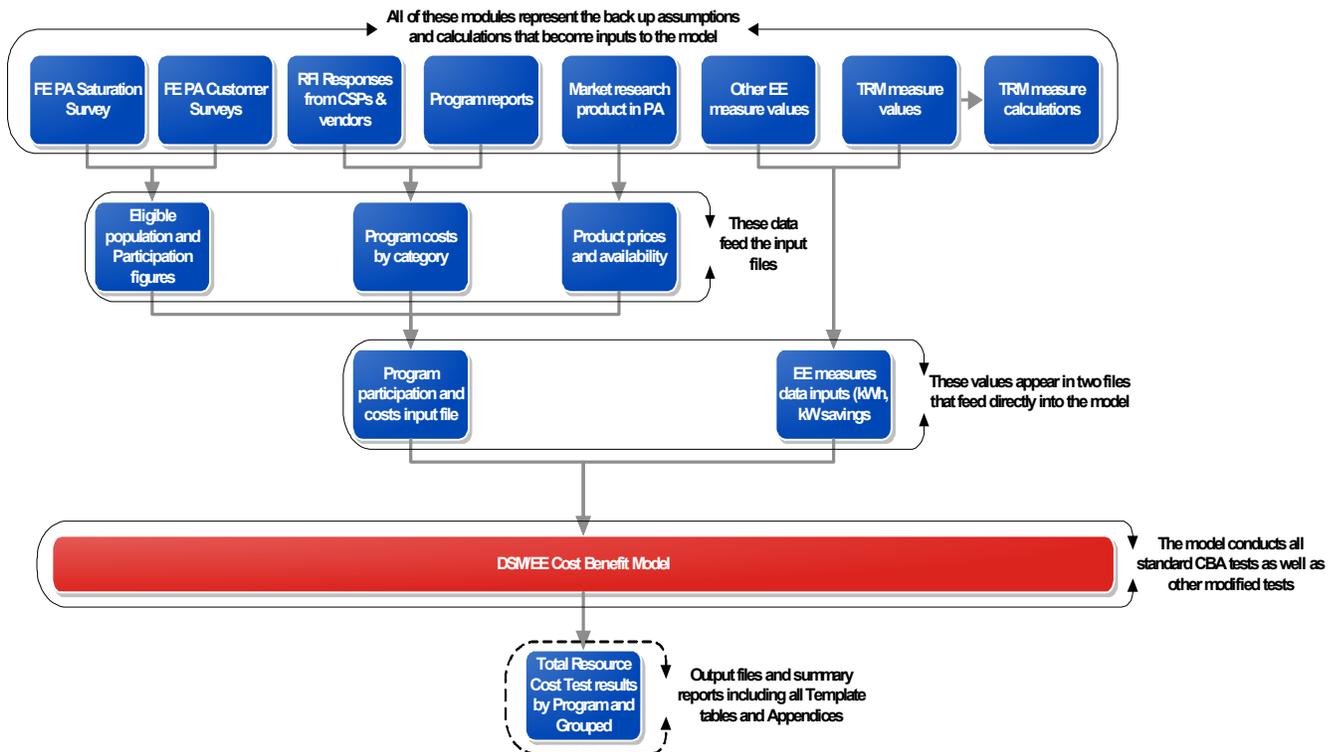
Intermediate Metrics – Actual metered/measured load over time.

Long Term Metrics – Actual peak load reduced during 100 highest peak hours of 2012 (June 1 – September 30)

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).

Figure 5 presents a schematic diagram of the analyses used to develop programs. Generally, the approach taken by FirstEnergy is a “bottom-up” approach in that it relies upon detailed customer data to characterize the landscape for change and applies assumptions and participation figures to the eligible population in order to arrive at the potential that exists for energy efficiency and the likely rate of uptake. Starting with individual assumptions about energy efficiency technologies, these are grouped into logical program groupings, incentives are applied along with other program costs, participation levels are assumed and the figures multiplied.

**Figure 5: Model Process Diagram**



Checks are then made between the results from the “bottom-up” analysis and selected data points (such as number of customers by customer segments and number of kWh sales by class) to see how proportional the savings are to these baseline figures. Logical and intuitive feasibility about the program assumptions is examined next, and adjustments are made as necessary, rebalancing the portfolio as appropriate.

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 next section presents individual descriptions of the final program designs.

For solar and geothermal heating related equipment please refer to the Residential Energy Efficient Products Program and Residential Energy Efficient HVAC Equipment Program for rebates on solar water heating and geothermal heating system measures.

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

<b>Program Title and Program years during which program will be implemented</b>	<b>Residential Direct Load Control Program: 2010, 2011 and 2012</b>
<b>Objective(s)</b>	Reduce Residential Central Air Conditioning (CAC) Load over the highest 100 load hours
<b>Target market</b>	Residential Customers with CAC
<b>Program description</b>	This program will pay an incentive to participants who agree to have controls installed on their CAC systems that enable the Company to limit CAC operation during peak load periods. Once such devices are installed, the utility will have the ability to cycle air conditioning compressors or reset temperatures for the duration of the load control event. It is anticipated that this program will be activated over each operating company's top 100 load hours, typically from noon - 7pm on selected weekdays.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	It is anticipated that a third party CSP will be contracted to market the program to customers in 10 major load areas across the three FirstEnergy operating companies in Pennsylvania.
<b>Program issues and risks and risk management strategy</b>	Initial program targeting will be to customers located in major load areas to minimize the potential for poor pager signal strength limiting expected load reduction impacts. In order to gain more robust longer term program participation, direct load control switches will be chosen that will be both radio communication and ZIGBEE-capable to facilitate the eventual migration of this program to an Advanced Metering Infrastructure environment.
<b>Anticipated costs to participating customers</b>	There will be no costs to participating customers
<b>Ramp up strategy</b>	Program launch will begin in November 2009 and will progress in intensity in order to insure installation of the requisite number

	of switches by May 2012.
<b>Marketing strategy</b>	Print, web and mail advertising combined with the payment of a \$50-75 first year cash incentive; depending upon whether a customer is willing to add a pool pump or electric water heater to be controlled under the program
<b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b>	Customers will receive a one time cash payment of \$50 - \$75 in the first year as a sign up incentive. In each following year Customers will receive \$10 - \$15 a summer month for participation.
<b>Program start date with key schedule milestones</b>	Program launch will begin in November 2009 and will progress in intensity in order to insure installation of the requisite number of switches by May 2012
<b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission's statewide EE&amp;C Plan Evaluator</b>	<p>Following the adoption of enabling technologies, the Company will verify that demand reduction targets are being achieved using sampling. We will perform such verification for a representative sample of the customers that have adopted peak reduction enabling technologies.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that demand reduction is being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule or within budget, FE will take appropriate corrective actions.</p>
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E

<b>Cost-effectiveness – include TRC for each program</b>	TRC = 1.1
<b>Other information deemed appropriate</b>	This program is targeted at customers with adequate signal reception capability. Opportunities for expansion will be examined as technology options improve over time.

<p><b>Program Title and Program years during which program will be implemented</b></p>	<p><b>Home Energy Audits and Outreach Program</b></p> <p>a) On-Line Audit</p> <p>b) Walk Through Audit</p>
<p><b>Objective(s)</b></p>	<p>Assist households in identifying energy savings opportunities through self-administered and professional walk-through home audits. Support direct energy savings by providing those who complete the audit free CFLs and other measures (as qualify based on presence of electric water heating or electric heat). Improve customers' energy management practice through improved access to information and analysis of energy use history.</p>
<p><b>Target market</b></p>	<p>All residential and small commercial customers, both renters and homeowners.</p>
<p><b>Program description</b></p>	<p>Households will be able to identify energy saving opportunities through two levels of home energy audits: 1) a self-administered on-line audit that analyzes historic energy use, and calculates energy savings based on customer responses to a series of questions, and 2) a walk-through on-site audit administered by a trained professional auditor. The purpose of the audits is to identify energy savings opportunities, to install basic low-cost measures, and to make customers aware of other programs offered by the PA Companies, such as whole house wellness programs or programs they support, such as the Keystone Home Loan Program, to help customers implement the recommendations. The on-line audit generates mailing of a low cost measures kit.</p>
<p><b>Implementation strategy (including expected changes that may occur in different program years)</b></p>	<p>This program involves consumer education through generic energy savings tips combined with information customized to a specific dwelling based on either self-reported information or a trained auditor. This program serves as a portal to other program services. Customers are also referred to solutions, including participating retailers in the EE Products program, the E-store and the Keystone Home Loan Program for financing the balance of project costs.</p>
<p><b>Program issues and risks and risk management strategy</b></p>	<p>Challenges with the website, number of trained auditors, current economic environment may limit customers' ability to purchase energy efficient equipment, lack of program awareness among customers and trade allies, damage to a customer's home. With respect to risk management, refer to Section 4.1.4 of the EE&amp;C plan. The Company provides further details on "early warning systems" as well as a description of contingency plans.</p>
<p><b>Anticipated costs to participating</b></p>	<p>The on-line audit is free, as well as the kit, once the audit is</p>

<p><b>customers</b></p>	<p>complete and uploaded. Customers pay a fee \$50 for the on-site audit.</p>
<p><b>Ramp up strategy</b></p>	<p>The on-line audit generates mailing of an energy conservation kit valued at up to \$26 containing a four pack of CFLs and other low cost measures that primarily address electric water heating.</p>
<p><b>Marketing strategy</b></p>	<p>The marketing strategy will include: newspaper and radio advertising, Company bill inserts, Company website, employee communications, community presentations and direct mail campaigns as needed. The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.</p>
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>All measures are included for potential recommendation. Two audit packages are used – one for the on-line audit and a second more comprehensive audit tool for the site audits. Those completing the on-line audit will receive an energy conservation kit containing:</p> <ul style="list-style-type: none"> <li>• Choice of kits <ul style="list-style-type: none"> <li>* Lighting kit with a 4 pack of 15 watt compact florescent lamps (each with the same output as a 60 watt incandescent bulb)</li> <li>* If Electric Water Heat: Above plus two faucet aerators</li> <li>* If Electric Heat with Thermostat: Above plus free thermostat.</li> </ul> </li> <li>• One bilingual (English and Spanish) instructional sheet</li> </ul>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Met-Ed is to verify that the planned number of each type of audits is performed on time and within budget. A sample of on-site audits will be reviewed to check that their actual costs do not exceed the contract cost, and that customers are satisfied with the service provided (through phone contacts). The company will also verify that existing EE&amp;C opportunities are properly quantified to enable accurate tracking and documentation of energy efficiency and demand reduction.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event</p>

	that EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule and within budget, Met-Ed will take appropriate corrective actions.
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7a
<b>Other information deemed appropriate</b>	

<b>Program Title and Program years during which program will be implemented</b>	<b>Appliance Turn-In Program</b> <b>2009 – 2013</b>
<b>Objective(s)</b>	To remove older inefficient appliances from the system by offering customers an incentive and free pick-up and disposal service for second refrigerators, freezers and room air conditioners.
<b>Target market</b>	The target market for this program is existing households, multifamily and single family, renters and home owners. Equipment is to be working at the time of pick up.
<b>Program description</b>	Provides a small incentive to households for turning in older inefficient appliances. Pick up of old second refrigerators involves a set dollar incentive to the customer. Large appliances will be picked up over an extended period where others may be turned in at periodic events.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	A vendor will be hired to deliver this program in coordination with other EDCs in Pennsylvania. Regional roll-out and community outreach will support efficiency.
<b>Program issues and risks and risk management strategy</b>	The key risk is that appliances will be turned in that were either not being used or are non-functional. Vendors may be required to test appliances before issuing the incentive, or sample a percentage of appliances after pick up to determine what percent of units are not generating energy savings. Pre-testing may result in lower participation but better quality control. Certification/paperwork. Lack of customer awareness. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	There are no costs to participating customers for this program.
<b>Ramp up strategy</b>	Vendors exist that can start this program immediately, so we do not anticipate a material start up period before offering services to customers. Regional roll-out.
<b>Marketing strategy</b>	Customers will be alerted to this service through various media and marketing channels (to be determined) to facilitate targeted roll-out of the program, and efficient collection in targeted areas. A broad customer awareness campaign will include introduction of the program and the need for consumers to take energy efficiency actions.

<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<ul style="list-style-type: none"> <li>▪ Refrigerators \$50 incentive per unit</li> <li>▪ Freezers \$50 incentive per unit</li> <li>▪ Room Air Conditioners \$50 per unit</li> </ul>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Met-Ed is to verify that the planned number of each type of targeted appliances is collected and disposed of within budget. The company plans to check that the calculations of kWh and kW savings from appliance retirement are accurate and compliant with applicable requirements including those contained in the TRM. This will in turn enable accurate tracking and documentation.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule and within budget, Met-Ed will take appropriate corrective actions.</p>
<p><b>Administrative requirements – include internal and external staffing levels</b></p>	<p>The Company will use a combination of internal and external resources to manage and implement the EE&amp;C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&amp;C plan for more details.</p>
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<p>See Appendix F</p>
<p><b>Estimated program budget (total) by year – include table with budget per year</b></p>	<p>See Appendix D 1-4</p>
<p><b>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</b></p>	<p>See Appendix E</p>
<p><b>Cost-effectiveness – include TRC for each program</b></p>	<p>See PUC Table 7a</p>
<p><b>Other information deemed appropriate</b></p>	<p>One CSP is likely to be selected to deliver this program based on a competitive bidding process held by one of the EDCs. The intent is to achieve consistency across the state among EDCs and</p>

	to obtain lowest cost volume pricing from the vendor.
<b>Program Title and Program years during which program will be implemented</b>	<b>Residential Energy Efficient HVAC Equipment Program</b>
<b>Objective(s)</b>	Providing a rebate to participating customers or local contractors and dealers is expected to increase penetration of high efficiency HVAC systems. To qualify for this program, the equipment must exceed the efficiency standards as published by the Department of Energy under the ENERGY STAR® program.
<b>Target market</b>	The target market for this program is existing households, multifamily and single family, renters and home owners as well as new construction.
<b>Program description</b>	Provides incentives supporting implementation of contractor-installed HVAC, or other eligible systems in existing or new residential buildings. This program involves promoting the sale of high-efficiency, ENERGY STAR® compliant equipment through installation contractors selling to residential customers who are replacing existing home HVAC equipment. The program will replace existing or standard HVAC equipment in residential applications with heating and cooling systems approved by the ENERGY STAR® program of the US EPA/DOE.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	Program services would be delivered to customers by qualified local contractors identified by an implementation vendor or manufacturer of such equipment. Contractors will certify the proper sizing and installation of high efficiency equipment.
<b>Program issues and risks and risk management strategy</b>	Challenges with vendors or manufacturers, cost of energy efficient equipment, changing technology impact lifecycle cost, current economic environment may limit customer’s ability to purchase energy efficient equipment and technology, customer choosing to buy less efficient equipment. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	The end user would have the shared rebate as a benefit and also will benefit from lower bills.
<b>Ramp up strategy</b>	Qualifying Service Providers for Maintenance Program.
<b>Marketing strategy</b>	The program envisions that the suppliers and dealers will share, as a competitive marketing tool, the rebate with the end user, positioning the supplier or dealer as a lower cost provider.
<b>Eligible measures and incentive strategy, include tables for each</b>	Qualifying equipment must meet or exceed ENERGY STAR®

<p><b>year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>standards. Qualified HVAC equipment will include:</p> <ul style="list-style-type: none"> <li>• High-efficiency central air conditioning units (CAC)</li> <li>• High-efficiency air source heat pumps (ASHP)</li> <li>• High-efficiency ground source heat pumps (GSHP)</li> <li>• Central air conditioning maintenance.</li> </ul> <p>Customers would receive rebates for the high efficiency HVAC equipment that they install, or can assign rebates to their contractor.</p> <p style="text-align: center;">➤ For Rebate Amounts See Met-Ed Table 5</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Verify that inefficient HVAC equipment is installed and working on customers’ premises. Check sample calculations of projected savings for accuracy and for compliance with TRM guidelines.</p> <p>Document and record measure data using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring.</p>
<p><b>Administrative requirements – include internal and external staffing levels</b></p>	<p>The Company will use a combination of internal and external resources to manage and implement the EE&amp;C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&amp;C plan for more details.</p>
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<p>See Appendix F</p>
<p><b>Estimated program budget (total) by year – include table with budget per year</b></p>	<p>See Appendix D 1-4</p>
<p><b>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</b></p>	<p>See Appendix E</p>
<p><b>Cost-effectiveness – include TRC for each program</b></p>	<p>See PUC Table 7a</p>

<b>Other information deemed appropriate</b>	<p>Additional Residential Efficient Equipment Incentives</p> <table><tr><td>Central Air Conditioner SEER 14.5 / EER 12</td><td>\$150</td></tr><tr><td>Central Air Conditioner SEER 15 / EER 12</td><td>\$225</td></tr><tr><td>Central Air Conditioner SEER 16 / EER 12</td><td>\$300</td></tr><tr><td>Air-Source Heat Pump SEER 14.5 / HSPF 8.5</td><td>\$250</td></tr><tr><td>Air-Source Heat Pump SEER 15 / HSPF 8.5</td><td>\$325</td></tr><tr><td>Air-Source Heat Pump SEER 16 / HSPF 8.5</td><td>\$400</td></tr></table>	Central Air Conditioner SEER 14.5 / EER 12	\$150	Central Air Conditioner SEER 15 / EER 12	\$225	Central Air Conditioner SEER 16 / EER 12	\$300	Air-Source Heat Pump SEER 14.5 / HSPF 8.5	\$250	Air-Source Heat Pump SEER 15 / HSPF 8.5	\$325	Air-Source Heat Pump SEER 16 / HSPF 8.5	\$400
Central Air Conditioner SEER 14.5 / EER 12	\$150												
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Air-Source Heat Pump SEER 14.5 / HSPF 8.5	\$250												
Air-Source Heat Pump SEER 15 / HSPF 8.5	\$325												
Air-Source Heat Pump SEER 16 / HSPF 8.5	\$400												

<p><b>Program Title and Program years during which program will be implemented</b></p>	<p><b>Residential Energy Efficient Products Program</b>  <b>2009-2013</b></p>
<p><b>Objective(s)</b></p>	<p>To accelerate the adoption of high efficiency appliances and equipment that meets ENERGY STAR® label guidelines under the EPA program.</p>
<p><b>Target market</b></p>	<p>Customers that purchase appliances from retailers, including all residential and small commercial customers (replacement of existing units, end-of-life units and new); homeowners and renters in one to four family dwellings. Multifamily renters may also qualify for selected products.</p>
<p><b>Program description</b></p>	<p>The Energy Efficient Products Program provides financial incentives and support to retailers that sell energy efficient products, such as ENERGY STAR® qualified appliances or compact fluorescent light bulbs. The program includes promotional support, point-of-sale materials, training, promotional events and “up-stream product buy-down” rebates to retailers, distributors or manufacturers for select appliances. Also includes existing catalogue sales channel, and support for community-based initiatives, or other distribution channels that can reliably document effective distribution of energy efficient products.</p>
<p><b>Implementation strategy (including expected changes that may occur in different program years)</b></p>	<p>The message delivered to customers can be accomplished by using a variety of mass marketing tools including utility bill inserts, local newspaper circulars, direct mail, point of sale displays at retailers and the utility web site and on-line store. Retailers and manufactures will also be involved cross promoting product offers in conjunction with national campaigns like Earth Day and Change a Light, Change the World programs.</p> <p>The program will encourage community-based initiatives that support documented distribution of EE products and energy saving results. Such community-based initiatives include outreach through in-school training, college students, faith-based organizations, and municipal initiatives. This program involves developing educational materials on the proper use and selection of high efficiency light bulbs along with product discounts, coupons and price buy-downs to incentivize customers to purchase CFLs, LEDs and other qualifying EE products.</p>
<p><b>Program issues and risks and risk management strategy</b></p>	<p>Challenges with vendors or manufacturers, cost of energy efficient equipment, changing technology impact lifecycle cost, current economic environment may limit customer’s ability to purchase energy efficient equipment and technology, customer choosing to buy less efficient equipment. Community outreach challenges include collecting reliable documentation related to measures installed and energy savings impacts. With respect to risk management, refer to Section 4.1.4 of the EE&amp;C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.</p>

<p><b>Anticipated costs to participating customers</b></p>	<p>Customers will have to pay the balance of appliance equipment and installation costs not covered by the rebate.</p>
<p><b>Ramp up strategy</b></p>	<p>Use dealer incentives and special promotional “events” to encourage sales of high efficiency products, and/or retirement of less efficient equipment (e.g. Torchiere lamps) through “buy down” first cost and/or promotion of eligible equipment to customers. Customer rebates available for selected appliances. Appliance and replacement product pick up and disposal services available. Exchange program events for lighting and room air conditioners may be employed at periodic events.</p>
<p><b>Marketing strategy</b></p>	<p>This program involves consumer education and dealer marketing and incentives for selling appliances with ENERGY STAR® brand labels. Statewide coordination among electric utilities is being discussed to provide consistency across the state.</p>
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>For the proposed program, the minimum qualifying efficiency ratings are based on current ENERGY STAR® Qualified Appliances published by the US EPA.</p> <p style="padding-left: 40px;">➤ For Rebate Amounts See Met-Ed Table 5</p> <p>Customer incentives can be in many forms and all are paid by the utility. They can range from \$1 to the full purchase price of a light bulb plus an administrative fee paid to the manufactures and retailers in support of the campaign. One incentive could be a mark-down or buy-down program which is a shelf tag, display sticker or end cap sign giving credit for the reduced price to the utility. The discount is paid by the utility based off point of sale purchase data. A second can be coupons through print media or bill inserts. This is a manufacturer coupon offer paid by the utility and redeemed at any participating retailer. Coupons at retail are another method which includes providing a coupon at the point of sale such as a shelf coupon pad that is redeemed at the register. A third method can be rebate forms that are mailed to a clearing house with rebate checks sent direct to customers. A fourth method could be discounts prepaid at the utility’s on-line store, which allows customers to shop using the internet.</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Verify that qualified appliances have been sold by dealers seeking payment of incentives by auditing a sample of their claims.</p> <p>Verify that new, more efficient appliances have been installed through review of documentation provided by retailers, as well as individual participant rebate applications. Document, store and send measure data to state using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for</p>

	such monitoring. In the event that EE&C program indicators show that projected EE&C targets are not likely to be achieved on schedule or within budget, Met-Ed will take appropriate corrective actions.
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7a
<b>Other information deemed appropriate</b>	The Company will continue to seek consistency in rebate amounts and approaches with other EDCs as appropriate.

<p><b>Program Title and Program years during which program will be implemented</b></p>	<p><b>Residential New Construction Program</b></p>
<p><b>Objective(s)</b></p>	<p>Supports the construction of homes exceeding code requirements, and implementation of contractor-installed HVAC, solar, or other eligible systems, as well as high or energy efficient appliances in new or remodeled homes.</p> <p>Upgrade the energy efficiency of choices local builders make in new construction markets. To qualify for this program, the home must exceed the PA Energy Code (International Energy Conservation Code IECC 2006) requirements by at least 15% through a combination of building shell and appliance efficiency improvements.</p>
<p><b>Target market</b></p>	<p>The target market for this program is builders of new residential construction.</p>
<p><b>Program description</b></p>	<p>Provides incentives to builders for achieving ENERGY STAR® Homes status, or the Home Energy Rating System Program (HERS) associated with a highly energy efficient home. The program supports implementation of contractor-installed HVAC, solar, or other eligible systems in existing or new residential buildings, as well as measures addressing building shell, appliances and other energy consuming features. This program involves promoting the sale of high-efficiency, ENERGY STAR® compliant equipment through local builders. Participants can receive a rebate based on calculation of the energy savings related to the home’s construction over standard practice, and can participate in the prescriptive rebates offered under the other residential rebate programs.</p>
<p><b>Implementation strategy (including expected changes that may occur in different program years)</b></p>	<p>Providing a rebate to local builders. To qualify for this program, the home must exceed the PA Energy Code (International Energy Conservation Code IECC 2006) requirements by at least 15% and 30%. Program services would be delivered to customers by qualified local builders and contractors who can demonstrate (through HERS, REM/Rate or other rating tool recognized in the TRM) that the house meets minimum performance energy savings criteria consistent with that of a highly energy efficient home.</p>
<p><b>Program issues and risks and risk management strategy</b></p>	<p>Cost of energy efficient equipment, changing technology impact lifecycle cost, and current economic environment may limit customer’s ability to purchase energy efficient equipment and technology, customer choosing to buy less efficient equipment. Slow pace of new construction and costs associated with program marketing and communications may result in program transaction costs with minimal actual construction. With respect</p>

	<p>to risk management, refer to Section 4.1.4 of the EE&amp;C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.</p>
<p><b>Anticipated costs to participating customers</b></p>	<p>Participating contractors or builders would receive rebates for achieving high efficiency standards.</p> <p>Potentially a modest first cost increase for home owners</p>
<p><b>Ramp up strategy</b></p>	<p>New Construction may be introduced later, e.g., by Spring 2010 due to additional lead time required to launch. Contractor and realtor education will precede the availability of the program to consumers.</p>
<p><b>Marketing strategy</b></p>	<p>The marketing strategy will include: newspaper and radio advertising, Company bill inserts, Company website and employee communications. The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.</p>
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>The same equipment offered to existing residential customers under the other programs are eligible for installation in new homes under this program. The rebate is determined by formula, based on savings, estimated at 70% of incremental costs.</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>The builder is responsible for building rating simulations and commissioning processes that form the basis for savings. For shell measures, the program manager will review modeling of new home designs to determine ratings and verify savings estimates, as well as review builder commissioning processes (including inspections as appropriate) to ensure quality construction meets design specifications.</p> <p>For equipment upgrades, verify that new, more efficient equipment and appliances have been installed in the new homes. Check calculation of kWh and kW savings to be achieved through use of more efficient equipment comparing energy consumption of such equipment to that of standard ones. Document, store and send measure data to state using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that kWh and kW savings are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule or within budget, Met-Ed will</p>

	take appropriate corrective actions.
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7a
<b>Other information deemed appropriate</b>	None.

<b>Program Title and Program years during which program will be implemented</b>	<b>Residential Whole Building Comprehensive Program</b>
<b>Objective(s)</b>	To provide comprehensive EE diagnostic assessments followed by direct installation of selected low cost measures plus incentives to households for implementation of associated measures. Customers pay a fee of 100 for the services.
<b>Target market</b>	The target market for this program is residential single family homes with electric heat as the primary heating fuel.
<b>Program description</b>	Building upon the Home Energy Audit (prerequisite), this program provides comprehensive diagnostic assessments followed by direct installation of selected low cost measures plus incentives to households for implementation of measures addressing building shell, appliances and other energy consuming features. Customers can tap into prescriptive rebates as well as the Keystone Home Loan Program.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	BPI-certified contractors, including CBOs delivering the WARM program would implement the program. Program services would be most likely coordinated by a national vendor who would develop a pool of local contractors to deliver services to customers.
<b>Program issues and risks and risk management strategy</b>	While training initiatives are being launched through economic stimulus funds, a limited number of BPI certified contractors is currently available in Pennsylvania to deliver a comprehensive home program. Whole building initiatives (e.g. the Home Performance with Energy Star) have been challenging to launch in other jurisdictions, both in attracting contractors to adopt the business model, and in attracting customers to invest in a comprehensive set of measures. If measures are installed then customers will qualify for the rebates under the EE products program and will be encouraged to take Keystone Home Loan Program for balance of project costs. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	Customers would pay \$100 dollars for the comprehensive Audit which includes a blow door test. Customers would pay the difference between the actual cost of the measures and the incentives provided.
<b>Ramp up strategy</b>	Program may require additional lead time post November 2009 before launch.

<p><b>Marketing strategy</b></p>	<p>The marketing strategy will include: newspaper and radio advertising, Company bill inserts, Company website, employee communications, community presentations and direct mail campaigns as needed. The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.</p>
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>This is a full service program similar to the EPA’s Home Performance with Energy Star program that involves test-in test-out blower door procedures, identification and installation of energy savings opportunities and at the contractor’s discretion, environmental safety measures. It is a combination information and installation program. The same equipment offered to existing residential customers under the other programs are eligible for installation in new homes under this program. However, customers may not take rebates under both programs, but must elect which program to participate in.</p> <p>Rebates will be based on items installed but limited to \$900 total spending.</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Met-Ed is to verify that the installed measures and comprehensive diagnostics are performed as supported on program applications. As part of this review, the company plans to determine whether participants receive rebates under different programs for implementing the same measure. The company will also verify that existing EE&amp;C opportunities are properly quantified to enable accurate tracking and documentation of energy efficiency and demand reduction.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule and within budget, Met-Ed will take appropriate corrective actions.</p>
<p><b>Administrative requirements – include internal and external staffing levels</b></p>	<p>The Company will use a combination of internal and external resources to manage and implement the EE&amp;C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&amp;C plan for more details.</p>
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<p>See Appendix F</p>

<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7a
<b>Other information deemed appropriate</b>	None.

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.*

<b>Program Title and Program years during which program will be implemented</b>	<b>Low Income Sector Program 2009-2013</b>
<b>Objective(s)</b>	The provision of additional electric energy savings measures and services to lower income households.
<b>Target market</b>	The target market for this program is households who are income-qualified for WARM services (up to 150% of poverty). The program will expand services with additional energy savings opportunities, and expand the services to low use low income customers not eligible for WARM.
<b>Program description</b>	This program is an enhancement to the existing comprehensive Low-Income Usage Reduction Program, known as WARM that will provide additional electric energy savings measures and services.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	Program services would be delivered by existing WARM Community Based Organizations (“CBOs”) and private contractors, coordinated or augmented by additional private vendors as needed to enhance the capacity of existing agencies and contractors.
<b>Program issues and risks and risk management strategy</b>	Challenges with adding and training contractors if needed and landlord reluctance to permit WARM services. Risk management strategy will include adding an option to provide services to the low-income sector as part of the Act 129 implementation RFPs and directly sending CFLs and aerators to tenants. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	Based on income qualification, measures are provided free of charge.
<b>Ramp up strategy</b>	Include Act 129 measures and services to existing WARM contracts.
<b>Marketing strategy</b>	The marketing strategy for this program will include Company bill inserts, Company website, direct mail campaigns, senior citizen and low-income information fairs and community presentations as needed. Marketing activities will be coordinated with other Act 129 programs, the Company’s and other state low-income programs such as the Customer

	Assistance Program (CAP), Dept. of Public Welfare, PHFA, gas utilities and CBOs.
<b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b>	Replacement lighting, smart power strips, energy education, other residential programs (e.g., appliance recycling, energy efficient products, and load control programs) will also increase availability of subsidized energy efficiency services. All Measure are free to Customers
<b>Program start date with key schedule milestones</b>	See Figure 2.
<b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b>	<p>For the pre-installation phase, verify that inefficient lighting devices are installed and working on customers’ premises. Determine current energy consumption and demand using billing/meter information. Check sample calculations of projected savings for accuracy and for compliance with TRM guidelines.</p> <p>For the post-installation phase, verify that new, more efficient lighting has been installed. Verify through billing, calculation or metering that expected energy savings or demand reduction goals are being achieved. Document, store and send measure data to state using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule or within budget, Met-Ed will take appropriate corrective actions.</p>
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>Savings targets – include tables with total MWh and MW goals per year and cumulative tables that</b>	See Appendix E

<b>document key assumptions of savings per measure or project</b>	
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7b
<b>Other information deemed appropriate</b>	Contracts being renegotiated with CBOs in June 2009 are including language to address the strong potential for launching of this program in fall 2009. This will enable quick launch of these services upon Commission approval.

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

<b>Program Title and Program years during which program will be implemented</b>	<b>Energy Audit and Technical Assessment Program</b>
<b>Objective(s)</b>	To provide business customers with comprehensive information related to opportunities identified in the buildings.
<b>Target market</b>	All existing non-residential buildings.
<b>Program description</b>	Provides two levels of energy audit services 1) a simple walk-through audit for small business with non-complex loads, and 2) a more comprehensive assessment for medium to large non-residential customers to help identify existing end uses of energy and find specific ways in which energy savings can be achieved. The audit supports obtaining rebates and other incentives through other Company programs.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	This program will be delivered by a vendor for the small commercial customers, and by contractors of the choice of the customer for large C/I.
<b>Program issues and risks and risk management strategy</b>	Business climate may require fees to be reduced or waived in order to encourage participation. Process evaluation will determine if this adjustment is necessary following program launch. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	\$250 for small businesses and <\$1 per sq. foot fee for large customers or those with custom or complex systems to be evaluated. Exact fees to be determined through RFP process.
<b>Ramp up strategy</b>	Program will launch upon selection of vendor.

<p><b>Marketing strategy</b></p>	<p>The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.</p>
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>This program provides an energy audit/assessment conducted to document the building’s existing equipment and efficiency opportunities prior to installation of efficiency measures. For small business, audits are provided at a cost of \$250 which includes receiving an unlimited number of coupons for \$1 off CFLs to replace existing incandescent lamps. The number of coupons will be base on the audit and customer requirements. Registration will be encouraged in the EPA’s Benchmarking Tool that provides additional insights as to energy efficiency levels. Office equipment audits will be included for appropriate building types to ensure proper efficiency settings on equipment, and to identify savings potential for plug loads.</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Met-Ed is to verify that the planned number of each type of audits is performed on time and within budget. A sample of audits will be reviewed to check that their actual costs do not exceed the budgeted cost. The company will also verify that existing EE&amp;C opportunities are properly quantified to enable accurate tracking and documentation of energy efficiency and demand reduction.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule and within budget, Met-Ed will take appropriate corrective actions.</p>
<p><b>Administrative requirements – include internal and external staffing levels</b></p>	<p>The Company will use a combination of internal and external resources to manage and implement the EE&amp;C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&amp;C plan for more details.</p>
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<p>See Appendix F</p>
<p><b>Estimated program budget (total) by year – include table with budget per year</b></p>	<p>See Appendix D 1-4</p>
<p><b>Savings targets – include tables</b></p>	<p>See Appendix E</p>

<b>with total MWh and MW goals per year and cumulative tables that document key assumptions of savings per measure or project</b>	
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7d
<b>Other information deemed appropriate</b>	

<b>Program Title and Program years during which program will be implemented</b>	<b>C/I Equipment Program</b>
<b>Objective(s)</b>	To reduce the first cost of high efficiency equipment thereby encouraging the adoption of this equipment in lieu of standard at the end of the useful life of measures, or as early replacement.
<b>Target market</b>	All existing commercial, industrial, municipal and multifamily buildings that are customers of the PA Companies.
<b>Program description</b>	Provides for the implementation of cost effective, high efficiency non-standard measures through the authorized contractor network for local, state and federal buildings, as well as for institutional customers. Rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less.
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	This program provides an incentive offsetting a portion of the incremental technology costs (“capital costs”) of high efficiency units. In addition, it will provide technical support, rebates...
<b>Program issues and risks and risk management strategy</b>	Availability of qualifying high efficiency equipment. The Company will negotiate with manufacturers to increase availability in the PA market for any items that are in demand but are in short supply. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	Balance of costs of equipment, plus installation costs as relevant.
<b>Ramp up strategy</b>	Program will launch upon selection of a vendor.
<b>Marketing strategy</b>	The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.
<b>Eligible measures and incentive</b>	➤ For Rebate Amounts See Met-Ed Table 5

<p><b>strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>Incentives will be set at a schedule of payments per unit to address the incremental cost of commercially available energy efficient technology for each equipment category, when compared to the commonly available replacement.</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>See Figure 2</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>For the pre-installation phase, for a sample of participants, verify that inefficient HVAC, lighting, food services equipment and plug loads and controls are installed and working on customers’ premises. Determine current total energy consumption and demand using billing/meter information. Check sample calculations of projected savings and assumptions (e.g. EFLH) for accuracy and for compliance with TRM guidelines. Pre-approval and opportunity for pre-installation inspections is required, with the exception of emergency HVAC replacements.</p> <p>For the post-installation phase, verify through verification inspections that new, more efficient, equipment has been installed. Document, store and send measure data to state using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule and within budget, Met-Ed will take appropriate corrective actions.</p>
<p><b>Administrative requirements – include internal and external staffing levels</b></p>	<p>The Company will use a combination of internal and external resources to manage and implement the EE&amp;C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&amp;C plan for more details.</p>
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<p>See Appendix F</p>
<p><b>Estimated program budget (total) by year – include table with budget per year</b></p>	<p>See Appendix D 1-4</p>
<p><b>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</b></p>	<p>See Appendix E</p>

<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7
<b>Other information deemed appropriate</b>	Custom measures will be rebated based upon an analysis of potential energy savings on a case by case basis.

**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.**

<b>Program Title and Program years during which program will be implemented</b>	<b>Industrial Motors and Variable Speed Drives</b>
<b>Objective(s)</b>	This program seeks to provide an incentive for the Company’s customers to recognize that energy savings and costs are possible when motors are upgraded to NEMA Premium® motors. The relatively low cost of electrical energy may have resulted in many customers not focusing on or considering upgrading their motors. The incentives offered by the Company are provided to help initiate momentum among its customers.
<b>Target market</b>	The target market is all commercial and industrial customers. This would include, but not be limited to the following business categories, industrial manufacturing, government facilities, office buildings, education, health care, retail and other commercial customers.
<b>Program description</b>	<p>This program is designed to encourage the company’s commercial and industrial customers to:</p> <ol style="list-style-type: none"> <li>1. Upgrade their existing motors to NEMA Premium® motors when switching out old motors due to breakdowns and or programmed replacements</li> <li>2. Install variable speed drives on motors that do not always operate at the same speed.</li> </ol> <p>The variable speed drive program is designed for commercial and industrial energy customers whose motors are utilized for increased operating hours and have a higher variability of loads on the system (centrifugal pumps and fans) or the application of use includes mechanical throttling (valves, dampers, etc). This is because variable speed drives match the speed of the motor-driven equipment to the process requirement. Applications with low variability of loads such as vibrating conveyors, punch presses, rock crushers, machine tools and other applications where the motor runs at constant speed are not good candidates for a variable-speed drive.</p>
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	This program would be administered through regional motor distributors who would be incentives to move the products. A dealer network would be built by a qualified vendor from the list of contractors that are registered in Pennsylvania as a CSP.
<b>Program issues and risks and risk management strategy</b>	Lack of participation from regional motor distributors. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning

	systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	<p>Incentives will be available to customers and through motors distributors as a rebate per unit replaced on a first come first serve basis and will be limited to the Company’s motor upgrade budget.</p> <ol style="list-style-type: none"> <li>To qualify for an incentive, the motor(s) must operate a minimum of 3,000 hrs/yr</li> </ol> <p>The variable-speed drive incentive is \$30 per horsepower of the motor being used.</p>
<b>Ramp up strategy</b>	The rebates will be offered upon selection of a vendor.
<b>Marketing strategy</b>	The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.
<b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b>	<p>This program seeks to provide an incentive for the Company’s customers to recognize that energy savings and costs are possible when motors are upgraded to meet program efficiency standards. The relatively low cost of electrical energy may have resulted in many customers not focusing on or considering upgrading their motors. The incentives offered by the Company are provided to help initiate momentum among its customers.</p> <p>Incentives will be available to customers and through motors distributors as a rebate per unit replaced on a first come first serve basis and will be limited to the Company’s motor upgrade budget.</p> <ol style="list-style-type: none"> <li>To qualify for an incentive, the motor(s) must operate a minimum of 3,000 hrs/yr</li> <li>The motor upgrade program’s individual incentives per motor start at \$20 for a 1HP.</li> <li>The variable-speed drive incentive is \$30 per horsepower of the motor being used.</li> </ol> <p>For Complete List of Rebate Amounts See Met-Ed Table 5</p>
<b>Program start date with key schedule milestones</b>	See Figure 2
<b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b>	<p>For the pre-installation phase, verify that inefficient motors are installed and operating on customers’ premises. Determine current energy consumption and demand using billing/meter information. Check sample calculations of projected savings for accuracy and for compliance with TRM guidelines.</p> <p>For the post-installation phase, verify that new, more efficient, motors have been installed. Verify through billing, calculation</p>

	<p>or metering that expected energy savings or demand reduction goals are being achieved. Document, store and send measure data to state using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule and within budget, Met-Ed will take appropriate corrective actions.</p>
<p><b>Administrative requirements – include internal and external staffing levels</b></p>	<p>The Company will use a combination of internal and external resources to manage and implement the EE&amp;C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&amp;C plan for more details.</p>
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<p>See Appendix F</p>
<p><b>Estimated program budget (total) by year – include table with budget per year</b></p>	<p>See Appendix D 1-4</p>
<p><b>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</b></p>	<p>See Appendix E</p>
<p><b>Cost-effectiveness – include TRC for each program</b></p>	<p>See PUC Table 7c</p>
<p><b>Other information deemed appropriate</b></p>	<p>None.</p>

<p><b>Program Title and Program years during which program will be implemented</b></p>	<p><b>2a. Commercial Industrial Demand Response Program – CSP<sup>10</sup> Mandatory and Voluntary Curtailment Program</b></p>
<p><b>Objective(s)</b></p>	<p>To address the 100 highest peak load hours during the four months of June through September, as required under Act 129.</p>
<p><b>Target market</b></p>	<p>For Commercial and Industrial, as well as government sector customers, Met-Ed and Penelec (each referred to as Company) will solicit registration for curtailment service providers (“DR-CSPs”) registering load in PJM capacity programs, firm pricing for commitments for peak load reductions in at least 50 peak load hours based on Company notifications in accordance with the provisions outlined below.</p>
<p><b>Program description</b></p>	<p>To participate, DR-CSPs must register their customers for capacity in the PJM ILR or DR programs, and must register for PJM economic load response program (ELRP) “events” that include specific days and hours defined through Company notifications on a day-of or day-ahead basis (Peak Load Reduction (“PLR”) Performance Periods).</p> <ul style="list-style-type: none"> <li>a. Notifications will be provided to the DR-CSPs at least three hours prior to the event.</li> <li>b. DR-CSP registration of PLR Performance Periods in PJM ELRP events is required to enable PJM processes for verification of actual peak load reductions. The days and hours for that define periods of performance.</li> <li>c. Performance Periods will be limited to week days between noon and 8 PM, with durations of a minimum of one hour up to the full 6 hours.</li> </ul>
<p><b>Implementation strategy (including expected changes that may occur in different program years)</b></p>	<p>The Company will enter into an agreement with DR-CSPs selected on a first come first serve basis up to the contracted MW of peak load reductions for annual performance periods. Annual performance periods will address the 2011/12, and 2012/13 PJM planning years.</p> <ul style="list-style-type: none"> <li>a. Estimated MW required from this program to meet Act 129 minimum requirements will depend on the MW achieved through energy efficiency (EE) programs.</li> </ul>

<sup>10</sup> It should be noted that a "Curtailment Service Provider (CSP)" under PJM demand response programs is different from a "Conservation Service Provider (CSP)" under Act 129.

