

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF PECO ENERGY COMPANY :  
FOR APPROVAL OF ITS ACT 129 ENERGY :  
EFFICIENCY AND CONSERVATION PLAN : DOCKET NO. M-2009-2093215  
AND EXPEDITED APPROVAL OF ITS :  
COMPACT FLUORESCENT LAMP :  
PROGRAM :**

**VOLUME I OF V**

**PETITION AND DIRECT TESTIMONY**

**COVER LETTER**

**PETITION**

**PECO STATEMENT NO. 1**

**TESTIMONY OF FRANK J. JURUSKA**

**PECO EXHIBIT FJJ-1**

**STATEMENTS OF SUPPORT BY PECO  
STAKEHOLDERS**

**PECO STATEMENT NO. 2**

**TESTIMONY OF GREGORY A. WIKLER**

**PECO EXHIBIT GAW-1**

**RESUME OF GREGORY A. WIKLER**

**PECO STATEMENT NO. 3**

**TESTIMONY OF RICHARD A. SCHLESINGER**

**PECO EXHIBIT RAS-1**

**PECO EXHIBIT RAS-2**

**PECO EXHIBIT RAS-3**

**PECO EXHIBIT RAS-4**

**TARIFF SUPPLEMENT NO. 94  
PROGRAM COSTS BY RATE CLASS  
CALCULATION OF LEVELIZED COST  
RECOVERY CHARGES  
RESPONSES TO COMMISSION FILING  
REQUIREMENTS AT 52 PA CODE § 53.52**

**July 1, 2009**

**Frank J. Jiruska**  
Director, Energy & Marketing Svcs.

Telephone 215.841.5227  
Fax 215.841.5309  
www.exeloncorp.com  
frank.jiruska@exeloncorp.com

PECO Energy  
2301 Market St.  
Philadelphia, PA 19103

July 1, 2009

**BY HAND DELIVERY**

James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

**Re: Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan and Expedited Approval of its Compact Fluorescent Lamp Program - Docket No. M-2009-2093215**

Dear Secretary McNulty:

Pursuant to Pennsylvania Act 129 and the Commission's Energy Efficiency and Conservation Program Implementation Order,<sup>1</sup> enclosed for filing please find an original and three copies of the *Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan and Expedited Approval of its Compact Fluorescent Lamp Program*. Please note that PECO respectfully requests approval of its Compact Fluorescent Lamp Program by **July 23, 2009**.

PECO's filing is organized as follows:

**Volume I**

PECO's Petition  
PECO Statement No. 1 – Direct Testimony of Frank J. Jiruska;  
PECO Statement No. 2 – Direct Testimony of Gregory A. Wikler;  
PECO Statement No. 3 – Direct Testimony of Richard A. Schlesinger.

**Volume II**

PECO's Act 129 Energy Efficiency and Conservation Plan

**Volume III**

Act 129 Energy Efficiency and Conservation Plan Appendices A-E  
(Please note that Confidential and Public Versions of this Volume have been provided.)

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

July 1, 2009

James J. McNulty, Secretary

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**Volume IV**

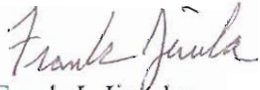
Act 129 Energy Efficiency and Conservation Plan Appendices F1-F8

**Volume V**

Act 129 Energy Efficiency and Conservation Plan Appendix F9

If you have any questions regarding this filing, please do not hesitate to contact me at 215-841-5227.