	<p>Actual MW registered for the summer of 2012 will be subject to adjustment (up or down) based on actual EE program performance through 2011, as well as experience under this program in the first two years.</p>																											
<p><b>Program issues and risks and risk management strategy</b></p>	<p>Since this program is a mandatory curtailment program, there is a risk that the hours that the Company calls for curtailment will not be in the top 100 load hours.</p>																											
<p><b>Anticipated costs to participating customers</b></p>	<p>\$125 per month administrative cost</p>																											
<p><b>Ramp up strategy</b></p>	<p>Projected MW to be solicited in each planning year will be:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;"><b>Met-Ed</b></th> <th style="text-align: center;"><b>Penelec</b></th> </tr> </thead> <tbody> <tr> <td>Projected MW Required for this Program</td> <td style="text-align: center;">10 MW</td> <td style="text-align: center;">10 MW</td> </tr> <tr> <td>Price per kW per quarter paid on a quarterly basis</td> <td style="text-align: center;">6.88 per kW</td> <td style="text-align: center;">\$</td> </tr> <tr> <td>per quarter</td> <td style="text-align: center;">\$ 6.88 per kW</td> <td></td> </tr> <tr> <td>per quarter</td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;"><b>MW Solicited in PJM Planning Year</b></td> </tr> <tr> <td>2011/12:</td> <td style="text-align: center;">20 MW</td> <td style="text-align: center;">20 MW</td> </tr> <tr> <td>2012/13:</td> <td style="text-align: center;">40 MW</td> <td style="text-align: center;">40 MW</td> </tr> <tr> <td colspan="3">Less 50% of previous years performance from Voluntary Program</td> </tr> </tbody> </table>		<b>Met-Ed</b>	<b>Penelec</b>	Projected MW Required for this Program	10 MW	10 MW	Price per kW per quarter paid on a quarterly basis	6.88 per kW	\$	per quarter	\$ 6.88 per kW		per quarter			<b>MW Solicited in PJM Planning Year</b>			2011/12:	20 MW	20 MW	2012/13:	40 MW	40 MW	Less 50% of previous years performance from Voluntary Program		
	<b>Met-Ed</b>	<b>Penelec</b>																										
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<p><b>Marketing strategy</b></p>	<p>Inform active and qualified CSPs about the new initiative and the details associated with the plan.</p>																											
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>Payment will be based on proposed and accepted pricing from the Company and made on a quarterly basis starting in October.</p> <p>Pricing will be based on:</p> <ol style="list-style-type: none"> <li>a. Fixed payments per contracted kW of peak load reduction equal to \$6.88 per kW per quarter, and</li> <li>b. Decrements (or performance penalties) for peak load reductions below contracted levels for the season.</li> </ol> <p>Decrement pricing for average hourly underperformance</p>																											

	<p>relative to the contract load reduction during the season will be based on MWh pricing equivalent to 125% of the contract fixed payments divided by 50 hours.</p> <ol style="list-style-type: none"><li>a. For example, a contract with fixed monthly pricing of \$3.50/contract kW month (equivalent to \$113/mW-day) for the period June through May, would have a decrement price equal to <math>\\$3.50/\text{kW month} \times 12 \text{ months} \times 125\% / 50 \text{ hours} = \\$1.05 / \text{kWh}</math> for average hourly performance below the contract kW for any event.</li><li>b. Decrement will be based on the aggregated average hourly performance relative to the contract kW peak load reduction for the season. For example, if the contract kW is 1,000 in the example above, the DR-CSP would receive <math>12 \text{ months} \times 1,000 \text{ kW} \times \\$3.50/\text{kW month} = \\$42,000/\text{year}</math> of contracted fixed payments. If the Company calls a 6 hour event, and the average aggregate peak load reduction for the group of customers under the agreement is 900 kW, the DR-CSP payment for that event would be decremented by <math>6 \text{ hours} \times 100 \text{ kW} \times \\$1.05/\text{kWh} = \\$630</math>.</li></ol> <p>Decrements can be offset by average hourly over-performance relative to the contract load reduction during any daily event, based on a decrement offset price per MWh equivalent to the contract fixed payments divided by 50 hours.</p> <ol style="list-style-type: none"><li>a. For example, a contract with fixed monthly pricing of \$3.50/contract kW month (equivalent to \$113/mW-day) for the period June through May would have a decrement offset price equal to <math>\\$3.50/\text{kW month} \times 12 \text{ months} / 50 \text{ hours} = \\$0.84 / \text{kWh}</math> for average hourly performance above the contract kW for any event.</li></ol> <p>Decrements will be applied to offset payments starting in October.</p>
<b>Voluntary Program details</b>	<p>Company will pay CSPs an incentive for demand response in accordance with the provisions outlined below: (Note that this program will start in summer of 2010)</p> <ol style="list-style-type: none"><li>1. It will be up to the CSP to aggregate and reduce load during the top 100 highest load hours. If the CSP drops load and it is not in the 100 highest load hours, then no payment will be made by the Company</li><li>2. This Company program is completely voluntary. After the end of September, Company will calculate and announce the dates and hours of the top 100 load hours for the four month period for its Company zone.</li></ol>

	<p>Company will then examine the PJM demand response records and pay CSPs \$150.00 per MW hour (15 cents per kwh) for any load reductions that occurred during those 100 highest load hours – this payment will be made in addition to any and all payments made by PJM.</p> <p>3. Performance verification will be based on PJM ELRP protocols for the aggregated hourly load reductions of the participants listed in the agreement</p> <p>DR-CSP will provide Company summary of hourly peak load reductions for the aggregated group and for individual customers, with back-up data supporting hourly performance for each customer for Performance Periods using metering data accepted by PJM. Load reductions will be measured against the standard CBL if appropriate or a CBL nominated by the EDC or CSP/Customer and accepted by PJM.</p>												
<p><b>Program start date with key schedule milestones</b></p>	<p>The program plan is designed to be fully implemented starting in the summer of 2011</p>												
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b></p>	<p>Performance verification will be based on PJM ELRP protocols for the aggregated hourly load reductions of the participants listed in the agreement.</p> <p>DR-CSP will provide Company summary of hourly peak load reductions for the aggregated group and for individual customers, with back-up data supporting hourly performance for each customer for Performance Periods using metering data accepted by PJM. Load reductions will be measured against the standard CBL if appropriate or a CBL nominated by the EDC or CSP/Customer and accepted by PJM.</p>												
<p><b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b></p>	<table border="1"> <thead> <tr> <th></th> <th><b>Met-Ed</b></th> <th><b>Penelec</b></th> </tr> </thead> <tbody> <tr> <td>MW participation</td> <td>40MW</td> <td>40MW</td> </tr> <tr> <td>Hours</td> <td>50</td> <td>50</td> </tr> <tr> <td>Efficiency rate*</td> <td>50%</td> <td>50%</td> </tr> </tbody> </table> <p>*Amount of hours that will fall within the top 100 load hour requirement</p>		<b>Met-Ed</b>	<b>Penelec</b>	MW participation	40MW	40MW	Hours	50	50	Efficiency rate*	50%	50%
	<b>Met-Ed</b>	<b>Penelec</b>											
MW participation	40MW	40MW											
Hours	50	50											
Efficiency rate*	50%	50%											
<p><b>Estimated program budget (total) by year – include table with budget per year</b></p>	<p>\$1,200,000 per year for both Met-Ed and Penelec.</p>												

		<b>Met-Ed</b>	<b>Penelec</b>
<b>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</b>	MW savings	10MW	10 MW
	MWh savings	1,000 MWh	1,000 MWh

<p><b>Program Title and Program years during which program will be implemented</b></p>	<p><b>2b. Met-Ed/Penelec Acting as a CSP<sup>11</sup> within PJM</b></p> <p>Commercial Industrial Demand Response Program – Customer Mandatory Curtailment Program</p> <p>Target Market = total mw targeted less 50% of previous years voluntary participation in VLRP less amount committed by CSP registration.</p>
<p><b>Objective(s)</b></p>	<p>To address the 100 highest peak load hours during the four months of June through September, as required under Act 129 – for the MW not contracted for with CSPs.</p>
<p><b>Target market</b></p>	<ol style="list-style-type: none"> <li>1. Customers who elect to take generation service from an EGS shall include in contract language with EGS that would allow the Company to curtail based on the curtailable contract.</li> <li>2. If the Customer is currently shopping, the Customer must confirm that their existing EGS contract allows for a Company sponsored curtailment program. Customer must also confirm they have not committed to another CSP for participation in PJM programs</li> <li>3. The curtailable contract must be for a minimum 2 years.</li> <li>4. The Curtailable load that will be eligible for the credits specified in this program shall be equal to the Customer’s average billing Curtailable kilowatt credit level measured based upon PJM ELRP Protocols.</li> <li>5. Before initiation of this program, the Company will enroll Customers in PJM’s Economic Load Response Program and Interruptible Load Response.</li> </ol>
<p><b>Calculation of Credit</b></p>	<ol style="list-style-type: none"> <li>1. A credit for each kilowatt of Curtailable load based upon PJM ELRP Protocols.</li> <li>2. If a Customer has a Curtailable load of 300 kilowatts or greater and agrees in a separate contract to curtail its load to a predetermined level equal to its non-Curtailable service requirements (such level to be determined in advance by the Customer subject to approval by Company), then the Company can curtail upon either a thirty-minute or a two-hour advance notice.</li> <li>3. The period of curtailment shall not exceed six (6) hours within any one (1) calendar day and will be between the hours of 12.00 PM and 8:00PM. The</li> </ol>

<sup>11</sup> It should be noted that a "Curtailment Service Provider (CSP)" under PJM demand response programs is different from a "Conservation Service Provider (CSP)" under Act 129.

	<p>number of curtailments shall not exceed twenty (20) and the aggregate period of curtailment shall not exceed 50 hours per 4-month summer period.</p>												
<p><b>Billing and Payment</b></p>	<ol style="list-style-type: none"> <li>1. Credits will be made to the Customer’s monthly bill over the eight month period of October through May in the amount of one eighth of the total value of the curtailment. If the amount of the credit is greater than the Customer’s monthly bill, then the Company will make a payment to the Customer for all amounts greater than zero.</li> <li>2. On or about the twentieth (20th) business day of each month, and in accordance with any requirements of the various programs, the Company shall prepare and forward to the Customer a comprehensive written statement describing the amount of Load Reduction for each hour of the previous month, along with a calculation of the total amount due the Customer on account of such Load Reduction or the amount to be paid the Company for any Load Reduction Pledges not fully satisfied.</li> </ol>												
<p><b>Program issues and risks and risk management strategy</b></p>	<p>Since this program is a mandatory curtailment program, there is a risk that the hours that the Company calls for curtailment will not be in the top 100 load hours.</p>												
<p><b>Anticipated costs to participating customers</b></p>	<p>\$125 per month administrative cost</p>												
<p><b>Marketing strategy</b></p>	<p>Inform active and qualified Customers about the new initiative and the details associated with the plan.</p>												
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p><u>Met-Ed</u></p> <p>The monthly credit to Customers for Curtailable load payable over 8 months shall be:</p> <p style="text-align: center;"><u>Fixed Portion:</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;"><u>½ Hour Notice</u></th> <th style="width: 25%; text-align: center;"><u>2 Hour Notice</u></th> </tr> </thead> <tbody> <tr> <td>Rate GS and GST_N/A_____</td> <td></td> <td>\$3.72 per KW</td> </tr> <tr> <td>Rate GP_____</td> <td>\$3.70 per KW</td> <td>\$3.51 per KW</td> </tr> <tr> <td>Rate TP_____</td> <td>\$3.52 per KW</td> <td>3.35 per KW</td> </tr> </tbody> </table> <p style="text-align: center;">Plus</p> <p style="text-align: center;">An amount per kW equal to the RPM Auction Clearing Price as adjusted annually by PJM to reflect the</p>		<u>½ Hour Notice</u>	<u>2 Hour Notice</u>	Rate GS and GST_N/A_____		\$3.72 per KW	Rate GP_____	\$3.70 per KW	\$3.51 per KW	Rate TP_____	\$3.52 per KW	3.35 per KW
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results of the most recent auction.

Plus

Payments made by PJM to the Company (acting as CSP) as part of PJM's Economic Load Response Program ("ELRP")

Penelec

The monthly credit to Customers for Curtailable load shall be:

Fixed Portion:

	<u>½ Hour Notice</u>	<u>2 Hour Notice</u>
Rate GS and GST_N/A_____		\$4.47 per KW
Rate GP_____	\$3.65 per KW	\$3.48 per KW
Rate LP_____	\$3.55 per KW	\$3.38 per KW

Plus

An amount per kW equal to the RPM Auction Clearing Price as adjusted annually by PJM to reflect the results of the most recent auction.

Plus

Payments made by PJM to the Company (acting as CSP) as part of PJM's Economic Load Response Program ("ELRP")

Rate GP and TP/LP Prior Day Option:

1. Rate GP and TP/LP Customers may select a prior day notice option provided that the Customer curtails its load to a predetermined level equal to its non-Curtailable service requirements (such level to be determined in advance by the Customer subject to approval by Company).
2. The Company shall give notice of a curtailment before 12 o'clock noon of the prior day during the months of June through September.
3. The Customer must have a Curtailable load of 1,000 kilowatts or greater.
4. The period of curtailment shall not exceed six (6) hours within any one (1) calendar day, and will be between the hours of 12:00PM and 8:00PM. The

	<p>number of curtailments shall not exceed fifteen (15) and the aggregate period of curtailment shall not exceed 50 hours during the four (4) month summer period in any one (1) calendar year.</p> <p>The monthly credit to Customers for Curtailable load shall be:</p> <p><u>Credit With Prior Day Notice</u></p> <p><u>Met-Ed</u></p> <table data-bbox="662 573 1117 667"> <tr> <td>Rate GP</td> <td>\$1.76 per KW</td> </tr> <tr> <td>Rate TP</td> <td>\$1.68 per KW</td> </tr> </table> <p><u>Penelec</u></p> <table data-bbox="662 751 1117 846"> <tr> <td>Rate GP</td> <td>\$1.74 per KW</td> </tr> <tr> <td>Rate LP</td> <td>\$1.69 per KW</td> </tr> </table> <p>Plus</p> <p>An amount per kW based on the RPM Auction Clearing Price as adjusted annually by PJM to reflect the results of the most recent auction</p> <p>Plus</p> <p>Energy payments made as part of PJM’s Economic Load Response Program (“ELRP”)</p>	Rate GP	\$1.76 per KW	Rate TP	\$1.68 per KW	Rate GP	\$1.74 per KW	Rate LP	\$1.69 per KW
Rate GP	\$1.76 per KW								
Rate TP	\$1.68 per KW								
Rate GP	\$1.74 per KW								
Rate LP	\$1.69 per KW								
<p><b>Penalty for Customer failure to Curtail and termination rules</b></p>	<ol style="list-style-type: none"> <li>1. The penalty assessment will be based on the Customer’s performance over the entire Summer season.</li> <li>2. A Customer shall be deemed to have failed to curtail when the Customer’s maximum 15-minute integrated demand in each period of curtailment has not been reduced to not more than 101% of the “predetermined” level.</li> <li>3. If customer’s fail to curtail when the Company calls for a mandatory curtailment, the penalty payable to the Company will be equal to the following:             <p style="margin-left: 40px;">Non Compliance Penalty = Amount of Load not curtailed (MW) x RPM Auction Clearing Price (\$ MW Day) x 2</p> </li> </ol> <p><u>Termination Rules</u></p> <ol style="list-style-type: none"> <li>1. Either the Company or the Customer may terminate service under this program upon providing the other party at least one (1) year notice of termination.</li> <li>2. However, during the period beginning when a</li> </ol>								

	<p>Customer initially elects to take service under this program and ending on the following April 30, such a Customer may, upon thirty (30) days' notice to the Company, elect to terminate Curtailable service without the requirement of the one (1) year notice set forth above. Thereafter, the one (1) year notice requirement shall apply.</p>
<p><b>Program start date with key schedule milestones</b></p>	<p>The program plan is designed to be fully implemented starting in the summer of 2011</p>
<p><b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission's statewide EE&amp;C Plan Evaluator</b></p>	<p>Performance verification will be based on PJM ELRP protocols for the aggregated hourly load reductions of the participants listed in the agreement.</p> <p>The Company, acting as CSP, will provide a summary of hourly peak load reductions for the aggregated group and for individual customers, with back-up data supporting hourly performance for each customer for Performance Periods using metering data accepted by PJM. Load reductions will be measured against the standard CBL if appropriate or a CBL nominated by the EDC or CSP/Customer and accepted by PJM.</p>

<b>Program Title and Program years during which program will be implemented</b>	<b>C/I Performance Contracting</b>
<b>Objective(s)</b>	To assist large commercial and industrial (and other non-residential) customers secure DSM/EE services through an Energy Services Company that will identify opportunities and implement retrofits.
<b>Target market</b>	All existing non-residential buildings.
<b>Program description</b>	<p>Large commercial and industrial (and other non-residential) customers may elect to secure DSM/EE services through an Energy Services Company that will identify opportunities, implement retrofits and be paid through the savings generated by the project over time. The PA Companies will identify qualified ESCOs and will pay a portion of the project costs for kWh and kW savings delivered.</p> <p>ESCOs may serve as aggregators of customers for providing contracted kWh and kW savings to the Companies.</p>
<b>Implementation strategy (including expected changes that may occur in different program years)</b>	This program would be delivered through qualified ESCO contractors that agree to terms for participation. Specific rules for documenting energy savings and demand reductions must be met prior to receipt of payments under this program.
<b>Program issues and risks and risk management strategy</b>	Challenges with customers meeting requirements for payment, lack of program awareness and “emergency replacement” scenario among target customers. There is potential for low dealer, customer, and trade ally awareness. Procurement policies that specify low first-cost instead of life-cycle cost and possible tenant/landlord issues may be concerns. With respect to risk management, refer to Section 4.1.4 of the EE&C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.
<b>Anticipated costs to participating customers</b>	The installation costs minus the incentives.
<b>Ramp up strategy</b>	The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on ramp up strategy for this program.
<b>Marketing strategy</b>	The Company fully expects the Program Manager(s), who will be selected by competitive bid, to provide specific details on marketing for this program.
<b>Eligible measures and incentive strategy, include tables for each</b>	The rebates for this program are the same as for the C/I Equipment program. The only difference is the delivery channel. For the rebates amount see Met-Ed Table 5 under C/I

<b>year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b>	Equipment rebates.
<b>Program start date with key schedule milestones</b>	See Figure 2
<b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission’s statewide EE&amp;C Plan Evaluator</b>	<p>For the pre-installation phase, verify that inefficient HVAC, lighting, food services equipment as well plug loads and controls are installed and working on customers’ premises. Determine current energy consumption and demand using billing/meter information. Check sample calculations of projected savings for accuracy and for compliance with TRM guidelines.</p> <p>For the post-installation phase, verify that new, more efficient, equipment has been installed. Verify through billing, calculation or metering that expected energy savings or demand reduction goals are being achieved. Document, store and send measure data to state using specified data transmission protocols, processes and technology.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that kWh and kW savings are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule and within budget, FirstEnergy will take appropriate corrective actions.</p>
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7d

<b>Other information deemed appropriate</b>	
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**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.**

<p><b>Program Title and Program years during which program will be implemented</b></p>	<p><b>Governmental and Institutional Programs:</b></p> <ul style="list-style-type: none"> <li>a. Federal Facilities, State, Local, Institutional and Non-Profit Building audits and plans for Stimulus Money</li> <li>b. Street lighting Program</li> <li>c. Traffic Signal Program</li> <li>d. State, Local, Institutional and Non-Profit Buildings</li> <li>e. County and Local Audit Program</li> </ul>
<p><b>Objective(s)</b></p>	<p>The programs provide incentives of a percentage [TBD] of the incremental technology costs (“capital costs”) for energy efficient retrofit projects. In addition, they will provide technical support, rebates, and support for financing.</p>
<p><b>Target market</b></p>	<p>All existing governmental, institutional and non-profit buildings in the company’s service territory. Note that federal government customers may be eligible for payment of the retrofits by the Federal Energy Management Program (FEMP) upon review and approval by the federal program manager.</p>
<p><b>Program description</b></p>	<ul style="list-style-type: none"> <li>a. The Federal Facilities Program involves a feasibility study to identify energy savings opportunity to expedite the Federal and municipal agencies taking action. Provides for the implementation of cost effective, high efficiency standard and non-standard measures through a CSP for local, state and federal buildings, as well as for institutional customers. For federal facilities that qualify, costs for the implementation are covered under the Federal Energy Management Program; for others, rebates are intended to buy down selected equipment or overall job scopes to a 5 year payback or less.</li> <li>b. The Street lighting Program is offered to municipalities regardless of ownership of the street lights. This segment of the Government program will seek to convert street lights to high pressure sodium. The company will also pursue an LED street light demonstration project as part of this component to test this emerging technology.</li> <li>c. The Traffic Signal Program is another program targeted at local governments. This component of the Gov’t program will seek to convert traffic signals and pedestrian/cycling signals to</li> </ul>

	<p>LED technology.</p> <p>d. Governmental Buildings and Schools Program will help better identify energy savings opportunities and expedite their implementation. The CSP would provide diagnostic assistance, technical support and rebates necessary for school districts to install high-efficiency measures.</p> <p>e. County and Local Buildings including schools will be provided energy audits free of charge as a way to increase the proportional share of saving received from governmental customers.</p>
<p><b>Implementation strategy (including expected changes that may occur in different program years)</b></p>	<p>These programs will interface with each other so that program participants can obtain full energy audits as needed. They will also potentially leverage support from state-level initiatives.</p>
<p><b>Program issues and risks and risk management strategy</b></p>	<p>Inability of organizations to identify balance of funding for projects, in spite of incentives; competing priorities for capital improvements. Risk management includes assistance in helping identify federal Energy Efficiency Block Grant or American Public Power Association (as appropriate) funding or other sources for balance of costs. Also, with respect to risk management, refer to Section 4.1.4 of the EE&amp;C plan. The Company provides further details on “early warning systems” as well as a description of contingency plans.</p>
<p><b>Anticipated costs to participating customers</b></p>	<p>Balance of project costs.</p>
<p><b>Ramp up strategy</b></p>	<p>Program will launch upon selection of C/I vendor.</p>
<p><b>Marketing strategy</b></p>	<p>FirstEnergy Area Managers will be tapped to provide first line contacts to eligible customers within the target market segments. The C/I program vendor will be responsible for ultimate program marketing.</p>
<p><b>Eligible measures and incentive strategy, include tables for each year of program, as appropriate showing financial incentives &amp; rebate levels (e.g., \$ per measure, \$ per kWh or MW saved)</b></p>	<p>Federal Rebates to qualified federal buildings are listed separately in Table 5 due to the availability of Federal incentive money.</p> <p>All other Governmental rebates are the same as the C/I equipment program.</p> <p>The rebates are listed in Met-Ed Table 5 under the C/I Equipment program.</p> <p>The county and local governmental audits are estimated to be about \$2000 dollars.</p>
<p><b>Program start date with key</b></p>	<p>See Figure 2.</p>

<b>schedule milestones</b>	
<b>Assumed Evaluation, Measurement, and Verification (EM&amp;V) requirements required to document savings by the Commission's statewide EE&amp;C Plan Evaluator</b>	<p>FirstEnergy is to verify that the planned number of each type of governmental and institutional audits is performed on time and within budget. A sample of audits will be reviewed to check that their actual costs do not exceed the budgeted cost. The company will also verify that existing EE&amp;C opportunities are properly identified, validated and quantified to enable accurate tracking and documentation of energy efficiency and demand reduction.</p> <p>As part of the monitoring process, the company plans to use selected indicators to verify periodically that energy savings and demand reduction are being realized as projected. A DSM tracking system is to be used for such monitoring. In the event that EE&amp;C program indicators show that projected EE&amp;C targets are not likely to be achieved on schedule or within budget, FirstEnergy will take appropriate corrective actions.</p>
<b>Administrative requirements – include internal and external staffing levels</b>	The Company will use a combination of internal and external resources to manage and implement the EE&C programs. Met-Ed will monitor and adjust the allocation of resources to balance the needs of each program. See sections 4.2.1 and 4.2.2 of the EE&C plan for more details.
<b>Estimated participation – includes tables indicating metric(s) with target value(s) per year</b>	See Appendix F
<b>Estimated program budget (total) by year – include table with budget per year</b>	See Appendix D 1-4
<b>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</b>	See Appendix E
<b>Cost-effectiveness – include TRC for each program</b>	See PUC Table 7
<b>Other information deemed appropriate</b>	

#### **4. Program Management and Implementation Strategies**

##### **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.*

Generally the Company will assume overall administration and oversight of the Plan with the following types of contractors performing the specific tasks associated with applicable programs.

##### **Residential**

- A. Online audit vendor, energy audit services firm, local energy auditors – residential home audits
- B. Environmentally responsible appliance recycler – residential appliance turn-in
- C. Local contractors with appropriate training and certification – Energy Efficient HVAC and solar program
- D. Statewide national vendor coordinated w/other Pennsylvania utilities – Energy efficiency products program
- E. Local builders – new construction program
- F. BPI certified contractors – residential whole building comprehensive plan

##### **Commercial**

- A. Qualified contractors who agree to participation terms, trade allies who have attended training – energy audit program
- B. Qualified vendors from list of eligible FEMP contractors that are also registered in Pennsylvania as a CSP – government and institutional program, C/I equipment rebate program
- C. Qualified ESCO contractors that agree to participation terms and meet specific rules – C/I performance contracting
- D. Regional motor distributors who would be incentivized to move the products – industrial motors and Variable Speed Drive program
- E. CSPs who will serve as load aggregators and participate in the PJM demand response programs – C/I DR program

*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.*

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

The Company took a variety of steps to keep participation simple for both customers and trade allies. This is a crucial design principle for ensuring success. Eligibility guidelines, application forms, technical assistance guidelines and other program collateral materials will be: 1) easy to access via a website; 2) clear and concise; 3) require the minimum amount of information to confirm equipment and customer eligibility; and, 4) designed to enable tracking for measurement and verification purposes.

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

The Company plans to begin with tested technologies with well-established energy savings performance and supplement them for market segments as appropriate. Simple programs will be launched first, and the design and delivery channels will evolve over time. Furthermore, comprehensive programs have been developed that will both have an immediate impact on energy use and in the long run will help transform the market into one where customers seek energy efficient options on a regular basis no matter the incentives. In addition, design flexibility will be retained to enable the adjustment of specific designs as dictated by customer response and evaluation results, as well as to rebalance the portfolio based on individual program performance and emerging opportunities.

3. Market risk is the risk that customers, or other key market players (e.g., contractors), choose not to participate in a program.

The Company will carefully evaluate various approaches to building awareness through communications in order to minimize market risk. It plans to raise customers' awareness of the benefits of energy efficiency and conservation, as well as the existence of its programs offered through this Plan through a company-wide educational campaign, community level outreach and program-specific marketing. The Company expects the Commonwealth (i.e., regulators, state agencies, etc.) to similarly conduct statewide educational and outreach initiatives. For example, Met-Ed can leverage the credibility of trade allies as channels to educate and influence audiences.

Market risk will be assessed through program tracking and periodic surveys to gauge awareness of the programs and for those not participating, barriers to participation. Market risk will also be assessed through process evaluations that will take place from between six and twelve months after each program is launched. This will enable Met-Ed to identify issues related to market risk and implement mid-course corrections to enable the programs to stay on track.

4. Evaluation risk is the risk that independent EM&V will, based on different assumptions, conclude that savings fall short of what the implementers have estimated. The company minimized this risk by hiring as one of its CSPs, Black & Veatch, an industry leader and expert in EE&C program design and evaluation.

*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.*

The Company intends to use both in-house personnel and contractors to help implement the EE&C plan successfully. FirstEnergy has a centralized organization staffed with qualified and experienced personnel. Additionally, this organization has access to personnel from various departments including legal, finance, engineering, customer service and regulatory affairs on an as needed basis. During the design phase of the plan, this organization has retained the services of Black & Veatch who has assisted other electric utilities with the design of their EE&C plans. Black & Veatch has considerable expertise in the field of EE&C.

To confirm the availability of contractors to help with the implementation of the EE&C plan, the Company has surveyed several companies qualified to implement the EE&C plan. The results of the survey were used in program design and to ensure that there will be a sufficient number of adequately qualified contractors to implement the measures being selected or developed to reach the kWh and kW savings goals. These surveys also provided information on the cost of some EE&C measures, their implementation timeframe and likelihood of success in reducing energy consumption and demand.

The next step is to issue RFPs to selected contractors who will be responsible for some of the EE&C plans' implementation activities. The Company will issue the RFPs as soon as the EE&C plan is filed and the contractors have been qualified as CSPs.

*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.*

The Company's strategy for early warning system is to incorporate a three-pronged approach into the implementation of the programs: (1) tracking system, (2) energy audits, and (3) reporting. Program application forms will incorporate data requirements for tracking various customer characteristics and other data necessary for surveying participation levels and applicant specifics, as well as tracking the extent to which different types of customers are or are not participating. This information will be stored in the tracking system and summarized on a regular basis. By encouraging both residential and non-residential customers to undergo an energy audit, the Company will capture useful data on as-found characteristics of facilities and buildings that will help verify or confirm assumptions on energy savings potential and identify those remaining opportunities. Finally, by preparing summary reports of progress on a regular basis, the Company will have access to and make best use of status information. These reports will be closely monitored by Company management.

Common barriers/possible challenges to investments in energy efficiency include:

- Customer general attitudes toward EE&C and demand response in light of the necessary paradigm shift;
- First cost of energy efficiency investments;
- The length of investment payback periods, which generally must be relatively short;
- The limited supply of dedicated individuals with the expertise to identify energy efficiency opportunities and drive them through to implementation; and
- Today's business environment has many companies operating in a survival mode compared to investing in future energy savings

These, as well as other issues, will be tracked through process evaluation and regular program monitoring to determine if they are having a measurable effect on the achievement of targets.

## **Contingency Plan**

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

***What if the savings don't materialize?*** The Company anticipates a ramp up of programs starting in November 2009. Monthly program kW/kWh TRM-based impacts and costs incurred will be tracked from the conception of each program. To the extent that program/measure market penetration lags behind the expected kW/kWh-cost forecasts, so should the rate at which budgeted costs are incurred. If it is found that one or more programs are not meeting expectations, FirstEnergy will take one or all of the following actions:

1. Shift the focus of underperforming programs to measures that have a higher adoption rate. The FirstEnergy Companies' plans utilize over 100 measures that are rolled up into programs. This large number of measures incorporated in the programs allows flexibility to shift emphasis to incorporate successful measures as needed to stay on track toward achieving energy savings goals.
2. Alter the program delivery processes utilized in order to enhance market penetration. Options here may include having vendors add field staff to handle more inquiries or shorten response times, eliminating or adjusting project requirements if bottlenecks appear to be stalling progress, or other adjustments as dictated by process evaluations. However, any changes made will take care not to compromise data tracking for evaluation purposes.
3. Investigate, through further surveys, the issues that customers have with problem programs and modify delivery based upon the results of these surveys
4. Shift program delivery to more aggressively promoted and perhaps rebated versions
5. In extreme cases, abandon non-performing programs and replace them with other programs that are enjoying a greater success.
6. Shift resources to higher performing programs that may have been under funded, because the study assumes a low participation from industrial customers due to current economic conditions, the Plan may have to be rebalanced if there is a higher than expected response from the industrial class.
7. Add delivery channels. The on-line audit program could be enhanced to open more channels to deliver conservation kits.
8. Shift resources between sectors as needed to address demand. For example, in the event that there is greater than expected participation in the C&I demand program, the Company may reduce the size of the Residential Direct Load Control program.

The Company expects to have the ability to shift resources between programs and/or between customer sectors within the portfolio as needed to meet the goals.

***What mid-course corrections could be implemented?*** The Company believes that CFL programs, efficient electric water heating and residential/small commercial Demand Load Control programs are but three of the programs that could be ramped up through enhanced marketing efforts to achieve kWh and kW impacts greater than anticipated under the proposed EE&C Plans This may require a re-balancing of program goals and budgets. Notwithstanding, the EE&C program tracking system will provide near real-time intelligence for making such mid-course decisions and adjustments with enough time for such corrections to be effective.

***What would be communicated to regulators?*** Met-Ed will provide periodic updates to the Commission as required concerning the successes of its programs, issues encountered and updated trajectories of impacts achieved vs. costs incurred. With this level of communication, FirstEnergy's Pennsylvania's EE&C team hopes to provide the Commission, stakeholders, all of the FirstEnergy Companies, and other Pennsylvania EDCs with up to date intelligence, including identified issues and proposed solutions. It also hopes to learn from the experiences of other EDCs through intelligence sharing.

***How will the appropriate mid-course corrections be identified?*** The Company anticipates using a process evaluation for a 6-to-12 month check following each program launch to determine progress and identify any

necessary corrective actions. At the 6 to 12 month mark for each program, a program-by-program process evaluation will be performed using a combination of participant satisfaction and key customer perception surveys -- all performed using statistically significant samples along with a kWh/kW impact/cost analyses in which each program's targets are compared with Plan expectations.

#### **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 Company believes that during the initial stages of EE&C program implementation, it is particularly important that senior management be visible in its oversight role and actively support the changes and adjustments needed in organization structure, interdepartmental cooperation, staffing, and ensuring corporate-wide support of the new initiatives. As a result, the Company has created a steering committee that is comprised of senior management members from across the organization, including the President – FE Utilities, and Vice-Presidents representing Energy Efficiency & Customer Service, Energy Delivery, Legal, Rates and Regulatory Affairs, Information Technology, Business Development, Performance & Management, Communications, and Energy Policy. The steering committee's primary purpose is to:

- Define strategies and provide governance over initiatives relating to energy efficiency (EE)/demand response (DR), and smart grid;
- Assure initiatives support corporate objectives integrating customer solutions with operational efficiencies; and
- Assure optimum deployment of EE/DR and smart grid resources for managing load growth in the FirstEnergy service territory.

To provide cross-functional support and coordination, the Company has also formed an Energy Efficiency Committee, comprised of mid-management level representatives from similar organizational elements. This group's primary responsibilities include:

- Providing direction, coordination and cross-functional support, and
- Assuring program milestones and requirements are on target.

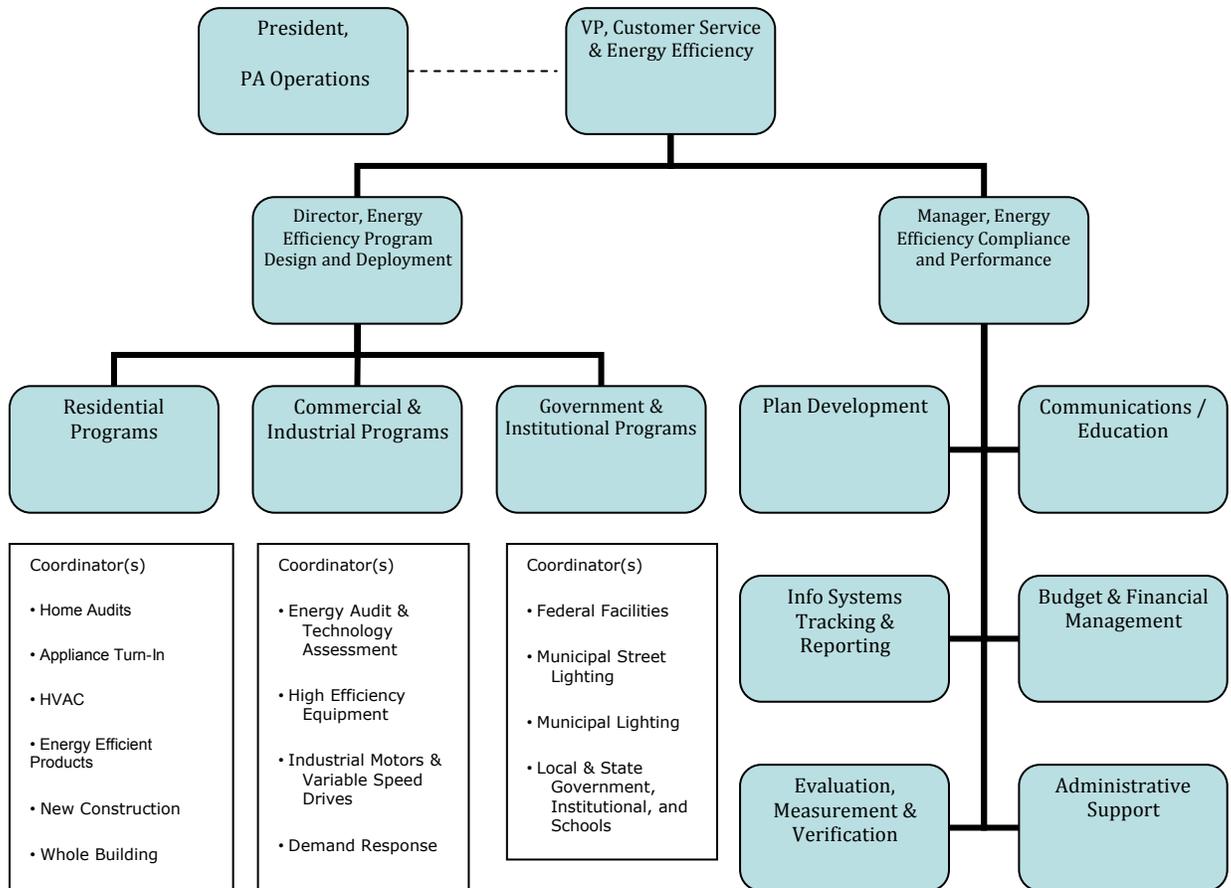
Recognizing that FirstEnergy's seven utility companies, spanning Pennsylvania, New Jersey, and Ohio, are all undertaking new Energy Efficiency and Peak Demand Reduction initiatives to comply with state mandates passed in 2008, these committees will also help to promote consistency, where appropriate, and leverage best practices across the FirstEnergy system. Both committees also provide direction on Smart Meter and Renewable activities. Due to the developing nature of all of these initiatives, the committees meet monthly with subcommittees meeting on an *ad hoc* basis as specific issues arise.

The organization entrusted with implementation of the EE&C Plan is the Customer Service and Energy Efficiency Group, which reports to the President, FE Utilities, and has a working relationship with the President of Pennsylvania operations. This group also has responsibility for similar activities for FirstEnergy's Ohio and New Jersey utilities.

The organization chart below depicts the EE&C Plan management team and their primary areas of responsibility. The Energy Efficiency Program Design and Deployment Department is organized based on

program management responsibilities across customer classes. Key activities include planning and executing marketing campaigns, acquiring and managing implementation contractors, and ensuring quality control and assurance over programs. The Energy Efficiency Compliance and Performance Department is organized based on support functions that are common to all programs such as measurement and verification, tracking and reporting, communication and education, budgeting and financial management, and other administrative support.

**Figure 6: Organization Chart**



The above group also receives dedicated support from such areas as Rates and Regulatory Affairs, Legal, Human Services, Communications, and Business Analytics.

In addition to the group described above, the Company recently hired Black & Veatch, an industry recognized expert in the area of Energy Efficiency, to conduct market research, develop the Market Potential Study, assist in the design of cost effective energy efficiency and peak demand reduction programs, assist in the development of the overall Energy Efficiency & Conservation portfolio, and provide input on the development of the EE&C management plan and measurement and verification protocols for the Company. As part of the implementation plan, the Company will outsource program management to the extent practical, using CSPs for program implementation and management. This allows resources to be more effectively used by providing the CSPs with the flexibility necessary to shift resources from one client to another to handle shifting work loads. The Company’s EE&C organization, including program managers, marketing, technical and analytical personnel, will provide guidance and oversight to help ensure quality and cost effective

management of the vendors. FirstEnergy's EE&C organization's experience across its seven utility operating companies in Pennsylvania, Ohio and New Jersey, coupled with the CSPs' industry expertise, will enable the Company to leverage best practices, thus providing a greater likelihood of program success and minimizing missteps as typically found with new program development. The Company also intends to establish work processes which focus on efficient program delivery such as business process mapping and regular reviews to seek program delivery efficiency improvements. Finally, the Company plans to regularly report program savings, expenses, participation levels, and milestones, as necessary, to the Commission and FirstEnergy management.

*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.*

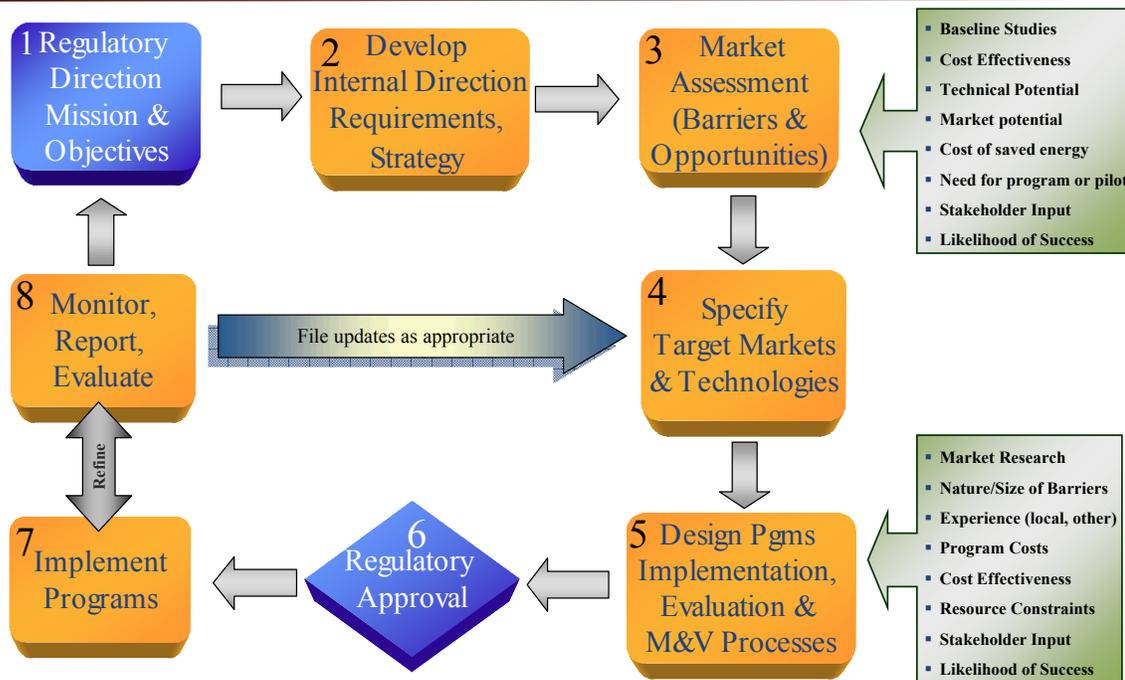
The Company will provide high-level administrative, contract management, program design and marketing oversight of the selected CSPs primarily through the Customer Service and Energy Efficiency Department staff who will be dedicated for this purpose. Not only will such monitoring be accomplished through the use of the tracking and reporting system described in Section 5, but this dedicated staff will also provide:

- High-level guidance and direction to the implementation contractors, including review and revision of proposed annual implementation plans and proposed milestones, and, additionally, engage with the contractor team on a daily basis when working through strategy and policy issues.
- Review and approval of implementation contractor invoices and ensure program activities are within investment and on schedule.
- Review of implementation contractor operational databases for accuracy, ensuring incorporation of data into the companies' comprehensive portfolio tracking database to be used for overall tracking and regulatory reporting.
- Review of measure saving estimates maintained by the implementation contractor.
- Oversight and coordination of evaluation, measurement, and verification contractors.
- Public education and outreach to community groups, trade allies and trade associations.
- Provide guidance and direction on new initiatives or strategies proposed by the implementation contractors.
- Communicate to implementation contractors other initiatives that may provide opportunities for cross-program promotion.
- Review and approve printed materials and advertising plans.
- Evaluate portfolio and program effectiveness and recommend modifications to programs and approach as needed.
- Perform periodic review of program metrics, conduct investment analysis, and review evolving program design.

In addition to the comprehensive oversight activities described above, the Company will follow the overall planning, implementation, monitoring and evaluation framework identified below to help guide our programs and contractors.

**Figure 7: High Level Overview of M&V**

## High Level Overview of EE / DR Plan Development, Implementation, Monitoring and Evaluation Processes



The Company believes that this framework will help ensure the success of its efforts to achieve the targets established by Act 129 in an efficient and cost-effective manner. Of significance, is the need to remain agile and flexible to make adjustments to program details, improve staff knowledge and effectiveness, and change course when conditions and opportunities warrant.

### 4.2.3. Describe basis for administrative budget.

The utility administrative budget consists of both indirect and direct program costs. Indirect program costs are the portion of administrative start-up costs currently incurred in connection with the development of the Company's EE&C Programs in accordance with Act 129 and the Commission's Orders and guidance at Docket No. M-2008-2069887, and are included in the cost recovery mechanism. These costs to design, create, and obtain Commission approval for the Company's programs include: consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the EE&C Plan and programs in compliance with Commission directives.

The annual direct program budgets by year are presented by measure and by program in Appendix D 1-5. The budgeting process for the utility costs, customer incentive costs, retail incentive costs and service provider costs were done using a bottom-up approach utilizing cost information from various sources, which include: the California Database for Energy Efficient Resources (DEER), DSMore Michigan Database, Energy Star Website and RFI survey data. Further, the incentives were estimated based on penetration estimates, estimates of payback timing, and the adherence to state-wide program information when available.

The yearly budgets presented in Appendix D are broken down into the 113 individual measures. The total budget costs are derived from per unit estimates at this measure level. These per unit costs are presented as

Appendix D-5 by measure. The individual per unit costs take into account the delivery system of each measure, whether it is a mail-in rebate, in-store rebate or through a service provider. The annual total direct utility budget is calculated by simply multiplying the per unit costs in Appendix D-5 by the assumed participation levels shown in Appendix F (Participation Levels) and then totaling all the measures.

The measures in Appendix D are labeled with the Program Name for which they are associated. The program budgets are calculated by totaling the individual measures by the Program Name.

The measures in Appendix D are also labeled with the Rate Class name for which they are associated. The rate class budgets are calculated by totaling the individual measures by the Rate Class name.

The total utility administrative budget consists of both the direct measure costs shown in Appendix D and the indirect measure costs shown in PUC Table 6B presented later in this report.

### ***4.3. Conservation Service Providers (CSPs):***

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

In accordance with Act 129 and the Commission's Implementation Order, FirstEnergy hired Black & Veatch as lead consultant supporting development of all of the Companies' EE&C Plans. FirstEnergy used a PUC Staff approved competitive request for proposal ("RFP") to support the CSP selection process and to select a consultant who would assist in designing a portfolio of programs and provide original ideas. The RFP sought recommendations on the programs that should be proposed and did not limit the scope of suggestions. Black & Veatch was selected to help the Company develop the plan and the portfolio of programs. Black & Veatch is a leading global engineering, consulting and construction company with the mission of *Building a World of Difference*®. Black & Veatch provides their clients with reliable solutions to their most complex challenges. Founded in 1915, Black & Veatch specializes in infrastructure development in energy, water, telecommunications, federal initiatives, management consulting and environmental markets. They offer leading experience in the market segments they serve, understanding their clients' businesses and objectives, and having the financial resources sufficient to execute and sustain projects from the most basic to the very complex. Black & Veatch's experienced dedicated professionals have the technical expertise necessary to meet the Company's objectives. Black & Veatch is an employee-owned company with more than 100 offices worldwide. Black & Veatch is ranked on the Forbes "500 Largest Private Companies in the United States" listing.

On February 3, 2009, FirstEnergy filed its proposed RFP process and related documents for the purpose of contracting with CSP(s) in accordance with the Implementation Order. FirstEnergy submitted the following documents:

- Overview of the CSP competitive bidding process
- RFP process for EE&C consulting services along with exhibits
- Sample bidder evaluation matrix
- Standard form CSP contract

The Commission issued two Secretarial Letters. The first letter, dated March 18, 2009 (Docket No. A-2009-2092222), approved the RFP process as filed. The second letter, dated April 27, 2009 (Docket No. A-2009-2092222), acknowledged that the Commission staff reviewed and approved the revised standard form CSP contract as filed. Commission staff review will be requested for any future CSP contracts that are materially different in form from the standard contract.

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

Program Implementation Management Contractor - the Company will contract with one or more Program Manager CSPs to implement the portfolio of programs. The Program Manager(s) will be responsible for the start-up and ongoing management of new programs including staffing, development of website(s), promotional strategies, and processes ensuring quality and other controls supporting successful program implementation. The start-up phase should include communication and coordination with Company start-up processes, to present straightforward processes for customers or allies that wish to participate in the programs, maximize process efficiency and controls, as well as leverage Company relationships and communications with customers. The start-up period must be completed within ninety (90) days of the awarding of the contract.

The start-up phase will be performed in an organized and efficient manner. The contractor will be contractually obligated to strive to maintain and strengthen constructive relationships with the Company program management staff, customers, trade allies, contractors and other energy program partners.

During program set-up and for the duration of the program, the Program Manager(s) will meet with the Company, its consultant, tracking system contractors and the State Evaluator as necessary and appropriate.

Some fast track programs will launch immediately while other programs will launch when ready and agreed upon by the Company and Program Manager(s).

Program Manager(s) will submit a start-up plan with their bid proposal. It is anticipated that the start up plan submitted could be modified at the initial implementation meeting. The plan will include, at a minimum:

- a. Organization chart and description of management roles and responsibilities;
- b. Description of and dates of program launch milestones;
- c. Description of a plan for use of any subcontractors;
- d. Plan to detail specific communications strategy; and
- e. Plan to facilitate or support program tracking systems and reporting.

The Program Managers will support consumer education initiatives as a vital objective for the EE&C Plan. CSPs will provide consumer education and marketing that informs customers about available programs and how participation in such programs may allow them to better manage their energy costs.

The Company will host or contract for website services, linked through the Company's public internet domain, [www.firstenergycorp.com](http://www.firstenergycorp.com). Although FirstEnergy personnel will manage the overall content on the website, the CSPs will be responsible for generally managing their section of the site and updating it as necessary. Customers will be able to obtain information, contact the CSP, download program literature and application forms, or complete on-line forms and applications through the website.

Work to be performed by the Program Managers includes:

- Program Set Up – Immediately following contract award and the kick-off meeting(s) as set forth below, the Company and Program Manager(s) will work together to modify the Start-up Plan submitted with the successful bidders' bid proposals to develop the systems and procedures needed to operate the energy efficiency programs;
- Determining the required information transfers between the Program Manager(s) the Company and the Company's other energy efficiency or tracking system contractors;

- Creating, installing, testing and maintaining necessary data collection systems for program operation and evaluation;
- Establishing contact center processes, including one for the transfer of calls that the Company may receive through its call center, as well as a toll-free number that is properly staffed;
- Managing, advertising and marketing activities by the Company and CSP to promote its programs including:
  - Telemarketing, sales training, participation in and sponsorship of program/industry seminars and trade shows;
  - Special promotional “events” to encourage sales of high efficiency products, and/or retirement of less efficient equipment (e.g. Torchiere lamps) through “buy down” first cost and/or promotion of eligible equipment to customers;
  - Bill inserts, local newspaper ads, radio spots, direct mail, point-of-sale displays at retailers, FirstEnergy’s website and on-line store. Retailers and manufacturers will also be involved in cross-promoting product offers in conjunction with national campaigns like Earth Day and ENERGY STAR® Change a Light, Change the World programs;
- Developing rebate application forms, and detailed processes for managing rebate/incentive applications, rebate/incentive payment processes, reporting procedures, data collection and data recording processes, internal billing and related documentation to be sent to the Company for processing;
- Performing energy savings calculations, collecting data and maintaining auditable records required to support program reporting, measurement and verification consistent with the TRM;
- Developing electronic payment between the Company and the Program Manager(s);
- Planning for development and launching promotional strategies, including creation of a website;
- Creating a check processing system (if deemed appropriate);
- Ensuring all other preparations needed before the programs are launched;
- Performing quality assurance and verification inspections;
- Conducting outreach, training, certification management, and coordination with trade allies;
- Performing outreach, communications, training and development of participation agreements with retailers and manufacturers for the Energy Efficient Products program, as appropriate;
- If applicable, performing energy audits; and
- Managing fulfillment of all requests for services or energy efficient products offered through the programs.

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

It is anticipated that joint RFPs will be issued for CSPs to support implementation of programs, including but not limited to the following:

1. Residential sector program manager(s);
2. Residential on-line audit program;
3. Commercial and Industrial sector program manager(s) (includes governmental sector as well);
4. Appliance recycling; and,
5. Tracking/Reporting system.

Actual contracts will be based on accepted proposals in response to Company solicitations and, when necessary, the Company will seek appropriate Commission approval.

## **5. Reporting and Tracking Systems**

### **5.1. Reporting:**

As more fully discussed in Section 5.2, the Company is in the process of assessing potential reporting and tracking systems. Regardless of the system ultimately selected, it will have the ability to monitor the progress of the various programs being offered. Reports will be provided as required by the Commission. The company expects to have such a system in place by November 1, 2009.

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

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

- The number of customer applications;
- Annualized rebates by program, utility, and operating company;
- Installed measures summary;
- Annualized impacts summary by measure type and by program;
- Program participation overview;
- Impacts versus goals; and
- Rebates versus budget.

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

#### *5.1.2. Describe data that would be available (including format and time frame of availability) for Commission review and audit.*

As indicated in Section 5.1.1, the system will have the ability to provide reports as required by the Commission. A corporate Tracking and Reporting System will be implemented that will be able to provide the necessary reports and tracking tools across the FirstEnergy system.

As part of the EE&C plan, a model has been created that projects the amount of energy savings and demand reduction to be derived from the implementation of each measure. The model will be used to compare actual to projected energy savings and demand reduction goals. The Company is currently evaluating several “off-the-shelf” DSM tracking computer packages to track the EE&C savings arising from the various programs.

### **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.*

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

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

- Customer name;
- Customer contact info (address, e-mail, phone);
- Customer type;
- Customer ID number;
- Account number;
- Premise number;
- Project/Program name;
- Contractor/Retailer;
- Measure;
- Costs;
- Service address;
- Job status;
- Completion date;
- NAICS;
- Heating system type;
- Square footage;

- kWh savings;
- Incentive;
- Enrollment method;
- Transaction results;
- Channel used;
- Measures recommended; and
- Measures implemented.

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

The reporting and tracking system will be web based, thus requiring an internet connection for access. The system will be designed to allow for varying levels of security-controlled access by Company staff, program contractors, trade allies, customers, and system administrators. Access for others, such as Commission staff and the state-wide EE&C Plan Evaluator, will be provided as required. Access to an internet connection would be necessary because the application would be web-based.

## **6. Quality Assurance and Evaluation, Measurement and Verification**

### **6.1 Quality Assurance/Quality Control:**

The Company is committed to designing and implementing robust processes, organizations and systems to achieve the energy savings and demand reduction goals established by Act 129. The Company plans to use a two-fold approach to ensure the quality of its EE&C program during the design and implementation phases:

- Developing processes to clearly detail the steps to document and verify installation of measures to meet EE&C goals while complying with applicable tracking and reporting requirements; and
- Devising and implementing control points at various stages of these processes to establish and maintain quality.

The Quality Assurance/Quality Control program will be implemented by requiring selected CSPs to document processes and retain appropriate records. The Company will retain EM&V contractor(s), as well as internal auditors, who will audit and verify those records. This will be in addition to any requirements of the PUC's statewide evaluation contractor acting in its oversight role.

#### *6.1.1 Describe overall approach to quality assurance and quality control.*

The following are examples of specific steps that the Company is taking toward quality assurance and quality control during the design phase of its EE&C program:

- Administering customer surveys and using the results to design or select EE&C measures;
- Validating EE&C program assumptions with stakeholders;
- Using adequately qualified and experienced personnel, including contactors, to assist with the design and implementation of EE&C programs;
- Selecting EE&C measures compliant with the requirements of the Technical Reference Manual (TRM) of May 2009;
- Using proven approaches to reach both the energy savings and demand reduction targets set for each of the FirstEnergy Companies;
- Communicating frequently and effectively with stakeholders on EE&C program design and objectives; and
- Verifying periodically and systematically that established EE&C program design procedures and approaches are being followed.

During the implementation phase of the EE&C Plan, the Company intends to acquire selected program managers (or CSPs) to present processes that accurately document and verify data used to support energy savings and peak load reductions – all of which will be subject to audit and review by the PUC's evaluation contractor. The Company will perform, directly or through contract auditors, its own quality assurance processes, including audits of CSP systems, in order to ensure the accuracy and reliability of the reported data and savings. Such audits will have the following key characteristics:

- Both deemed and custom measures will be included in the audit universe;
- The sample size may cover a subset or the entire population for a particular measure;
- The frequency and sample size of these audits will vary based on the significance of any findings; and
- The control points will target specific risks associated with the design or implementation of EE&C measures.

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

The procedures intended to be use for measure and project installation, verification, quality assurance and control, and savings documentation are described below.

During the pre-installation phase, verification will occur to ensure that equipment such as lighting or motors that are to be replaced with more energy efficient ones are operational on the customer's premises. Such equipment will be checked to ensure that it meets any TRM and other applicable requirements. Samples of installed pieces of equipment will be audited as part of the quality assurance and control process.

For custom and large installations where considerable investment or large savings are anticipated, the Company will work with the PUC's evaluation contractor and PUC staff, as appropriate, to review the algorithms proposed by customers or trade allies to calculate energy savings and demand reductions from implementing custom EE&C measures. These reviews will support the accuracy and acceptance of the calculations that will be required to comply with the May 2009 TRM, as amended from time to time. In certain instances, more detailed procedures on designing and implementing specific measures may also be necessary.

While measures addressed in the Plan are found to be cost effective, determining the cost-effectiveness of custom applications is also a part of the pre-installation process for custom applications. For example, the Company will verify whether the cost of a saved kWh is cost effective. A similar check will be performed with respect to any demand reduction to be derived from a particular measure.

With respect to savings documentation, periodic surveys will be conducted to verify the installation and continued use of measures as required. Installation of additional measures not rebated will be identified, as well as behavioral changes that may affect outcomes. For large and/or custom installations, site verification visits will be conducted for a sample of participants to verify the presence and proper installation of equipment.

As part of the EE&C Plan, the Company will track, report and project the amount of energy savings and demand reduction to be derived from the implementation of measures. The model will be used to compare actual energy savings and demand reductions calculated in accordance with the TRM with program goals. The Company has already performed an RFI, and is reviewing several off-the-shelf DSM tracking computer packages which will be secured using the approved RFP process.

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

During the design phase of the programs, the Company sought and obtained feedback on proposed EE&C programs from customers, contractors, trade allies and other stakeholders through a variety of methods. Representatives from all customer segments were surveyed or interviewed to obtain their input into EE&C program design. CSPs were surveyed with respect to their capabilities to help the Company achieve the mandated EE&C targets. Stakeholder meetings on different aspects of the EE&C program design were also held. To the extent possible, responses from these stakeholders have been factored in to the various program designs.

During the implementation phase of the EE&C plan, the Company hopes to gain additional direct input from various sources, including CSPs that bid to perform program management and implementation services, stakeholders and other EDCs for relevant developments, the PUC and the PUC's evaluation contractor for insights into the evolution of the process. Customers will be surveyed to measure satisfaction with the

programs and related services, and the efficiency of the EE&C measures being implemented. Further, the Company is currently investigating the creation of a hot line to register and resolve program and measurement complaints and suggestions from customers, and intends to continue to participate in EE&C working groups as well as internal monitoring efforts at the local, state and federal level.

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

The Company intends to retain an EM&V contractor to conduct process evaluations on each program within 6 months to one year of launch in order to identify issues that may require mid-course correction, gauge progress toward goals and measure customer, trade ally and vendor satisfaction with various program features. As part of responsible program management, the Company will require its CSPs or vendors to incorporate periodic customer satisfaction surveys (post card type or calls) to a random sample of participants on a quarterly or monthly basis. The testing of market pricing of products and other factors that might affect program implementation through market research will occur, particularly to test those measures that represent significant parts of the Plan. A periodic review of new technologies or innovations being adopted around the country or the world will also be conducted. This will include systematic research on EE&C development as well as benchmarking currently utilized EE&C processes against those of other utilities.

The results of these monitoring activities will be factored into existing EE&C programs in a variety of ways including the following:

- Mid-course corrections to address issues identified in the process evaluations;
- Adoption of lessons learned or leading practices from our benchmarking efforts;
- Identifying and mitigating risks associated with new EE&C measures; and
- Taking corrective actions to ensure that EE&C objectives are being reached.

***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 Company will comply with the requirements of the EE&C Plan evaluator. Contracts with delivery vendors will require them to provide data upon request to support any evaluations, as well as develop new “custom measure” protocols for appropriate approvals and possible additions to the TRM. Specifically, the Company will link its EE&C savings aggregate to statewide projects by:

- Determining requirements for coordinating EE&C programs energy/demand savings and cost/benefit data with statewide data base;
- Obtaining data transmission protocols and access requirements for exchanging EE&C program data with the state;
- Testing to verify that data integrity is maintained through linkage with statewide EE&C data base(s); and
- Validating and finalizing linkage protocols, procedures and processes.

At the completion of the above tasks, the Company expects to have developed or selected processes, technology and personnel for linking its EE&C program data with the statewide data base(s). Cooperating with and supporting the EE&C Statewide Evaluator, up to and including annual audits of the Company’s reports, will ensure compliance with Commission directives.

**7. 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.**

**Met-Ed Table 6 – Allowable EE&C Revenue Calculation**

<b>December 31, 2006 Revenue divided by Twelve Months</b>	
<b>Monthly 2006 Revenue</b>	\$2,072,241
Dollars Available for 1% Goal	Met-Ed
Total All Customers (19 mo budget)	\$39,372,583
Dollars Available for 3% Goal	Met-Ed
Total All Customers (24 mo budget)	\$49,733,789
Dollars Available Total	Met-Ed
Total All Customers (43 mo budget)	\$89,106,371

**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.**

See Section 4.2.3 for the budgeting process use to identify the funding for the energy efficiency and conservation measures. See Section 7.4 for a complete description of the cost recovery plan. Included within the cost recovery mechanism is an allocated portion of administrative start-up costs currently incurred by the Company in connection with the development of the Company’s EE&C Programs in response to the Commission’s orders and guidance at Docket No. M-2008-2069887. These costs to design, create, and obtain Commission approval for the Company’s EE&C Programs include consultant costs, outside legal fees, and other direct and indirect costs associated with the development and implementation of the Company’s EE&C Programs in compliance with Commission directives.

***7.3 Provide data tables (see PUC Tables 6A, 6B and 6C).***

The following PUC Table 6A presents, in summary form, the results of the direct program budget process by class, referred to in Section 4.2.3. PUC Table 6A presents utility costs that were individually calculated by program based on the level of effort required due to program participation.

PUC Table 6B presents, in summary form, the indirect program start-up costs, outside legal fees and consultant fees by class. PUC Table 6C presents the sum of both PUC Tables 6A and 6B. PUC Table 6B provides the details of general non-program specific costs and allocates them into the three rate categories: Residential, Small Commercial and Industrial, and Large Commercial and Industrial.

The allocation of costs for consultant costs, employee expenses, M&V tracking system and outside legal fees are allocated using the results of the detailed budgeting process shown in Appendix D and presented in summary form PUC Table 6A. Audit Tool costs are only assigned to Residential customers since the system will be designed primarily for use by the Residential class.

**PUC Table 6A: Portfolio-Specific Assignment of EE&C Costs 1**

<b>Residential Portfolio (including Low-Income)</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Demand Reduction	6,656,265	20,243,802	26,900,067
Home Energy Audits	6,238,300	1,101,044	7,339,344
Appliance Turn-In	1,970,270	5,383,214	7,353,484
EE HVAC & Solar	5,089,398	1,101,943	6,191,340
EE Products	5,323,172	1,946,168	7,269,339
New Construction	3,199,000	892,075	4,091,075
Whole Building Comprehensive	903,925	109,975	1,013,900
Multiple Family	117,334	36,844	154,178
<i>Low-Income</i>	<i>234,180</i>	<i>73,558</i>	<i>307,738</i>
<b>Totals</b>	<b>29,731,843</b>	<b>30,888,622</b>	<b>60,620,465</b>

<b>Small Commercial &amp; Industrial</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Energy Audit	182,008	170,344	352,351
Equipment Rebates	8,335,763	2,151,546	10,487,308
Multiple Family	205,335	67,937	273,272
<b>Totals</b>	<b>8,723,105</b>	<b>2,389,827</b>	<b>11,112,932</b>

<b>Large Commercial &amp; Industrial</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Equipment Rebates	3,654,826	543,262	4,198,089
Industrial Motors and VSD	341,760	87,459	429,219
PJM Demand Response	2,400,000		2,400,000
<b>Totals</b>	<b>6,396,586</b>	<b>630,721</b>	<b>7,027,308</b>

<b>Governmental/Non-Profit</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Governmental & Institutional	4,095,904	3,483,985	7,579,889
<b>Totals</b>	<b>4,095,904</b>	<b>3,483,985</b>	<b>7,579,889</b>

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

Common Cost Element	Total Cost (\$)	Basis for Cost Allocation	Class Cost Allocation (\$)			
			Residential (Including Low-Income)	Commercial/Industrial -- Small	Commercial/Industrial -- Large	Governmental/Non-profit
Consultant Costs and Employee Expenses for Plan Development	\$203,160	Sum of Appendix D 1-4 Lines 135-137 Totals	\$142,639	\$41,140	\$19,381	Governmental is served as part of C&I Small and C&I Large rate classes
Audit Tool Costs	\$177,765	Residential	\$177,765	-	-	
Measurement and Verification Tracking and Reporting Software	\$177,765	Sum of Appendix D 1-4 Lines 135-137 Totals	\$124,809	\$35,997	\$16,959	
External Legal Fees	\$50,790	Sum of Appendix D 1-4 Lines 135-137 Totals	\$35,660	\$10,285	\$4,845	
<b>Totals</b>	<b>\$609,480</b>		<b>\$480,873</b>	<b>\$87,422</b>	<b>\$41,185</b>	

**Table 6C: Summary of Portfolio EE&C Costs**

<b>Portfolio</b>	<b>Total Sector Portfolio-specific Costs</b>	<b>Total Common Costs</b>	<b>Total of All Costs</b>
Residential (Including Low-Income)	\$60,620,465	\$480,873	\$61,101,338
Commercial/Industrial -- Small	\$17,480,259	\$87,422	\$17,567,681
Commercial/Industrial -- Large	\$8,239,870	\$41,185	\$8,281,055
Governmental/Non-profit	Governmental is served as part of C&I Small and C&I Large rate classes		
<b>Totals</b>	<b>\$86,340,593</b>	<b>\$609,480</b>	<b>\$86,950,073</b>

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

Consistent with Act 129, the Company’s tariff will contain a Section 1307 cost recovery mechanism for the recovery of energy efficiency and conservation program costs. Under the Company’s proposal, the EEC-C rates requested in this proceeding would remain in effect for the duration of the EE&C Program. However, upon determination that the EEC-C rates would result in material over or under-collections of recoverable costs incurred or expected to be incurred during the program period (November 1, 2009 through May 31, 2013), the Company may request that the Commission approve interim revisions to the EEC-C rates to be effective thirty days from the date of filing. An interim change in the EEC-C rates may address a re-allocation of program expenses between customer classes.

The Company is submitting an Energy Efficiency and Conservation Charge Rider (“EEC-C Rider”) as Appendix H. Page 1 of the rider sets forth the Energy Efficiency and Conservation Charge (“EEC-C”) rates, while pages 2 and 3 set forth the formula and description for calculating the EEC-C rates.

The EEC-C rates are expressed as a price per kilowatt-hour (“kWh”) and will be billed on that basis over the duration of the EE&C Plan (November 1, 2009 through May 31, 2013). The EEC-C rates will be calculated and stated separately for the residential, commercial and industrial commercial classes. The rate schedules that comprise the residential, commercial, and industrial customer classes are identified on page 1 of the rider.

The EEC-C rates to be billed to the residential, commercial and industrial classes will consist of two principal components. The first is the EECC or “current cost” component, while the second is the reconciliation component, or “E” factor.

The EECC component represents the recovery of costs to be incurred during the 43-month period ending May 31, 2013 or “Computational Period” that the EEC-C rates will be in effect for each customer class. As shown

on pages 2 and 3 of the rider, the EECC component is customer class specific. The costs to be included in development of each customer class' EEC-C rate are identified in the rider. EECExp1 represents customer class specific costs incurred through the customer class specific EEC Programs as approved by the Commission. These costs will also include an allocated portion of any indirect costs incurred through all of the Company's EE&C Programs. EECExp2 represents an allocated portion of administrative start-up costs currently incurred by the Company in connection with the development of each Company's EEC Programs in response to the Commission's orders and guidance at Docket No. M-2008-2069887. The start up costs were incurred to design the programs and create the plan and to assist in the preparation of this filing and include consulting costs, outside legal fees, and other direct and indirect costs associated with the development and initial steps to implement the Plan as approved. EECExp2 costs will be amortized over the 7-month period starting November 1, 2009 and ending May 31, 2010. Interest will accrue monthly on the average of the beginning and ending of the month balances of these costs as they are incurred by the Company and included in the determination of the monthly amortized amount. The interest will be computed at the legal rate determined pursuant to 41 P.S. §202.

***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***

Consistent with the Implementation Order and Act 129, the Company's proposed EEC-C Riders will permit it to bill annual, levelized EEC-C rates on a per kWh basis to all residential, commercial, and industrial customers. The rates will be calculated specifically for each customer class to recover the Company's EE&C Plan costs approved by the Commission in this proceeding and in compliance with 66 C.S. § 1307. Coupled with the reconciliation provisions by customer class included in the Company's proposed EEC-C Rider, the EEC-C rates will provide full, equitable and timely cost recovery of actual EE&C Program costs incurred by each Company for each customer class' available EE&C Programs as approved by the Commission in this proceeding.

## **8. Cost Effectiveness**

### ***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.***

The EE&C plan is based upon the requirements and guidance of the Total Resource Cost Test Manual (May 28, 2009), with some minor changes that were requested during the comment period. Notable changes were the use of a marginal transmission and distribution costs instead of the full transmission and distribution rates. As stated in the FirstEnergy Companies' Comments to the draft TRC test order, dated June 5, 2009, the Companies acknowledged that they would not have the ability to address changes at this late date but would review the final TRC Order and, if necessary, make any necessary changes in a filing by August 1, 2009.

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

On the benefits side the approach requires during the first five-year period that the avoided energy costs be calculated using the wholesale electric generation prices as reflected in the NYMEX PJM futures price, to reflect both on- and off-peak prices on a 50% on- and 50% off-peak basis. FirstEnergy assumes the 5 years as 2009 through 2013 as PJM West Hub forward contracts are not yet traded beyond 2013, and the 2009 data reflects actual settlement prices through May 22 and forward contracts thereafter. FirstEnergy chose a forward market data point of May 22, 2009, and applied an exponentially weighted moving average (EMA) method to the forward data to normalize for daily volatility. The EMA provides a balance between transmitting changes in market expectations as reflected by futures prices while dampening any possible influence of illiquidity (10 days of trades provides more available observations) and large swings due to few traders moving the market.

The Commission approach called for in the second five-year period has the avoided energy costs calculated using the NYMEX natural gas futures price. The natural gas futures price was then converted into an estimated wholesale energy price through the use of a standard spark spread calculation. The PJM West Hub price was derived based on the forward market price at Henry Hub and the relationship between PJM West Hub Power and Henry Hub Natural gas forwards in 2013. Specifically, heat rates for the Spark Spread calculation are based on the annual on peak and off peak forward market implied heat rate for 2013 (Off Peak On Peak) similar to the first 5 year period, this calculation used the natural gas forward market observation date of May 22, 2009 utilizing an averaging method to normalize for daily volatility.

The Commission approach in the third five-year period requires that the avoided energy costs use the EIA Annual Energy Outlook. The prices during this timeframe are based on the US Department of Energy's (DOE) Energy Information Administration's (EIA) Annual Energy Outlook (AEO) published in May 2009. The EIA AEO does not directly include price for PJM West Hub, rather, the AEO publishes national average retail "end user" prices. To derive wholesale prices for PJM West Hub, PJM on peak, off peak, and around the clock actual annual average PJM West Hub prices from 2006, 2007, and 2008 were compared to the EIA AEO national retail price averages in those years and a multiplier was calculated to convert EIA AEO Retail prices to PJM West Hub wholesale prices for these 5 forecast years.

For the avoided ancillary services cost, yield curves were created based on monthly average on peak and off peak ancillary service price / PJM West Hub day ahead price relationships for 2006 - 2008. These historic relationships were applied to the provided power prices to create the associated ancillary service prices.

For the avoided capacity cost the Company used a price forecast based on the FirstEnergy latest official and confidential long term price capacity price forecast. It reflects Regional Pricing Model Auction (RPM) assumptions from the second quarter of 2008.

The benefits were then calculated using the measure kWh and kW savings multiplied by the assumed number of measure units<sup>12</sup> and the avoided capacity and energy costs. This value per year was then discounted by taking a Net Present Value (NPV) over the measure life-time using the post-tax weighted average cost of capital (WACC).

On the costs side the TRC test includes the costs of the various programs incurred by the Company and the participating customers, including, equipment, installation, operation, and maintenance costs, cost of removal (less salvage value) for turn-in programs, and administrative costs. The costs are in 2009 dollars and are “as spent” due to the fact that each year’s program is evaluated separately by measure and the budgeted number of measure units. Program costs are budgeted by year in 2009 dollars, but operation and maintenance costs are based on measure life and are discounted using NPV back to the program year installed.

As a result, the Company’s EE&C Plan is cost-effective based on the TRC test as described above. The results of the TRC test are presented in PUC Table 1 and are expressed as both a net present value and a benefit-cost ratio.

***8.2. Provide data tables (see Tables 7A thru 7E).***

The following tables present the summary TRC results by program, by year, in the five customer class segments outlined in the Commission Act 129 appendices.

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<sup>12</sup> Measure Unit refers to participants and/or number of items. The measure units, for example, can be a single customer participant (i.e. a customer get a new CAC system) or a count of lights bulbs as in the CFL rebate program.

PUC Table 7A: TRC Benefits Table – Residential

Residential		TRC Benefits By Program Per Year (\$000)											
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved		
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime	
Demand Reduction	2010	1.03	3,106,248	3,202,683	3,018,385	See footnote 1	184,298	See footnote 2	3,464	30,368	169	16,829	
	2011	1.10	12,116,433	13,378,484	12,616,380		762,104		17,194	30,368	824	16,829	
	2012	1.16	11,677,385	13,596,002	12,825,682		770,320		30,368	30,368	1,455	16,829	
	2013	0.00	-	-	-		-		30,368	30,368	1,455	16,829	
Home Energy Audits	2010	3.45	489,736	1,691,352	186,359	1,504,993	322	5,086	3,837	477,488			
	2011	3.82	2,289,869	8,751,424	984,641	7,766,783	1,910	5,086	22,492	477,488			
	2012	4.03	2,289,869	9,224,639	1,061,752	8,162,886	3,498	5,086	41,148	477,488			
	2013	4.23	2,289,869	9,685,473	1,108,133	8,577,340	5,086	5,086	59,803	477,488			
Appliance Turn-In	2010	4.13	469,338	1,936,155	362,655	1,573,500	620	9,926	4,418	502,229			
	2011	4.48	2,294,715	10,283,824	1,943,247	8,340,577	3,722	9,926	26,506	502,229			
	2012	4.73	2,294,715	10,863,202	2,094,272	8,768,929	6,824	9,926	48,595	502,229			
	2013	4.98	2,294,715	11,424,177	2,185,456	9,238,721	9,926	9,926	70,683	502,229			
EE HVAC	2010	1.34	1,179,047	1,578,632	611,454	967,178	836	13,374	1,163	181,817			
	2011	1.43	5,872,453	8,391,432	3,243,083	5,148,349	5,015	13,374	6,980	181,817			
	2012	1.51	5,872,453	8,841,266	3,457,066	5,384,200	9,195	13,374	12,797	181,817			
	2013	1.57	5,872,453	9,190,984	3,587,350	5,603,635	13,374	13,374	18,614	181,817			
EE Products	2010	2.16	1,099,851	2,379,541	528,537	1,851,003	723	11,033	4,820	553,255			
	2011	2.27	5,471,502	12,405,176	2,679,472	9,725,704	4,159	11,033	28,848	553,255			
	2012	2.39	5,471,502	13,063,050	2,856,440	10,206,610	7,596	11,033	52,877	553,255			
	2013	2.49	5,471,502	13,644,260	2,965,243	10,679,016	11,033	11,033	76,905	553,255			
New Construction	2010	2.00	464,667	928,337	499,502	428,835	518	6,221	688	110,220			
	2011	2.16	2,498,442	5,388,672	2,885,684	2,502,989	3,370	6,221	4,472	110,220			
	2012	2.27	2,498,442	5,679,682	3,042,637	2,637,045	6,221	6,221	8,256	110,220			
	2013	0.00	525	-	-	-	6,221	6,221	8,256	110,220			
Whole Building	2010	0.88	425,839	373,575	97,795	275,780	111	526	440	22,973			
	2011	0.95	519,468	495,672	128,770	366,902	249	526	989	22,973			
	2012	1.01	519,468	523,023	136,223	386,800	387	526	1,538	22,973			
	2013	1.05	519,468	547,231	140,897	406,334	526	526	2,088	22,973			
Multiple Family	2010	2.13	14,277	30,447	3,624	26,823	7	111	85	8,461			
	2011	3.48	46,634	162,132	19,531	142,601	42	111	509	8,461			
	2012	3.65	46,634	170,427	21,181	149,246	76	111	934	8,461			
	2013	3.82	46,634	178,129	22,144	155,986	111	111	1,358	8,461			
<b>Total</b>	<b>2.08</b>	<b>85,524,151</b>	<b>178,009,081</b>	<b>65,313,595</b>	<b>112,695,485</b>	<b>76,644</b>	<b>76,644</b>	<b>239,162</b>	<b>1,873,273</b>				
<p>1: Generation, Transmission and Distribution Capacity costs are combined in a sum of avoided capacity costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided capacity costs can not be identified by component therefore the total avoided capacity costs for Generation, Transmission and Distribution are displayed here.</p> <p>2: The on and off peak energy costs are combined in a sum of avoided energy costs. These costs are then NPV back to the year the measure unit was installed. The combined avoided energy costs can not be identified by component therefore the total avoided energy costs for on and off peak energy costs are displayed here.</p>													

**PUC Table 7B: TRC Benefits Table - Residential Low-Income**

Residential Low-Income		TRC Benefits By Program Per Year (\$000)										
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in		MWh Saved	
					Annual	Annual	Annual	Annual	Annual	Lifetime	Annual	Lifetime
					Benefits	Gen/T&D	Benefits	On/Off Peak				
<b>Low Income</b>	2010	1.24	55,254	68,759	4,237	See footnote 1 on PUC Table 7A	64,522	See footnote 2 on PUC Table 7A	8	485	204	12,224
	2011	2.50	90,655	226,371	22,834		203,537		49	485	810	12,224
	2012	2.60	91,920	239,142	24,763		214,379		89	485	1,420	12,224
	2013	3.22	69,909	225,275	25,889		199,386		129	485	1,962	12,224
<b>Total</b>		<b>2.47</b>	<b>307,738</b>	<b>759,547</b>	<b>77,724</b>		<b>681,823</b>		<b>129</b>	<b>485</b>	<b>1,962</b>	<b>12,224</b>

**PUC Table 7C: TRC Benefits Table - Commercial/Industrial Small**

Commercial/Industrial Small		TRC Benefits By Program Per Year (\$000)											
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved		
					Annual	Annual	Annual	Annual	Annual	Lifetime	Annual	Lifetime	
					Benefits	Gen/T&D	Benefits	On/Off Peak					
Energy Audit	2010	1.98	333,543	658,845	210,047	See footnote 1 on PUC Table 7A	448,798	See footnote 2 on PUC Table 7A	401	6,418	1,420	141,574	
	2011	2.37	1,484,475	3,517,981	1,131,975		2,386,006		2,407	6,418	8,522	141,574	
	2012	2.51	1,484,475	3,724,796	1,227,606		2,497,191		4,413	6,418	15,623	141,574	
	2013	2.62	1,484,475	3,893,375	1,283,416		2,609,959		6,418	6,418	22,725	141,574	
Equipment Rebate	2010	2.31	2,309,041	5,329,245	1,886,246		3,442,999		2,550	36,306	6,439	1,012,858	
	2011	2.42	11,004,192	26,604,235	8,861,719		17,742,516		13,802	36,306	37,074	1,012,858	
	2012	2.56	11,004,192	28,157,965	9,417,504		18,740,460		25,054	36,306	67,709	1,012,858	
	2013	2.68	11,004,192	29,470,955	9,766,185		19,704,769		36,306	36,306	98,327	1,012,858	
Multiple Family	2010	0.75	62,787	47,020	14,290		32,730		15	237	53	11,216	
	2011	5.33	46,634	248,720	75,052		173,668		89	237	315	11,216	
	2012	5.62	46,634	262,104	79,134		182,969		163	237	578	11,216	
	2013	5.87	46,634	273,817	81,711		192,106		237	237	840	11,216	
<b>Total</b>		<b>2.53</b>	<b>40,311,275</b>	<b>102,189,056</b>	<b>34,034,885</b>				<b>68,154,171</b>		<b>42,961</b>	<b>42,961</b>	<b>121,892</b>

**PUC Table 7D: TRC Benefits Table - Commercial/Industrial Large**

Commercial/Industrial Large		TRC Benefits By Program Per Year (\$000)										
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved	
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime
<b>Equipment Rebate</b>	2010	1.2953	1,213,362	1,571,693	547,914	See footnote 1 on PUC Table 7A	1,023,780	See footnote 2 on PUC Table 7A	587	9,385	1,458	303,364
	2011	1.3374	6,423,233	8,590,425	2,879,295		5,711,130		3,520	9,385	9,248	303,364
	2012	1.4098	6,423,233	9,055,732	3,039,429		6,016,303		6,453	9,385	17,039	303,364
	2013	1.4723	6,423,233	9,456,836	3,140,385		6,316,451		9,385	9,385	24,829	303,364
<b>Industrial Motors and VSD</b>	2010	1.5657	174,612	273,384	11,627	See footnote 1 on PUC Table 7A	261,757	See footnote 2 on PUC Table 7A	12	193	420	89,703
	2011	2.188	662,683	1,449,975	61,062		1,388,913		72	193	2,520	89,703
	2012	2.3053	662,683	1,527,684	64,383		1,463,301		133	193	4,620	89,703
	2013	2.4187	662,683	1,602,852	66,479		1,536,372		193	193	6,719	89,703
<b>Total</b>		<b>1.48</b>	<b>22,645,722</b>	<b>33,528,580</b>	<b>9,810,573</b>		<b>23,718,007</b>		<b>9,579</b>	<b>9,579</b>	<b>31,548</b>	<b>393,067</b>

PUC Table 7E: TRC Benefits Table - Governmental/Non-Profit

Governmental/Non-Profit		TRC Benefits By Program Per Year (\$000)										
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity	Capacity	Energy	Energy	Load Reductions in kW		MWh Saved	
					Annual	Annual	Annual	Annual	Annual	Lifetime	Annual	Lifetime
					Benefits	Gen/T&D	Benefits	On/Off Peak				
<b>Governmental &amp; Institutional</b>	2010	1.664	1,402,839	2,334,393	638,837	See footnote	1,695,556	See footnote	850	12,452	3,425	494,579
	2011	1.8166	7,100,288	12,898,471	3,379,126	1 on PUC	9,519,345	2 on PUC	5,036	12,452	21,088	494,579
	2012	1.9218	7,067,508	13,582,474	3,569,553	Table 7A	10,012,921	Table 7A	9,201	12,452	38,722	494,579
	2013	1.9817	5,048,104	10,004,002	2,851,453		7,152,549		12,451	12,452	50,415	494,579
<b>Total</b>		<b>1.88</b>	<b>20,618,739</b>	<b>38,819,340</b>	<b>10,438,969</b>		<b>28,380,370</b>		<b>12,451</b>	<b>12,452</b>	<b>50,415</b>	<b>494,579</b>

## **9. Plan Compliance Information and Other Key Issues**

### **9.1. Plan Compliance Issues.<sup>13</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.*

The Plan addresses all customer sectors with a variety of programs that offer a range of services from passive education (on-line audits) through direct installation (a variety of programs) and help overcome first cost barriers through incentives to customers and trade allies. Met-Ed Tables 4 and 5 in Section 1 present a summary description of the programs by sector and the incentives offered under those with rebates. Detailed descriptions of each program are provided in Section 2.

*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).*

The Met-Ed EE&C Plan has been developed to incorporate a comprehensive set of programs that will enable Met-Ed to achieve the goals established under Act 129 for energy savings in 2011 and for energy and peak demand reductions in 2013, all achieved within the spending caps prescribed by the PUC Table 3

*9.1.3. 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.*

Less than 2% of program funds are devoted to experimental equipment or devices. This Plan focuses on encouraging the accelerated adoption of commercially available technologies for achieving the energy efficiency and demand response goals.

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

The plan will achieve Government/Non-Profit requirements through three groups of program services – federal government facilities located within the service territory, local government facilities, non-profits and schools. While all non-residential buildings are eligible for the prescriptive and custom energy efficiency programs, special efforts are targeted at these subdivisions of the government sector in recognition of their unique decision-making and financing processes for making capital improvements to facilities. Met-Ed's programs will leverage existing company Area Manager relationships and experienced vendors who specialize in working with governmental accounts to get projects completed. (Section 1.1) Government programs are described in Section 3.5.

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

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<sup>13</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.

All programs are available to all Met-Ed Delivery Service Customers (with the exception of Borderline customers), and will be offered on a non-discriminating basis. Likewise, the Energy Efficiency Rider will collect the costs from all Delivery Service Customers; thereby assuring the plan is competitively neutral. The Company notes that it cannot prohibit customers taking generation service from alternative electric generation suppliers from participating in certain programs.