Sincerely,



Frank J. Jiriska

Director

Energy and Marketing Services

cc: Commissioner James H. Cawley, Chairman  
Commissioner Tyrone J. Christy, Vice Chairman  
Commissioner Wayne Gardner  
Commissioner Kim Pizzingrilli  
Commissioner Robert F. Powelson  
Certificate of Service

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PROGRAM :**

**CERTIFICATE OF SERVICE**

I hereby certify that I have this date served a true copy of the enclosed **Petition of PECO Energy Company For Approval of its Act 129 Energy Efficiency and Conservation Plan and Expedited Approval of its Compact Fluorescent Lamp Program** upon the individuals listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

**Via Hand Delivery**

James H. Cawley  
Chairman  
Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

Tyrone J. Christy  
Vice Chairman  
Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

Assistant – Eric Matheson

Assistants – Billie Ramsey and Jamie  
McClintock

Wayne E. Gardner  
Commissioner  
Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

Kim Pizzingrilli  
Commissioner  
Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

Assistant – Kim Barrow

Assistant – Shane Rooney



Robert F. Powelson  
Commissioner  
Commonwealth of Pennsylvania  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

Assistant – Steve Klick

Wayne Williams, Director  
Bureau of Conservation, Economics & Energy  
Planning  
Pennsylvania Public Utility Commission  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

Irwin A. Popowsky  
Tanya J. McCloskey  
Office of Consumer Advocate  
555 Walnut Street  
5<sup>th</sup> Floor, Forum Place  
Harrisburg, PA 17101  
[ipopowsky@paoca.org](mailto:ipopowsky@paoca.org)  
[tmccloskey@paoca.org](mailto:tmccloskey@paoca.org)

John Hanger  
Dan Griffith  
Julien Gaudion  
Pennsylvania Department of Environmental  
Protection  
Rachel Carson State Office Building,  
16<sup>th</sup> Floor  
400 Market Street  
Harrisburg, PA 17105  
[jhanger@state.pa.us](mailto:jhanger@state.pa.us)  
[dgriffith@state.pa.us](mailto:dgriffith@state.pa.us)  
[jgaudion@state.pa.us](mailto:jgaudion@state.pa.us)

The Honorable Marlane R. Chestnut  
Administrative Law Judge  
Pennsylvania Public Utility Commission  
1302 Philadelphia State Office Building  
Broad and Spring Garden Streets  
Philadelphia, PA 19130

Bohdan R. Pankiw  
Pennsylvania Public Utility Commission  
Law Bureau  
400 North Street, 3<sup>rd</sup> Floor  
Harrisburg, PA 17120

William R. Lloyd, Jr.  
Daniel G. Asmus  
Office of Small Business Advocate  
Commerce Building, Suite 1102  
300 North Second Street  
Harrisburg, PA 17101  
[willlloyd@state.pa.us](mailto:willlloyd@state.pa.us)  
[dasmus@state.pa.us](mailto:dasmus@state.pa.us)

Johnnie E. Simms  
Pennsylvania Public Utility Commission  
Office of Trial Staff  
Commonwealth Keystone Bldg.  
400 North Street  
Harrisburg, PA 17120  
[josimms@state.pa.us](mailto:josimms@state.pa.us)

Harry Geller  
John Gerhard  
Pennsylvania Utility Law Project  
118 Locust Street  
Harrisburg, PA 17101  
[hgellerpulp@palegalaid.net](mailto:hgellerpulp@palegalaid.net)  
[jgerhardpulp@palegalaid.net](mailto:jgerhardpulp@palegalaid.net)

David M. Kleppinger  
Charis Mincavage  
Barry Naum  
McNees, Wallace & Nurick, LLC  
100 Pine Street  
Harrisburg, PA 17108  
(Philadelphia Area Industrial Energy Users  
Group)  
[dkleppinger@mwn.com](mailto:dkleppinger@mwn.com)  
[cmincavage@mwn.com](mailto:cmincavage@mwn.com)  
[bnaum@mwn.com](mailto:bnaum@mwn.com)

Spencer Finch  
Pennsylvania Environmental Council  
130 Locust Street, Suite 200  
Harrisburg, PA 17101  
[sfinch@pecpa.org](mailto:sfinch@pecpa.org)

Tom Tuffey  
Courtney Lane  
PennFuture  
1518 Walnut Street, Suite 1100  
Philadelphia, PA 19102  
[ttuffey@pennfuture.org](mailto:ttuffey@pennfuture.org)  
[lane@pennfuture.org](mailto:lane@pennfuture.org)