**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.*

The aim of this EE&C plan is to elucidate the connections between end-use energy technologies, energy demand, and, to better guide energy decisions. The amount of energy used in the future is a central determinant of environmental impacts both within the Companies' service territory and beyond. Energy use will depend on the demand for energy services and the technologies used to supply those services.

The Companies' plan is intended to make people become more conscious of their energy usage and establish lifelong energy saving habits. In addition, all measures installed and appliances retired and/or replaced, resulting from the execution of the Companies' plan including energy audits and technical assessments, have lengthy expected product lifetimes. They will save energy for years to come, easily bridging customers to even better technologies as they become available. So, the benefits of this plan will undoubtedly extend far beyond the length of specific programs.

*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.*

Met-Ed's EE&C plan consistently considered the programs of other Pennsylvania EDCs and those offered in neighboring states to ensure that little overlap will occur during the duration of the EE&C plan. For example, all EDCs that are obligated to meet the requirements of Act 129 held a day long meeting at the offices of the Energy Association of Pennsylvania during May 2009. Moreover, a Met-Ed representative has been in contact with other EDCs regularly and will be part of the statewide working group.

*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.*

Met-Ed's approach has been to prudently identify those programs that can be fast tracked for early implementation and which will require a more measured build up before targeted benefits are fully realized. Our Fast Track program suite takes maximum advantage of existing delivery channels by adding electric energy savings measures and services to programs that are already being implemented. This approach serves to keep costs down because visits are already being made to households and businesses, and it maximizes benefits because the additional funds and measures mean that opportunities will no longer be lost opportunities that would be more costly to go back and capture later. (Section 1.1)

*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.*

Essential to the success of these programs will be a concurrent marketing and educational campaign. Once Commission approval is obtained, Met-Ed will immediately launch a major outreach effort to build awareness

and interest in the programs, ways to participate, expected benefits and reasons for participating. Included in each program's budget is a share of a first year marketing campaign for that sector; smaller amount of sustaining marketing resources are included for the four year period of the Plan to ensure adequate outreach for achieving program goals. A forthcoming RFP for an Implementation Management Contractor will include a section on the development and execution of a Marketing Plan that will include a requirement for a team member with educational expertise in social marketing and consumer behavior change. (Section 1.1)

*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.*

Met-Ed will provide a list of all eligible federal and state funding programs to ratepayers as part of its EE&D Plan implementation.

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

Met-Ed will make available summary reports to the Commission as part of its regular reporting responsibilities. Key findings will be summarized and posted on the Company website and other communications to the public that highlight the achievement of the EE&C programs.

**10. List of 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) with Black & Veatch (consisting of three parts: 1) PUC Approved Standardized CSP Contract, 2) Purchase Order, and 3) CONFIDENTIAL Proposal.

*Note: The Proposal portion of the contract contains Confidential employee salary and fee information which will cause competitive harm to the CSP if publicly disseminated. The Company respectfully requests full confidential treatment of the Proposal portion of the Approved CSP Contract, in accordance with the approved Commission Template and the Commission's Act 129 Implementation Order. The Proposal portion of the Approved CSP Contract is being marked with a "CONFIDENTIAL" stamp and is being submitted under seal to the Secretary's Office in an envelope separate from the EE&C Plan"*

- D. All measure budgeted costs by year, sum to programs, including administrative, marketing, and incentives costs.
- E. Measure savings for programs included, including key assumptions
- F. Annual measure participation numbers
- G. PUC Appendix A Tables 1-7
- H. Tariff Rider - Energy Efficiency and Conservation Charge Rider

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix A**

Commission approved electricity consumption forecast for the period of  
June 1, 2009 through May 31, 2010.

Metropolitan Edison Company  
 Pennsylvania Electric Company  
 Pennsylvania Power Company

Retail Energy Forecast (in MWh's)  
 For the Period June1, 2009 through May 31, 2010

		<b>Retail Energy (in MWh)</b>		
		<u>Met-Ed</u>	<u>Penelec (A)</u>	<u>Penn Power</u>
June	2009	1,224,184	1,158,582	366,734
July	2009	1,343,026	1,246,775	415,287
August	2009	1,331,732	1,266,171	419,370
September	2009	1,165,164	1,123,299	390,407
October	2009	1,160,500	1,133,396	387,107
Novemeber	2009	1,174,181	1,153,195	381,241
December	2009	1,337,318	1,299,238	427,293
January	2010	1,346,992	1,309,249	437,822
February	2010	1,263,630	1,202,447	399,162
March	2010	1,263,464	1,239,565	418,209
April	2010	1,113,128	1,121,267	373,603
May	2010	<u>1,141,717</u>	<u>1,146,105</u>	<u>356,702</u>
Total		14,865,036	14,399,289	4,772,937

(A) - Excludes Waverly, NY service territory

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix B**

Average hourly demand in the EDC's 100 highest peak hours during the period of June 1, 2007 through September 30, 2007.

**Metropolitan Edison Company**  
**100 Hours of Highest Load**  
**For the Periods 6/1/07 through 6/31/08 and 6/1/07 through 9/30/07**

	Highest 100 Loads in Year 6/1/07 - 5/31/08			Highest 100 Loads in Summer 6/1/07 - 9/30/07		
	EST		MW	EST		MW
	Date	Hour		Date	Hour	
1	08/08/07	15	2,825	08/08/07	15	2,825
2	08/02/07	16	2,811	08/02/07	16	2,811
3	08/08/07	14	2,800	08/08/07	14	2,800
4	08/08/07	13	2,798	08/08/07	13	2,798
5	08/08/07	16	2,788	08/08/07	16	2,788
6	08/02/07	15	2,785	08/02/07	15	2,785
7	08/08/07	17	2,781	08/08/07	17	2,781
8	08/02/07	14	2,776	08/02/07	14	2,776
9	08/02/07	17	2,774	08/02/07	17	2,774
10	08/08/07	12	2,745	08/08/07	12	2,745
11	08/08/07	18	2,744	08/08/07	18	2,744
12	08/03/07	15	2,740	08/03/07	15	2,740
13	07/10/07	13	2,737	07/10/07	13	2,737
14	08/03/07	16	2,730	08/03/07	16	2,730
15	08/03/07	14	2,730	08/03/07	14	2,730
16	08/08/07	11	2,729	08/08/07	11	2,729
17	08/07/07	13	2,726	08/07/07	13	2,726
18	07/10/07	12	2,723	07/10/07	12	2,723
19	07/10/07	14	2,723	07/10/07	14	2,723
20	08/02/07	13	2,722	08/02/07	13	2,722
21	08/02/07	18	2,718	08/02/07	18	2,718
22	08/03/07	13	2,717	08/03/07	13	2,717
23	07/10/07	15	2,712	07/10/07	15	2,712
24	06/27/07	13	2,702	06/27/07	13	2,702
25	08/07/07	12	2,695	08/07/07	12	2,695
26	07/09/07	17	2,692	07/09/07	17	2,692
27	07/09/07	16	2,685	07/09/07	16	2,685
28	06/26/07	16	2,680	06/26/07	16	2,680
29	07/09/07	15	2,676	07/09/07	15	2,676
30	08/01/07	16	2,675	08/01/07	16	2,675
31	08/07/07	14	2,674	08/07/07	14	2,674
32	08/08/07	19	2,671	08/08/07	19	2,671
33	06/26/07	17	2,666	06/26/07	17	2,666
34	08/01/07	17	2,663	08/01/07	17	2,663
35	08/08/07	20	2,662	08/08/07	20	2,662
36	06/26/07	15	2,659	06/26/07	15	2,659
37	06/27/07	15	2,656	06/27/07	15	2,656
38	06/27/07	14	2,652	06/27/07	14	2,652
39	06/27/07	12	2,651	06/27/07	12	2,651
40	08/02/07	12	2,650	08/02/07	12	2,650
41	07/09/07	14	2,648	07/09/07	14	2,648
42	07/09/07	18	2,647	07/09/07	18	2,647
43	07/09/07	13	2,646	07/09/07	13	2,646

44	08/01/07	15	2,646	08/01/07	15	2,646
45	08/07/07	15	2,646	08/07/07	15	2,646
46	06/26/07	14	2,643	06/26/07	14	2,643
47	06/19/07	16	2,643	06/19/07	16	2,643
48	06/08/07	16	2,641	06/08/07	16	2,641
49	06/27/07	16	2,638	06/27/07	16	2,638
50	06/19/07	15	2,636	06/19/07	15	2,636
51	07/10/07	11	2,630	07/10/07	11	2,630
52	06/08/07	15	2,630	06/08/07	15	2,630
53	06/26/07	13	2,629	06/26/07	13	2,629
54	08/03/07	12	2,628	08/03/07	12	2,628
55	08/07/07	18	2,628	08/07/07	18	2,628
56	06/18/07	21	2,624	06/18/07	21	2,624
57	06/27/07	17	2,623	06/27/07	17	2,623
58	06/19/07	14	2,623	06/19/07	14	2,623
59	08/03/07	17	2,622	08/03/07	17	2,622
60	08/07/07	16	2,620	08/07/07	16	2,620
61	08/01/07	18	2,616	08/01/07	18	2,616
62	08/08/07	21	2,612	08/08/07	21	2,612
63	08/01/07	14	2,609	08/01/07	14	2,609
64	08/08/07	10	2,609	08/08/07	10	2,609
65	08/07/07	11	2,608	08/07/07	11	2,608
66	06/26/07	18	2,606	06/26/07	18	2,606
67	08/02/07	19	2,606	08/02/07	19	2,606
68	08/07/07	17	2,600	08/07/07	17	2,600
69	06/08/07	17	2,599	06/08/07	17	2,599
70	06/08/07	14	2,594	06/08/07	14	2,594
71	08/06/07	17	2,592	08/06/07	17	2,592
72	08/07/07	20	2,591	08/07/07	20	2,591
73	07/10/07	16	2,591	07/10/07	16	2,591
74	06/19/07	13	2,589	06/19/07	13	2,589
75	08/09/07	11	2,586	08/09/07	11	2,586
76	07/09/07	12	2,584	07/09/07	12	2,584
77	09/07/07	16	2,583	09/07/07	16	2,583
78	08/06/07	18	2,572	08/06/07	18	2,572
79	08/01/07	13	2,569	08/01/07	13	2,569
80	08/07/07	19	2,567	08/07/07	19	2,567
81	06/27/07	11	2,566	06/27/07	11	2,566
82	08/02/07	20	2,566	08/02/07	20	2,566
83	08/30/07	16	2,564	08/30/07	16	2,564
84	06/27/07	18	2,562	06/27/07	18	2,562
85	08/06/07	16	2,562	08/06/07	16	2,562
86	08/02/07	11	2,561	08/02/07	11	2,561
87	07/10/07	17	2,561	07/10/07	17	2,561
88	09/07/07	15	2,558	09/07/07	15	2,558
89	08/25/07	16	2,558	08/25/07	16	2,558
90	07/17/07	16	2,558	07/17/07	16	2,558
91	08/25/07	15	2,556	08/25/07	15	2,556
92	07/09/07	19	2,555	07/09/07	19	2,555
93	06/19/07	17	2,554	06/19/07	17	2,554
94	08/25/07	17	2,554	08/25/07	17	2,554
95	07/31/07	16	2,553	07/31/07	16	2,553

96	07/31/07	17	2,552	07/31/07	17	2,552
97	07/17/07	17	2,551	07/17/07	17	2,551
98	06/28/07	16	2,548	06/28/07	16	2,548
99	08/30/07	15	2,547	08/30/07	15	2,547
100	08/07/07	21	2,547	08/07/07	21	2,547

**Average 100 Highest**

**2,644**

**2,644**

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix C**  
Approved CSP contract(s).

## Appendix C

Approved CSP contract(s) with Black & Veatch (consisting of three parts: 1) PUC Approved Standardized CSP Contract, 2) Purchase Order, and 3) CONFIDENTIAL Proposal.

Note: The Proposal portion of the contract contains Confidential employee salary and fee information which will cause competitive harm to the CSP if publicly disseminated. The Company has requested full confidential treatment of the Proposal portion of the Approved CSP Contract, in accordance with the approved Commission Template and the Commission's Act 129 Implementation Order. The Proposal portion of the Approved CSP Contract is being marked with a "CONFIDENTIAL" stamp and is being submitted under seal to the Secretary's Office in an envelope separate from the EE&C Plan"

**FIRSTENERGY SERVICE COMPANY – GENERAL TERMS AND CONDITIONS  
FOR PURCHASE OF CONSULTING SERVICES****ARTICLE I - DEFINITIONS**

The following terms, when used in this Agreement with initial capitalization, shall have the meanings given below unless in any particular instance the context clearly indicates otherwise:

- A. "Consultant," the party to be engaged in performing consulting services under the terms of this Agreement, is in the business of providing such consulting services, products, deliverables, outcomes and results.
- B. "Data" - Material that includes documentation, manuals, maps, plans, schedules, programs, specifications, software, reports, drawings, designs and other relevant information;
- C. "Purchaser" means FirstEnergy Service Company for itself and/or as an authorized agent of the affiliate company or companies set forth on the face of the Request for Proposal and/or Purchase Order attached hereto for which the services as specified elsewhere herein shall be performed hereunder. If more than one company is identified as the Purchaser, the liability of each company named shall be several and not joint and shall be limited to such company's interest in this Agreement, as identified on the Request for Proposal and/or Purchase Order.
- D. "Purchaser's Site" includes generating stations, steam plants, substations, transmission and distribution lines, towers, poles, buildings, or other locations owned or leased by Purchaser, for which the Work is intended, to which the Work is to be delivered or where the Work is to be carried out (if it is not to be performed at the facility of Consultant or others).
- E. "Specifications" means the portion of this Agreement that describes the products and services to be delivered by Consultant under this Agreement, including dimensions, components, attachments, technical and non-technical requirements and characteristics, standards, performance requirements, and tolerances. Should any conflict occur between portions of the Specifications and these terms and conditions, the Specifications shall take precedence only when and to the extent that such does not result in any way in the dilution or diminution of the rights or benefits of the Purchaser under these terms and conditions.
- F. "Work" means all services, labor, materials, equipment, Data, and other obligations covered by or intended for Consultant to perform or supply under this Agreement, as specified in the Purchase Order, together with miscellaneous expendable job supplies, installation related equipment and/or tools, transportation, facilities and/or services for the complete execution of the Agreement.

**ARTICLE II – TERMS OF AGREEMENT**

- A. Agreement. The terms and conditions set forth in this document, together with the Request for Proposal and/or Purchase Order and all attachments, exhibits, revisions, and supplements thereof, shall constitute the agreement between Purchaser and Consultant (the "Agreement"). In case of any error, inconsistency or omission in the various documents of the Agreement, the matter will be submitted immediately to Purchaser, without whose decision said discrepancy shall not be adjusted by Consultant.
- B. Offer and Acceptance. Consultant's acknowledgement, commencement of performance to furnish the materials, equipment, or services which are the subject of this Agreement, or any conduct by Consultant which recognizes the existence of a contract pertaining to the subject matter hereof shall constitute acceptance by Consultant of this Agreement and all of its terms and conditions. Acceptance of this Agreement is expressly limited to Consultant's assent to all of the terms and conditions of this Agreement. Additional or different terms provided in Consultant's acceptance of Purchaser's offer which vary in any degree from any of the terms herein or expressly referenced on the face of the Request for Proposal and/or Purchase Order herewith shall be deemed material and are hereby objected to and rejected. If this Agreement shall be deemed an acceptance by Purchaser in response to an offer by Consultant and if any terms herein are additional to or different from any terms of such offer, then the issuance of this Agreement by Purchaser shall constitute an acceptance expressly conditioned upon Consultant's assent to all of the terms and conditions of this Agreement. Additional or different terms in any acknowledgement, invoice, or communication submitted by Consultant, or any attempt by Consultant to vary in any degree any of the terms of this Agreement, unless expressly agreed to by Purchaser, shall be deemed material and are hereby objected to and rejected. Any such terms proposed by Consultant, whether by offer or acceptance, shall be void unless expressly agreed to in writing by Purchaser.
- C. Integration; Modification. This Agreement sets forth the entire agreement of Purchaser and Consultant concerning the subject matter hereof. No other agreements or understandings, whether written or oral, whether express or implied, shall be binding on Purchaser and Consultant. No amendment, modification, or rescission of this Agreement shall be enforceable unless the same is in writing and signed by the party against whom the terms of such amendment, modification, or rescission are sought to be enforced.
- D. Non-Exclusivity. This Agreement is not exclusive, and Purchaser may at its sole discretion contract with others to perform such work as is herein contemplated, or may perform such work with its own forces.
- E. Audit. Purchaser shall have the right to audit books and records of Supplier upon reasonable notice for the purpose of confirming the amount due Supplier under this Agreement.

**ARTICLE III - CONSULTANT'S PERSONNEL**

- A. Relationship of Parties. In performing the Work, Consultant shall operate as and have the status of an independent Consultant and shall not act as or be an agent or employee of Purchaser. Nothing in this Agreement or in the performance of the Work shall be construed to create a partnership, joint venture or other joint business arrangement between Purchaser and Consultant.
- B. Employees. Consultant shall employ for the Work only persons known to it to be experienced, qualified, reliable and trustworthy. At Purchaser's request, the credentials of any of Consultant's employees assigned to perform the Work shall be submitted to Purchaser in advance of such assignment. During the performance of the Work, Purchaser may object to any Consultant employee who, in Purchaser's opinion, does not meet these criteria. In such case, Consultant shall, at its expense and risk, immediately replace or remove such employee.
- C. Background Checks. Consultant shall make best efforts to ensure that Consultant's employees assigned to Purchaser do not have criminal records and are not involved in criminal activity which could create a risk to Purchaser's Site, customers, and/or employees. Upon actual knowledge of a criminal record or involvement in criminal activity, Consultant shall immediately remove said employee or employees from the Work. Purchaser, at any time, may request Consultant to verify that an employee or employees does not possess a criminal record. Consultant shall provide certification for each of Consultant's employees, who are authorized as part of the Work to have electronic or unescorted physical access to Critical Cyber Assets (as the same are identified by Purchaser from time to time), that such employee: (i) has submitted to a Background Check within the past seven years whereby no evidence of a criminal record or criminal activity was discovered; (ii) is subject to a seven-year cycle re-check of the Background Check; and (iii) has received the Purchaser-sponsored Security Awareness training or will receive such training prior to accessing Critical Cyber Assets. These requirements are subject to audit and certification by Consultant upon request by Purchaser.
- D. Substance Abuse. Consultant agrees to comply with all applicable state and federal laws regarding drug-free workplace. Consultant shall make a good faith effort to ensure that all Consultant's employees, while working on Purchaser's property, will not be under the influence, purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.
- E. Gifts and Gratuities/Conflicts of Interest. Purchaser ("FirstEnergy") enforces policies governing the conduct of its employees in carrying out its business activities, including contact with third-party business partners. The conflicts of interest & gifts and gratuities policies generally prohibit FirstEnergy employees and/or their family members from giving or receiving gifts, favors, services, or privileges (including travel or entertainment) from existing or potential customers, suppliers, or contractors that are more than a nominal value, or that exceed the level of standard business courtesies, and the acceptance of cash, gift certificates, or loans in any amount. The conflicts of interest policy generally prohibits FirstEnergy employees and/or their family members from serving as an officer, director, employee, consultant, agent, or Buyer of a beneficial interest in an

organization which has a business relationship with FirstEnergy as a supplier or contractor, if the FirstEnergy employee is in a position to influence decisions concerning the relationship. The entire text of these policies may be found within the Supply Chain Section at [www.firstenergycorp.com](http://www.firstenergycorp.com).

Suppliers and prospective suppliers to FirstEnergy are expected to be aware of and comply with these policies in their dealings with FirstEnergy employees and their family members. *Any suspected or actual violations of these policies should be reported; and, may be reported anonymously and confidentially by a customer, supplier, contractor, or employee by calling the Employee Concerns Line (1-800-683-3625), 24 hours a day, 7 days a week.*

#### **ARTICLE IV – SCOPE OF WORK**

Consultant agrees to provide Purchaser with professional consulting services (the “Work”) as defined in the Request for Proposal/Purchase Order. The Work shall include providing all data, technical information, reports, deliverables, products, outcomes, results, information, new discoveries, inventions, improvements, technical consulting or other technical services (including but not limited to design services, analytical services, quality assurance, and the like), direction of any work or performance of any labor, and all other facilities and services which are necessary for the performance of this Agreement by the Consultant.

#### **ARTICLE V – COMPENSATION AND TERMS OF PAYMENT**

- A. Compensation for the Work performed, as well as the terms of payment thereof, shall be as described on the face of the Request for Proposal/Purchase Order.
- B. For Work specified by Purchaser to be performed on a time and materials basis, each invoice must: (a) detail by activity the man-hours worked by Consultant; (b) detail by activity the labor cost; (c) detail the direct reimbursable costs in connection with the Work; (d) indicate the cumulative cost to date for all activities; (e) indicate the total monthly cost of the Work; and (f) include other information reasonably required by Purchaser.
- C. Each invoice shall, after approval by the Purchaser, be processed for payment in accordance with the terms of payment as set forth on the face of the Request for Proposal/Purchase Order, for the amount of each approved invoice less any monies retained per the terms of payment or under Section D below.
1. Unless otherwise set forth herein, payment terms are 2%10 Net 45 Days. Payment dates shall be calculated from the date of receipt of invoice or acceptance of the Work by Purchaser, whichever is later. Payments by Purchaser shall not be deemed evidence of acceptance by Purchaser of the services or goods called for hereunder.
  2. Electronic Invoices. If it is reasonably able, Supplier shall utilize the Purchaser’s then current Electronic Invoice Presentment and Payment Program to submit invoices and receive payment electronically from Purchaser.
- D. Withholding.
1. If Purchaser has a claim under this Agreement, regardless of when it is discovered, including a claim that: (a) Consultant’s invoice is erroneous; (b) the Work is deficient, defective or incomplete; (c) a third party claim has been asserted or there is reasonable evidence indicating the possibility of a claim; (d) Consultant fails to make a payment as and when due to a subcontractor or supplier for materials, labor or equipment; (e) Purchaser, another Consultant, subcontractor, or other party suffers damage or injury which is attributable to Consultant; or (f) Consultant has failed to supply any affidavit, release or waiver of lien which Purchaser may require pursuant to law; then Purchaser may withhold payment of, or set off the amount of its claim, costs, and/or losses against, any amount invoiced to it. If any monies are so withheld, they shall be paid only when, without cost to the Purchaser, the cause of such withholding has been eliminated. Moreover, if any monies are so withheld, Purchaser shall not be responsible for any interest payment to Consultant.
  2. New Jersey Withholding. If applicable, in accordance with New Jersey law, we shall withhold a portion of payments made to you (Supplier, Contractor, Consultant, or similar party) for services to construct, improve, alter, or repair a building, structure, or improvement to real property unless you provide written documentation that you are a corporation or registered with the State of New Jersey.
- E. Consultant is deemed to be self-employed; and accordingly, no sums are contemplated to be withheld from Consultant’s compensation to cover the payment of income taxes, FICA (social security), FUTA (unemployment compensation) or other taxes. Consultant agrees to file all required federal, state and local income tax and other tax returns (including, without limitation, all required declarations of estimated tax) covering Consultant’s compensation hereunder. Consultant agrees to pay all such taxes and contributions when due; and Consultant hereby indemnifies Purchaser and holds it harmless from and against any and all loss, cost and liability whatsoever incurred by or claimed against Purchaser for any failure of Consultant to comply herewith.

#### **ARTICLE VI - STANDARD OF PERFORMANCE**

- A. Consultant warrants that it shall perform and supply the Work with the care, skill, and diligence set forth by the applicable professional standards, if any, currently recognized by such profession. Consultant warrants that it shall be responsible for the quality, technical accuracy, completeness, delivery, and implementation of the Work. Consultant warrants that the Work shall be free from defects and shall conform to the requirements of this Agreement.
1. In the event that there are no such standards, the Work shall be performed with due diligence and with the best efforts of the Consultant.
  2. Purchaser’s review and approval of Consultant’s or its Subcontractor’s specifications, drawings, plans and other such documents shall in no way relieve or lessen Consultant’s responsibilities set forth in this Agreement.
- B. Consultant shall cure any breach of the foregoing warranties at no cost to Purchaser and shall reimburse Purchaser for any damages that may be incurred by Purchaser as a result of reliance by Purchaser, its employees, agents, other Consultants or subcontractors on such Work or anticipated performance by Consultant. If Consultant should fail to cure such breach or if Purchaser determines that Consultant will be unable to cure such breach before the scheduled time of completion, Purchaser may correct such breach itself or through a third party and charge Consultant for the costs incurred therefor. The rights and remedies of the Purchaser set forth in this Section are in addition to any other rights and remedies provided by law.

#### **ARTICLE VII - INTELLECTUAL PROPERTY RIGHTS**

- A. Ownership of Work and Data. The Work and all Data associated with the Work, whether or not patentable, registrable as a copyrightable work, or registrable as a trademark or service mark, shall become the property of Purchaser and Purchaser shall own all intellectual property rights therein (including the rights to any patent, trademark or service mark, trade secret, and copyright therein). Consultant hereby agrees that any materials and works of authorship conceived or written by Consultant during the term of this Agreement that pertain in any material respect to the Work shall be done as “work made for hire” as defined and used in the Copyright Act of 1976, 17 USC §1 et seq., and that Purchaser, as the entity for which the work is prepared, shall own all right, title and interest in and to such materials, including the entire copyright therein. To the extent that any such materials are not deemed to be a “work made for hire,” Consultant will assign to Purchaser ownership of all right, title, and interest in and to such materials, including ownership of the entire copyright therein.
- B. Infringement. Consultant warrants that the goods and services provided by Consultant hereunder are and will be original, do not and will not infringe on or misappropriate any United States or foreign patent, copyright, trademark, or other intellectual property rights of any third party, and have not been and will not be previously assigned, licensed or otherwise encumbered. If the Work or any portion thereof is held to constitute an infringement or misappropriation of the intellectual property rights of a third party, Consultant shall, at its expense and within a reasonable time, either (1) secure for Purchaser the right to use the Work or any portion thereof which is said to be infringing by procuring for Purchaser a license or otherwise, or (2) replace the Work or such portion thereof with non-infringing Work that meets the requirements of this Agreement, or (3) remove

such infringing Work or such portion thereof, as Purchaser may elect, and refund the sums paid therefor by Purchaser, together with any out-of-pocket costs incurred by Purchaser in connection with its purchase and use of the infringing Work, all without damage or injury to Purchaser's other property.

- C. Data Furnished by Purchaser. All Data furnished by Purchaser in connection with the Work shall remain Purchaser's exclusive property. Consultant shall not use Purchaser-furnished Data for any purpose other than for the Work. Consultant shall: (1) sign and deliver a written itemized receipt for all Purchaser-furnished Data and shall be responsible for its safekeeping, and (2) return such Purchaser-furnished Data and all copies thereof to Purchaser upon completing the Work.

#### **ARTICLE VIII - INDEMNITY**

- A. Consultant's Indemnity. Consultant shall indemnify, defend, and hold harmless Purchaser, its subsidiaries and affiliates, and their respective agents, officers, employees, successors, assigns, and indemnitees (the "Indemnified Parties"), from and against any and all losses, costs, damages, claims, liabilities, fines, penalties, and expenses (including, without limitation, attorneys' and other professional fees and expenses, and court costs, incurred in connection with the investigation, defense, and settlement of any claim asserted against any Indemnified Party or the enforcement of Consultant's obligations under this Article VIII) (collectively, "Losses"), which any of the Indemnified Parties may suffer or incur in whole or in part arising out of or in any way related to the Work performed or to be performed, the presence of Consultant and/or its Subcontractors at Purchaser's Site, and/or the actions or omissions of Consultant and/or its Subcontractors, including, without limitation, Losses relating to: (1) bodily or mental injury to or death of any person, including, without limitation, any person employed by Purchaser, by Consultant, or by any Subcontractor; (2) damage to or loss of use of property of Purchaser, Consultant, any Subcontractor, or any third party; (3) any contractual liability owed by Purchaser to a third party; (4) any breach of or inaccuracy in the covenants, representations, and warranties made by Consultant under this Agreement; and/or (5) any violation by Consultant or any Subcontractor of any ordinance, regulation, rule, or law of the United States or any political subdivision or duly constituted public authority; subject, however, to the limitations provided in Section VIII(B) (for Work performed in Pennsylvania), or Section VIII(C) (for Work performed in states other than Pennsylvania). Purchaser shall be entitled to control the defense of any action indemnified hereunder, with legal counsel of its own choosing.
- B. WITH RESPECT TO WORK PERFORMED OR TO BE PERFORMED WITHIN THE COMMONWEALTH OF PENNSYLVANIA, Consultant's indemnity obligations under Section VIII(A) shall apply in each case whether or not caused or contributed to by the fault or negligence of any or all of the Indemnified Parties, and Consultant expressly agrees that Consultant will indemnify, defend, and hold harmless the Indemnified Parties in connection with Section VIII(A) even if any such Losses are caused in whole or in part by the sole or concurrent negligence of one or more of the Indemnified Parties. Consultant agrees to waive and release any rights of contribution, indemnity, or subrogation it may have against any of the Indemnified Parties as a result of an indemnity claim asserted by another Indemnified Party under Section VIII(A). Section VIII(A) is intended to be an express written contract to indemnify as contemplated under Section 303(b) of the Pennsylvania Workers' Compensation Act (or any successor to such provision).
- C. WITH RESPECT TO WORK PERFORMED OR TO BE PERFORMED AT ANY LOCATION WHICH IS NOT WITHIN THE COMMONWEALTH OF PENNSYLVANIA, Consultant's indemnity obligations under Section VIII(A) shall not apply to any Losses to the extent such Losses are found to have been initiated or proximately caused by or resulting from the negligence or willful misconduct of any of the Indemnified Parties.
- D. Waiver of Immunities. If an employee of Consultant or its Subcontractor, or such employee's heirs, assigns, or anyone otherwise entitled to receive damages by reason of injury or death to such employee, brings an action at law against any Indemnified Party, then Consultant, for itself, its successors, assigns, and Subcontractors, hereby expressly agrees to waive any provision of any workers' compensation act or other similar law whereby Consultant could preclude its joinder by such Indemnified Party as an additional defendant, or avoid liability for damages, contribution, defense, or indemnity in any action at law, or otherwise. Consultant's obligation to Purchaser herein shall not be limited by any limitation on the amount or type of damages, benefits or compensation payable by or for Consultant under any worker's compensation acts, disability benefit acts, or other employee benefit acts on account of claims against Purchaser by an employee of Consultant or anyone employed directly or indirectly by Consultant or anyone for whose acts Consultant may be liable.
- E. No Impairments. Consultant's obligations under this Article VIII shall not be limited to the extent of any insurance available to or provided by Consultant.

#### **ARTICLE IX - INSURANCE**

- A. Consultant's Insurance. Consultant agrees to secure and maintain in force minimum policies of insurance of the types listed below and shall furnish to Purchaser, prior to starting Work and throughout the duration of the Work, certificates of insurance evidencing current coverage listed below. These certificates shall be endorsed with substantially the following language:
- "This policy will not be canceled or allowed to lapse, and no change shall be made in this policy which alters, restricts or reduces the insurance provided or changes the name of the insured without first giving at least thirty (30) days' notice in writing to FirstEnergy Service Company, Insurance Risk Management, 76 South Main Street, Akron, Ohio 44308, with receipt of notice acknowledged."
1. Commercial General Liability (CGL) insurance including products-completed operations, independent contractors, and contractual liability coverages. Coverage under this policy shall have limits of liability of not less than \$2,000,000 per occurrence, combined single limit for bodily injury (including disease or death), personal injury, and property damage (including loss of use) liability.
  2. Automobile Liability insurance, including non-ownership and hired car endorsement, with minimum limits of \$1,000,000 per occurrence, combined single limit.
  3. Worker's Compensation coverage in the statutory amounts under the worker's compensation act(s) of the location(s) in which the Work is to be performed, for the current period.
  4. Employer's Liability with a minimum limit of \$1,000,000 for each accident or illness.
- Any of the above per-occurrence limits may be satisfied by a combination of primary and excess liability coverage.
- B. Additional Insured. FirstEnergy Corp. and its subsidiaries and affiliates shall be included as an additional insured for CGL and Automobile Liability policies, it being understood that said policies shall be primary and non-contributory with insurance carried by Purchaser and shall contain a cross-liability clause providing severability of interests so that coverage will respond as if separate policies were in force for each insured. A signed copy of the endorsement adding FirstEnergy Corp. and its subsidiaries and its affiliates as an additional insured shall be attached to the certificate of insurance providing general liability coverage.
- C. Lapse of Coverage. In the event of cancellation or lapse of or prohibited change in any policy for which a certificate is required to be furnished under this Agreement, Purchaser shall have the right to suspend the work of Consultant until the policy and certificates in evidence thereof are reinstated or arrangements acceptable to Purchaser are made pending issuance of new policies and certificates. If any such insurance shall be about to lapse or be canceled, Consultant shall, at least thirty (30) days before coverage thereunder ceases, obtain a new policy with like coverage, and if Consultant fails to do so, Purchaser may obtain insurance protecting it from the hazards covered by such lapsed or cancelled policy, and all premiums and expenses of such insurance shall be charged against Consultant and shall be a legitimate deduction from any sum due it from Purchaser.
- D. Waiver of Subrogation. Consultant and any of its Subcontractors shall waive and hereby waives any rights of subrogation which they or any of their insurers may have against Purchaser, its affiliates, and each non-affiliated company disclosed in this Agreement, their respective agents or employees.

#### **ARTICLE X - TERM & TERMINATION**

- A. Purchaser may terminate this Agreement at any time, including with respect to any Work in process, if (a) Consultant fails to obtain, or maintain as valid, any license, permit or approval required to allow lawful performance of the Work; (b) Purchaser determines, in its sole discretion, that Consultant is not complying with any law; (c) Consultant has failed to perform the Work in accordance with the acceptable practices and customary diligence of the profession or industry of which Consultant is a member or in a timely way; (d) Consultant breaches any material term or condition of this Agreement; or (e) Purchaser determines, in its sole discretion, that Consultant is not financially stable or responsible. Notice of termination pursuant to this Paragraph X(A) shall be in writing and shall be effective upon receipt thereof.
- B. Purchaser may terminate this Agreement for any reason at any time upon ten (10) days prior written notice. In the event of termination under this Section X, Consultant shall be entitled to and shall receive payment in full for all services provided and all reimbursable expenses incurred up to and including the effective date of termination.

**ARTICLE XI – COMPLIANCE WITH LAWS, REGULATIONS, AND PERMITS**

- A. During the performance of this Agreement, Consultant shall strictly comply with all federal, state and local laws, rules or regulations and executive orders applicable to the Work.
- B. Without limiting the foregoing, and unless exempted under the rules, regulations and relevant orders (41 CFR Chapter 60) of the Secretary of Labor, in connection with the Work, Consultant agrees as follows:
1. Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to, employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Consultant shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the U.S. Department of Labor setting forth the provisions of this nondiscrimination clause.
  2. Consultant shall state, in all solicitations or advertisements for employees placed by or on its behalf, that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
  3. Consultant shall send to each labor union or representative of workers with which it has a collective bargaining agreement, contract or understanding, a notice to be provided by the U.S. Department of Labor, advising the labor union or workers' representative of Consultant's commitments under the following provisions, as amended from time to time:
    - a. Section 202 of Executive Order 11246 (Equal Opportunity);
    - b. Executive Order 11701 (Employment of Veterans);
    - c. Executive Order 11758 (Employment of the Handicapped);
    - d. Executive Order 11141 (Employment Discrimination Because of Age); and
    - e. Executive Order 11625 and Public Law 95-507 (Utilization of Disadvantaged Business Enterprises), and shall post copies thereof in conspicuous places available to employees and applicants for employment.
- C. Because Purchaser (or if applicable, one or more affiliates or non-affiliated companies) is a supplier of electricity and/or services to the U.S. government, it must include, and Consultant shall comply with, the below listed clauses from the Federal Acquisition Regulation ("FAR"), 48 Code of Federal Regulations Chapter 1, as amended from time to time, if the applicable criteria specified in the FAR (those currently applicable are summarized parenthetically) are met. If Consultant's subcontracts meet such criteria, Consultant shall include the terms or substance of the applicable clause in its subcontracts. If the provisions of this paragraph C conflict with the balance of the Agreement, this paragraph C shall prevail.
1. 52.203-6 Restrictions on Subcontractor Sales to the Government (required in all subcontracts under this Agreement which exceed \$100,000);
  2. 52.203-7 Anti-Kickback Procedures (required in all subcontracts under this Agreement which exceed \$100,000, other than those for commercial items);
  3. 52.204-2 Security Requirements (required in all subcontracts under this Agreement which involve access to classified information);
  4. 52.219-8 Utilization of Small Business Concerns (required in all non-personal subcontracts with a value greater than \$100,000);
  5. 52.219-9 Utilization of Small Business Concerns will be included in all subcontracts that offer further subcontracting opportunities, and that Purchaser will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$550,000 (\$1,000,000 for construction) to adopt a subcontracting plan that complies with the requirements of this clause;
  6. 52.222-4 Contract Work Hours and Safety Standards Act—Overtime Compensation (required in all subcontracts exceeding \$100,000, unless otherwise exempted);
  7. 52.222-26 Equal Opportunity (required in all contracts/subcontracts; however, if the cumulative value of nonexempt Federal contracts/subcontracts is \$10,000 or less in any 12 month period, including the 12 months preceding the award, the contractor/subcontractor is exempt from the clause requirements);
  8. 52.222-35 Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (required in all contracts/subcontracts with a value of \$10,000 or more);
  9. 52.222-36 Affirmative Action for Workers with Disabilities (required in all contracts/subcontracts with a value of \$10,000 or more);
  10. 52.222-37 Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (required in all contracts/subcontracts with a value of \$10,000 or more);
  11. 52.223-14 Toxic Chemical Release Reporting (Except for acquisitions of commercial items, and unless otherwise exempt, this clause is required for competitive subcontracts expected to exceed \$100,000, including all options, and in any resultant subcontract exceeding \$100,000, including all options);
  12. 52.225-13 Restrictions on Certain Foreign Purchases (required in all subcontracts for contracts with a value exceeding \$2,500, unless otherwise exempted);
  13. 52.222-11 Subcontracts (Labor Standards) (required in all service contracts in excess of \$2,000 for construction within the United States) This provision requires that the following clauses be inserted into contracts meeting the criteria: Davis-Bacon Act, Contract Work Hours and Safety Standards Act—Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination—Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility.
  14. 52.222-41 Service Contract Act of 1965, as Amended (required in all service contracts subject to the Act (i) which exceed \$2,500; or (ii) which are for an indefinite dollar amount and the contracting officer does not know in advance that the contract amount will be \$2,500 or less).
- D. Consultant shall comply with the Department of Commerce Export Administration Regulations ("EAR") in 15 CFR Chapter VII, subchapter C, including 15 CFR Section 734.2 which prohibits the export or release of controlled technology and/or software to foreign nationals within the United States who are not lawfully admitted to the United States for permanent residence. Consultant shall confirm that these regulations either do not apply to Consultant's activities under the terms of this Agreement or that Consultant has procedures to ensure compliance. If Consultant is directly or indirectly employing a foreign national not currently lawfully admitted to the United States for permanent residence to perform work under this Agreement, Consultant warrants to Purchaser that such employment does not violate the foregoing regulations.
- E. **FOREIGN CORRUPT PRACTICES ACT PROVISIONS** The following provisions shall apply to Consultant (unless it is a foreign concern) if it performs or obtains any of the Work in a foreign country:

1. All payments to Consultant shall be by check or bank transfer only. No payment shall be in cash or by bearer instrument and no payment shall be made to any corporation or person other than Consultant. All payments due hereunder shall be made to Consultant at its principal place of business in the United States, even if Consultant performs or obtains the Work in a foreign country.
  2. Consultant represents that it is familiar with the Foreign Corrupt Practices Act (the "FCPA") and its purposes; and that, in particular, it is familiar with the prohibition against paying or giving of anything of value, either directly or indirectly, by an American company to an official of a foreign government for the purpose of influencing an act or decision in his official capacity, or inducing him to use his influence with that government, to assist a company in obtaining or retaining business for or with, or directing business to, any person.
  3. Consultant represents that none of its partners, purchasers, principals, and staff members are officials, officers, or representatives of any government or political party or candidates for political office. Consultant shall not use any part of its compensation for any purpose, and shall take no action, that would constitute a violation of any law of the United States (including the FCPA) or of any jurisdiction where it performs services or manufactures or sells goods. Purchaser represents that it does not desire and will not request any Work by Consultant that would or might constitute any such violation.
  4. Purchaser may terminate the Contract for default at any time, without any liability or obligation, if it believes, in good faith, that Consultant has violated this Article. Any action by Consultant which would or might constitute a violation of the FCPA, or a request for such action from Consultant's representative, shall result in immediate termination of the Contract for default. Should Consultant ever receive, directly or indirectly, from any Purchaser representative a request that Consultant believes will or might violate the FCPA, Consultant shall immediately notify Purchaser's general counsel.
  5. Purchaser may disclose the existence and terms of the Contract, including the compensation provisions, at any time, for any reason and to whomever Purchaser's general counsel determines has a legitimate need to know the same including, without limitation, the United States government, the government of any country where the Work is performed or obtained, and any regulatory agency with jurisdiction over Purchaser.
- F. Consultant shall comply with the Occupational Safety and Health Act of 1970 and all rules, regulations, standards, requirements, and revisions thereof or adopted pursuant thereto.
- G. Unless this Agreement otherwise provides, Consultant shall, at its own expense, obtain from appropriate governmental authorities all permits, inspections and licenses which are required for the Work and comply with all rules and regulations of insurance companies which have insured any of the Work.
- H. Any costs, fines, penalties, awards, damages or other liabilities associated with any violations of this Article shall be borne and paid by Consultant.
- I. If applicable, Consultant agrees to comply with all Hazard Communication Standards promulgated by the Occupational Safety and Health Administration (OSHA), 29 CFR 1910.1200, et seq., as amended, to insure that chemical hazards produced, imported, or used with the workplace are evaluated, and that hazard information is transmitted to affected employees of Consultant, of any subcontractor or of Purchaser.
- J. Consultant acknowledges and agrees that its employees, if given access to FirstEnergy's (FirstEnergy Corp., its subsidiaries and affiliates) Information and Control Systems, may be required to sign an agreement governing Consultant's and such employees' use of such systems.
- K. Consultant shall comply with all requirements of any governmental regulatory codes of conduct applicable to the work performed under this Agreement, including the FERC Standards of Conduct (Order No. 2004); New Jersey BPU Affiliate Relations, Fair Competition, and Accounting Standards (N.J.A.C. 14:4-5.1 et seq.); Ohio Corporation Separation Rules (O.A.C. 4901:1-20-16); and Pennsylvania PUC Competitive Safeguard regulations (52 Pa. Code §§ 54.121 and 54.122); or any successor to those provisions.
- L. Consultant shall comply with all requirements of Executive Order 13201 (E.O. 13201) mandating Government contractors and subcontractors to post to inform their employees that under Federal law they have certain rights related to union membership and the use of union dues and fees.

#### **ARTICLE XII- SET-OFF**

Purchaser shall be entitled at all times to set-off any amount owing from Consultant to Purchaser or any affiliate of Purchaser against any amount payable by Purchaser hereunder, and in no event shall Purchaser be liable for interest.

#### **ARTICLE XIII – LIMITATION OF LIABILITY**

Under no circumstances shall Purchaser, its subsidiaries and affiliates, be liable for any anticipated profits or for incidental or consequential damages.

#### **ARTICLE XIV – ASSIGNMENT AND SUBCONTRACTS**

- A. Consultant may not assign any rights or claims, or delegate any duties under this Agreement, in whole or in part, without the prior written consent of Purchaser, which may be withheld at Purchaser's sole discretion. In the event of any assignment or delegation permitted hereunder, Consultant shall continue to be liable for the performance of its obligations hereunder. For purposes of this Agreement, the term "assignment" shall include a transfer of Consultant's rights hereunder, and/or a succession to its obligations hereunder (i) by operation of law, including a merger, consolidation, corporate reorganization, reclassification or liquidation of Consultant or a sale of all or substantially all of Consultant's assets, or (ii) by a change in the control of Consultant. As used herein, "control" means the possession, directly or indirectly, of the power to direct or cause the direction of Consultant's management and policies, whether through ownership of or the right to vote a majority of the voting stock in the case of a corporation, or the comparable interest in the case of any other entity, or by contract, or otherwise.
- B. If Consultant proposes to subcontract any of the Work hereunder, it shall submit to Purchaser the name of each proposed Subcontractor(s) prior to engaging such Subcontractor, with the proposed scope of the Work to be undertaken and such information about the Subcontractor(s) as Purchaser may reasonably request. Purchaser may reject any and all Subcontractors at its absolute discretion.

#### **ARTICLE XV - NON-WAIVER**

The delay or failure of either party to assert or enforce in any instance strict performance of any of the terms of this Agreement or to exercise any rights hereunder conferred, shall not be construed as a waiver or relinquishment to any extent of its rights to assert or rely upon such terms or rights at any later time or on any future occasion.

#### **ARTICLE XVI-- PROHIBITION OF PUBLICITY**

Consultant shall not refer to this Agreement or reference the Purchaser, its subsidiaries and affiliates, directly or indirectly, in its advertising or promotional materials without express written consent of Purchaser.

#### **ARTICLE XVII CONFIDENTIALITY**

- A. Consultant agrees that the Work, Data, drawings, plans, specifications, calculations, reports and other documents and information associated with the Work, regardless of form, and any information that Consultant receives from Purchaser, or observes in connection with its business dealings with Purchaser, shall be deemed and treated by the parties as the confidential information of the Purchaser (referred to herein as "Confidential Information"). Consultant shall return Data and Confidential Information to Purchaser upon completion of performance of this Agreement.
- B. Consultant shall not use or disclose Confidential Information for any reason or purpose without the prior written consent of the Purchaser. Consultant may use Confidential Information for the sole purpose of the performance of this Agreement for the benefit of the Purchaser. Consultant will take all precautions and actions to prevent sale, transfer, sublicense, use or disclosure of Confidential Information to any third party.
- C. Notwithstanding, the restrictions set forth in this Article XVII shall not apply to Confidential Information: (a) which is in the public domain at the time it was disclosed by Purchaser to Consultant; or (b) which can be demonstrated by written records was already known to Consultant prior to the time it was disclosed to Consultant by Purchaser; or (c) which is independently developed by employees of Consultant who did not receive Confidential Information and who developed without the use or benefit of Confidential Information; or (d) which is disclosed to Consultant from a source other than Purchaser without breach of this or any other agreement by the person disclosing to the Consultant and without breach of this Agreement or any other duty of the Consultant.

**ARTICLE XVIII- SEVERABILITY**

If any portion of this Agreement is held invalid, the Parties agree that such invalidity shall not affect the validity of the remaining portions of this Agreement, and the Parties further agree to substitute for the invalid portion a valid provision that most closely approximates the economic effect and intent of the invalid provision.

**ARTICLE XIX - FORCE MAJEURE**

Neither party shall be liable to the other for any expenses, loss or damage resulting from delays or prevention of performance arising from causes beyond its reasonable control caused by fire, flood, accident, strikes, civil commotion, governmental or military authority, insurrection, riots, embargo, unavoidable delays in transportation, acts of God, or public enemy. In the event of any delay arising by reason of any of the foregoing events, the time for performance shall be extended by a period of time equal to the time lost by reason of such delay or as otherwise agreed to in writing by the parties. The Consultant will notify the Purchaser as soon as reasonably practical and in writing within forty-eight (48) hours of the Consultant's becoming aware of a force majeure occurrence as defined herein which will or has caused a delay. Within seven (7) working days of such occurrence, the Consultant will further define the precise cause or causes of the delay, the measures taken or to be taken to minimize the delay, the time table by which the measures will be implemented, the duration of the delay, the extension of time for performance of the Agreement the Consultant is claiming and documented evidence that support the claim. The Purchaser will review the Consultant's claim and advise the Consultant in writing of Purchaser's decision regarding the Consultant's claim for extension of time for performance of the Agreement.

**ARTICLE XX - SALES TAX**

Taxes, if any, shall be shown separately on any bids or invoices sent to Purchaser. Direct Payment Permit Numbers authorizing purchase of tangible personal property without payment of the tax at the time of purchase, have been issued to Purchaser. The Permit Numbers are 98001123 for Ohio Edison Co., 128 for Pennsylvania Power Co., 98002722 for FirstEnergy Nuclear Operating Co., 98000312 for The Cleveland Electric Illuminating Co., 98001495 for The Toledo Edison Co., DP-210-485-010 for Jersey Central Power and Light Co., 127 for Pennsylvania Electric Company Co., 135 for Metropolitan Edison Co. and 98-002723 for FirstEnergy Generation Corp. In Michigan, a Michigan Sales and Use Tax Certificate of Exemption shall be made available upon request. Purchaser agrees to maintain adequate records of all purchases and pay tax on the taxable items directly to the Treasurer of each respective State. In Ohio, Direct Payment Permits do not apply to construction contracts under which the contractor is considered to be the consumer and liable for the tax on materials incorporated into a structure or improvement as provided in Section 5739.01 (B) Ohio Revised Code. Pennsylvania Direct Payment Permits do not apply to construction contracts under which a contractor is considered to be the consumer and liable for the tax on materials incorporated into the property of Pennsylvania companies. Pennsylvania Sales and Use Tax Regulations Sections 31.11 through 31.16 provide for tax-exempt purchase of materials by a contractor for those materials that will be incorporated into and become a part of the property of Pennsylvania companies. In order to qualify, the property must be directly used in the rendition of the Public Utility Service. Contract bids should be submitted accordingly. The successful bidder will be issued a properly executed "Certification" form upon request to permit tax-exempt purchase of qualifying materials.

*Questions concerning Pennsylvania or New Jersey sales taxes should be directed to the FirstEnergy Service Company, at (973) 401-8323. Questions about Ohio sales taxes (and states other than Pennsylvania or New Jersey), should be directed to the FirstEnergy Service Company, at (330) 384-5334.*

**ARTICLE XXI - GOVERNING LAW**

Unless otherwise stated on the face of the Purchase Order, this Agreement is to be governed by and interpreted in accordance with the law of the State of Ohio. The parties expressly exclude the applicability of the United Nations Convention on Contracts for the International Sale of Goods, if the same would otherwise apply here. Any legal suit, action, or proceeding to collect payment due hereunder from Purchaser, or otherwise arising out of or relating to this Agreement, may be (and, if against Purchaser, must exclusively be) instituted in a State or Federal Court in the County of Summit, State of Ohio, and Consultant waives any objection which it may have now or hereafter to the laying of the venue of any such suit, action or proceeding and hereby irrevocably submits to the jurisdiction of any such court in any such suit, action or proceeding.

**ARTICLE XXII - INTERPRETATION**

The following principles of interpretation shall apply to this Agreement: (i) paragraph headings and captions are inserted for convenience only and shall not be considered in construing intent; (ii) neither Purchaser nor Consultant shall be considered to be the party responsible for the drafting of any particular provision of this Agreement; (iii) the words "hereof," "herein," "hereunder," and words of similar import shall refer to this Agreement as a whole and not to any particular provision hereof; (iv) the word "including" means "including, but not limited to" and shall be interpreted as broadly as possible; (v) words in the singular include the plural and vice versa, (vi) All references to "days" shall be calendar days (and not merely business days, unless the Agreement so states), and (vii) any provision hereof that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity or enforceability of such provision in any other jurisdiction and the provision that is prohibited or unenforceable shall be reformed or modified to reflect the parties' intent to the maximum extent permitted by applicable legal requirements.

**ARTICLE XXIII - EXECUTION AND COUNTERPARTS**

This Agreement may be executed in multiple counterparts, which taken together shall constitute an original without the necessity of all parties signing the same page or the same documents, and may be executed by signatures to electronically or telephonically transmitted counterparts in lieu of original printed or photocopied documents. Signatures transmitted by facsimile shall be considered original signatures.

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of \_\_\_\_\_, 2009.

FIRSTENERGY SERVICE COMPANY

CONSULTANT

By \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

**SUPPLEMENTAL TERMS AND CONDITIONS  
FOR CONTRACTS WITH CONSERVATION SERVICE PROVIDERS (“CSPs”)**

**NON-AFFILIATION**

The CSP represents that it is not an affiliate of any Electric Distribution Company (“EDC”) in the Commonwealth of Pennsylvania, including FirstEnergy’s EDCs Pennsylvania Power Company, Metropolitan Edison Company, or Pennsylvania Electric Company.

**MERGER**

If CSP should merge with a Pennsylvania EDC or otherwise restructure in such a manner as to provide any such EDC with a direct or indirect ownership interest in CSP, then CSP shall immediately notify Purchaser of any such transaction as soon as the law permits. CSP acknowledges that in such an event, this Agreement shall automatically terminate and CSP shall be liable for any and all reasonable costs incurred by Purchaser to replace CSP with a comparable vendor. This remedy shall be in addition to any and all other legal or equitable remedies available to Purchaser.

**CSP REGISTRATION**

CSP represents and warrants that it has complied with any and all filings required by law, including without limitation, any registration requirements of the Pennsylvania Public Utility Commission that are necessary to become a registered CSP. CSP further represents and warrants that it will maintain such registration in good standing throughout the term of this Agreement. CSP shall provide Purchaser with proof of valid registration or any renewals thereof. CSP acknowledges that the failure to maintain valid registration shall constitute a breach of this Agreement. In such an event, CSP shall be liable to Purchaser for any and all reasonable costs incurred by Purchaser to replace CSP with a comparable vendor. This remedy shall be in addition to any and all other legal or equitable remedies available to Purchaser.



BLACK & VEATCH  
898 VETERANS MEMORIAL HIGHWAY  
HAUPPAUGE NY 11788

Your number with us  
210012230

Please deliver to:  
FirstEnergy  
76 S. MAIN ST.  
AKRON 44308

### Purchase Order

PO number/date  
55109917 / 03/24/2009  
Contact person/Telephone  
Joshua Martin/330-384-2482  
Our fax number  
330-374-6216

Valid from: 03/24/2009  
Valid to : 12/31/2009

Freight Charges & FOB Terms: No freight, FOB origin  
Terms of payt.: Within 45 days Due net

Currency USD

FirstEnergy Service Company on behalf of The Cleveland Electric Illuminating Company, FirstEnergy Service Company, Jersey Central Power & Light Company, Metropolitan Edison Company, Ohio Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, The Toledo Edison Company, FirstEnergy Generation Corp., FES (FirstEnergy Solutions), ATSI (American Transmission Systems Inc.) and FirstEnergy Nuclear Operating Company (FENOC), (Purchaser). The purchaser subsidiary and/or affiliate company(s) shall be identified by the ship-to address included herein or on any subsequent blanket purchase order release authorization ship-to address as included thereon, as appropriate. If more than one company is identified as the purchaser, the liability of each company named shall be several and not joint and shall be limited to such company's interest as identified therein.

Supplier Contact:  
Steve Stolze  
Phone: 631-786-0507  
Email: StolzeSA@bv.com

FirstEnergy Technical Contact:  
Kurt Turosky, Mgr, Energy Efficiency Comp & Perf

Phone:330-384-5847  
Email:turoskyk@firstenergycorp.com

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PA Energy Efficiency Plan Consulting  
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Invoicing:

FirstEnergy's vision is a paperless, automated procure-to-pay process. Our objective is 100% adoption of electronic presentment and payment by our suppliers.

Suppliers performing work with FirstEnergy are expected to enroll in and use the Xign Network to submit invoices electronically to FirstEnergy and to receive payment electronically from FirstEnergy.

Supplier acknowledges that timely submission of invoices is critical for effective budget and financial planning for FirstEnergy.

We encourage you to enroll with Xign our third party provider for electronic payment and presentment and their Discount Manager program. To enroll with Xign, please go to <http://firstenergy.xign.net>. Select "ENROLL NOW" and then select the "I DO NOT HAVE AN ENROLLMENT CODE" option.

In the event Supplier does not choose to support FirstEnergy's vision for a paperless procure-to-pay process, all invoices rendered under this purchase order shall be sent directly to:

FirstEnergy Service Company  
76 S. Main St.  
Akron, OH 44308  
Attn: Kurt Turosky

The invoice must include the following, as applicable:

- Purchase order number
- Line item number
- Task Authorization number, if applicable
- Timesheets
- Receipts for reimbursable expenses

Questions about electronic payment/presentment, invoices or payments may be directed to the Accounts Payable help desk at (814)539-3200.

Item	FE Material No. Order qty.	Unit	Price per unit	Net value
	00001			
----- PA Energy Efficiency Plan Consulting Services -----				

SCOPE OF WORK:  
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Consultant to provide consulting services and resources for the development of a compliance strategy and plan as required by the energy efficiency, conservation and demand side response initiatives recently mandated in Pennsylvania as Act 129 of 2008 of House Bill 2200 and detailed in the engagement letter dated February 26, 2009.

CONTRACT DOCUMENTS:  
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The following listed items are the Contract Documents and constitute the complete Agreement between Purchaser and Consultant. In the event of conflict among any of the below listed documents in matters of interpretation, precedence as to interpretation shall be given in accordance with the following order:

1. Change orders, if any.
2. This Purchase Order, no. 55109917.
3. FirstEnergy's Consulting Services Terms and Conditions (CNSLT FINAL REV 24 01-16-09) along with the Supplemental Terms and Conditions for contracts with Conservation Service Providers ("CSPs") apply to this agreement.
4. Black & Veatch's Proposal dated February 26, 2009 - attached and incorporated herein with the exception to the modifications to the pricing and assumptions as detailed below.

PRICING & ASSUMPTIONS:  
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- 1.) Black & Veatch will deliver the scope of work as proposed within 11 weeks from project kick-off.
- 2.) Black & Veatch will fix the price for the work and selected options as quoted with the exception of SubTasks 3.3 and 3.4 which have been withdrawn from the RFP process. The fixed fee amount for this engagement is \$271,800 plus expenses. The surveys are optional and would be at the additional costs detailed below.

Estimating Assumptions

- a) Prompt delivery of all Data Request items noted on proposal page 11 within on week of the kick off meeting.
- b) Comments on all draft documents will be compiled into one master edit copy per Company, that FirstEnergy will provide direction as to how to address any conflicting edits, and that comments will be received within one week of delivery of draft materials.
- c) Black & Veatch will use its own in-house software for conducting the market potential and program design analyses. If FirstEnergy desires that we use DSMore instead, there is a \$10,000 fee to cover licensing and population of the software with FirstEnergy data for Pennsylvania operating companies.
- e) Primary Customer Research surveys will not be conducted as part of the base bid. If

surveys are desired, the decision to do so will be made at the kick off meeting, and customer lists and approvals will be provided within one week of the kick off meeting. Because we have the materials 90% designed, and trained consultants in place coming off the other job, we can now deliver 400 completes PER COMPANY residential and 100 completes PER COMPANY for commercial for \$55,000.

The price for the statewide survey (100 residential completes per company) it would be \$45,000.

f) Three sets of programs will be developed - one for each operating company: Met Ed, Penelec and Penn Power. The analysis will entail three sets of programs, with common programs as appropriate, analyzed for each of the three companies' residential, commercial and industrial sectors.

g) The proposal assumes that Black & Veatch will prepare separate chapters addressing the programs for each company for incorporation into one filing document for FirstEnergy's Pennsylvania operations.

h) Travel-related and other out-of-pocket expenses (e.g., Fed-Ex, telephone, etc.) will be billed at our actual cost

i) The level of effort associated with Black & Veatch services proposed depends upon a number of factors beyond Black & Veatch's control. The fixed fee assumes that timely and reasonably complete documentation is provided by FirstEnergy, that the extent and nature of deficiencies (if any) in the documentation are not material, and that FirstEnergy staff are available to support our efforts according to the agreed project timeline.

j) If customer surveys are selected as an option to be added to the scope of work, Black & Veatch will require FirstEnergy to deliver at or within 5 days of the kick off meeting the following:

Lists of customer names, addresses, phone numbers and account numbers for random samples of residential and non-residential customers for each of the three PA utilities (i.e., nine electronic files with customer lists)

Approval of a pre-survey notification letter that will alert customers of the survey and encourage their cooperation

Approval of our offer of \$50 gasoline cards for the first 100 customer responses

Timely approval of survey instruments

Logos for each company (jpeg file)

Signature files for each company cover letter (jpeg file)

Customer contact per company to be included on the cover letter

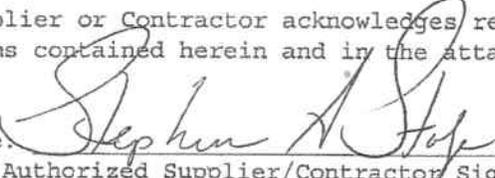
FirstEnergy's Consulting Services Terms and Conditions (CNSLT FINAL REV 24 01-16-09) along with the Supplemental Terms and Conditions for contracts with Conservation Service Providers ("CSPs") apply to this agreement.

Supplier or Contractor to execute both copies and return a copy to the address below:

FirstEnergy Service Company  
76 South Main Street  
Akron, Ohio 44308-1890  
Mail Stop A-GO-09

Supplier or Contractor to retain a copy for Supplier's/Contractor's records.

Supplier or Contractor acknowledges receipt of and agreement to this writing and the terms contained herein and in the attached terms and conditions.

Name:  Date: 4/14/09  
(Authorized Supplier/Contractor Signature)

(Print) Name STEPHEN A. STOLZE Title: Associate Vice President

Name:  Date: 4/17/09  
(Authorized Purchasing Representative Signature)

(Print) Name Joshua M. Martin Title: Sr. Sourcing Specialist

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix D**

All measure budgeted costs by year, sum to programs, including administrative, marketing, and incentives costs.

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix D-1**

Measure budgeted for 7 months starting November 1, 2009, ending May 31 2010

Appendix D-1

Measure Name	Program	Rate Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M	
1	DLC-CAC	Demand	Res	\$6,888	\$5,250	\$4,052.0	\$0.0	\$0.0	\$0.0	\$182,340.0	\$729,360.0	\$0.0	\$202,600.0	\$1,846,836
2	DLC-Pool Pumps	Demand	Res	\$184	\$5,250	\$108.0	\$0.0	\$0.0	\$0.0	\$4,860.0	\$30,780.0	\$0.0	\$8,100.0	\$68,157
3	DLC-Pool Pumps	Demand	Res	\$10	\$5,250	\$6.0	\$0.0	\$0.0	\$0.0	\$270.0	\$1,710.0	\$0.0	\$450.0	\$3,787
4	Res Home Audits - CFL 4 - Low Flow 2 Water Hea	1-Res Audits	Res	\$9,251	\$7,820	\$5,139.6	\$0.0	\$0.0	\$0.0	\$10,279.1	\$0.0	\$41,116.5	\$133,628.6	\$0
5	Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	\$255	\$5,350	\$175.0	\$0.0	\$0.0	\$0.0	\$3,875.0	\$0.0	\$200.0	\$650.0	\$0
6	Schools Childern Education-No Saving	1-Res Audits	Res	\$2,700	\$1,000	\$750.0	\$0.0	\$0.0	\$0.0	\$4,500.0	\$0.0	\$6,000.0	\$9,000.0	\$0
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	\$6,607	\$9,776	\$6,788.5	\$0.0	\$0.0	\$0.0	\$298,694.5	\$0.0	\$0.0	\$113,141.9	\$0
8	Room Air Conditioners	2-RES App Turn-In	Res	\$580	\$5,350	\$400.0	\$0.0	\$0.0	\$0.0	\$18,000.0	\$0.0	\$0.0	\$10,000.0	\$0
9	ASHP - SEER 15	3-RES EE HVAC	Res	\$1,096	\$1,645	\$332.3	\$5,537.5	\$553.8	\$0.0	\$0.0	\$0.0	\$0.0	\$35,993.9	\$0
10	CAC - SEER 16	3-RES EE HVAC	Res	\$8,196	\$4,857	\$2,215.0	\$27,687.6	\$5,537.5	\$0.0	\$0.0	\$0.0	\$0.0	\$249,188.3	\$0
11	CAC - Maintenance	3-RES EE HVAC	Res	\$4,738	\$4,166	\$2,632.4	\$0.0	\$3,948.6	\$0.0	\$0.0	\$0.0	\$0.0	\$32,905.1	\$0
12	EE Ground Source Heat Pump	4-Res-EE P	Res	\$0	\$1,534	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
13	Solar Water Heating	4-Res-EE P	Res	\$0	\$629	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
14	HP Water Heater	4-Res-EE P	Res	\$0	\$629	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
15	EE Water Heater	4-Res-EE P	Res	\$12,886	\$14,193	\$2,712.8	\$0.0	\$6,782.1	\$0.0	\$0.0	\$0.0	\$0.0	\$67,820.8	\$0
16	Programmable Thermostat_Heat	4-Res-EE P	Res	\$1,634	\$629	\$1,257.0	\$0.0	\$0.0	\$0.0	\$3,771.1	\$0.0	\$10,056.2	\$78,187.4	\$0
17	Programmable Thermostat_CAC	4-Res-EE P	Res	\$5,538	\$2,167	\$1,538.3	\$3,076.5	\$4,614.8	\$0.0	\$0.0	\$0.0	\$0.0	\$38,456.6	\$0
18	CFL bulbs regular-15 -Free No Water Heat	1-Res Audits	Res	\$14,323	\$3,437	\$1,404.2	\$0.0	\$0.0	\$0.0	\$11,233.6	\$0.0	\$44,934.5	\$67,401.8	\$0
	CFL bulbs regular-15 -Free No Water Heat Mailed At Request	4-Res-EE P	Res	\$7,522	\$2,104	\$737.5	\$0.0	\$0.0	\$0.0	\$5,899.8	\$0.0	\$23,599.2	\$35,398.8	\$0
20	CFL bulbs regular - Outside - 15 - Store Rebates	4-Res-EE P	Res	\$206	\$629	\$0.0	\$0.0	\$0.0	\$3,436.4	\$0.0	\$0.0	\$0.0	\$6,872.8	\$0
21	CFL bulbs regular - 19 - Store Rebates	4-Res-EE P	Res	\$938	\$629	\$0.0	\$0.0	\$0.0	\$15,625.0	\$0.0	\$0.0	\$0.0	\$31,250.0	\$0
	Clothes Washer Energy Star, Electric Water heater, Electric Dryer	4-Res-EE P	Res	\$300	\$709	\$80.0	\$400.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,000.0	\$0
22	Dehumidifiers	4-Res-EE P	Res	\$300	\$709	\$80.0	\$400.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,000.0	\$0
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	\$300	\$709	\$80.0	\$400.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,000.0	\$0
25	Holiday Lights	4-Res-EE P	Res	\$529	\$881	\$251.8	\$629.5	\$1,007.2	\$0.0	\$0.0	\$0.0	\$0.0	\$10,071.6	\$0
26	LED Night Light	4-Res-EE P	Res	\$23	\$629	\$0.0	\$0.0	\$0.0	\$375.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
27	Pump and Motor Single Speec	4-Res-EE P	Res	\$469	\$922	\$293.0	\$1,464.9	\$586.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,859.5	\$0
28	Refrigerators-Freezers Energy Star - Side by Side	4-Res-EE P	Res	\$300	\$709	\$80.0	\$400.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
29	Refrigerators-Freezers Energy Star - Top Freezer	4-Res-EE P	Res	\$300	\$709	\$80.0	\$400.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
30	Room Air Conditioners	4-Res-EE P	Res	\$7,428	\$629	\$3,229.8	\$0.0	\$6,459.5	\$0.0	\$0.0	\$0.0	\$0.0	\$80,744.0	\$0
31	Smart Strip plug outlet	4-Res-EE P	Res	\$3,619	\$2,245	\$0.0	\$0.0	\$0.0	\$1,615.7	\$0.0	\$0.0	\$0.0	\$32,314.6	\$0
32	Torchiere Floor Lamps	4-Res-EE P	Res	\$112	\$679	\$0.0	\$0.0	\$0.0	\$50.0	\$0.0	\$0.0	\$0.0	\$1,000.0	\$0
33	Residential New Construction - 15%	5-RES New Con	Res	\$12,500	\$9,417	\$3,333.3	\$0.0	\$0.0	\$0.0	\$16,666.7	\$93,916.7	\$0.0	\$0.0	\$0
34	Residential New Construction - 30%	5-RES New Con	Res	\$12,500	\$9,417	\$3,333.3	\$0.0	\$0.0	\$0.0	\$16,666.7	\$172,666.7	\$0.0	\$0.0	\$0
35	Ceiling Fans	6-Res Whole	Res	\$258	\$1,188	\$60.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4,500.0	\$0
36	Estar Windows	6-Res Whole	Res	\$1,350	\$1,188	\$240.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,000.0	\$0
37	Duct sealing 20 leakage base	6-Res Whole	Res	\$2,450	\$1,188	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0
38	Low Flow Showerheads	6-Res Whole	Res	\$648	\$1,188	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$9,200.0	\$0
39	Kitchen Aerator	6-Res Whole	Res	\$324	\$1,188	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,800.0	\$0
40	Bathroom Aerator	6-Res Whole	Res	\$324	\$1,188	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,800.0	\$0
41	Pipe Wrap	6-Res Whole	Res	\$960	\$1,188	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
42	Roof Insulation	6-Res Whole	Res	\$2,250	\$1,188	\$400.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0
43	Whole Building	6-Res Whole	Res	\$600	\$11,188	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$120,000.0	\$0.0	\$0.0	\$0
44	Low Income Lighting-Warn	7-Low Income	Res	\$4,148	\$5,000	\$340.0	\$0.0	\$0.0	\$0.0	\$2,720.0	\$0.0	\$10,880.0	\$16,320.0	\$0
45	Low Income Lighting-Low Usag	7-Low Income	Res	\$1,307	\$5,000	\$107.2	\$0.0	\$0.0	\$0.0	\$857.4	\$0.0	\$3,429.5	\$5,144.3	\$0
46	Multiple Family - CFL Lighting	8-Multiple Family	Res	\$1,118	\$5,000	\$91.7	\$0.0	\$0.0	\$0.0	\$733.3	\$0.0	\$2,933.4	\$4,400.0	\$0
47	Multiple Family - T8-Lighting	8-Multiple Family	SM C&I	\$1,137	\$6,467	\$183.3	\$0.0	\$1,100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,833.4	\$0
48	Commercial, Industrial Audit - Sm&Mc	1-C/I Audits	SM C&I	\$2,475	\$6,500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
49	Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	\$840	\$5,750	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
50	Commercial CFL Program	1-C/I Audits	SM C&I	\$191	\$5,000	\$0.0	\$0.0	\$0.0	\$0.0	\$3,187.7	\$0.0	\$0.0	\$6,375.5	\$0
51	Commercial, Industrial Audit - Gov	1-C/I Audits	LG C&I	\$980	\$5,000	\$80.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0.0	\$0.0	\$0
	Exterior HID replacement above 175W to 250W HID retrofit	2-Governmental Programs	LG C&I	\$112	\$5,500	\$9.2	\$0.0	\$73.7	\$0.0	\$0.0	\$0.0	\$0.0	\$184.2	\$0
53	HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Program:	LG C&I	\$2,297	\$5,500	\$188.3	\$0.0	\$1,506.1	\$0.0	\$0.0	\$0.0	\$0.0	\$3,765.2	\$0
54	LED Exit Signs Electronic Fixtures (Retrofit Only)	2-Governmental Program:	LG C&I	\$254	\$5,500	\$20.8	\$0.0	\$166.7	\$0.0	\$0.0	\$0.0	\$0.0	\$166.7	\$0
55	Occupancy Sensors under 500 W	2-Governmental Program:	LG C&I	\$254	\$5,500	\$20.8	\$0.0	\$166.7	\$0.0	\$0.0	\$0.0	\$0.0	\$166.7	\$0
56	LED Auto Traffic Signals	2-Governmental Programs	SM C&I	\$3,050	\$5,500	\$250.0	\$0.0	\$2,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$45,000.0	\$0
57	LED Pedestrian Signals	2-Governmental Programs	SM C&I	\$763	\$5,500	\$62.5	\$0.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0

Appendix D-1

Measure Name	Program	Rate Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M
58 Street Lighting - 175 Mercury to 100 HPS	2-Governmental Program:	SM C&I	\$18,702	\$5,500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$58,812.5	\$149,436
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	2-Governmental Programs	LG C&I	\$0	\$5,500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	2-Governmental Programs	LG C&I	\$0	\$5,500	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
61 AC <65,000 1 Ph	3-C/1 Equip	SM C&I	\$700	\$2,800	\$150.0	\$1,000.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
62 AC 65,000 - 135,000	3-C/1 Equip	SM C&I	\$620	\$2,700	\$100.0	\$1,000.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
63 AC 240,000 - 760,000	3-C/1 Equip	SM C&I	\$620	\$2,700	\$100.0	\$1,000.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$14,000.0	\$0
64 Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	3-C/1 Equip	SM C&I	\$280	\$2,620	\$60.0	\$400.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
65 Demand-controlled ventilation (DCV)	3-C/1 Equip	SM C&I	\$1,425	\$3,125	\$225.0	\$0.0	\$375.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
66 Efficient Refrigeration Condenser	3-C/1 Equip	SM C&I	\$52	\$2,540	\$40.0	\$0.0	\$80.0	\$0.0	\$0.0	\$0.0	\$0.0	\$400.0	\$0
ENERGY STAR Commercial Solid Door Freezers less than 20ft3	3-C/1 Equip	SM C&I	\$335	\$2,550	\$50.0	\$500.0	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
67 ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	3-C/1 Equip	SM C&I	\$335	\$2,550	\$50.0	\$500.0	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
68 ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	3-C/1 Equip	SM C&I	\$335	\$2,550	\$50.0	\$500.0	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
69 ENERGY STAR Commercial Solid Door Refrigerators 20 to 48 ft3	3-C/1 Equip	SM C&I	\$335	\$2,550	\$50.0	\$500.0	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
70 ENERGY STAR Ice Machines less than 500 lbs	3-C/1 Equip	SM C&I	\$670	\$2,600	\$100.0	\$1,000.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,500.0	\$0
71 ENERGY STAR Ice Machines 500 to 1000 lbs	3-C/1 Equip	SM C&I	\$670	\$2,600	\$100.0	\$1,000.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
72 ENERGY STAR Ice Machines more than 1000 lbs	3-C/1 Equip	SM C&I	\$670	\$2,600	\$100.0	\$1,000.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
73 ENERGY STAR Steam Cookers 3 Pan	3-C/1 Equip	SM C&I	\$670	\$2,600	\$100.0	\$1,000.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0
74 Exterior HID replacement above 175W to 250W HID retrofit	3-C/1 Equip	SM C&I	\$1,338	\$2,620	\$119.5	\$0.0	\$956.1	\$0.0	\$0.0	\$0.0	\$0.0	\$47,802.9	\$0
75 EE Water Heater (Base Usage 22831)	3-C/1 Equip	SM C&I	\$1,779	\$2,945	\$333.6	\$2,223.9	\$1,111.9	\$0.0	\$0.0	\$0.0	\$0.0	\$11,119.4	\$0
76 HP Water Heater (Base Usage 22831)	3-C/1 Equip	SM C&I	\$500	\$2,575	\$75.0	\$1,875.0	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
77 HPT8 4ft 4 lamp, T12 to HPT8	3-C/1 Equip	SM C&I	\$27,353	\$4,942	\$2,442.3	\$0.0	\$19,538.2	\$0.0	\$0.0	\$0.0	\$0.0	\$228,596.8	\$0
78 LED Exit Signs Electronic Fixtures (Retrofit Only)	3-C/1 Equip	SM C&I	\$22,619	\$7,520	\$2,019.5	\$0.0	\$16,156.3	\$0.0	\$0.0	\$0.0	\$0.0	\$121,172.1	\$0
79 Occupancy Sensors under 500 W	3-C/1 Equip	SM C&I	\$3,960	\$2,854	\$353.5	\$0.0	\$2,828.3	\$0.0	\$0.0	\$0.0	\$0.0	\$49,495.6	\$0
80 Plug Load Occupancy Sensors Document Station:	3-C/1 Equip	SM C&I	\$990	\$2,588	\$88.4	\$0.0	\$707.1	\$0.0	\$0.0	\$0.0	\$0.0	\$12,373.9	\$0
81 Smart Strip plug outlet	3-C/1 Equip	SM C&I	\$2,617	\$2,500	\$0.0	\$0.0	\$0.0	\$807.9	\$0.0	\$0.0	\$0.0	\$16,157.3	\$0
82 Pre Rinse Sprayers	3-C/1 Equip	SM C&I	\$81	\$2,500	\$0.0	\$0.0	\$0.0	\$25.0	\$0.0	\$0.0	\$0.0	\$1,750.0	\$0
83 Refrigerant charging correctior	3-C/1 Equip	SM C&I	\$5,536	\$4,038	\$1,537.7	\$0.0	\$7,688.7	\$0.0	\$0.0	\$0.0	\$0.0	\$38,443.6	\$0
84 Refrigeration Commissioning	3-C/1 Equip	SM C&I	\$180	\$2,550	\$50.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
85 Strip curtains for walk-ins - freezer	3-C/1 Equip	SM C&I	\$180	\$2,550	\$50.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,500.0	\$0
86 Vending Equipment Controlle	3-C/1 Equip	SM C&I	\$195	\$2,550	\$50.0	\$250.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
87 Window Film	3-C/1 Equip	SM C&I	\$140	\$2,513	\$12.5	\$0.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
88 Setback/Setup	3-C/1 Equip	SM C&I	\$345	\$2,600	\$100.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,250.0	\$0
89 Demand-controlled ventilation (DCV)	4-C/1 Equip	LG C&I	\$57	\$2,525	\$9.0	\$0.0	\$15.0	\$0.0	\$0.0	\$0.0	\$0.0	\$500.0	\$0
90 Exterior HID replacement above 175W to 250W HID retrofit	4-C/1 Equip	LG C&I	\$711	\$2,563	\$63.5	\$0.0	\$507.9	\$0.0	\$0.0	\$0.0	\$0.0	\$25,397.3	\$0
91 HPT8 4ft 4 lamp, T12 to HPT8	4-C/1 Equip	LG C&I	\$14,533	\$3,798	\$1,297.6	\$0.0	\$10,380.5	\$0.0	\$0.0	\$0.0	\$0.0	\$121,451.5	\$0
92 Occupancy Sensors under 500 W	4-C/1 Equip	LG C&I	\$2,104	\$2,688	\$187.8	\$0.0	\$1,502.7	\$0.0	\$0.0	\$0.0	\$0.0	\$18,783.3	\$0
93 Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	4-C/1 Equip	LG C&I	\$1,000	\$3,000	\$500.0	\$3,000.0	\$300.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
94 Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	4-C/1 Equip	LG C&I	\$250	\$2,625	\$125.0	\$750.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
95 Window Film	4-C/1 Equip	LG C&I	\$56	\$2,505	\$5.0	\$0.0	\$40.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
96 Motors 1 HP 1200	5-IND MOTOR	LG C&I	\$30	\$2,515	\$15.0	\$187.5	\$150.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$0
97 Motors 5 HP 1200	5-IND MOTOR	LG C&I	\$20	\$2,510	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,700.0	\$0
98 Motors 10 HP 1200	5-IND MOTOR	LG C&I	\$10	\$2,505	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,750.0	\$0
99 Motors 20 HP 1200	5-IND MOTOR	LG C&I	\$4	\$2,502	\$2.0	\$25.0	\$20.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,130.0	\$0
100 Motors 1 HP 3600	5-IND MOTOR	LG C&I	\$30	\$2,515	\$15.0	\$187.5	\$150.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$0
101 Motors 5 HP 3600	5-IND MOTOR	LG C&I	\$20	\$2,510	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,700.0	\$0
102 Motors 10 HP 3600	5-IND MOTOR	LG C&I	\$10	\$2,505	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,750.0	\$0
103 Motors 20 HP 3600	5-IND MOTOR	LG C&I	\$4	\$2,502	\$2.0	\$25.0	\$20.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,130.0	\$0
104 Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$2	\$2,501	\$1.0	\$12.5	\$10.0	\$0.0	\$0.0	\$0.0	\$0.0	\$150.0	\$0
105 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$2	\$2,501	\$1.0	\$12.5	\$10.0	\$0.0	\$0.0	\$0.0	\$0.0	\$150.0	\$0

Appendix D-1

Measure Name	Program	Rate Class	Utility			Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M	
			Labor/Cost	Marketing	M&V									
107	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$2	\$2,501	\$1.0	\$12.5	\$10.0	\$0.0	\$0.0	\$0.0	\$150.0	\$0	
108	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$14	\$2,501	\$5.0	\$50.0	\$10.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0	
109	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$14	\$2,501	\$5.0	\$50.0	\$10.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0	
110	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$14	\$2,501	\$5.0	\$50.0	\$10.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0	
111	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$15	\$2,501	\$6.3	\$100.0	\$10.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$0	
112	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$15	\$2,501	\$6.3	\$100.0	\$10.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$0	
113	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$15	\$2,501	\$6.3	\$100.0	\$10.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$0	
114														
115														
116	Demand		\$3,106,248	\$7,082	\$15,750	\$4,166	\$0	\$0	\$0	\$187,470	\$761,850	\$0	\$211,150	\$1,918,780
117	1-Res Audits		\$384,424	\$26,529	\$17,607	\$7,469	\$0	\$0	\$0	\$29,888	\$0	\$92,251	\$210,680	\$0
118	2-RES App Turn-In		\$469,338	\$7,187	\$15,126	\$7,189	\$0	\$0	\$0	\$316,695	\$0	\$0	\$123,142	\$0
119	3-RES EE HVAC		\$391,230	\$14,030	\$10,668	\$5,180	\$33,225	\$10,040	\$0	\$0	\$0	\$0	\$318,087	\$0
120	4-Res-EE P		\$581,421	\$42,403	\$32,673	\$10,420	\$7,171	\$20,450	\$21,102	\$9,671	\$0	\$33,655	\$403,876	\$0
121	5-RES New Con		\$350,417	\$25,000	\$18,833	\$6,667	\$0	\$0	\$0	\$33,333	\$266,583	\$0	\$0	\$0
122	6-Res Whole		\$221,556	\$9,164	\$20,692	\$1,400	\$0	\$0	\$0	\$0	\$120,000	\$0	\$70,300	\$0
123	8-Multiple Family		\$35,997	\$2,255	\$11,467	\$275	\$0	\$1,100	\$0	\$733	\$0	\$2,933	\$17,233	\$0
124	7-Low Income		\$55,254	\$5,455	\$10,000	\$447	\$0	\$0	\$0	\$3,577	\$0	\$14,310	\$21,464	\$0
125	1-C/I Audits		\$56,379	\$4,486	\$22,250	\$80	\$0	\$0	\$0	\$3,188	\$20,000	\$0	\$6,375	\$0
126	2-Governmental Programs		\$343,678	\$25,432	\$49,500	\$552	\$0	\$4,413	\$0	\$0	\$0	\$0	\$114,345	\$149,436
127	3-C/I Equip		\$875,126	\$75,531	\$84,928	\$8,507	\$13,749	\$53,267	\$833	\$0	\$0	\$0	\$638,312	\$0
128	4-C/I Equip		\$310,805	\$18,711	\$19,704	\$2,188	\$3,750	\$12,821	\$0	\$0	\$0	\$0	\$253,632	\$0
129	5-IND MOTOR		<u>\$66,272</u>	<u>\$220</u>	<u>\$42,573</u>	<u>\$101</u>	<u>\$1,288</u>	<u>\$730</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$21,360</u>	<u>\$0</u>
130			\$7,248,146	\$263,487	\$371,771	\$54,639	\$59,182	\$102,820	\$21,935	\$584,555	\$1,168,433	\$143,149	\$2,409,958	\$2,068,216
131														
132														
133														
134	Recovery Allocation		Total	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M
135	Residential	Res	\$5,574,165	\$137,970	\$146,349	\$43,029	\$40,396	\$30,489	\$21,102	\$581,367	\$1,148,433	\$143,149	\$1,363,100	\$1,918,780
136	Small Commercial & Industrial	SM C&I	\$1,221,902	\$101,849	\$119,395	\$9,003	\$13,749	\$56,867	\$833	\$3,188	\$0	\$0	\$767,583	\$149,436
137	Large Commercial & Industrial	LG C&I	\$452,079	\$23,668	\$106,027	\$2,608	\$5,038	\$15,464	\$0	\$0	\$20,000	\$0	\$279,275	\$0
			\$7,248,146	\$263,487	\$371,771	\$54,639	\$59,182	\$102,820	\$21,935	\$584,555	\$1,168,433	\$143,149	\$2,409,958	\$2,068,216