Jonathan Stein  
Philip Bertocci  
Thu B. Tran  
Community Legal Services, Inc.  
1424 Chestnut Street  
Philadelphia, PA 19103  
[jstein@clsphila.org](mailto:jstein@clsphila.org)  
[pbertocci@clsphila.org](mailto:pbertocci@clsphila.org)  
[ttran@clsphila.org](mailto:ttran@clsphila.org)

Roger Clark  
The Reinvestment Fund  
Sustainable Development Fund  
718 Arch Street, Suite 300 North  
Philadelphia, PA 19106  
[roger.clark@trfund.com](mailto:roger.clark@trfund.com)

## Via Federal Express

Ellen Lutz  
Yvette Brown  
Clean Markets  
40 West Evergreen Avenue  
Philadelphia, PA 19118  
[elutz@cleanmarketswork.com](mailto:elutz@cleanmarketswork.com)  
[ybrown@cleanmarketswork.com](mailto:ybrown@cleanmarketswork.com)

Liz Robinson  
Energy Coordinating Agency  
1921 Arch Street  
Philadelphia, PA 19102  
[liz@ecasavesenergy.org](mailto:liz@ecasavesenergy.org)

Joseph Smith  
Steven Hershey  
Cristina Coltro  
Philadelphia Gas Works  
800 West Montgomery Avenue  
Philadelphia, PA 19122  
[joseph.smith@pgworks.com](mailto:joseph.smith@pgworks.com)  
[steven.hershey@pgworks.com](mailto:steven.hershey@pgworks.com)  
[cristina.coltro@pgworks.com](mailto:cristina.coltro@pgworks.com)

J. Barry Davis  
Jessica Diaz  
City of Philadelphia Law Department  
1515 Arch Street, 16<sup>th</sup> Floor  
Philadelphia, PA 19102  
[j.barry.davis@phila.gov](mailto:j.barry.davis@phila.gov)  
[jessica.diaz@phila.gov](mailto:jessica.diaz@phila.gov)

Rob Graff  
Delaware Valley Regional Planning  
Commission  
190 North Independence Mall West  
Philadelphia, PA 19106  
[rgraff@dvrpc.org](mailto:rgraff@dvrpc.org)

Bill Toffey  
Kristin Sullivan  
Office of Sustainability  
City of Philadelphia  
Municipal Services Building  
1401 JFK Boulevard  
Philadelphia, PA 19102  
[william.toffey@phila.gov](mailto:william.toffey@phila.gov)  
[kristin.sullivan@phila.gov](mailto:kristin.sullivan@phila.gov)

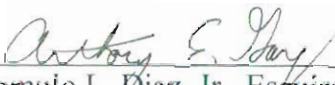
Dwight Price  
The Electrical Association of Philadelphia  
527 Plymouth Road, Suite 408  
Plymouth Meeting, PA 19462  
[Dwight@eap.org](mailto:Dwight@eap.org)

**Via First Class U.S. Mail**

Paul E. Russell  
PP&L Services Corporation  
Two North Ninth Street  
Allentown, PA 18101  
[perussell@pplweb.com](mailto:perussell@pplweb.com)

John L. Munsch  
Allegheny Power  
800 Cabin Hill Drive  
Greensburg, PA 15601-1689  
[jmunsch@alleghenyenergy.com](mailto:jmunsch@alleghenyenergy.com)

John F. Povilaitis  
Ryan, Russell, Ogden & Seltzer  
800 North Third Street, Suite 101  
Harrisburg, PA 17102-2025  
[jpovilaitis@ryanrussell.com](mailto:jpovilaitis@ryanrussell.com)

  
Romulo L. Diaz, Jr., Esquire  
Associate General Counsel  
Anthony E. Gay, Esquire  
Assistant General Counsel  
PECO Energy Company  
2301 Market Street  
P.O. Box 8699  
Philadelphia, PA 19101-8699  
215.841.4635  
[romulo.diaz@exeloncorp.com](mailto:romulo.diaz@exeloncorp.com)  
[anthony.gay@exeloncorp.com](mailto:anthony.gay@exeloncorp.com)