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix D-2**

Measure budgeted for 12 months starting June 1, 2010, ending May 31 2011

Appendix D-2

Measure Name	Program	Rate Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M	
1	DLC-CAC	Demand	Res	\$25,855	\$0	\$15,209.0	\$0.0	\$0.0	\$0.0	\$684,405.0	\$2,737,620.0	\$0.0	\$760,450.0	\$6,932,017
2	DLC-Pool Pumps	Demand	Res	\$1,190	\$0	\$700.0	\$0.0	\$0.0	\$0.0	\$31,500.0	\$199,500.0	\$0.0	\$52,500.0	\$441,760
3	DLC-Pool Pumps	Demand	Res	\$383	\$0	\$225.0	\$0.0	\$0.0	\$0.0	\$10,125.0	\$64,125.0	\$0.0	\$16,875.0	\$141,994
4	1-Res Home Audits - CFL 4 - Low Flow 2 Water Heat	1-Res Audits	Res	\$46,256	\$13,111	\$25,697.8	\$0.0	\$0.0	\$0.0	\$51,395.6	\$0.0	\$205,582.5	\$668,143.1	\$0
5	1-Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	\$1,275	\$763	\$875.0	\$0.0	\$0.0	\$0.0	\$19,375.0	\$0.0	\$1,000.0	\$3,250.0	\$0
6	Schools Children Education-No Saving	1-Res Audits	Res	\$5,400	\$50	\$1,500.0	\$0.0	\$0.0	\$0.0	\$9,000.0	\$0.0	\$12,000.0	\$18,000.0	\$0
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	\$33,037	\$22,891	\$33,942.6	\$0.0	\$0.0	\$0.0	\$1,493,472.7	\$0.0	\$0.0	\$565,709.4	\$0
8	Room Air Conditioners	2-RES App Turn-In	Res	\$2,900	\$763	\$2,000.0	\$0.0	\$0.0	\$0.0	\$90,000.0	\$0.0	\$0.0	\$50,000.0	\$0
9	ASHP - SEER 15	3-RES EE HVAC	Res	\$5,482	\$630	\$1,661.3	\$27,687.6	\$2,768.8	\$0.0	\$0.0	\$0.0	\$0.0	\$179,969.4	\$0
10	CAC - SEER 16	3-RES EE HVAC	Res	\$40,978	\$16,689	\$11,075.0	\$138,438.0	\$27,687.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1,245,941.7	\$0
11	CAC - Maintenance	3-RES EE HVAC	Res	\$23,692	\$13,239	\$13,162.1	\$0.0	\$19,743.1	\$0.0	\$0.0	\$0.0	\$0.0	\$164,525.7	\$0
12	EE Ground Source Heat Pump	4-Res-EE P	Res	\$1,215	\$227	\$150.0	\$0.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$9,765.0	\$0
13	Solar Water Heating	4-Res-EE P	Res	\$143	\$181	\$30.0	\$0.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
14	HP Water Heater	4-Res-EE P	Res	\$475	\$531	\$100.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
15	EE Water Heater	4-Res-EE P	Res	\$64,430	\$67,852	\$13,564.2	\$0.0	\$33,910.4	\$0.0	\$0.0	\$0.0	\$0.0	\$339,104.2	\$0
16	Programmable Thermostat_Heat	4-Res-EE P	Res	\$8,171	\$31	\$6,285.1	\$0.0	\$0.0	\$0.0	\$18,855.3	\$0.0	\$50,280.8	\$390,936.8	\$0
17	Programmable Thermostat_CAC	4-Res-EE P	Res	\$27,689	\$7,723	\$7,691.3	\$15,382.6	\$23,074.0	\$0.0	\$0.0	\$0.0	\$0.0	\$192,283.0	\$0
18	CFL bulbs regular-15 -Free No Water Heat	1-Res Audits	Res	\$71,614	\$14,073	\$7,021.0	\$0.0	\$0.0	\$0.0	\$56,168.2	\$0.0	\$224,672.7	\$337,009.0	\$0
19	Request	4-Res-EE P	Res	\$37,611	\$7,406	\$3,687.4	\$0.0	\$0.0	\$0.0	\$29,499.0	\$0.0	\$117,996.1	\$176,994.1	\$0
20	CFL bulbs regular - Outside - 15 - Store Rebates	4-Res-EE P	Res	\$1,031	\$31	\$0.0	\$0.0	\$0.0	\$17,182.0	\$0.0	\$0.0	\$0.0	\$34,364.0	\$0
21	CFL bulbs regular - 19 - Store Rebates	4-Res-EE P	Res	\$4,688	\$31	\$0.0	\$0.0	\$0.0	\$78,125.0	\$0.0	\$0.0	\$0.0	\$156,250.0	\$0
	Clothes Washer Energy Star, Electric Water heater,													
22	Electric Dryer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
23	Dehumidifiers	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
25	Holiday Lights	4-Res-EE P	Res	\$2,644	\$1,290	\$1,258.9	\$3,147.4	\$5,035.8	\$0.0	\$0.0	\$0.0	\$0.0	\$50,357.9	\$0
26	LED Night Light	4-Res-EE P	Res	\$45	\$31	\$0.0	\$0.0	\$0.0	\$750.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
27	Pump and Motor Single Speec	4-Res-EE P	Res	\$2,344	\$1,496	\$1,464.9	\$7,324.4	\$2,929.8	\$0.0	\$0.0	\$0.0	\$0.0	\$29,297.6	\$0
28	Refrigerators-Freezers Energy Star - Side by Side	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
29	Refrigerators-Freezers Energy Star - Top Freezer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
30	Room Air Conditioners	4-Res-EE P	Res	\$29,714	\$31	\$12,919.0	\$0.0	\$25,838.1	\$0.0	\$0.0	\$0.0	\$0.0	\$322,976.1	\$0
31	Smart Strip plug outlet	4-Res-EE P	Res	\$18,096	\$8,110	\$0.0	\$0.0	\$0.0	\$8,078.7	\$0.0	\$0.0	\$0.0	\$161,573.2	\$0
32	Torchiere Floor Lamps	4-Res-EE P	Res	\$560	\$281	\$0.0	\$0.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
33	Residential New Construction - 15%	5-RES New Con	Res	\$68,750	\$23,179	\$18,333.3	\$0.0	\$0.0	\$0.0	\$91,666.7	\$516,541.7	\$0.0	\$0.0	\$0
34	Residential New Construction - 30%	5-RES New Con	Res	\$68,750	\$23,179	\$18,333.3	\$0.0	\$0.0	\$0.0	\$91,666.7	\$949,666.7	\$0.0	\$0.0	\$0
35	Ceiling Fans	6-Res Whole	Res	\$323	\$59	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,625.0	\$0
36	Estar Windows	6-Res Whole	Res	\$1,688	\$59	\$300.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
37	Duct sealing 20 leakage base	6-Res Whole	Res	\$3,063	\$59	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
38	Low Flow Showerheads	6-Res Whole	Res	\$810	\$59	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$11,500.0	\$0
39	Kitchen Aerator	6-Res Whole	Res	\$405	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,500.0	\$0
40	Bathroom Aerator	6-Res Whole	Res	\$405	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,500.0	\$0
41	Pipe Wrap	6-Res Whole	Res	\$1,200	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
42	Roof Insulation	6-Res Whole	Res	\$2,813	\$59	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
43	Whole Building	6-Res Whole	Res	\$750	\$12,559	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$150,000.0	\$0.0	\$0.0	\$0
44	Low Income Lighting-Warn	7-Low Income	Res	\$4,331	\$250	\$355.0	\$0.0	\$0.0	\$0.0	\$2,840.0	\$0.0	\$11,360.0	\$17,040.0	\$0
45	Low Income Lighting-Low Usage	7-Low Income	Res	\$6,537	\$250	\$535.9	\$0.0	\$0.0	\$0.0	\$4,286.9	\$0.0	\$17,147.5	\$23,721.3	\$0
46	Multiple Family - CFL Lighting	8-Multiple Family	Res	\$5,592	\$250	\$458.3	\$0.0	\$0.0	\$0.0	\$3,666.7	\$0.0	\$14,666.8	\$22,000.2	\$0
47	Multiple Family - T8-Lighting	8-Multiple Family	SM C&I	\$5,683	\$7,583	\$916.7	\$0.0	\$5,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$64,167.1	\$0
48	Commercial, Industrial Audit - Sm&Mc	1-C/I Audits	SM C&I	\$12,375	\$7,750	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
49	Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	\$4,200	\$4,000	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
50	Commercial CFL Program	1-C/I Audits	SM C&I	\$956	\$250	\$0.0	\$0.0	\$0.0	\$0.0	\$15,938.7	\$0.0	\$0.0	\$31,877.3	\$0
51	Commercial, Industrial Audit - Gov	1-C/I Audits	LG C&I	\$980	\$250	\$80.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0.0	\$0.0	\$0
	Exterior HID replacement above 175W to 250W HID													
52	retrofit	2-Governmental Programs	LG C&I	\$618	\$275	\$50.7	\$0.0	\$405.3	\$0.0	\$0.0	\$0.0	\$0.0	\$1,013.3	\$0
53	HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Programs	LG C&I	\$12,632	\$275	\$1,035.4	\$0.0	\$8,283.4	\$0.0	\$0.0	\$0.0	\$0.0	\$20,708.6	\$0
54	LED Exit Signs Electronic Fixtures (Retrofit Only)	2-Governmental Programs	LG C&I	\$1,398	\$275	\$114.6	\$0.0	\$916.7	\$0.0	\$0.0	\$0.0	\$0.0	\$916.7	\$0
55	Occupancy Sensors under 500 W	2-Governmental Programs	LG C&I	\$1,398	\$275	\$114.6	\$0.0	\$916.7	\$0.0	\$0.0	\$0.0	\$0.0	\$916.7	\$0
56	LED Auto Traffic Signals	2-Governmental Programs	SM C&I	\$16,775	\$275	\$1,375.0	\$0.0	\$11,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$247,500.0	\$0
57	LED Pedestrian Signals	2-Governmental Programs	SM C&I	\$4,194	\$275	\$343.8	\$0.0	\$2,750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$34,375.0	\$0
58	Street Lighting - 175 Mercury to 100 HPS	2-Governmental Programs	SM C&I	\$93,512	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$294,062.5	\$747,181

Appendix D-2

Measure Name	Program	Rate Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	2-Governmental Programs	LG C&I	\$1,800	\$275	\$200.0	\$0.0	\$120.0	\$0.0	\$0.0	\$0.0	\$0.0	\$400.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	2-Governmental Programs	LG C&I	\$1,800	\$275	\$200.0	\$0.0	\$120.0	\$0.0	\$0.0	\$0.0	\$0.0	\$400.0	\$0
AC <65,000 1 Ph	3-C/I Equip	SM C&I	\$3,500	\$1,625	\$750.0	\$5,000.0	\$2,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$75,000.0	\$0
AC 65,000 - 135,000	3-C/I Equip	SM C&I	\$3,100	\$1,125	\$500.0	\$5,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
AC 240,000 - 760,000	3-C/I Equip	SM C&I	\$3,100	\$1,125	\$500.0	\$5,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$70,000.0	\$0
Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	3-C/I Equip	SM C&I	\$1,400	\$725	\$300.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
Demand-controlled ventilation (DCV)	3-C/I Equip	SM C&I	\$7,125	\$3,250	\$1,125.0	\$0.0	\$1,875.0	\$0.0	\$0.0	\$0.0	\$0.0	\$62,500.0	\$0
Efficient Refrigeration Condenser	3-C/I Equip	SM C&I	\$260	\$325	\$200.0	\$0.0	\$400.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
ENERGY STAR Commercial Solid Door Freezers less than 20ft3	3-C/I Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	3-C/I Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	3-C/I Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Refrigerators 20 to 48 ft3	3-C/I Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Ice Machines less than 500 lbs	3-C/I Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
ENERGY STAR Ice Machines 500 to 1000 lbs	3-C/I Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$37,500.0	\$0
ENERGY STAR Ice Machines more than 1000 lbs	3-C/I Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
ENERGY STAR Steam Cookers 3 Pan	3-C/I Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$100,000.0	\$0
Exterior HID replacement above 175W to 250W HID retrofit	3-C/I Equip	SM C&I	\$6,692	\$723	\$597.5	\$0.0	\$4,780.3	\$0.0	\$0.0	\$0.0	\$0.0	\$239,014.6	\$0
EE Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	\$8,896	\$2,349	\$1,667.9	\$11,119.4	\$5,559.7	\$0.0	\$0.0	\$0.0	\$0.0	\$55,597.1	\$0
HP Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	\$2,500	\$500	\$375.0	\$9,375.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
HPT8 4ft 4 lamp, T12 to HPT8	3-C/I Equip	SM C&I	\$136,767	\$12,336	\$12,211.4	\$0.0	\$97,690.9	\$0.0	\$0.0	\$0.0	\$0.0	\$1,142,984.0	\$0
LED Exit Signs Electronic Fixtures (Retrofit Only)	3-C/I Equip	SM C&I	\$113,094	\$10,373	\$10,097.7	\$0.0	\$80,781.4	\$0.0	\$0.0	\$0.0	\$0.0	\$608,860.5	\$0
Occupancy Sensors under 500 W	3-C/I Equip	SM C&I	\$19,798	\$1,893	\$1,767.7	\$0.0	\$14,141.6	\$0.0	\$0.0	\$0.0	\$0.0	\$247,477.8	\$0
Plug Load Occupancy Sensors Document Station:	3-C/I Equip	SM C&I	\$2,970	\$390	\$265.2	\$0.0	\$2,121.2	\$0.0	\$0.0	\$0.0	\$0.0	\$37,121.7	\$0
Smart Strip plug outlet	3-C/I Equip	SM C&I	\$13,087	\$125	\$0.0	\$0.0	\$0.0	\$4,039.3	\$0.0	\$0.0	\$0.0	\$80,786.6	\$0
Pre Rinse Sprayers	3-C/I Equip	SM C&I	\$405	\$125	\$0.0	\$0.0	\$0.0	\$125.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Refrigerant charging corrector	3-C/I Equip	SM C&I	\$22,144	\$6,276	\$6,151.0	\$0.0	\$30,754.9	\$0.0	\$0.0	\$0.0	\$0.0	\$153,774.5	\$0
Refrigeration Commissioning	3-C/I Equip	SM C&I	\$900	\$375	\$250.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Strip curtains for walk-ins - freezer	3-C/I Equip	SM C&I	\$900	\$375	\$250.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
Vending Equipment Controlle	3-C/I Equip	SM C&I	\$975	\$375	\$250.0	\$1,250.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Window Film	3-C/I Equip	SM C&I	\$700	\$188	\$62.5	\$0.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Setback/Setup	3-C/I Equip	SM C&I	\$1,725	\$625	\$500.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Demand-controlled ventilation (DCV)	4-C/I Equip	LG C&I	\$228	\$225	\$36.0	\$0.0	\$60.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
Exterior HID replacement above 175W to 250W HID retrofit	4-C/I Equip	LG C&I	\$7,266	\$774	\$648.8	\$0.0	\$5,190.2	\$0.0	\$0.0	\$0.0	\$0.0	\$259,511.7	\$0
HPT8 4ft 4 lamp, T12 to HPT8	4-C/I Equip	LG C&I	\$72,663	\$6,613	\$6,487.8	\$0.0	\$51,902.3	\$0.0	\$0.0	\$0.0	\$0.0	\$607,257.4	\$0
Occupancy Sensors under 500 W	4-C/I Equip	LG C&I	\$10,519	\$1,064	\$939.2	\$0.0	\$7,513.3	\$0.0	\$0.0	\$0.0	\$0.0	\$93,916.3	\$0
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	4-C/I Equip	LG C&I	\$5,000	\$2,625	\$2,500.0	\$15,000.0	\$1,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$250,000.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	4-C/I Equip	LG C&I	\$1,250	\$750	\$625.0	\$3,750.0	\$375.0	\$0.0	\$0.0	\$0.0	\$0.0	\$62,500.0	\$0
Window Film	4-C/I Equip	LG C&I	\$280	\$150	\$25.0	\$0.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$125,000.0	\$0
Motors 1 HP 1200	5-IND MOTOR	LG C&I	\$150	\$200	\$75.0	\$937.5	\$750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
Motors 5 HP 1200	5-IND MOTOR	LG C&I	\$100	\$175	\$50.0	\$625.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,500.0	\$0
Motors 10 HP 1200	5-IND MOTOR	LG C&I	\$50	\$150	\$25.0	\$312.5	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Motors 20 HP 1200	5-IND MOTOR	LG C&I	\$20	\$135	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,650.0	\$0
Motors 1 HP 3600	5-IND MOTOR	LG C&I	\$150	\$200	\$75.0	\$937.5	\$750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
Motors 5 HP 3600	5-IND MOTOR	LG C&I	\$100	\$175	\$50.0	\$625.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,500.0	\$0
Motors 10 HP 3600	5-IND MOTOR	LG C&I	\$50	\$150	\$25.0	\$312.5	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Motors 20 HP 3600	5-IND MOTOR	LG C&I	\$20	\$135	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,650.0	\$0
Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0

Appendix D-2

Measure Name	Program	Rate Class	Utility			Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M	
			Labor/Cost	Marketing	M&V									
109	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0	
110	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0	
111	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$76	\$130	\$31.3	\$500.0	\$50.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0	
112	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$76	\$130	\$31.3	\$500.0	\$50.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0	
113	Air Compressors with VFD's	5-IND MOTOR	LG C&I	76.25	130	31.25	500	50	0	0	0	7500	0	
114														
115														
116	Demand		\$12,116,433	\$27,428	\$0	\$16,134	\$0	\$0	\$0	\$726,030	\$3,001,245	\$0	\$829,825	\$7,515,771
117	1-Res Audits		\$1,793,233	\$124,545	\$27,997	\$35,094	\$0	\$0	\$0	\$135,939	\$0	\$443,255	\$1,026,402	\$0
118	2-RES App Turn-In		\$2,294,715	\$35,937	\$23,653	\$35,943	\$0	\$0	\$0	\$1,583,473	\$0	\$0	\$615,709	\$0
119	3-RES EE HVAC		\$1,933,370	\$70,151	\$30,558	\$25,898	\$166,126	\$50,199	\$0	\$0	\$0	\$0	\$1,590,437	\$0
120	4-Res-EE P		\$2,754,380	\$206,354	\$97,414	\$49,151	\$35,854	\$96,188	\$104,386	\$48,354	\$0	\$168,277	\$1,948,402	\$0
121	5-RES New Con		\$1,870,067	\$137,500	\$46,358	\$36,667	\$0	\$0	\$0	\$183,333	\$1,466,208	\$0	\$0	\$0
122	6-Res Whole		\$264,115	\$11,455	\$13,035	\$1,750	\$0	\$0	\$0	\$0	\$150,000	\$0	\$87,875	\$0
123	8-Multiple Family		\$130,484	\$11,275	\$7,833	\$1,375	\$0	\$5,500	\$0	\$3,667	\$0	\$14,667	\$86,167	\$0
124	7-Low Income		\$90,655	\$10,868	\$500	\$891	\$0	\$0	\$0	\$7,127	\$0	\$28,508	\$42,761	\$0
125	1-C/I Audits		\$98,657	\$18,511	\$12,250	\$80	\$0	\$0	\$0	\$15,939	\$20,000	\$0	\$31,877	\$0
126	2-Governmental Programs		\$1,512,021	\$134,127	\$2,475	\$3,434	\$0	\$24,512	\$0	\$0	\$0	\$0	\$600,293	\$747,181
127	3-C/I Equip		\$3,918,666	\$370,138	\$49,202	\$40,821	\$68,744	\$257,230	\$4,164	\$0	\$0	\$0	\$3,128,367	\$0
128	4-C/I Equip		\$1,606,345	\$97,206	\$12,201	\$11,262	\$18,750	\$66,741	\$0	\$0	\$0	\$0	\$1,400,185	\$0
129	5-IND MOTOR		<u>\$120,983</u>	<u>\$1,101</u>	<u>\$2,490</u>	<u>\$504</u>	<u>\$6,438</u>	<u>\$3,650</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$106,800</u>	<u>\$0</u>
130			\$30,504,124	\$1,256,598	\$325,967	\$259,002	\$295,912	\$504,021	\$108,550	\$2,703,861	\$4,637,453	\$654,706	\$11,495,101	\$8,262,952
131														
132														
133														
134	Recovery Allocation		Total	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
135	Residential	Res	\$23,163,601	\$629,831	\$239,766	\$201,985	\$201,980	\$146,387	\$104,386	\$2,687,923	\$4,617,453	\$654,706	\$6,163,412	\$7,515,771
136	Small Commercial & Industrial	SM C&I	\$5,525,557	\$503,633	\$65,610	\$43,456	\$68,744	\$276,480	\$4,164	\$15,939	\$0	\$0	\$3,800,349	\$747,181
137	Large Commercial & Industrial	LG C&I	\$1,814,966	\$123,134	\$20,591	\$13,561	\$25,188	\$81,153	\$0	\$0	\$20,000	\$0	\$1,531,341	\$0
			\$30,504,124	\$1,256,598	\$325,967	\$259,002	\$295,912	\$504,021	\$108,550	\$2,703,861	\$4,637,453	\$654,706	\$11,495,101	\$8,262,952

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix D-3**

Measure budgeted for 12 months starting June 1, 2011, ending May 31 2012

Appendix D-3

Measure Name	Program	Rate Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M	
1	DLC-CAC	Demand	Res	\$24,864	\$0	\$14,626.0	\$0.0	\$0.0	\$0.0	\$658,170.0	\$2,632,680.0	\$0.0	\$731,300.0	\$6,666,295
2	DLC-Pool Pumps	Demand	Res	\$918	\$0	\$540.0	\$0.0	\$0.0	\$0.0	\$24,300.0	\$153,900.0	\$0.0	\$40,500.0	\$340,786
3	DLC-Pool Pumps	Demand	Res	\$636	\$0	\$374.0	\$0.0	\$0.0	\$0.0	\$16,830.0	\$106,590.0	\$0.0	\$28,050.0	\$236,026
4	1-Res Home Audits - CFL 4 - Low Flow 2 Water Heat	1-Res Audits	Res	\$46,256	\$13,111	\$25,697.8	\$0.0	\$0.0	\$0.0	\$51,395.6	\$0.0	\$205,582.5	\$668,143.1	\$0
5	1-Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	\$1,275	\$763	\$875.0	\$0.0	\$0.0	\$0.0	\$19,375.0	\$0.0	\$1,000.0	\$3,250.0	\$0
6	Schools Children Education-No Saving	1-Res Audits	Res	\$5,400	\$50	\$1,500.0	\$0.0	\$0.0	\$0.0	\$9,000.0	\$0.0	\$12,000.0	\$18,000.0	\$0
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	\$33,037	\$22,891	\$33,942.6	\$0.0	\$0.0	\$0.0	\$1,493,472.7	\$0.0	\$0.0	\$565,709.4	\$0
8	Room Air Conditioners	2-RES App Turn-In	Res	\$2,900	\$763	\$2,000.0	\$0.0	\$0.0	\$0.0	\$90,000.0	\$0.0	\$0.0	\$50,000.0	\$0
9	ASHP - SEER 15	3-RES EE HVAC	Res	\$5,482	\$630	\$1,661.3	\$27,687.6	\$2,768.8	\$0.0	\$0.0	\$0.0	\$0.0	\$179,969.4	\$0
10	CAC - SEER 16	3-RES EE HVAC	Res	\$40,978	\$16,689	\$11,075.0	\$138,438.0	\$27,687.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1,245,941.7	\$0
11	CAC - Maintenance	3-RES EE HVAC	Res	\$23,692	\$13,239	\$13,162.1	\$0.0	\$19,743.1	\$0.0	\$0.0	\$0.0	\$0.0	\$164,525.7	\$0
12	EE Ground Source Heat Pump	4-Res-EE P	Res	\$1,215	\$227	\$150.0	\$0.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$9,765.0	\$0
13	Solar Water Heating	4-Res-EE P	Res	\$143	\$181	\$30.0	\$0.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
14	HP Water Heater	4-Res-EE P	Res	\$475	\$531	\$100.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
15	EE Water Heater	4-Res-EE P	Res	\$64,430	\$67,852	\$13,564.2	\$0.0	\$33,910.4	\$0.0	\$0.0	\$0.0	\$0.0	\$339,104.2	\$0
16	Programmable Thermostat_Heat	4-Res-EE P	Res	\$8,171	\$31	\$6,285.1	\$0.0	\$0.0	\$0.0	\$18,855.3	\$0.0	\$50,280.8	\$390,936.8	\$0
17	Programmable Thermostat_CAC	4-Res-EE P	Res	\$27,689	\$7,723	\$7,691.3	\$15,382.6	\$23,074.0	\$0.0	\$0.0	\$0.0	\$0.0	\$192,283.0	\$0
18	CFL bulbs regular-15 -Free No Water Heat	1-Res Audits	Res	\$71,614	\$14,073	\$7,021.0	\$0.0	\$0.0	\$0.0	\$56,168.2	\$0.0	\$224,672.7	\$337,009.0	\$0
19	Request	4-Res-EE P	Res	\$37,611	\$7,406	\$3,687.4	\$0.0	\$0.0	\$0.0	\$29,499.0	\$0.0	\$117,996.1	\$176,994.1	\$0
20	CFL bulbs regular - Outside - 15 - Store Rebates	4-Res-EE P	Res	\$1,031	\$31	\$0.0	\$0.0	\$0.0	\$17,182.0	\$0.0	\$0.0	\$0.0	\$34,364.0	\$0
21	CFL bulbs regular - 19 - Store Rebates	4-Res-EE P	Res	\$4,688	\$31	\$0.0	\$0.0	\$0.0	\$78,125.0	\$0.0	\$0.0	\$0.0	\$156,250.0	\$0
	Clothes Washer Energy Star, Electric Water heater,													
22	Electric Dryer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
23	Dehumidifiers	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
25	Holiday Lights	4-Res-EE P	Res	\$2,644	\$1,290	\$1,258.9	\$3,147.4	\$5,035.8	\$0.0	\$0.0	\$0.0	\$0.0	\$50,357.9	\$0
26	LED Night Light	4-Res-EE P	Res	\$45	\$31	\$0.0	\$0.0	\$0.0	\$750.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
27	Pump and Motor Single Speec	4-Res-EE P	Res	\$2,344	\$1,496	\$1,464.9	\$7,324.4	\$2,929.8	\$0.0	\$0.0	\$0.0	\$0.0	\$29,297.6	\$0
28	Refrigerators-Freezers Energy Star - Side by Side	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
29	Refrigerators-Freezers Energy Star - Top Freezer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
30	Room Air Conditioners	4-Res-EE P	Res	\$29,714	\$31	\$12,919.0	\$0.0	\$25,838.1	\$0.0	\$0.0	\$0.0	\$0.0	\$322,976.1	\$0
31	Smart Strip plug outlet	4-Res-EE P	Res	\$18,096	\$8,110	\$0.0	\$0.0	\$0.0	\$8,078.7	\$0.0	\$0.0	\$0.0	\$161,573.2	\$0
32	Torchiere Floor Lamps	4-Res-EE P	Res	\$560	\$281	\$0.0	\$0.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
33	Residential New Construction - 15%	5-RES New Con	Res	\$68,750	\$23,179	\$18,333.3	\$0.0	\$0.0	\$0.0	\$91,666.7	\$516,541.7	\$0.0	\$0.0	\$0
34	Residential New Construction - 30%	5-RES New Con	Res	\$68,750	\$23,179	\$18,333.3	\$0.0	\$0.0	\$0.0	\$91,666.7	\$949,666.7	\$0.0	\$0.0	\$0
35	Ceiling Fans	6-Res Whole	Res	\$323	\$59	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,625.0	\$0
36	Estar Windows	6-Res Whole	Res	\$1,688	\$59	\$300.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
37	Duct sealing 20 leakage basc	6-Res Whole	Res	\$3,063	\$59	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
38	Low Flow Showerheads	6-Res Whole	Res	\$810	\$59	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$11,500.0	\$0
39	Kitchen Aerator	6-Res Whole	Res	\$405	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,500.0	\$0
40	Bathroom Aerator	6-Res Whole	Res	\$405	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,500.0	\$0
41	Pipe Wrap	6-Res Whole	Res	\$1,200	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
42	Roof Insulation	6-Res Whole	Res	\$2,813	\$59	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
43	Whole Building	6-Res Whole	Res	\$750	\$12,559	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$150,000.0	\$0.0	\$0.0	\$0
44	Low Income Lighting-Warn	7-Low Income	Res	\$4,484	\$250	\$367.5	\$0.0	\$0.0	\$0.0	\$2,940.0	\$0.0	\$11,760.0	\$17,640.0	\$0
45	Low Income Lighting-Low Usage	7-Low Income	Res	\$6,537	\$250	\$535.9	\$0.0	\$0.0	\$0.0	\$4,286.9	\$0.0	\$17,147.5	\$23,721.3	\$0
46	Multiple Family - CFL Lighting	8-Multiple Family	Res	\$5,592	\$250	\$458.3	\$0.0	\$0.0	\$0.0	\$3,666.7	\$0.0	\$14,666.8	\$22,000.2	\$0
47	Multiple Family - T8-Lighting	8-Multiple Family	SM C&I	\$5,683	\$7,583	\$916.7	\$0.0	\$5,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$64,167.1	\$0
48	Commercial, Industrial Audit - Sm&Mc	1-C/I Audits	SM C&I	\$12,375	\$7,750	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
49	Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	\$4,200	\$4,000	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
50	Commercial CFL Program	1-C/I Audits	SM C&I	\$956	\$250	\$0.0	\$0.0	\$0.0	\$0.0	\$15,938.7	\$0.0	\$0.0	\$31,877.3	\$0
51	Commercial, Industrial Audit - Gov	1-C/I Audits	LG C&I	\$980	\$250	\$80.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0.0	\$0.0	\$0
	Exterior HID replacement above 175W to 250W HID													
52	retrofit	2-Governmental Programs	LG C&I	\$618	\$275	\$50.7	\$0.0	\$405.3	\$0.0	\$0.0	\$0.0	\$0.0	\$1,013.3	\$0
53	HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Programs	LG C&I	\$12,632	\$275	\$1,035.4	\$0.0	\$8,283.4	\$0.0	\$0.0	\$0.0	\$0.0	\$20,708.6	\$0
54	LED Exit Signs Electronic Fixtures (Retrofit Only)	2-Governmental Programs	LG C&I	\$1,398	\$275	\$114.6	\$0.0	\$916.7	\$0.0	\$0.0	\$0.0	\$0.0	\$916.7	\$0
55	Occupancy Sensors under 500 W	2-Governmental Programs	LG C&I	\$1,398	\$275	\$114.6	\$0.0	\$916.7	\$0.0	\$0.0	\$0.0	\$0.0	\$916.7	\$0
56	LED Auto Traffic Signals	2-Governmental Programs	SM C&I	\$16,775	\$275	\$1,375.0	\$0.0	\$11,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$247,500.0	\$0
57	LED Pedestrian Signals	2-Governmental Programs	SM C&I	\$4,194	\$275	\$343.8	\$0.0	\$2,750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$34,375.0	\$0
58	Street Lighting - 175 Mercury to 100 HPS	2-Governmental Programs	SM C&I	\$93,512	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$294,062.5	\$747,181

Appendix D-3

Measure Name	Program	Rate Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	2-Governmental Programs	LG C&I	\$1,575	\$275	\$175.0	\$0.0	\$105.0	\$0.0	\$0.0	\$0.0	\$0.0	\$350.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	2-Governmental Programs	LG C&I	\$1,575	\$275	\$175.0	\$0.0	\$105.0	\$0.0	\$0.0	\$0.0	\$0.0	\$350.0	\$0
AC <65,000 1 Ph	3-C/1 Equip	SM C&I	\$3,500	\$1,625	\$750.0	\$5,000.0	\$2,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$75,000.0	\$0
AC 65,000 - 135,000	3-C/1 Equip	SM C&I	\$3,100	\$1,125	\$500.0	\$5,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
AC 240,000 - 760,000	3-C/1 Equip	SM C&I	\$3,100	\$1,125	\$500.0	\$5,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$70,000.0	\$0
Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	3-C/1 Equip	SM C&I	\$1,400	\$725	\$300.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
Demand-controlled ventilation (DCV)	3-C/1 Equip	SM C&I	\$7,125	\$3,250	\$1,125.0	\$0.0	\$1,875.0	\$0.0	\$0.0	\$0.0	\$0.0	\$62,500.0	\$0
Efficient Refrigeration Condenser	3-C/1 Equip	SM C&I	\$260	\$325	\$200.0	\$0.0	\$400.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
ENERGY STAR Commercial Solid Door Freezers less than 20ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Refrigerators 20 to 48 ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Ice Machines less than 500 lbs	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
ENERGY STAR Ice Machines 500 to 1000 lbs	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$37,500.0	\$0
ENERGY STAR Ice Machines more than 1000 lbs	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
ENERGY STAR Steam Cookers 3 Pan	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$100,000.0	\$0
Exterior HID replacement above 175W to 250W HID retrofit	3-C/1 Equip	SM C&I	\$6,692	\$723	\$597.5	\$0.0	\$4,780.3	\$0.0	\$0.0	\$0.0	\$0.0	\$239,014.6	\$0
EE Water Heater (Base Usage 22831)	3-C/1 Equip	SM C&I	\$8,896	\$2,349	\$1,667.9	\$11,119.4	\$5,559.7	\$0.0	\$0.0	\$0.0	\$0.0	\$55,597.1	\$0
HP Water Heater (Base Usage 22831)	3-C/1 Equip	SM C&I	\$2,500	\$500	\$375.0	\$9,375.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
HPT8 4ft 4 lamp, T12 to HPT8	3-C/1 Equip	SM C&I	\$136,767	\$12,336	\$12,211.4	\$0.0	\$97,690.9	\$0.0	\$0.0	\$0.0	\$0.0	\$1,142,984.0	\$0
LED Exit Signs Electronic Fixtures (Retrofit Only)	3-C/1 Equip	SM C&I	\$113,094	\$10,373	\$10,097.7	\$0.0	\$80,781.4	\$0.0	\$0.0	\$0.0	\$0.0	\$608,860.5	\$0
Occupancy Sensors under 500 W	3-C/1 Equip	SM C&I	\$19,798	\$1,893	\$1,767.7	\$0.0	\$14,141.6	\$0.0	\$0.0	\$0.0	\$0.0	\$247,477.8	\$0
Plug Load Occupancy Sensors Document Station:	3-C/1 Equip	SM C&I	\$2,970	\$390	\$265.2	\$0.0	\$2,121.2	\$0.0	\$0.0	\$0.0	\$0.0	\$37,121.7	\$0
Smart Strip plug outlet	3-C/1 Equip	SM C&I	\$13,087	\$125	\$0.0	\$0.0	\$0.0	\$4,039.3	\$0.0	\$0.0	\$0.0	\$80,786.6	\$0
Pre Rinse Sprayers	3-C/1 Equip	SM C&I	\$405	\$125	\$0.0	\$0.0	\$0.0	\$125.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Refrigerant charging corrector	3-C/1 Equip	SM C&I	\$22,144	\$6,276	\$6,151.0	\$0.0	\$30,754.9	\$0.0	\$0.0	\$0.0	\$0.0	\$153,774.5	\$0
Refrigeration Commissioning	3-C/1 Equip	SM C&I	\$900	\$375	\$250.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Strip curtains for walk-ins - freezer	3-C/1 Equip	SM C&I	\$900	\$375	\$250.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
Vending Equipment Controlle	3-C/1 Equip	SM C&I	\$975	\$375	\$250.0	\$1,250.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Window Film	3-C/1 Equip	SM C&I	\$700	\$188	\$62.5	\$0.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Setback/Setup	3-C/1 Equip	SM C&I	\$1,725	\$625	\$500.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Demand-controlled ventilation (DCV)	4-C/1 Equip	LG C&I	\$228	\$225	\$36.0	\$0.0	\$60.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
Exterior HID replacement above 175W to 250W HID retrofit	4-C/1 Equip	LG C&I	\$7,266	\$774	\$648.8	\$0.0	\$5,190.2	\$0.0	\$0.0	\$0.0	\$0.0	\$259,511.7	\$0
HPT8 4ft 4 lamp, T12 to HPT8	4-C/1 Equip	LG C&I	\$72,663	\$6,613	\$6,487.8	\$0.0	\$51,902.3	\$0.0	\$0.0	\$0.0	\$0.0	\$607,257.4	\$0
Occupancy Sensors under 500 W	4-C/1 Equip	LG C&I	\$10,519	\$1,064	\$939.2	\$0.0	\$7,513.3	\$0.0	\$0.0	\$0.0	\$0.0	\$93,916.3	\$0
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	4-C/1 Equip	LG C&I	\$5,000	\$2,625	\$2,500.0	\$15,000.0	\$1,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$250,000.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	4-C/1 Equip	LG C&I	\$1,250	\$750	\$625.0	\$3,750.0	\$375.0	\$0.0	\$0.0	\$0.0	\$0.0	\$62,500.0	\$0
Window Film	4-C/1 Equip	LG C&I	\$280	\$150	\$25.0	\$0.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$125,000.0	\$0
Motors 1 HP 1200	5-IND MOTOR	LG C&I	\$150	\$200	\$75.0	\$937.5	\$750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
Motors 5 HP 1200	5-IND MOTOR	LG C&I	\$100	\$175	\$50.0	\$625.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,500.0	\$0
Motors 10 HP 1200	5-IND MOTOR	LG C&I	\$50	\$150	\$25.0	\$312.5	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Motors 20 HP 1200	5-IND MOTOR	LG C&I	\$20	\$135	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,650.0	\$0
Motors 1 HP 3600	5-IND MOTOR	LG C&I	\$150	\$200	\$75.0	\$937.5	\$750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
Motors 5 HP 3600	5-IND MOTOR	LG C&I	\$100	\$175	\$50.0	\$625.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,500.0	\$0
Motors 10 HP 3600	5-IND MOTOR	LG C&I	\$50	\$150	\$25.0	\$312.5	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Motors 20 HP 3600	5-IND MOTOR	LG C&I	\$20	\$135	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,650.0	\$0
Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0

Appendix D-3

Measure Name	Program	Rate Class	Utility			Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Annual Utility/SP O&M	
			Labor/Cost	Marketing	M&V									
109	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0	
110	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0	
111	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$76	\$130	\$31.3	\$500.0	\$50.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0	
112	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$76	\$130	\$31.3	\$500.0	\$50.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0	
113	Air Compressors with VFD's	5-IND MOTOR	LG C&I	76.25	130	31.25	500	50	0	0	0	7500	0	
114														
115														
116	Demand		\$11,677,385	\$26,418	\$0	\$15,540	\$0	\$0	\$0	\$699,300	\$2,893,170	\$0	\$799,850	\$7,243,107
117	1-Res Audits		\$1,793,233	\$124,545	\$27,997	\$35,094	\$0	\$0	\$0	\$135,939	\$0	\$443,255	\$1,026,402	\$0
118	2-RES App Turn-In		\$2,294,715	\$35,937	\$23,653	\$35,943	\$0	\$0	\$0	\$1,583,473	\$0	\$0	\$615,709	\$0
119	3-RES EE HVAC		\$1,933,370	\$70,151	\$30,558	\$25,898	\$166,126	\$50,199	\$0	\$0	\$0	\$0	\$1,590,437	\$0
120	4-Res-EE P		\$2,754,380	\$206,354	\$97,414	\$49,151	\$35,854	\$96,188	\$104,386	\$48,354	\$0	\$168,277	\$1,948,402	\$0
121	5-RES New Con		\$1,870,067	\$137,500	\$46,358	\$36,667	\$0	\$0	\$0	\$183,333	\$1,466,208	\$0	\$0	\$0
122	6-Res Whole		\$264,115	\$11,455	\$13,035	\$1,750	\$0	\$0	\$0	\$0	\$150,000	\$0	\$87,875	\$0
123	8-Multiple Family		\$130,484	\$11,275	\$7,833	\$1,375	\$0	\$5,500	\$0	\$3,667	\$0	\$14,667	\$86,167	\$0
124	7-Low Income		\$91,920	\$11,021	\$500	\$903	\$0	\$0	\$0	\$7,227	\$0	\$28,908	\$43,361	\$0
125	1-C/I Audits		\$98,657	\$18,511	\$12,250	\$80	\$0	\$0	\$0	\$15,939	\$20,000	\$0	\$31,877	\$0
126	2-Governmental Programs		\$1,511,391	\$133,677	\$2,475	\$3,384	\$0	\$24,482	\$0	\$0	\$0	\$0	\$600,193	\$747,181
127	3-C/I Equip		\$3,918,666	\$370,138	\$49,202	\$40,821	\$68,744	\$257,230	\$4,164	\$0	\$0	\$0	\$3,128,367	\$0
128	4-C/I Equip		\$1,606,345	\$97,206	\$12,201	\$11,262	\$18,750	\$66,741	\$0	\$0	\$0	\$0	\$1,400,185	\$0
129	5-IND MOTOR		<u>\$120,983</u>	<u>\$1,101</u>	<u>\$2,490</u>	<u>\$504</u>	<u>\$6,438</u>	<u>\$3,650</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$106,800</u>	<u>\$0</u>
130			\$30,065,711	\$1,255,291	\$325,967	\$258,371	\$295,912	\$503,991	\$108,550	\$2,677,231	\$4,529,378	\$655,106	\$11,465,626	\$7,990,288
131														
132														
133														
134	Recovery Allocation		Total	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
135	Residential	Res	\$22,725,818	\$628,974	\$239,766	\$201,404	\$201,980	\$146,387	\$104,386	\$2,661,293	\$4,509,378	\$655,106	\$6,134,037	\$7,243,107
136	Small Commercial & Industrial	SM C&I	\$5,525,557	\$503,633	\$65,610	\$43,456	\$68,744	\$276,480	\$4,164	\$15,939	\$0	\$0	\$3,800,349	\$747,181
137	Large Commercial & Industrial	LG C&I	\$1,814,336	\$122,684	\$20,591	\$13,511	\$25,188	\$81,123	\$0	\$0	\$20,000	\$0	\$1,531,241	\$0
			\$30,065,711	\$1,255,291	\$325,967	\$258,371	\$295,912	\$503,991	\$108,550	\$2,677,231	\$4,529,378	\$655,106	\$11,465,626	\$7,990,288

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix D-4**

Measure budgeted for 12 months starting June 1, 2012, ending May 31 2013

Appendix D-4

Measure Name	Program	Recovery Class	Utility			Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M	
			Labor/Cost	Marketing	M&V									
1	DLC-CAC	Demand	Res	\$0	\$0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0	
2	DLC-Pool Pumps	Demand	Res	\$0	\$0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0	
3	DLC-Pool Pumps	Demand	Res	\$0	\$0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0	
4	1-Res Home Audits - CFL 4 - Low Flow 2 Water Heat	1-Res Audits	Res	\$46,256	\$13,111	\$25,697.8	\$0.0	\$0.0	\$0.0	\$51,395.6	\$0.0	\$205,582.5	\$668,143.1	\$0
5	1-Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	\$1,275	\$763	\$875.0	\$0.0	\$0.0	\$0.0	\$19,375.0	\$0.0	\$1,000.0	\$3,250.0	\$0
6	Schools Children Education-No Saving	1-Res Audits	Res	\$5,400	\$50	\$1,500.0	\$0.0	\$0.0	\$0.0	\$9,000.0	\$0.0	\$12,000.0	\$18,000.0	\$0
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	\$33,037	\$22,891	\$33,942.6	\$0.0	\$0.0	\$0.0	\$1,493,472.7	\$0.0	\$0.0	\$565,709.4	\$0
8	Room Air Conditioners	2-RES App Turn-In	Res	\$2,900	\$763	\$2,000.0	\$0.0	\$0.0	\$0.0	\$90,000.0	\$0.0	\$0.0	\$50,000.0	\$0
9	ASHP - SEER 15	3-RES EE HVAC	Res	\$5,482	\$630	\$1,661.3	\$27,687.6	\$2,768.8	\$0.0	\$0.0	\$0.0	\$0.0	\$179,969.4	\$0
10	CAC - SEER 16	3-RES EE HVAC	Res	\$40,978	\$16,689	\$11,075.0	\$138,438.0	\$27,687.6	\$0.0	\$0.0	\$0.0	\$0.0	\$1,245,941.7	\$0
11	CAC - Maintenance	3-RES EE HVAC	Res	\$23,692	\$13,239	\$13,162.1	\$0.0	\$19,743.1	\$0.0	\$0.0	\$0.0	\$0.0	\$164,525.7	\$0
12	EE Ground Source Heat Pump	4-Res-EE P	Res	\$1,215	\$227	\$150.0	\$0.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$9,765.0	\$0
13	Solar Water Heating	4-Res-EE P	Res	\$143	\$181	\$30.0	\$0.0	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
14	HP Water Heater	4-Res-EE P	Res	\$475	\$531	\$100.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
15	EE Water Heater	4-Res-EE P	Res	\$64,430	\$67,852	\$13,564.2	\$0.0	\$33,910.4	\$0.0	\$0.0	\$0.0	\$0.0	\$339,104.2	\$0
16	Programmable Thermostat_Heat	4-Res-EE P	Res	\$8,171	\$31	\$6,285.1	\$0.0	\$0.0	\$0.0	\$18,855.3	\$0.0	\$50,280.8	\$390,936.8	\$0
17	Programmable Thermostat_CAC	4-Res-EE P	Res	\$27,689	\$7,723	\$7,691.3	\$15,382.6	\$23,074.0	\$0.0	\$0.0	\$0.0	\$0.0	\$192,283.0	\$0
18	CFL bulbs regular-15 -Free No Water Heat	1-Res Audits	Res	\$71,614	\$14,073	\$7,021.0	\$0.0	\$0.0	\$0.0	\$56,168.2	\$0.0	\$224,672.7	\$337,009.0	\$0
19	Request	4-Res-EE P	Res	\$37,611	\$7,406	\$3,687.4	\$0.0	\$0.0	\$0.0	\$29,499.0	\$0.0	\$117,996.1	\$176,994.1	\$0
20	CFL bulbs regular - Outside - 15 - Store Rebates	4-Res-EE P	Res	\$1,031	\$31	\$0.0	\$0.0	\$0.0	\$17,182.0	\$0.0	\$0.0	\$0.0	\$34,364.0	\$0
21	CFL bulbs regular - 19 - Store Rebates	4-Res-EE P	Res	\$4,688	\$31	\$0.0	\$0.0	\$0.0	\$78,125.0	\$0.0	\$0.0	\$0.0	\$156,250.0	\$0
	Clothes Washer Energy Star, Electric Water heater,													
22	Electric Dryer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
23	Dehumidifiers	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
25	Holiday Lights	4-Res-EE P	Res	\$2,644	\$1,290	\$1,258.9	\$3,147.4	\$5,035.8	\$0.0	\$0.0	\$0.0	\$0.0	\$50,357.9	\$0
26	LED Night Light	4-Res-EE P	Res	\$45	\$31	\$0.0	\$0.0	\$0.0	\$750.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$0
27	Pump and Motor Single Speec	4-Res-EE P	Res	\$2,344	\$1,496	\$1,464.9	\$7,324.4	\$2,929.8	\$0.0	\$0.0	\$0.0	\$0.0	\$29,297.6	\$0
28	Refrigerators-Freezers Energy Star - Side by Side	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
29	Refrigerators-Freezers Energy Star - Top Freezer	4-Res-EE P	Res	\$1,500	\$431	\$400.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
30	Room Air Conditioners	4-Res-EE P	Res	\$29,714	\$31	\$12,919.0	\$0.0	\$25,838.1	\$0.0	\$0.0	\$0.0	\$0.0	\$322,976.1	\$0
31	Smart Strip plug outlet	4-Res-EE P	Res	\$18,096	\$8,110	\$0.0	\$0.0	\$0.0	\$8,078.7	\$0.0	\$0.0	\$0.0	\$161,573.2	\$0
32	Torchiere Floor Lamps	4-Res-EE P	Res	\$560	\$281	\$0.0	\$0.0	\$0.0	\$250.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$0
33	Residential New Construction - 15%	5-RES New Con	Res	\$0	\$263	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
34	Residential New Construction - 30%	5-RES New Con	Res	\$0	\$263	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
35	Ceiling Fans	6-Res Whole	Res	\$323	\$59	\$75.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,625.0	\$0
36	Estar Windows	6-Res Whole	Res	\$1,688	\$59	\$300.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
37	Duct sealing 20 leakage basc	6-Res Whole	Res	\$3,063	\$59	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
38	Low Flow Showerheads	6-Res Whole	Res	\$810	\$59	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$11,500.0	\$0
39	Kitchen Aerator	6-Res Whole	Res	\$405	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,500.0	\$0
40	Bathroom Aerator	6-Res Whole	Res	\$405	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,500.0	\$0
41	Pipe Wrap	6-Res Whole	Res	\$1,200	\$59	\$125.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
42	Roof Insulation	6-Res Whole	Res	\$2,813	\$59	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
43	Whole Building	6-Res Whole	Res	\$750	\$12,559	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$150,000.0	\$0.0	\$0.0	\$0
44	Low Income Lighting-Warn	7-Low Income	Res	\$1,830	\$250	\$150.0	\$0.0	\$0.0	\$0.0	\$1,200.0	\$0.0	\$4,800.0	\$7,200.0	\$0
45	Low Income Lighting-Low Usage	7-Low Income	Res	\$6,537	\$250	\$535.9	\$0.0	\$0.0	\$0.0	\$4,286.9	\$0.0	\$17,147.5	\$23,721.3	\$0
46	Multiple Family - CFL Lighting	8-Multiple Family	Res	\$5,592	\$250	\$458.3	\$0.0	\$0.0	\$0.0	\$3,666.7	\$0.0	\$14,666.8	\$22,000.2	\$0
47	Multiple Family - T8-Lighting	8-Multiple Family	SM C&I	\$5,683	\$7,583	\$916.7	\$0.0	\$5,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$64,167.1	\$0
48	Commercial, Industrial Audit - Sm&Mc	1-C/I Audits	SM C&I	\$12,375	\$7,750	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
49	Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	\$4,200	\$4,000	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
50	Commercial CFL Program	1-C/I Audits	SM C&I	\$956	\$250	\$0.0	\$0.0	\$0.0	\$0.0	\$15,938.7	\$0.0	\$0.0	\$31,877.3	\$0
51	Commercial, Industrial Audit - Gov	1-C/I Audits	LG C&I	\$980	\$250	\$80.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20,000.0	\$0.0	\$0.0	\$0
	Exterior HID replacement above 175W to 250W HID													
52	retrofit	2-Governmental Programs	LG C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
53	HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Programs	LG C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
54	LED Exit Signs Electronic Fixtures (Retrofit Only)	2-Governmental Programs	LG C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
55	Occupancy Sensors under 500 W	2-Governmental Programs	LG C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
56	LED Auto Traffic Signals	2-Governmental Programs	SM C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
57	LED Pedestrian Signals	2-Governmental Programs	SM C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
58	Street Lighting - 175 Mercury to 100 HPS	2-Governmental Programs	SM C&I	\$93,512	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$294,062.5	\$747,181	\$0

Appendix D-4

Measure Name	Program	Recovery Class	Utility Labor/Cost	Marketing	M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	2-Governmental Programs	LG C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	2-Governmental Programs	LG C&I	\$0	\$275	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0
AC <65,000 1 Ph	3-C/1 Equip	SM C&I	\$3,500	\$1,625	\$750.0	\$5,000.0	\$2,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$75,000.0	\$0
AC 65,000 - 135,000	3-C/1 Equip	SM C&I	\$3,100	\$1,125	\$500.0	\$5,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
AC 240,000 - 760,000	3-C/1 Equip	SM C&I	\$3,100	\$1,125	\$500.0	\$5,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$70,000.0	\$0
Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	3-C/1 Equip	SM C&I	\$1,400	\$725	\$300.0	\$2,000.0	\$1,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10,000.0	\$0
Demand-controlled ventilation (DCV)	3-C/1 Equip	SM C&I	\$7,125	\$3,250	\$1,125.0	\$0.0	\$1,875.0	\$0.0	\$0.0	\$0.0	\$0.0	\$62,500.0	\$0
Efficient Refrigeration Condenser	3-C/1 Equip	SM C&I	\$260	\$325	\$200.0	\$0.0	\$400.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
ENERGY STAR Commercial Solid Door Freezers less than 20ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Refrigerators 20 to 48 ft3	3-C/1 Equip	SM C&I	\$1,675	\$375	\$250.0	\$2,500.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
ENERGY STAR Ice Machines less than 500 lbs	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
ENERGY STAR Ice Machines 500 to 1000 lbs	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$37,500.0	\$0
ENERGY STAR Ice Machines more than 1000 lbs	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$50,000.0	\$0
ENERGY STAR Steam Cookers 3 Pan	3-C/1 Equip	SM C&I	\$3,350	\$625	\$500.0	\$5,000.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$100,000.0	\$0
Exterior HID replacement above 175W to 250W HID retrofit	3-C/1 Equip	SM C&I	\$6,692	\$723	\$597.5	\$0.0	\$4,780.3	\$0.0	\$0.0	\$0.0	\$0.0	\$239,014.6	\$0
EE Water Heater (Base Usage 22831)	3-C/1 Equip	SM C&I	\$8,896	\$2,349	\$1,667.9	\$11,119.4	\$5,559.7	\$0.0	\$0.0	\$0.0	\$0.0	\$55,597.1	\$0
HP Water Heater (Base Usage 22831)	3-C/1 Equip	SM C&I	\$2,500	\$500	\$375.0	\$9,375.0	\$625.0	\$0.0	\$0.0	\$0.0	\$0.0	\$25,000.0	\$0
HPT8 4ft 4 lamp, T12 to HPT8	3-C/1 Equip	SM C&I	\$136,767	\$12,336	\$12,211.4	\$0.0	\$97,690.9	\$0.0	\$0.0	\$0.0	\$0.0	\$1,142,984.0	\$0
LED Exit Signs Electronic Fixtures (Retrofit Only)	3-C/1 Equip	SM C&I	\$113,094	\$10,373	\$10,097.7	\$0.0	\$80,781.4	\$0.0	\$0.0	\$0.0	\$0.0	\$608,860.5	\$0
Occupancy Sensors under 500 W	3-C/1 Equip	SM C&I	\$19,798	\$1,893	\$1,767.7	\$0.0	\$14,141.6	\$0.0	\$0.0	\$0.0	\$0.0	\$247,477.8	\$0
Plug Load Occupancy Sensors Document Station:	3-C/1 Equip	SM C&I	\$2,970	\$390	\$265.2	\$0.0	\$2,121.2	\$0.0	\$0.0	\$0.0	\$0.0	\$37,121.7	\$0
Smart Strip plug outlet	3-C/1 Equip	SM C&I	\$13,087	\$125	\$0.0	\$0.0	\$0.0	\$4,039.3	\$0.0	\$0.0	\$0.0	\$80,786.6	\$0
Pre Rinse Sprayers	3-C/1 Equip	SM C&I	\$405	\$125	\$0.0	\$0.0	\$0.0	\$125.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Refrigerant charging corrector	3-C/1 Equip	SM C&I	\$22,144	\$6,276	\$6,151.0	\$0.0	\$30,754.9	\$0.0	\$0.0	\$0.0	\$0.0	\$153,774.5	\$0
Refrigeration Commissioning	3-C/1 Equip	SM C&I	\$900	\$375	\$250.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Strip curtains for walk-ins - freezer	3-C/1 Equip	SM C&I	\$900	\$375	\$250.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$0
Vending Equipment Controlle	3-C/1 Equip	SM C&I	\$975	\$375	\$250.0	\$1,250.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Window Film	3-C/1 Equip	SM C&I	\$700	\$188	\$62.5	\$0.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Setback/Setup	3-C/1 Equip	SM C&I	\$1,725	\$625	\$500.0	\$0.0	\$1,250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6,250.0	\$0
Demand-controlled ventilation (DCV)	4-C/1 Equip	LG C&I	\$228	\$225	\$36.0	\$0.0	\$60.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$0
Exterior HID replacement above 175W to 250W HID retrofit	4-C/1 Equip	LG C&I	\$7,266	\$774	\$648.8	\$0.0	\$5,190.2	\$0.0	\$0.0	\$0.0	\$0.0	\$259,511.7	\$0
HPT8 4ft 4 lamp, T12 to HPT8	4-C/1 Equip	LG C&I	\$72,663	\$6,613	\$6,487.8	\$0.0	\$51,902.3	\$0.0	\$0.0	\$0.0	\$0.0	\$607,257.4	\$0
Occupancy Sensors under 500 W	4-C/1 Equip	LG C&I	\$10,519	\$1,064	\$939.2	\$0.0	\$7,513.3	\$0.0	\$0.0	\$0.0	\$0.0	\$93,916.3	\$0
Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	4-C/1 Equip	LG C&I	\$5,000	\$2,625	\$2,500.0	\$15,000.0	\$1,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$250,000.0	\$0
Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	4-C/1 Equip	LG C&I	\$1,250	\$750	\$625.0	\$3,750.0	\$375.0	\$0.0	\$0.0	\$0.0	\$0.0	\$62,500.0	\$0
Window Film	4-C/1 Equip	LG C&I	\$280	\$150	\$25.0	\$0.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0	\$125,000.0	\$0
Motors 1 HP 1200	5-IND MOTOR	LG C&I	\$150	\$200	\$75.0	\$937.5	\$750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
Motors 5 HP 1200	5-IND MOTOR	LG C&I	\$100	\$175	\$50.0	\$625.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,500.0	\$0
Motors 10 HP 1200	5-IND MOTOR	LG C&I	\$50	\$150	\$25.0	\$312.5	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Motors 20 HP 1200	5-IND MOTOR	LG C&I	\$20	\$135	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,650.0	\$0
Motors 1 HP 3600	5-IND MOTOR	LG C&I	\$150	\$200	\$75.0	\$937.5	\$750.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0
Motors 5 HP 3600	5-IND MOTOR	LG C&I	\$100	\$175	\$50.0	\$625.0	\$500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,500.0	\$0
Motors 10 HP 3600	5-IND MOTOR	LG C&I	\$50	\$150	\$25.0	\$312.5	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$8,750.0	\$0
Motors 20 HP 3600	5-IND MOTOR	LG C&I	\$20	\$135	\$10.0	\$125.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,650.0	\$0
Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$10	\$130	\$5.0	\$62.5	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$750.0	\$0
Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0

Appendix D-4

Measure Name	Program	Recovery Class	Utility			Retailer Sales		Rebate	Retail Store	Service Provider Costs	Service Provide Equip/Audit	Incentive	Incentive Rebate for Equip	Utility/SP O&M	
			Labor/Cost	Marketing	M&V	Incentive	Processing	Discount Tracking	Shipping & Other						
109	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0	
110	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$68	\$130	\$25.0	\$250.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,750.0	\$0	
111	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$76	\$130	\$31.3	\$500.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0	
112	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$76	\$130	\$31.3	\$500.0	\$50.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0	
113	Air Compressors with VFD's	5-IND MOTOR	LG C&I	76.25	130	31.25	500	50	0	0	0	0	7500	0	
114															
115															
116	Demand			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
117	1-Res Audits			\$1,793,233	\$124,545	\$27,997	\$35,094	\$0	\$0	\$135,939	\$0	\$443,255	\$1,026,402	\$0	
118	2-RES App Turn-In			\$2,294,715	\$35,937	\$23,653	\$35,943	\$0	\$0	\$1,583,473	\$0	\$0	\$615,709	\$0	
119	3-RES EE HVAC			\$1,933,370	\$70,151	\$30,558	\$25,898	\$166,126	\$50,199	\$0	\$0	\$0	\$1,590,437	\$0	
120	4-Res-EE P			\$2,754,380	\$206,354	\$97,414	\$49,151	\$35,854	\$96,188	\$104,386	\$48,354	\$0	\$168,277	\$1,948,402	\$0
121	5-RES New Con			\$525	\$0	\$525	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
122	6-Res Whole			\$264,115	\$11,455	\$13,035	\$1,750	\$0	\$0	\$0	\$150,000	\$0	\$87,875	\$0	
123	8-Multiple Family			\$130,484	\$11,275	\$7,833	\$1,375	\$0	\$5,500	\$0	\$3,667	\$0	\$14,667	\$86,167	\$0
124	7-Low Income			\$69,909	\$8,367	\$500	\$686	\$0	\$0	\$0	\$5,487	\$0	\$21,948	\$32,921	\$0
125	1-C/I Audits			\$98,657	\$18,511	\$12,250	\$80	\$0	\$0	\$0	\$15,939	\$20,000	\$0	\$31,877	\$0
126	2-Governmental Programs			\$1,137,230	\$93,512	\$2,475	\$0	\$0	\$0	\$0	\$0	\$0	\$294,063	\$747,181	
127	3-C/I Equip			\$3,918,666	\$370,138	\$49,202	\$40,821	\$68,744	\$257,230	\$4,164	\$0	\$0	\$3,128,367	\$0	
128	4-C/I Equip			\$1,606,345	\$97,206	\$12,201	\$11,262	\$18,750	\$66,741	\$0	\$0	\$0	\$1,400,185	\$0	
129	5-IND MOTOR			<u>\$120,983</u>	<u>\$1,101</u>	<u>\$2,490</u>	<u>\$504</u>	<u>\$6,438</u>	<u>\$3,650</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$106,800</u>	<u>\$0</u>	
130				\$16,122,612	\$1,048,555	\$280,133	\$202,563	\$295,912	\$479,508	\$108,550	\$1,792,858	\$170,000	\$648,146	\$10,349,206	\$747,181
131															
132															
133															
134	Recovery Allocation		Total												
135	Residential	Res	\$9,156,880	\$462,403	\$193,932	\$148,980	\$201,980	\$146,387	\$104,386	\$1,776,919	\$150,000	\$648,146	\$5,323,747	\$0	
136	Small Commercial & Industrial	SM C&I	\$5,207,244	\$482,665	\$65,610	\$41,737	\$68,744	\$262,730	\$4,164	\$15,939	\$0	\$0	\$3,518,474	\$747,181	
137	Large Commercial & Industrial	LG C&I	\$1,758,488	\$103,487	\$20,591	\$11,845	\$25,188	\$70,391	\$0	\$0	\$20,000	\$0	\$1,506,985	\$0	
			\$16,122,612	\$1,048,555	\$280,133	\$202,563	\$295,912	\$479,508	\$108,550	\$1,792,858	\$170,000	\$648,146	\$10,349,206	\$747,181	

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix D-5**  
Per Unit Budgeted Assumption per Measure

Appendix D-5  
Per Unit Budget Assumptions

Measure Name	Program	Rate Class	First Year start up costs*	Annual Base Cost after First Year	Utility Labor/Cost	Per Unit Marketing	Per Unit M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M	Rebate O&M
1	DLC-CAC	Demand	Res	\$5,250	0	\$1.70	\$1.00	\$0.00			\$45.00	\$180.00		\$50.00	\$15.00	\$50.00
2	DLC-Pool Pumps	Demand	Res	\$5,250	0	\$1.70	\$1.00	\$0.00			\$45.00	\$285.00		\$75.00	\$15.00	\$75.00
3	DLC-Pool Pumps	Demand	Res	\$5,250	0	\$1.70	\$1.00	\$0.00			\$45.00	\$285.00		\$75.00	\$15.00	\$75.00
4	1-Res Home Audits - CFL 4 - Low Flow	1-Res Audits	Res	\$5,250	262.5	\$1.80	\$0.50	\$1.00			\$2.00		\$8.00	\$26.00		
5	1-Res Home Audits - CFL 4 - Low Flow	1-Res Audits	Res	\$5,250	262.5	\$10.20	\$4.00	\$7.00			\$155.00		\$8.00	\$26.00		
6	Schools Childern Education-No Savings	1-Res Audits	Res	\$1,000	50	\$3.60	\$1.00				\$6.00		\$8.00	\$12.00		
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	\$5,250	262.5	\$2.92	\$2.00	\$3.00			\$132.00			\$50.00		
8	Room Air Conditioners	2-RES App Turn-In	Res	\$5,250	262.5	\$2.90	\$0.50	\$2.00			\$90.00			\$50.00		
9	ASHP - SEER 15	3-RES EE HVAC	Res	\$1,534	76.7	\$9.90	\$1.00	\$3.00	\$50.00	\$5.00				\$325.00		
10	CAC - SEER 15	3-RES EE HVAC	Res	\$1,534	76.7	\$7.40	\$3.00	\$2.00	\$25.00	\$5.00				\$225.00		
11	CAC - Maintenance	3-RES EE HVAC	Res	\$1,534	76.7	\$3.60	\$2.00	\$2.00						\$25.00		
12	EE Ground Source Heat Pump	4-Res-EE P	Res	\$1,534	76.7	\$81.00	\$10.00	\$10.00						\$651.00		
13	Solar Water Heating	4-Res-EE P	Res	\$629	31.45	\$9.50	\$10.00	\$2.00						\$500.00		
14	HP Water Heater	4-Res-EE P	Res	\$629	31.45	\$9.50	\$10.00	\$2.00						\$300.00		
15	EE Water Heater	4-Res-EE P	Res	\$629	31.45	\$9.50	\$10.00	\$2.00						\$50.00		
16	Programable Thermostat_Heat	4-Res-EE P	Res	\$629	31.45	\$1.30	\$1.00				\$3.00		\$8.00	\$62.20		
17	Programable Thermostat_CAC	4-Res-EE P	Res	\$629	31.45	\$3.60	\$1.00	\$1.00	\$2.00	\$3.00				\$25.00		
18	CFL bulbs regular-15 -Free No Water Hi	1-Res Audits	Res	\$629	31.45	\$2.55	\$0.50	\$0.25			\$2.00		\$8.00	\$12.00		
19	CFL bulbs regular-15 -Free No Water Hi	4-Res-EE P	Res	\$629	31.45	\$2.55	\$0.50	\$0.25			\$2.00		\$8.00	\$12.00		
20	CFL bulbs regular - Outside - 15 - Store	4-Res-EE P	Res	\$629	31.45	\$0.03						\$0.50		\$1.00		
21	CFL bulbs regular - 19 - Store Rebates	4-Res-EE P	Res	\$629	31.45	\$0.03					\$0.50			\$1.00		
22	Clothes Washer Energy Star, Electric W	4-Res-EE P	Res	\$629	31.45	\$7.50	\$2.00	\$2.00	\$10.00	\$5.00				\$75.00		
23	Dehumidifiers	4-Res-EE P	Res	\$629	31.45	\$7.50	\$2.00	\$2.00	\$10.00	\$5.00				\$10.00		
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	\$629	31.45	\$7.50	\$2.00	\$2.00	\$10.00	\$5.00				\$25.00		
25	Holiday Lights	4-Res-EE P	Res	\$629	31.45	\$1.05	\$0.50	\$0.50	\$1.25	\$2.00				\$20.00		
26	LED Night Light	4-Res-EE P	Res	\$629	31.45	\$0.03					\$0.50		\$0.00	\$10.00		
27	Pump and Motor Single Speed	4-Res-EE P	Res	\$629	31.45	\$1.60	\$1.00	\$1.00	\$5.00	\$2.00				\$20.00		
28	Refrigerators-Freezers Energy Star - Sit	4-Res-EE P	Res	\$629	31.45	\$7.50	\$2.00	\$2.00	\$10.00	\$5.00				\$50.00		
29	Refrigerators-Freezers Energy Star - To	4-Res-EE P	Res	\$629	31.45	\$7.50	\$2.00	\$2.00	\$10.00	\$5.00				\$50.00		
30	Room Air Conditioners	4-Res-EE P	Res	\$629	31.45	\$2.30	\$1.00			\$2.00				\$25.00		
31	Smart Strip plug outlet	4-Res-EE P	Res	\$629	31.45	\$1.12	\$0.50					\$0.50		\$10.00		
32	Torchiere Floor Lamps	4-Res-EE P	Res	\$629	31.45	\$1.12	\$0.50				\$0.50			\$10.00		
33	Residential New Construction - 15%	5-RES New Con	Res	\$5,250	262.5	\$75.00	\$25.00	\$20.00			\$100.00	\$563.50				
34	Residential New Construction - 30%	5-RES New Con	Res	\$5,250	262.5	\$75.00	\$25.00	\$20.00			\$100.00	\$1,036.00				
35	Ceiling Fans	6-Res Whole	Res	\$1,188	59.4	\$4.30	\$1.00							\$75.00		
36	Estar Windows	6-Res Whole	Res	\$1,188	59.4	\$22.50	\$4.00							\$100.00		
37	Duct sealing 20 leakage base	6-Res Whole	Res	\$1,188	59.4	\$24.50	\$2.00							\$200.00		
38	Low Flow Showerheads	6-Res Whole	Res	\$1,188	59.4	\$1.62	\$0.50							\$23.00		
39	Kitchen Aerator	6-Res Whole	Res	\$1,188	59.4	\$0.81	\$0.25							\$7.00		
40	Bathroom Aerator	6-Res Whole	Res	\$1,188	59.4	\$0.81	\$0.25							\$7.00		
41	Pipe Wrap	6-Res Whole	Res	\$1,188	59.4	\$9.60	\$1.00							\$50.00		
42	Roof Insulation	6-Res Whole	Res	\$1,188	59.4	\$22.50	\$4.00							\$200.00		
43	Whole Building	6-Res Whole	Res	\$1,188	59.4	\$1.50	\$25.00	\$0.00				\$300.00				
44	Low Income Lighting-Warm	7-Low Income	Res	\$5,000	250	\$3.05	\$0.25				\$2.00		\$8.00	\$12.00		
45	Low Income Lighting-Low Usage	7-Low Income	Res	\$5,000	250	\$3.05	\$0.25				\$2.00		\$8.00	\$12.00		
46	Multiple Family - CFL Lighting	8-Multiple Family	Res	\$5,000	250	\$3.05	\$0.25				\$2.00		\$8.00	\$12.00		
47	Multiple Family - T8-Lighting	8-Multiple Family	SM C&I	\$5,000	250	\$3.10	\$4.00	\$0.50		\$3.00				\$35.00		
48	Commercial, Industrial Audit - Sm&Md	1-C/I Audits	SM C&I	\$5,000	250	\$16.50	\$10.00							\$0.00		
49	Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	\$5,000	250	\$56.00	\$50.00							\$0.00		
50	Commercial CFL Program	1-C/I Audits	SM C&I	\$5,000	250	\$0.03					\$0.50			\$1.00		
51	Commercial, Industrial Audit - Gov	1-C/I Audits	LG C&I	\$5,000	250	\$98.00	\$8.00					\$2,000.00				
52	Exterior HID replacement above 175W	2-Governmental Programs	LG C&I	\$5,500	275	\$3.05	\$0.25			\$2.00				\$5.00		
53	HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Programs	LG C&I	\$5,500	275	\$3.05	\$0.25			\$2.00				\$5.00		
54	LED Exit Signs Electronic Fixtures (Retr2	2-Governmental Programs	LG C&I	\$5,500	275	\$3.05	\$0.25			\$2.00				\$2.00		
55	Occupancy Sensors under 500 W	2-Governmental Programs	LG C&I	\$5,500	275	\$3.05	\$0.25			\$2.00				\$2.00		
56	LED Auto Traffic Signals	2-Governmental Programs	SM C&I	\$5,500	275	\$3.05	\$0.25			\$2.00				\$45.00		
57	LED Pedestrian Signals	2-Governmental Programs	SM C&I	\$5,500	275	\$3.05	\$0.25			\$2.00				\$25.00		
58	Street Lighting - 175 Mercury to 100 HI2	2-Governmental Programs	SM C&I	\$5,500	275	\$15.90								\$50.00	\$21.88	
59	Water-Cooled cent Chiller 150 - 300 tor2	2-Governmental Programs	LG C&I	\$5,500	275	\$225.00	\$25.00	\$15.00						\$50.00		
60	Water-Cooled Centrifugal Chiller < 150	2-Governmental Programs	LG C&I	\$5,500	275	\$225.00	\$25.00	\$15.00						\$50.00		
61	AC <65,000 1 Ph	3-C/I Equip	SM C&I	\$2,500	125	\$7.00	\$3.00	\$1.50	\$10.00	\$5.00				\$150.00		
62	AC 65,000 - 135,000	3-C/I Equip	SM C&I	\$2,500	125	\$15.50	\$5.00	\$2.50	\$25.00	\$5.00				\$250.00		

Appendix D-5  
Per Unit Budget Assumptions

Measure Name	Program	Rate Class	First Year start up costs*	Annual Base Cost after First Year	Utility Labor/Cost	Per Unit Marketing	Per Unit M&V	Retailer Sales Incentive	Rebate Processing	Retail Store Discount Tracking	Service Provider Costs	Service Provide Equip/Audit	Incentive Shipping & Other	Incentive Rebate for Equip	Utility/SP O&M	Rebate O&M
63	AC 240,000 - 760,000	3-C/I Equip	SM C&I	\$2,500	125	\$15.50	\$5.00	\$2.50	\$25.00	\$5.00				\$350.00		
64	Clothes Washer CEE Tier1, Electric Wat	3-C/I Equip	SM C&I	\$2,500	125	\$7.00	\$3.00	\$1.50	\$10.00	\$5.00				\$50.00		
65	Demand-controlled ventilation (DCV)	3-C/I Equip	SM C&I	\$2,500	125	\$57.00	\$25.00	\$9.00		\$15.00				\$500.00		
66	Efficient Refrigeration Condenser	3-C/I Equip	SM C&I	\$2,500	125	\$1.30	\$1.00	\$1.00		\$2.00				\$10.00		
67	ENERGY STAR Commercial Solid Door F	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$50.00		
68	ENERGY STAR Commercial Solid Door F	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$50.00		
69	ENERGY STAR Commercial Solid Door F	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$50.00		
70	ENERGY STAR Commercial Solid Door F	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$50.00		
71	ENERGY STAR Ice Machines less than 1	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$50.00		
72	ENERGY STAR Ice Machines 500 to 100	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$150.00		
73	ENERGY STAR Ice Machines more than 100	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$200.00		
74	ENERGY STAR Steam Cookers 3 Pan	3-C/I Equip	SM C&I	\$2,500	125	\$13.40	\$2.00	\$2.00	\$20.00	\$5.00				\$400.00		
75	Exterior HID replacement above 175W	3-C/I Equip	SM C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$100.00		
76	EE Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	\$2,500	125	\$8.00	\$2.00	\$1.50	\$10.00	\$5.00				\$50.00		
77	HP Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	\$2,500	125	\$20.00	\$3.00	\$3.00	\$75.00	\$5.00				\$200.00		
78	HPT8 4ft 4 lamp, T12 to HPT8	3-C/I Equip	SM C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$23.40		
79	LED Exit Signs Electronic Fixtures (Retr)	3-C/I Equip	SM C&I	\$5,500	275	\$2.80	\$0.25	\$0.25		\$2.00				\$15.00		
80	Occupancy Sensors under 500 W	3-C/I Equip	SM C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$35.00		
81	Plug Load Occupancy Sensors Documer	3-C/I Equip	SM C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$35.00		
82	Smart Strip plug outlet	3-C/I Equip	SM C&I	\$2,500	125	\$1.62						\$0.50		\$10.00		
83	Pre Rinse Sprayers	3-C/I Equip	SM C&I	\$2,500	125	\$1.62						\$0.50		\$35.00		
84	Refrigerant charging correction	3-C/I Equip	SM C&I	\$2,500	125	\$3.60	\$1.00	\$1.00		\$5.00				\$25.00		
85	Refrigeration Commissioning	3-C/I Equip	SM C&I	\$2,500	125	\$3.60	\$1.00	\$1.00		\$5.00				\$25.00		
86	Strip curtains for walk-ins - freezer	3-C/I Equip	SM C&I	\$2,500	125	\$3.60	\$1.00	\$1.00		\$5.00				\$50.00		
87	Vending Equipment Controller	3-C/I Equip	SM C&I	\$2,500	125	\$3.90	\$1.00	\$1.00	\$5.00	\$5.00				\$25.00		
88	Window Film	3-C/I Equip	SM C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$25.00		
89	Setback/Setup	3-C/I Equip	SM C&I	\$2,500	125	\$6.90	\$2.00	\$2.00		\$5.00				\$25.00		
90	Demand-controlled ventilation (DCV)	4-C/I Equip	LG C&I	\$2,500	125	\$57.00	\$25.00	\$9.00		\$15.00				\$500.00		
91	Exterior HID replacement above 175W	4-C/I Equip	LG C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$100.00		
92	HPT8 4ft 4 lamp, T12 to HPT8	4-C/I Equip	LG C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$23.40		
93	Occupancy Sensors under 500 W	4-C/I Equip	LG C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				\$25.00		
94	Water-Cooled cent Chiller 150 - 300 tor	4-C/I Equip	LG C&I	\$2,500	125	\$50.00	\$25.00	\$25.00	\$150.00	\$15.00				#####		
95	Water-Cooled Centrifugal Chiller < 150	4-C/I Equip	LG C&I	\$2,500	125	\$50.00	\$25.00	\$25.00	\$150.00	\$15.00				#####		
96	Window Film	4-C/I Equip	LG C&I	\$2,500	125	\$2.80	\$0.25	\$0.25		\$2.00				#####		
97	Motors 1 HP 1200	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$20.00		
98	Motors 5 HP 1200	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$54.00		
99	Motors 10 HP 1200	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$70.00		
100	Motors 20 HP 1200	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$113.00		
101	Motors 1 HP 3600	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$20.00		
102	Motors 5 HP 3600	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$54.00		
103	Motors 10 HP 3600	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$70.00		
104	Motors 20 HP 3600	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$113.00		
105	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$30.00		
106	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$30.00		
107	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$0.40	\$0.20	\$0.20	\$2.50	\$2.00				\$30.00		
108	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$2.70	\$0.20	\$1.00	\$10.00	\$2.00				\$150.00		
109	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$2.70	\$0.20	\$1.00	\$10.00	\$2.00				\$150.00		
110	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$2.70	\$0.20	\$1.00	\$10.00	\$2.00				\$150.00		
111	Water Pumps with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$3.05	\$0.20	\$1.25	\$20.00	\$2.00				\$300.00		
112	HVAC Fans with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$3.05	\$0.20	\$1.25	\$20.00	\$2.00				\$300.00		
113	Air Compressors with VFD's	5-IND MOTOR	LG C&I	\$2,500	125	\$3.05	\$0.20	\$1.25	\$20.00	\$2.00				\$300.00		

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix E**

Measure savings for programs included, including key assumptions

Appendix E

	Measure Name	Program	Rate Class	kWh Savings	kW Savings	Life	Source of Saving Values and Life
1	DLC-CAC	Demand	Res	36	0.720	13	TRM
2	DLC-Pool Pumps	Demand	Res	38	1.470	13	TRM
3	DLC-Water Heat	Demand	Res	38	1.070	13	TRM
4	1-Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	337	0.044	7	Sum of Other Measures Listed
5	1-Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	337	0.044	7	Sum of Other Measures Listed
6	Schools Childern Education-No Savings	1-Res Audits	Res	166	0.009	6	4 CFLs from TRM
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	1,728	0.238	8	TRM
8	Room Air Conditioners	2-RES App Turn-In	Res	108	0.072	5	TRM + Energy Star Calculator
9	ASHP - SEER 15	3-RES EE HVAC	Res	1,944	0.297	12	TRM
10	CAC - SEER 15	3-RES EE HVAC	Res	343	0.297	15	TRM
11	CAC - Maintenance	3-RES EE HVAC	Res	334	0.290	7	TRM
12	EE Ground Source Heat Pump	3-RES EE HVAC	Res	4,574	0.106	15	TRM
13	Solar Water Heating	4-Res-EE P	Res	2,371	0.481	15	DSMore MI Database
14	HP Water Heater	4-Res-EE P	Res	2,371	0.481	15	DSMore MI Database
15	EE Water Heater	4-Res-EE P	Res	319	0.065	15	Manufacturer Supplied
16	Programable Thermostat_Heat	1-Res Audits	Res	466	0.000	15	DEER with Electric Heat
17	Programable Thermostat_CAC	4-Res-EE P	Res	39	0.066	15	DEER with CAC
18	CFL bulbs regular-15	1-Res Audits	Res	166	0.009	6.4	TRM
19	CFL bulbs regular-15	4-Res-EE P	Res	166	0.009	6.4	TRM
20	CFL bulbs regular - Outside - 19	4-Res-EE P	Res	80	0.000	6.4	TRM but Estimate of Hours from Survey
21	CFL bulbs regular - 19	4-Res-EE P	Res	52	0.003	6.4	TRM
22	Clothes Washer Energy Star, Electric Water	4-Res-EE P	Res	258	0.015	11	TRM with Electric Heat
23	Dehumidifiers	4-Res-EE P	Res	117	0.010	12	TRM
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	52	0.011	13	TRM
25	Holiday Lights	4-Res-EE P	Res	64	0.000	10	DSMore MI Database
26	LED Night Light	1-Res Audits	Res	44	0.000	12	DSMore MI Database
27	Pump and Motor Single Speed	4-Res-EE P	Res	694	0.357	10	DSMore MI Database
28	Refrigerators-Freezers Energy Star - Side b	4-Res-EE P	Res	95	0.013	13	TRM
29	Refrigerators-Freezers Energy Star - Top Fr	4-Res-EE P	Res	90	0.013	13	TRM
30	Room Air Conditioners	4-Res-EE P	Res	88	0.059	10	TRM
31	Smart Strip plug outlet	4-Res-EE P	Res	184	0.013	5	DSMore MI Database
32	Torchiere Floor Lamps	4-Res-EE P	Res	105	0.006	10	TRM
33	Residential New Construction - 15%	5-RES New Con	Res	1,225	0.923	15	ACEEE PA Report
34	Residential New Construction - 30%	5-RES New Con	Res	2,449	1.845	15	ACEEE PA Report
35	Ceiling Fans	6-Res Whole	Res	180	0.020	10	ACEEE PA Report
36	Estar Windows	6-Res Whole	Res	700	0.038	15	ACEEE PA Report
37	Duct sealing 20 leakage base	6-Res Whole	Res	669	0.580	15	ACEEE PA Report
38	Low Flow Showerheads	6-Res Whole	Res	250	0.028	10	ACEEE PA Report
39	Kitchen Aerator	6-Res Whole	Res	114	0.024	9	DEER with Electric Heat
40	Bathroom Aerator	6-Res Whole	Res	57	0.012	9	DEER with Electric Heat
41	Pipe Wrap	6-Res Whole	Res	325	0.037	13	DEER with Electric Heat
42	Roof Insulation	6-Res Whole	Res	703	0.079	15	ACEEE PA Report

Appendix E

Measure Name	Program	Rate Class	kWh Savings	kW Savings	Life	Source of Saving Values and Life
43 Whole Building	6-Res Whole	Res	-	0.000	10	
44 Low Income Lighting-Warm	7-Low Income	LI RES	69	0.000	6.4	4 CFLs using 1 hour a day.
45 Low Income Lighting-Low Usage	7-Low Income	LI RES	206	0.017	6.4	4 CFLs
46 Multiple Family - CFL Lighting	8-Multiple Family	Res	206	0.017	6.4	4 CFLs
47 Multiple Family - T8-Lighting	8-Multiple Family	Res	127	0.036	15	TRM
48 Commercial, Industrial Audit - Sm&Md	1-C/I Audits	SM C&I	-	-	-	
49 Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	-	-	-	
50 Commercial CFL Program	1-C/I Audits	SM C&I	\$198	\$0.056	\$6	1 CFL using ACEEE Estimate of Comm Hours
51 Commercial, Industrial Audit - Gov	1-C/I Audits	Gov	-	-	-	
52 Exterior HID replacement above 175W to 2	2-Governmental Programs	Gov	409	0.000	12	DSMore MI Database
53 HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Programs	Gov	127	0.036	15	TRM
54 LED Exit Signs Electronic Fixtures (Retrofit	2-Governmental Programs	Gov	158	0.018	10	TRM
55 Occupancy Sensors under 500 W	2-Governmental Programs	Gov	397	0.099	10	DSMore MI Database
56 LED Auto Traffic Signals	2-Governmental Programs	Gov	535	0.061	10	TRM 8"
57 LED Pedestrian Signals	2-Governmental Programs	Gov	946	0.108	10	TRM
58 Street Lighting - 175 Mercury to 100 HPS	2-Governmental Programs	Gov	329	0.000	10	=(175-100)*365*12/1000
59 Water-Cooled cent Chiller 150 - 300 ton 0.!	2-Governmental Programs	Gov	11,891	8.576	15	TRM
60 Water-Cooled Centrifugal Chiller < 150 ton	2-Governmental Programs	Gov	13,285	9.581	15	TRM
61 AC <65,000 1 Ph	3-C/I Equip	SM C&I	452	0.406	15	TRM
62 AC 65,000 - 135,000	3-C/I Equip	SM C&I	587	0.795	15	TRM
63 AC 240,000 - 760,000	3-C/I Equip	SM C&I	2,098	2.741	15	TRM
64 Clothes Washer CEE Tier1, Electric Water h	3-C/I Equip	SM C&I	633	0.666	10	DSMore MI Database
65 Demand-controlled ventilation (DCV)	3-C/I Equip	SM C&I	8,000	1.340	15	ACEEE PA Report
66 Efficient Refrigeration Condenser	3-C/I Equip	SM C&I	120	0.118	15	DSMore MI Database
67 ENERGY STAR Commercial Solid Door Freez	3-C/I Equip	SM C&I	520	0.059	12	DSMore MI Database
68 ENERGY STAR Commercial Solid Door Freez	3-C/I Equip	SM C&I	507	0.058	12	DSMore MI Database
69 ENERGY STAR Commercial Solid Door Refri	3-C/I Equip	SM C&I	905	0.103	12	DSMore MI Database
70 ENERGY STAR Commercial Solid Door Refri	3-C/I Equip	SM C&I	1,069	0.122	12	DSMore MI Database
71 ENERGY STAR Ice Machines less than 500	3-C/I Equip	SM C&I	1,652	0.189	12	DSMore MI Database
72 ENERGY STAR Ice Machines 500 to 1000 lb	3-C/I Equip	SM C&I	2,695	0.308	12	DSMore MI Database
73 ENERGY STAR Ice Machines more than 100	3-C/I Equip	SM C&I	6,048	0.690	12	DSMore MI Database
74 ENERGY STAR Steam Cookers 3 Pan	3-C/I Equip	SM C&I	11,188	2.550	12	DSMore MI Database
75 Exterior HID replacement above 175W to 2	3-C/I Equip	SM C&I	409	0.000	12	DSMore MI Database
76 EE Water Heater	3-C/I Equip	SM C&I	319	0.065	15	Manufacturer Supplied
77 HP Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	14,200	2.880	15	ACEEE PA Report
78 HPT8 4ft 4 lamp, T12 to HPT8	3-C/I Equip	SM C&I	127	0.036	15	TRM
79 LED Exit Signs Electronic Fixtures (Retrofit	3-C/I Equip	SM C&I	158	0.018	10	TRM
80 Occupancy Sensors under 500 W	3-C/I Equip	SM C&I	397	0.099	10	DSMore MI Database
81 Plug Load Occupancy Sensors Document St	3-C/I Equip	SM C&I	803	0.055	5	DSMore MI Database
82 Commercial Smart Strip plug outlet	3-C/I Equip	SM C&I	184	0.013	5	DSMore MI Database
83 Pre Rinse Sprayers	3-C/I Equip	SM C&I	1,396	0.116	5	DSMore MI Database
84 Refrigerant charging correction	3-C/I Equip	SM C&I	712	1.014	10	DSMore MI Database