Thomas P. Gadsden, Esquire  
Kenneth M. Kulak, Esquire  
Anthony C. DeCusatis, Esquire  
Catherine G. Davis, Esquire  
Morgan Lewis & Bockius LLP  
1701 Market Street  
Philadelphia, PA 19103  
215.963.5234  
[tgadsden@morganlewis.com](mailto:tgadsden@morganlewis.com)  
[kkulak@morganlewis.com](mailto:kkulak@morganlewis.com)  
[adecusatis@morganlewis.com](mailto:adecusatis@morganlewis.com)  
[catherine.davis@morganlewis.com](mailto:catherine.davis@morganlewis.com)

July 1, 2009

Counsel for PECO Energy Company



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COMPACT FLUORESCENT LAMP :  
PROGRAM :**

**PETITION**

PECO Energy Company (“PECO” or the “Company”) hereby petitions the Pennsylvania Public Utility Commission (the “Commission”) to approve PECO’s first Energy Efficiency and Conservation Plan (the “EE&C Plan” or “Plan”) to reduce energy consumption and demand in its service territory in accordance with the requirements of Act 129, 66 Pa. C.S. § 2806.1 (“Act 129” or the “Act”). Specifically, PECO requests the Commission to: (1) find that the EE&C Plan satisfies the requirements of 66 Pa. C.S. § 2806.1(b)(1)(i)(A)-(K), including the requirement to provide programs to achieve or exceed the energy savings and demand reductions mandated by Act 129; (2) approve PECO’s proposed compact fluorescent lamp (“CFL”) program on an expedited basis in order that PECO may build on upcoming national CFL initiatives by the United States Department of Energy and the Environmental Protection Agency to achieve customer energy savings as early as possible; (3) approve tariff provisions to implement the EE&C Plan, including a Section 1307(g) surcharge to recover EE&C Plan costs; and (4) approve the contract between PECO and Global Energy Partners, LLC, a conservation service provider (“CSP”) working with PECO to develop its EE&C Plan.

PECO’s EE&C Plan is a comprehensive package of energy efficiency and demand response measures designed to meet Act 129’s mandated energy savings and peak demand



reductions on schedule and within Act 129's cost limitations. Through an extensive planning process involving PECO's many stakeholders, as well as surveys of PECO customers and reviews of effective programs in other states, PECO developed ten energy efficiency programs and eight demand reduction programs tailored for Pennsylvania and the different needs of its residential, commercial and industrial customers. The Plan describes each of these programs in great detail, with specific information on target customer groups, marketing and implementation strategies, use of third-party CSPs, risk management, measurement and evaluation procedures, and estimated program participation, costs, and savings.

PECO's Plan is anticipated to reduce annual energy consumption by nearly 1.3 million megawatt-hours (MWh) by May 31, 2013. Just one of the Plan's programs – the CFL program, for which PECO seeks expedited approval – is expected to deliver over 290,000 MWh of energy savings during program year ("PY") 2012, with net lifetime benefits totaling more than three times program costs. The energy savings and demand reduction requirements of Act 129 are among the most aggressive in the country, and the time allowed PECO to achieve these reductions is less than the time normally allocated to utilities in other states. PECO therefore requests that the Commission approve its Plan, including expedited approval of its CFL program, so that PECO can immediately begin implementation and its customers can begin to realize significant savings in accordance with the goals of Act 129.

## **I. INTRODUCTION**

1. PECO is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania with its principal office in Philadelphia, Pennsylvania. PECO provides electric delivery service to approximately 1.6 million customers and natural gas delivery service to approximately 475,000 customers in Pennsylvania.