Appendix E

Measure Name	Program	Rate Class	kWh Savings	kW Savings	Life	Source of Saving Values and Life
85 Refrigeration Commissioning	3-C/I Equip	SM C&I	375	0.043	3	DSMore MI Database
86 Strip curtains for walk-ins - freezer	3-C/I Equip	SM C&I	613	0.070	4	DSMore MI Database
87 Vending Equipment Controller	3-C/I Equip	SM C&I	800	0.210	5	DSMore MI Database
88 Window Film	3-C/I Equip	SM C&I	256	0.147	10	DSMore MI Database
89 Setback/Setup	3-C/I Equip	SM C&I	842	-0.007	9	DSMore MI Database
90 Demand-controlled ventilation (DCV)	4-C/I Equip	LG C&I	8,000	1.340	15	ACEEE PA Report
91 Exterior HID replacement above 175W to 2	4-C/I Equip	LG C&I	409	0.000	12	DSMore MI Database
92 HPT8 4ft 4 lamp, T12 to HPT8	4-C/I Equip	LG C&I	127	0.036	15	TRM
93 Occupancy Sensors under 500 W	4-C/I Equip	LG C&I	397	0.099	10	DSMore MI Database
94 Water-Cooled cent Chiller 150 - 300 ton 0.!	4-C/I Equip	LG C&I	11,891	8.576	15	TRM
95 Water-Cooled Centrifugal Chiller < 150 ton	4-C/I Equip	LG C&I	13,285	9.581	15	TRM
96 Window Film	4-C/I Equip	LG C&I	12,802	7.344	15	DSMore MI Database
97 Motors 1 HP 1200	5-IND MOTOR	LG C&I	97	0.007	15	TRM
98 Motors 5 HP 1200	5-IND MOTOR	LG C&I	329	0.025	15	TRM
99 Motors 10 HP 1200	5-IND MOTOR	LG C&I	467	0.036	15	TRM
100 Motors 20 HP 1200	5-IND MOTOR	LG C&I	857	0.065	15	TRM
101 Motors 1 HP 3600	5-IND MOTOR	LG C&I	66	0.005	15	TRM
102 Motors 5 HP 3600	5-IND MOTOR	LG C&I	174	0.013	15	TRM
103 Motors 10 HP 3600	5-IND MOTOR	LG C&I	325	0.025	15	TRM
104 Motors 20 HP 3600	5-IND MOTOR	LG C&I	502	0.038	15	TRM
105 Water Pumps with VFD's	5-IND MOTOR	LG C&I	1,360	0.024	15	TRM
106 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	1,653	0.029	15	TRM
107 Air Compressors with VFD's	5-IND MOTOR	LG C&I	774	0.014	15	TRM
108 Water Pumps with VFD's	5-IND MOTOR	LG C&I	6,800	0.120	15	TRM
109 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	8,265	0.146	15	TRM
110 Air Compressors with VFD's	5-IND MOTOR	LG C&I	3,870	0.068	15	TRM
111 Water Pumps with VFD's	5-IND MOTOR	LG C&I	13,600	0.240	15	TRM
112 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	16,530	0.292	15	TRM
113 Air Compressors with VFD's	5-IND MOTOR	LG C&I	7,740	0.137	15	TRM

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix F**  
Annual measure participation numbers

Appendix F

	Measure Name	Program	Rate Class	Number of 2010	Number of 2011	Number of 2012	Number of 2013	Participants Assumptions
				Program participants/ Measure Units	Program participants/ Measure Units	Program participants/ Measure Units	Program participants/ Measure Units	
1	DLC-CAC	Demand	Res	4,052	15,209	14,626	0	Res*Sat*Survey
2	DLC-Pool Pumps	Demand	Res	108	700	540	0	Res*Sat*Survey
3	DLC-Pool Pumps	Demand	Res	6	225	374	0	Res*Sat*Survey
4	1-Res Home Audits - CFL 4 - Low Flow 2 Water Heat	1-Res Audits	Res	5,140	25,698	25,698	25,698	Res*Sat*Survey
5	1-Res Home Audits - CFL 4 - Low Flow 2	1-Res Audits	Res	25	125	125	125	Res*Sat*Survey
6	Schools Childern Education-No Savings	1-Res Audits	Res	750	1,500	1,500	1,500	Estimate of Activity
7	Refrigerator/Freezer recycling	2-RES App Turn-In	Res	2,263	11,314	11,314	11,314	Res*Sat*Survey
8	Room Air Conditioners	2-RES App Turn-In	Res	200	1,000	1,000	1,000	Budgetary Limits
9	ASHP - SEER 15	3-RES EE HVAC	Res	111	554	554	554	10% of CAC
10	CAC - SEER 16	3-RES EE HVAC	Res	1,108	5,538	5,538	5,538	Res*Sat*Survey - Minus 10%
11	CAC - Maintenance	3-RES EE HVAC	Res	1,316	6,581	6,581	6,581	Res*Sat*Survey
12	EE Ground Source Heat Pump	4-Res-EE P	Res	0	15	15	15	Budgetary Limits
13	Solar Water Heating	4-Res-EE P	Res	0	15	15	15	Budgetary Limits
14	HP Water Heater	4-Res-EE P	Res	0	50	50	50	Budgetary Limits
15	EE Water Heater	4-Res-EE P	Res	1,356	6,782	6,782	6,782	Res*Sat*Survey
16	Programable Thermostat_Heat	4-Res-EE P	Res	1,257	6,285	6,285	6,285	Res*Sat*Survey
17	Programable Thermostat_CAC	4-Res-EE P	Res	1,538	7,691	7,691	7,691	Res*Sat*Survey
18	CFL bulbs regular-15 -Free No Water Heat	1-Res Audits	Res	5,617	28,084	28,084	28,084	Res*Sat*Survey
	CFL bulbs regular-15 -Free No Water Heat Mailed At							
19	Request	4-Res-EE P	Res	2,950	14,750	14,750	14,750	Res*Sat*Survey
20	CFL bulbs regular - Outside - 15 - Store Rebates	4-Res-EE P	Res	6,873	34,364	34,364	34,364	Res*Sat*Survey
21	CFL bulbs regular - 19 - Store Rebates	4-Res-EE P	Res	31,250	156,250	156,250	156,250	Res*Sat*Survey
	Clothes Washer Energy Star, Electric Water heater,							
22	Electric Dryer	4-Res-EE P	Res	40	200	200	200	Budgetary Limits
23	Dehumidifiers	4-Res-EE P	Res	40	200	200	200	Budgetary Limits
24	Freezers Energy Star-Chest Freezer	4-Res-EE P	Res	40	200	200	200	Budgetary Limits
25	Holiday Lights	4-Res-EE P	Res	504	2,518	2,518	2,518	Res*Sat*Survey
26	LED Night Light	4-Res-EE P	Res	750	1,500	1,500	1,500	Free to School Audits
27	Pump and Motor Single Speed	4-Res-EE P	Res	293	1,465	1,465	1,465	Res*Sat*Survey
28	Refrigerators-Freezers Energy Star - Side by Side	4-Res-EE P	Res	40	200	200	200	Budgetary Limits
29	Refrigerators-Freezers Energy Star - Top Freezer	4-Res-EE P	Res	40	200	200	200	Budgetary Limits
30	Room Air Conditioners	4-Res-EE P	Res	3,230	12,919	12,919	12,919	Res*Sat*Survey
31	Smart Strip plug outlet	4-Res-EE P	Res	3,231	16,157	16,157	16,157	(Res*Sat*Survey)*25%
32	Torchiere Floor Lamps	4-Res-EE P	Res	100	500	500	500	Budgetary Limits
33	Residential New Construction - 15%	5-RES New Con	Res	167	917	917	0	Budgetary Limits
34	Residential New Construction - 30%	5-RES New Con	Res	167	917	917	0	Budgetary Limits
35	Ceiling Fans	6-Res Whole	Res	60	75	75	75	Budgetary Limits
36	Estar Windows	6-Res Whole	Res	60	75	75	75	Budgetary Limits
37	Duct sealing 20 leakage base	6-Res Whole	Res	100	125	125	125	Budgetary Limits
38	Low Flow Showerheads	6-Res Whole	Res	400	500	500	500	Budgetary Limits
39	Kitchen Aerator	6-Res Whole	Res	400	500	500	500	Budgetary Limits
40	Bathroom Aerator	6-Res Whole	Res	400	500	500	500	Budgetary Limits
41	Pipe Wrap	6-Res Whole	Res	100	125	125	125	Budgetary Limits
42	Roof Insulation	6-Res Whole	Res	100	125	125	125	Budgetary Limits
43	Whole Building	6-Res Whole	Res	400	500	500	500	Budgetary Limits
44	Low Income Lighting-Warm	7-Low Income	LI RES	1,360	1,420	1,470	600	WARM Forecast
45	Low Income Lighting-Low Usage	7-Low Income	LI RES	429	2,143	2,143	2,143	Low Income - Low Usage Count
46	Multiple Family - CFL Lighting	8-Multiple Family	Res	367	1,833	1,833	1,833	PAHA Provided
47	Multiple Family - T8-Lighting	8-Multiple Family	SM C&I	367	1,833	1,833	1,833	PAHA Provided
48	Commercial, Industrial Audit - Sm&Md	1-C/I Audits	SM C&I	150	750	750	750	Budgetary Limits
49	Commercial, Industrial Audit - Large	1-C/I Audits	LG C&I	15	75	75	75	Budgetary Limits
50	Commercial CFL Program	1-C/I Audits	SM C&I	6,375	31,877	31,877	31,877	Comm*Survey

Appendix F

Measure Name	Program	Rate Class	Number of 2010	Number of 2011	Number of 2012	Number of 2013	Participants Assumptions
			Program participants/ Measure Units	Program participants/ Measure Units	Program participants/ Measure Units	Program participants/ Measure Units	
51 Commercial, Industrial Audit - Gov Exterior HID replacement above 175W to 250W HID retrofit	1-C/I Audits	Gov	10	10	10	10	Budgetary Limits
52 HPT8 4ft 4 lamp, T12 to HPT8	2-Governmental Programs	Gov	37	203	203	0	Base on Fed Sales
53 LED Exit Signs Electronic Fixtures (Retrofit Only)	2-Governmental Programs	Gov	753	4,142	4,142	0	Base on Fed Sales
54 Occupancy Sensors under 500 W	2-Governmental Programs	Gov	83	458	458	0	Base on Fed Sales
55 LED Auto Traffic Signals	2-Governmental Programs	Gov	83	458	458	0	Base on Fed Sales
56 LED Pedestrian Signals	2-Governmental Programs	Gov	1,000	5,500	5,500	0	Intersection Estimate
57 Street Lighting - 175 Mercury to 100 HPS	2-Governmental Programs	Gov	250	1,375	1,375	0	Intersection Estimate
58 Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with 0.46 kW/ton IPLV	2-Governmental Programs	Gov	1,176	5,881	5,881	5,881	Street Light Count
59 Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton with 0.53 kW/ton IPLV	2-Governmental Programs	Gov	0	8	7	0	Fed Large User Counts
60 AC <65,000 1 Ph	2-Governmental Programs	Gov	0	8	7	0	Fed Large User Counts
61 AC 65,000 - 135,000	3-C/I Equip	SM C&I	100	500	500	500	Budgetary Limits
62 AC 240,000 - 760,000	3-C/I Equip	SM C&I	40	200	200	200	Budgetary Limits
63 Clothes Washer CEE Tier1, Electric Water heater, Electric Dryer	3-C/I Equip	SM C&I	40	200	200	200	Budgetary Limits
64 Demand-controlled ventilation (DCV)	3-C/I Equip	SM C&I	25	125	125	125	Budgetary Limits
65 Efficient Refrigeration Condenser	3-C/I Equip	SM C&I	40	200	200	200	Budgetary Limits
66 ENERGY STAR Commercial Solid Door Freezers less than 20ft3	3-C/I Equip	SM C&I	25	125	125	125	Budgetary Limits
67 ENERGY STAR Commercial Solid Door Freezers 20 to 48 ft3	3-C/I Equip	SM C&I	25	125	125	125	Budgetary Limits
68 ENERGY STAR Commercial Solid Door Refrigerators less than 20ft3	3-C/I Equip	SM C&I	25	125	125	125	Budgetary Limits
69 ENERGY STAR Commercial Solid Door Refrigerators 20 to 48 ft3	3-C/I Equip	SM C&I	25	125	125	125	Budgetary Limits
70 ENERGY STAR Ice Machines less than 500 lbs	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
71 ENERGY STAR Ice Machines 500 to 1000 lbs	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
72 ENERGY STAR Ice Machines more than 1000 lbs	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
73 ENERGY STAR Steam Cookers 3 Pan	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
74 Exterior HID replacement above 175W to 250W HID retrofit	3-C/I Equip	SM C&I	478	2,390	2,390	2,390	Comm*Survey
75 EE Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	222	1,112	1,112	1,112	Comm*Survey Minus 10%
76 HP Water Heater (Base Usage 22831)	3-C/I Equip	SM C&I	25	125	125	125	10% of Water Heating
77 HPT8 4ft 4 lamp, T12 to HPT8	3-C/I Equip	SM C&I	9,769	48,845	48,845	48,845	Comm*Survey*Square Foot Estimate
78 LED Exit Signs Electronic Fixtures (Retrofit Only)	3-C/I Equip	SM C&I	8,078	40,391	40,391	40,391	Comm*Survey
79 Occupancy Sensors under 500 W	3-C/I Equip	SM C&I	1,414	7,071	7,071	7,071	Comm*Survey
80 Plug Load Occupancy Sensors Document Stations	3-C/I Equip	SM C&I	354	1,061	1,061	1,061	Comm*Survey
81 Smart Strip plug outlet	3-C/I Equip	SM C&I	1,616	8,079	8,079	8,079	Comm*Survey
82 Pre Rinse Sprayers	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
83 Refrigerant charging correction	3-C/I Equip	SM C&I	1,538	6,151	6,151	6,151	Comm*Survey
84 Refrigeration Commissioning	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
85 Strip curtains for walk-ins - freezer	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
86 Vending Equipment Controller	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
87 Window Film	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
88 Setback/Setup	3-C/I Equip	SM C&I	50	250	250	250	Budgetary Limits
89 Demand-controlled ventilation (DCV)	4-C/I Equip	LG C&I	1.0	4.0	4.0	4.0	Budgetary Limits
90 Exterior HID replacement above 175W to 250W HID retrofit	4-C/I Equip	LG C&I	254	2,595	2,595	2,595	Comm*Survey
91 HPT8 4ft 4 lamp, T12 to HPT8	4-C/I Equip	LG C&I	5,190	25,951	25,951	25,951	Comm*Survey*Square Foot Estimate

Appendix F

Measure Name	Program	Rate Class	Number of 2010	Number of 2011	Number of 2012	Number of 2013	Participants Assumptions
			Program participants/ Measure Units	Program participants/ Measure Units	Program participants/ Measure Units	Program participants/ Measure Units	
93 Occupancy Sensors under 500 W Water-Cooled cent Chiller 150 - 300 ton 0.57 kW/ton with	4-C/I Equip	LG C&I	751	3,757	3,757	3,757	Comm*Survey
94 0.46 kW/ton IPLV Water-Cooled Centrifugal Chiller < 150 ton 0.56 kW/ton	4-C/I Equip	LG C&I	20	100	100	100	Budgetary Limits
95 with 0.53 kW/ton IPLV	4-C/I Equip	LG C&I	5	25	25	25	Budgetary Limits
96 Window Film	4-C/I Equip	LG C&I	20	100	100	100	Budgetary Limits
97 Motors 1 HP 1200	5-IND MOTOR	LG C&I	75	375	375	375	Using NJ Experience for Motor Program
98 Motors 5 HP 1200	5-IND MOTOR	LG C&I	50	250	250	250	Using NJ Experience for Motor Program
99 Motors 10 HP 1200	5-IND MOTOR	LG C&I	25	125	125	125	Using NJ Experience for Motor Program
100 Motors 20 HP 1200	5-IND MOTOR	LG C&I	10	50	50	50	Using NJ Experience for Motor Program
101 Motors 1 HP 3600	5-IND MOTOR	LG C&I	75	375	375	375	Using NJ Experience for Motor Program
102 Motors 5 HP 3600	5-IND MOTOR	LG C&I	50	250	250	250	Using NJ Experience for Motor Program
103 Motors 10 HP 3600	5-IND MOTOR	LG C&I	25	125	125	125	Using NJ Experience for Motor Program
104 Motors 20 HP 3600	5-IND MOTOR	LG C&I	10	50	50	50	Using NJ Experience for Motor Program
105 Water Pumps with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
106 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
107 Air Compressors with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
108 Water Pumps with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
109 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
110 Air Compressors with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
111 Water Pumps with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
112 HVAC Fans with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program
113 Air Compressors with VFD's	5-IND MOTOR	LG C&I	5	25	25	25	Using NJ Experience for Motor Program

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix G**  
PUC Appendix Tables 1-7

**Table 1: Portfolio Summary of Lifetime Costs and Benefits**

<b>Portfolio Summary of Lifetime Costs and Benefits</b> Net Lifetime Benefits, and TRC per the California Standard Practice Manual					
<b>Portfolio</b>	<b>Discount Rate</b>	<b>Total Discounted Lifetime Costs (\$000)</b>	<b>Total Discounted Lifetime Benefits (\$000)</b>	<b>Total Discounted Net Lifetime Benefits (\$000)</b>	<b>Cost- Benefit Ratio</b>
<b>Residential</b> <i>(exclusive of Low-Income)</i>	7.52%	85,524,151	178,009,081	92,484,930	2.08
<b>Residential Low Income</b>	7.52%	307,738	759,547	451,809	2.47
<b>Commercial/Industrial Small</b>	7.52%	36,387,406	101,357,395	64,969,988	2.79
<b>Commercial/Industrial Large</b>	7.52%	26,276,912	33,528,580	7,251,669	1.28
<b>Governmental/Non-Profit</b>	7.52%	21,639,072	39,651,001	18,011,929	1.83
<b>Total</b>	7.52%	<b>170,135,279</b>	<b>353,305,604</b>	<b>183,170,324</b>	2.08

**Table 2: Summary of Portfolio Energy and Demand Savings**

Summary of Portfolio Energy and Demand Savings Program Year is June 1 – May 31									
MWh Saved for Consumption Reductions kW Saved for Peak Load Reductions	Program Year 2010		Program Year 2011		Program Year 2012		Program Year 2013		
	MWh Saved	kW Saved							
Baseline <sup>1</sup>	14,623,932	2,644,000	14,623,932	2,644,000	14,623,932	2,644,000	14,623,932	2,644,000	
Residential Sector (exclusive of Low- Income) - Cumulative Projected Portfolio Savings <sup>2</sup>	15,619	6,601	91,621	35,661	167,599	64,165	239,162	76,644	
Residential Low- Income Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	204	8	810	49	1,420	89	1,962	129	
Commercial/Industrial Small Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	7,859	2,951	45,596	16,209	83,332	29,466	121,051	42,722	
Commercial/Industrial Large Sector - Cumulative Net Weather Adjusted Savings <sup>2</sup>	1,878	599	11,768	3,592	21,658	6,585	31,548	9,579	
Governmental/Non- Profit Sector - Cumulative Projected Portfolio Savings <sup>2</sup>	3,478	865	21,403	5,125	39,300	9,364	51,255	12,689	
PJM Peak Demand				10,000		10,000			
EE&C Plan Total - Cumulative Projected Savings	29,038	11,024	171,198	70,636	313,309	119,670	447,737	141,762	
Percent Reduction From Baseline (MWh)	0.2%	0.4%	1%	2.7%	2.1%	4.5%	3.1%	5%	
Commission Identified Goal			146,239					438,718	118,980
Percent Savings Due to Portfolio Above or Below Commission Goal			17%					2%	1%

<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.

<sup>3</sup> kW savings depicted for 2013 as 1% above goal are due to savings accumulated from energy efficiency programs that run beyond the summer period of 2012 (June 1 – September 30)

11.4%

**Table 3: Summary of Portfolio Costs**

o Program year is June 1 – May 31

<b>Summary of Portfolio Costs</b>				
<b>Program year is June 1 – May 31</b>				
	<b>Program Year 2010</b>	<b>Program Year 2011</b>	<b>Program Year 2012</b>	<b>Program Year 2013</b>
	<b>Portfolio Budget (\$)</b>	<b>Portfolio Budget (\$)</b>	<b>Portfolio Budget (\$)</b>	<b>Portfolio Budget (\$)</b>
Residential Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	5,518,912	23,072,946	22,633,898	9,086,971
Residential Low-Income Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	55,254	90,655	91,920	69,909
Commercial/Industrial Small Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	749,039	3,323,147	3,323,147	3,323,147
Commercial/Industrial Large Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	319,719	1,446,259	1,446,259	1,446,259
Governmental/Non-Profit Portfolio Annual Budget (\$000 and percent of Portfolio Budget)	605,222	2,571,117	2,570,487	2,196,325
PJM Peak Demand Program		1,200,000	1,200,000	
<b>Total Portfolio Annual Budget</b>	<b>7,248,146</b>	<b>31,704,124</b>	<b>31,265,711</b>	<b>16,122,612</b>

**Table 4: Program Summaries**

o Add additional rows to list more programs.

Table 4: Program Summaries								
	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)	Demand Reduction	RES	Reduce Residential Central Air Conditioning (CAC) Load over the highest 100 load hours	4	16,829	30,368	0.4%	
	Home Energy Audits	RES	Available through two levels: 1) self-administered on-site audit and 2) a walk-through on-site audit performed by auditor.	4	477,488	5,086	12.0%	
	Appliance Turn-In	RES	Provide incentive to households for turning in older inefficient appliances and lighting equipment.	4	502,229	9,926	12.6%	
	EE HVAC & Solar	RES	Provide incentives supporting implementation of contractor-installed HVAC, solar or other eligible systems.	4	181,817	13,374	4.6%	
	EE Products	RES	Provides financial incentives and support to retailers that sell energy efficient products, such as Energy Star® qualified appliances or compact fluorescent light bulbs.	4	553,255	11,033	13.9%	
	New Construction	RES	Provides incentives to builders for achieving Energy STAR Homes status, or the Home Energy Rating System Program (HERS) associated with a highly energy efficient home.	4	110,220	6,221	2.8%	
	Whole Building Comprehensive	RES	Provides comprehensive diagnostic assessments followed by direct installation of selected low cost measures plus incentives to households for implementation of measures addressing building shell, appliances and other energy consuming features. Customers can tap into prescriptive rebates as well as the Keystone Loan program.	4	22,973	526	0.6%	
	Multiple Family	RES	This program seeks to motivate the multifamily property owner/manager and landlords toward installing energy efficient products.	4	8,461	111	0.2%	
	<b>Totals for Residential Sector</b>					<b>1,873,273</b>	<b>76,644</b>	<b>46.9%</b>
Residential Low-Income Sector Programs	Low-Income	RES	This program is an enhancement to the existing Low-Income Usage Reduction Program, known as the WARM program that will provide additional electric energy savings measures and services.	4	53,590	485	1.3%	
	<b>Totals for Low-Income Sector</b>					<b>53,590</b>	<b>485</b>	<b>1.3%</b>

Table 4: Program Summaries							
	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 %
Commercial/ Industrial Small Portfolio Programs	Energy Audit	Small C&I	Provides two levels of energy audit services 1) a simple walk-through audit for small business with non-complex loads, and 2) a more comprehensive assessment for medium to large non-residential customers to help identify existing end uses of energy and find specific ways in which energy savings can be achieved.	4	141,574	6,418	3.5%
	Equipment Rebate	Small C&I	Provides for the implementation of cost effective, high efficiency non-standard measures through the authorized Conservation Service Provider (CSP) contractor network for local, state and federal buildings, as well as for institutional customers.	4	1,012,858	36,306	25.4%
	Multiple Family	Small C&I	This program seeks to motivate the multifamily property owner/manager and landlords toward installing energy efficient products.	4	<b>11,216</b>	<b>237</b>	0.3%
	<b>Totals for C/I Small Sector</b>					<b>1,165,648</b>	<b>42,961</b>
Commercial/ Industrial Large Portfolio Programs	Equipment Rebate	Large C&I	Provides for the implementation of cost effective, high efficiency non-standard measures through the authorized Conservation Service Provider (CSP) contractor network for local, state and federal buildings, as well as for institutional customers.	4	303,364	9,385	7.6%
	Industrial Motors and VSD	Large C&I	This program is designed to encourage the company's commercial and industrial customers to: 1. Upgrade their existing motors to NEMA Premium® motors when switching out old motors due to breakdowns and or programmed replacements 2. Install variable speed drives on motors that do not always operate at the same speed.	4	89,703	193	2.2%
	<b>Totals for C/I Large Sector</b>					<b>393,067</b>	<b>9,579</b>
Governmental/ Non-Profit Portfolio Programs	Governmental & Institutional	Gov't	This program involves a feasibility study to identify energy savings opportunity to expedite the Federal and municipal agencies taking action. Provides for the implementation of cost effective, high efficiency standard and non-standard measures through a Conservation Service Provider (CSP) for local, state and federal buildings, as well as for institutional customers.	4	494,579	12,452	12.4%
	<b>Totals for Gov't/NP Sector Programs</b>					<b>505,795</b>	<b>12,689</b>
<b>Total for Plan</b>					3,991,373	142,358	100.0%

Appendix G

**Table 5: Budget and Parity Analysis Summary**

o Annualized through program year 2013

<b>Customer Class</b>	<b>Average Annualized Budget</b>	<b>% of Total EDC Budget</b>	<b>% of Total Budget Allocating Government &amp; Other</b>	<b>% of Total Customer Revenue</b>	<b>Difference</b>
<b>Residential</b>	16,831,459	69.85%			0
<b>Residential Low Income</b>	85,880	0.36%			0
<b>Residential Subtotal</b>	16,917,339	70.21%	70.21%	43.7%	27%
<b>C&amp;I Small</b>	2,991,204	12.41%	18.8%	23.6%	-5%
<b>C&amp;I Large</b>	1,300,046	5.40%	11.0%	32.7%	-22%
<b>C&amp;I Subtotal</b>	4,291,250	17.81%	29.8%	56.3%	-27%
<b>Governmental/Non-Profit</b>	2,216,693	9.20%			
<b>Governmental/Non-Profit Subtotal</b>	2,216,693	9.20%			
<b>Residential/C&amp;I/Governmental/Non-Profit Subtotal</b>	23,425,282	97.22%			
<b>Other Expenditures</b>					
<b>Other Expenditures Subtotal</b>	669,767	2.78%			
<b>EDC TOTAL</b>	<b>24,095,049</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>0%</b>
1) Governmental is served as part of C&I Small and C&I Large rate classes					

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

<b>Residential Portfolio (including Low-Income)</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Demand Reduction	6,656,265	20,243,802	26,900,067
Home Energy Audits	6,238,300	1,101,044	7,339,344
Appliance Turn-In	1,970,270	5,383,214	7,353,484
EE HVAC & Solar	5,089,398	1,101,943	6,191,340
EE Products	5,323,172	1,946,168	7,269,339
New Construction	3,199,000	892,075	4,091,075
Whole Building Comprehensive	903,925	109,975	1,013,900
Multiple Family	117,334	36,844	154,178
<i>Low-Income</i>	<i>234,180</i>	<i>73,558</i>	<i>307,738</i>
<b>Totals</b>	<b>29,731,843</b>	<b>30,888,622</b>	<b>60,620,465</b>

<b>Small Commercial &amp; Industrial</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Energy Audit	182,008	170,344	352,351
Equipment Rebates	8,335,763	2,151,546	10,487,308
Multiple Family	205,335	67,937	273,272
<b>Totals</b>	<b>8,723,105</b>	<b>2,389,827</b>	<b>11,112,932</b>

<b>Large Commercial &amp; Industrial</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Equipment Rebates	3,654,826	543,262	4,198,089
Industrial Motors and VSD	341,760	87,459	429,219
PJM Demand Response	2,400,000		2,400,000
<b>Totals</b>	<b>6,396,586</b>	<b>630,721</b>	<b>7,027,308</b>

<b>Governmental/Non-Profit</b>			
<b>EE&amp;C Program</b>	<b>Cost Elements (\$)</b>		
	<i>Total Incentives</i>	<i>Operations Costs</i>	<i>Total Budget (2010-2013)</i>
Governmental & Institutional	4,095,904	3,483,985	7,579,889
<b>Totals</b>	<b>4,095,904</b>	<b>3,483,985</b>	<b>7,579,889</b>

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

Common Cost Element	Total Cost (\$)	Basis for Cost Allocation	Class Cost Allocation (\$)			
			Residential (Including Low-Income)	Commercial/Industrial -- Small	Commercial/Industrial -- Large	Governmental/Non-profit
Consultant Costs and Employee Expenses for Plan Development	\$203,160	Sum of Appendix D 1 4 Lines 135-137 Totals	\$142,639	\$41,140	\$19,381	Governmental is served as part of C&I Small and C&I Large rate classes
ACLARA Audit Tool Costs	\$177,765	Residential	\$177,765	\$0	\$0	
Measurement and Verification Tracking and Reporting Software	\$177,765	Sum of Appendix D 1 4 Lines 135-137 Totals	\$124,809	\$35,997	\$16,959	
External Legal Fees	\$50,790	Sum of Appendix D 1 4 Lines 135-137 Totals	\$35,660	\$10,285	\$4,845	
<b>Totals</b>	<b>\$609,480</b>		<b>\$480,873</b>	<b>\$87,422</b>	<b>\$41,185</b>	

**Table 6C: Summary of Portfolio EE&C Costs**

<b>Portfolio</b>	<b>Total Sector Portfolio-specific Costs</b>	<b>Total Common Costs</b>	<b>Total of All Costs</b>
Residential (Including Low-Income)	\$60,620,465	\$480,873	\$61,101,338
Commercial/Industrial -- Small	\$17,480,259	\$87,422	\$17,567,681
Commercial/Industrial -- Large	\$8,239,870	\$ 41,185	\$8,281,055
Governmental/Non-profit	Governmental is served as part of C&I Small and C&I Large rate classes		
<b>Totals</b>	<b>\$86,340,593</b>	<b>\$609,480</b>	<b>\$86,950,073</b>

Table 7A: TRC Benefits Table

TRC Benefits By Program Per Year (\$000)												
Residential Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved	
					Annual Benefits	Annual Gen/T&D	Annual Benefits	Annual On/Off Peak	Annual	Lifetime	Annual	Lifetime
Demand Reduction	2010	1.03	3,106,248	3,202,683	3,018,385	See footnote 1	184,298	See footnote 2	3,464	30,368	169	16,829
	2011	1.10	12,116,433	13,378,484	12,616,380		762,104		17,194	30,368	824	16,829
	2012	1.16	11,677,385	13,596,002	12,825,682		770,320		30,368	30,368	1,455	16,829
	2013	0.00	-	-	-		-		30,368	30,368	1,455	16,829
Home Energy Audits	2010	3.45	489,736	1,691,352	186,359		1,504,993		322	5,086	3,837	477,488
	2011	3.82	2,289,869	8,751,424	984,641		7,766,783		1,910	5,086	22,492	477,488
	2012	4.03	2,289,869	9,224,639	1,061,752		8,162,886		3,498	5,086	41,148	477,488
	2013	4.23	2,289,869	9,685,473	1,108,133		8,577,340		5,086	5,086	59,803	477,488
Appliance Turn-In	2010	4.13	469,338	1,936,155	362,655		1,573,500		620	9,926	4,418	502,229
	2011	4.48	2,294,715	10,283,824	1,943,247		8,340,577		3,722	9,926	26,506	502,229
	2012	4.73	2,294,715	10,863,202	2,094,272		8,768,929		6,824	9,926	48,595	502,229
	2013	4.98	2,294,715	11,424,177	2,185,456		9,238,721		9,926	9,926	70,683	502,229
EE HVAC	2010	1.34	1,179,047	1,578,632	611,454		967,178		836	13,374	1,163	181,817
	2011	1.43	5,872,453	8,391,432	3,243,083		5,148,349		5,015	13,374	6,980	181,817
	2012	1.51	5,872,453	8,841,266	3,457,066		5,384,200		9,195	13,374	12,797	181,817
	2013	1.57	5,872,453	9,190,984	3,587,350		5,603,635		13,374	13,374	18,614	181,817
EE Products	2010	2.16	1,099,851	2,379,541	528,537		1,851,003		723	11,033	4,820	553,255
	2011	2.27	5,471,502	12,405,176	2,679,472		9,725,704		4,159	11,033	28,848	553,255
	2012	2.39	5,471,502	13,063,050	2,856,440		10,206,610		7,596	11,033	52,877	553,255
	2013	2.49	5,471,502	13,644,260	2,965,243		10,679,016		11,033	11,033	76,905	553,255
New Construction	2010	2.00	464,667	928,337	499,502		428,835		518	6,221	688	110,220
	2011	2.16	2,498,442	5,388,672	2,885,684		2,502,989		3,370	6,221	4,472	110,220
	2012	2.27	2,498,442	5,679,682	3,042,637		2,637,045		6,221	6,221	8,256	110,220
	2013	0.00	525	-	-		-		6,221	6,221	8,256	110,220
Whole Building	2010	0.88	425,839	373,575	97,795		275,780		111	526	440	22,973
	2011	0.95	519,468	495,672	128,770		366,902		249	526	989	22,973
	2012	1.01	519,468	523,023	136,223		386,800		387	526	1,538	22,973
	2013	1.05	519,468	547,231	140,897		406,334		526	526	2,088	22,973
Multiple Family	2010	2.13	14,277	30,447	3,624		26,823		7	111	85	8,461
	2011	3.48	46,634	162,132	19,531		142,601		42	111	509	8,461
	2012	3.65	46,634	170,427	21,181		149,246		76	111	934	8,461
	2013	3.82	46,634	178,129	22,144		155,986		111	111	1,358	8,461
<b>Total</b>		<b>2.08</b>	<b>85,524,151</b>	<b>178,009,081</b>	<b>65,313,595</b>		<b>112,695,485</b>		<b>76,644</b>	<b>76,644</b>	<b>239,162</b>	<b>1,873,273</b>

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

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

Table 7B: TRC Benefits Table

Residential Low-Income		TRC Benefits By Program Per Year (\$000)											
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy Annual Benefits	Energy		kW		MWh Saved	
					Annual Benefits	Gen/T&D		Annual Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime
<b>Low Income</b>	2010	1.24	55,254	68,759	4,237	See footnote 1 on PUC Table 7A	64,522	See footnote 2 on PUC Table 7A	8	485	204	12,224	
	2011	2.50	90,655	226,371	22,834		203,537		49	485	810	12,224	
	2012	2.60	91,920	239,142	24,763		214,379		89	485	1,420	12,224	
	2013	3.22	69,909	225,275	25,889		199,386		129	485	1,962	12,224	
<b>Total</b>		<b>2.47</b>	<b>307,738</b>	<b>759,547</b>	<b>77,724</b>		<b>681,823</b>		<b>129</b>	<b>485</b>	<b>1,962</b>	<b>12,224</b>	

Table 7C: TRC Benefits Table

Commercial/Industrial Small		TRC Benefits By Program Per Year (\$000)											
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy		Load Reductions in kW		MWh Saved		
					Annual Benefits	Gen/T&D	Annual Benefits	On/Off Peak	Annual	Lifetime	Annual	Lifetime	
<b>Energy Audit</b>	2010	1.98	333,543	658,845	210,047	See footnote	448,798	See footnote	401	6,418	1,420	141,574	
	2011	2.37	1,484,475	3,517,981	1,131,975	1 on PUC	2,386,006	2 on PUC	2,407	6,418	8,522	141,574	
	2012	2.51	1,484,475	3,724,796	1,227,606	Table 7A	2,497,191	Table 7A	4,413	6,418	15,623	141,574	
	2013	2.62	1,484,475	3,893,375	1,283,416		2,609,959		6,418	6,418	22,725	141,574	
<b>Equipment Rebate</b>	2010	2.31	2,309,041	5,329,245	1,886,246		3,442,999		2,550	36,306	6,439	1,012,858	
	2011	2.42	11,004,192	26,604,235	8,861,719		17,742,516		13,802	36,306	37,074	1,012,858	
	2012	2.56	11,004,192	28,157,965	9,417,504		18,740,460		25,054	36,306	67,709	1,012,858	
	2013	2.68	11,004,192	29,470,955	9,766,185		19,704,769		36,306	36,306	98,327	1,012,858	
<b>Multiple Family</b>	2010	0.75	62,787	47,020	14,290		32,730		15	237	53	11,216	
	2011	5.33	46,634	248,720	75,052		173,668		89	237	315	11,216	
	2012	5.62	46,634	262,104	79,134		182,969		163	237	578	11,216	
	2013	5.87	46,634	273,817	81,711		192,106		237	237	840	11,216	
<b>Total</b>		<b>2.53</b>	<b>40,311,275</b>	<b>102,189,056</b>	<b>34,034,885</b>		<b>68,154,171</b>		<b>42,961</b>	<b>42,961</b>	<b>121,892</b>	<b>1,165,648</b>	

Table 7D: TRC Benefits Table

Commercial/Industrial Large													
Program	Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity		Energy Annual Benefits	Energy Annual On/Off Peak	Load Reductions in kW		MWh Saved		
					Annual Benefits	Annual Gen/T&D			Annual	Lifetime	Annual	Lifetime	
Equipment Rebate	2010	1.2953	1,213,362	1,571,693	547,914		1,023,780		587	9,385	1,458	303,364	
	2011	1.3374	6,423,233	8,590,425	2,879,295		5,711,130		3,520	9,385	9,248	303,364	
	2012	1.4098	6,423,233	9,055,732	3,039,429		6,016,303		6,453	9,385	17,039	303,364	
	2013	1.4723	6,423,233	9,456,836	3,140,385		6,316,451		9,385	9,385	24,829	303,364	
Industrial Motors and VSD	2010	1.5657	174,612	273,384	11,627		261,757		12	193	420	89,703	
	2011	2.188	662,683	1,449,975	61,062		1,388,913		72	193	2,520	89,703	
	2012	2.3053	662,683	1,527,684	64,383		1,463,301		133	193	4,620	89,703	
	2013	2.4187	662,683	1,602,852	66,479		1,536,372		193	193	6,719	89,703	
<b>Total</b>		<b>1.48</b>	<b>22,645,722</b>	<b>33,528,580</b>	<b>9,810,573</b>		<b>23,718,007</b>		<b>9,579</b>	<b>9,579</b>	<b>31,548</b>	<b>393,067</b>	

Table 7E: TRC Benefits Table

Governmental/Non-Profit		TRC Benefits By Program Per Year (\$000)										
		Program Year	TRC	Program Costs (\$000)	Program Benefits (\$000)	Capacity Annual Benefits	Capacity Annual Gen/T&D	Energy Annual Benefits	Energy Annual On/Off Peak	Load Reductions in kW Annual	Load Reductions in kW Lifetime	MWh Saved Annual
Governmental & Institutional	2010	1.664	1,402,839	2,334,393	638,837	See footnote	1,695,556	See footnote	850	12,452	3,425	494,579
	2011	1.8166	7,100,288	12,898,471	3,379,126	1 on PUC	9,519,345	2 on PUC	5,036	12,452	21,088	494,579
	2012	1.9218	7,067,508	13,582,474	3,569,553	Table 7A	10,012,921	Table 7A	9,201	12,452	38,722	494,579
	2013	1.9817	5,048,104	10,004,002	2,851,453		7,152,549		12,451	12,452	50,415	494,579
<b>Total</b>		<b>1.88</b>	<b>20,618,739</b>	<b>38,819,340</b>	<b>10,438,969</b>		<b>28,380,370</b>		<b>12,451</b>	<b>12,452</b>	<b>50,415</b>	<b>494,579</b>

*Energy Efficiency and Conservation Plan  
Appendices*

**Appendix H - Tariff Rider**  
Energy Efficiency and Conservation Charge Rider

Metropolitan Edison Company

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RIDERS

RIDER XX

ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation ("EEC") Charge ("EEC-C") shall be applied to each kWh delivered during a billing month to Customers served under this Tariff, with the exception of those served under Borderline Service rates, determined to the nearest one-thousandth of a cent per kWh. The EEC-C rates shall be calculated separately for each Customer Class according to the provisions of this rider.

For service rendered November 1, 2009 through May 31, 2013 the EEC-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate RS, Rate RT, and Rate GS – Volunteer Fire Company, and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate):

0.353 cents per kWh

Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate MS, Street Lighting Service, Ornamental Street Lighting, and Outdoor Lighting Service):

0.189 cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate TP):

0.045 cents per kWh.

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The EEC-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EEC-C = [(EEC_C - E) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3} + EEC_{Exp4}$$

Where:

- EEC-C = The charge in cents per kWh by Customer Class as defined by this rider applied to each kWh delivered for the Rate Schedules identified in this rider.
- EEC<sub>C</sub> = The Energy Efficiency and Conservation Costs by Customer Class projected to be incurred by the Company for the EEC-C Computational Period calculated in accordance with the formula shown above.
- EEC<sub>Exp1</sub> = Costs incurred associated with the Customer Class specific EEC Programs as approved by the Commission for the EEC-C Computation Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's EEC Programs for the EEC-C Computational Period.
- EEC<sub>Exp2</sub> = An allocated portion of incremental administrative start-up costs incurred by the Company through October 31, 2009 in connection with the development of the Company's EEC Programs in response to the Commission's orders and guidance at Docket No. M-2008-2069887. These costs to design, create, and obtain Commission approval for the Company's EEC Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's EEC Programs in compliance with Commission directives. These costs shall be amortized over the 7-month period ending May 31, 2010. Interest will be calculated monthly on the average of the beginning and ending of month balance of these costs as incurred and included in the determination of the monthly amortized amount. The interest shall be computed at the legal rate determined pursuant to 41 P.S. § 202.

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- $EEC_{Exp3}$  = An allocated portion of the costs the Company incurs to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's EEC Programs costs.
- $EEC_{Exp4}$  = An allocated portion of energy-related costs to be paid to PJM for the Economic Load Response Program, or any successor PJM program, incurred by the Company as the load serving entity.
- E = The cumulative over or under-collection of EEC costs by Customer Class that results from the billing of the EEC-C rates (an over-collection is denoted by a positive E and an under-collection by a negative E).
- S = The Company's projected kWh sales delivered to all Customers in the specific Customer Class.
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this tariff. For the purpose of this rider, the following additional definitions shall apply:

1. EEC-C Computational Period – The 43-month period from November 1, 2009 through May 31, 2013.
2. EEC-C Reconciliation Year – The 12-month period ending May 31 each year for the duration of this rider.

Upon determination that the EEC-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by Customer Class, the Company may request that the Commission approve one or more interim revisions to the EEC-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider within thirty (30) days following the conclusion of each EEC-C Reconciliation Year.

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At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the EEC-C rates shall be subject to annual review and audit by the Commission.