2. On October 15, 2008, Governor Edward G. Rendell signed Act 129 into law. Act 129 was subsequently codified in the Pennsylvania Public Utility Code at Sections 2806.1 and 2806.2 (66 Pa. C.S. § 2806.1 & 2806.2). On January 16, 2009, the Commission entered an order providing standards and guidance for implementing the requirements of Act 129. *See Energy and Conservation Program, Docket No. M-2008-2069887 (“Implementation Order”)*,

3. Generally, Act 129’s energy efficiency provisions require each electric distribution company (“EDC”) with at least 100,000 customers to adopt an EE&C plan that will achieve annual consumption savings of at least 1% for its retail customer base by May 31, 2011 and at least 3% by May 31, 2013. 66 Pa. C.S. § 2806.1(c). These savings are to be measured against the EDC’s forecasted customer consumption for the period June 1, 2009 through May 31, 2010. *Id.*; *see also Implementation Order*, p. 8.

4. Act 129 also includes demand reduction provisions, which require that each EDC with at least 100,000 customers reduce the average system peak demand for its retail customers over the 100 highest hours of demand by a minimum of 4.5% by May 31, 2013. 66 Pa. C.S. § 2806.1(d). As construed by the Commission, this demand reduction is to be measured against the EDC’s average peak demand over the highest 100 hours for the period June 1, 2007 through September 30, 2007. *Id.*; *see also Implementation Order*, p. 21.

5. The Act also includes provisions requiring that these reductions be derived from certain customer groups. Specifically, a minimum of 10% of an EDC’s consumption reductions must come from projected usage by federal, state and local governments, including municipalities, school districts, colleges and nonprofit agencies within PECO’s service territory. 66 Pa. C.S. § 2806.1(b)(1)(i)(B). The Act also states that each EDC’s plan must include specific energy efficiency programs for low-income households (defined as households at or below 150%

of the Federal poverty income guidelines), which must be coordinated with other programs administered by the Commission, or other government entities, and that spending for these programs must be in addition to existing Low-Income Usage Reduction Program (“LIURP”) spending by the EDC. 66 Pa. C.S. § 2806.1(b)(1)(i)(G).

6. Pursuant to the Act, and a Commission order interpreting the Act, an EDC’s plan must also pass a “total resource cost” or “TRC” test, which is a test that establishes that the avoided cost of supplying electricity is greater than the cost of a plan’s energy efficiency and conservation measures. 66 Pa. C.S. § 2806.1(b)(1)(i)(I); *Implementation of Act 129 of 2008 – Total Resource Cost Test*, Docket No. M-2009-210860 (Order entered June 23, 2009), at 8.

7. The Act provides that an EDC’s plan shall include a cost recovery mechanism to fund the EE&C measures and ensure full and current EDC cost recovery of prudent and reasonable costs, including administrative costs. 66 Pa. C.S. § 2806.1(h). However, Act 129 limits an EDC’s annual EE&C plan expenditures to 2% of its total annual revenue as of December 31, 2006. 66 Pa. C.S. § 2806.1(g); *Implementation Order*, p. 32. (For PECO, this 2% figure is approximately \$85.5 million.)

8. This Petition describes PECO’s EE&C Plan, including the CFL program for which PECO is seeking expedited approval, and PECO’s proposed mechanism for recovery of its Plan costs. This Petition includes the following statements and exhibits, which are attached hereto and incorporated herein by reference:

**PECO Statement No. 1** – Direct Testimony of Frank J. Jiruska, Director of Energy and Marketing Services for PECO

Exhibit FJJ-1                      Statements of Support by PECO Stakeholders



**PECO Statement No. 2** -- Direct Testimony of Gregory A. Wikler, Vice President of Global Energy Partners, LLC (and consultant to PECO)

Exhibit GAW-1 Resume of Gregory A. Wikler

**PECO Statement No. 3** -- Direct Testimony of Richard A. Schlesinger, PECO Principal Rate Administrator

Exhibit RAS-1 Tariff Supplement No. 94

Exhibit RAS-2 Program Costs By Rate Class

Exhibit RAS-3 Calculation of Levelized Cost Recovery Charges

Exhibit RAS-4 Responses to Commission filing requirements at 52 Pa. Code § 53.52

**PECO Exhibit 1** – PECO Energy Efficiency and Conservation Plan (Program Years 2009-2012)

Appendix A – PECO Electricity Consumption Forecast

Appendix B – Average Hourly Demand

Appendix C – CSP Contracts

Appendix D – Program-by-Program Savings and Costs per Program Year

Appendix E – Program-by-Program Detailed Backup Tables

Appendix F – Other Appendices (including customer surveys and stakeholder presentations)

## **II. PROGRAMS IN PECO'S EE&C PLAN**

9. As described in detail in the Plan and in the testimony of Messrs. Jiruska and Wikler, PECO conducted an extensive development process based on industry standards to identify and design the programs that should be included in its Plan. This process included the following key components:

- **Developing Supporting Customer Data.** PECO collected and reviewed large amounts of customer-related data, including historical billing and load characteristics as well the experience of previous energy efficiency and demand reduction programs. As part of this component, PECO conducted an on-line survey of residential customers and met with residential, commercial, and

industrial customer focus groups to develop a better understanding of the way in which customers use energy and the levels of energy efficiency PECO customers have already achieved as a result of installing energy efficiency measures.

- **Conducting An Energy Efficiency Potential Study.** PECO also identified the potential size of the energy efficiency market in its service territory to determine what was technically and economically feasible and the maximum achievable possible savings. During this part of the process, PECO created a “universal list” of more than one hundred potential energy efficiency and demand reduction measures and conducted numerous meetings with PECO stakeholders to obtain additional input, proposed measures, and feedback.
- **Developing A Portfolio of Potential Energy Efficiency and Conservation Programs.** Based upon its data collection efforts, the potential study, and stakeholder input, PECO identified a portfolio of programs and compared those programs to energy efficiency and demand reduction programs in use elsewhere in the country.
- **Analyzing Potential Programs.** Upon identification of the portfolio of potential programs, PECO then conducted a detailed economic analysis of each program, including estimated energy savings, customer participation, and overall cost-effectiveness based upon the TRC test.

10. As a result of this process, PECO developed a total of eighteen programs, with ten oriented towards energy efficiency savings and eight directed towards demand reduction. Below is a summary of the energy efficiency programs, which are described in detail in Section 3.2 of PECO’s Plan.



- A. **CFL Program.** Under this program, PECO will make approximately six million CFLs available to its 1.4 million residential customers over the four years of the Plan through giveaway events and partnerships with retailers and manufacturers to provide discounted bulbs for purchase.
- B. **Low-Income Energy Efficiency Program.** The Low-Income Energy Efficiency Program will educate income-eligible customers on how to make their homes more energy efficient and thereby reduce their energy bills. The program will provide home energy audits to participants and the direct installation of needed energy efficiency measures in coordination with other federal and state programs, at no charge to the participants. While modeled on PECO's successful LIURP program, this program will be separate.
- C. **Whole Home Performance Program.** The purpose of this program is to help PECO's residential customers generally improve the energy efficiency of their homes. Participants in this program will pay for a home energy performance audit. As part of the audit, a CSP will install low-cost energy savings measures such as faucet aerators, low-flow showerheads, heater blankets and CFLs. Participants will also receive rebates to help them purchase additional energy efficiency measures identified through the audit.
- D. **Home Energy Incentives Program.** This program will increase the penetration of ENERGY STAR® appliances and other high-efficiency

measures in residential customers' homes and provide rebates to customers to help defray the cost of purchasing high-efficiency models of common home equipment.

- E. Residential New Construction Program.** This program will provide financial incentives to builders who incorporate energy efficiency designs, measures and equipment in new homes and homes that are being completely renovated. The program will offer rebate packages to builders based on the number of energy efficiency measures they install.
- F. Appliance Pickup Program.** This program is designed to induce PECO's residential customers to dispose of working but old and inefficient refrigerators, freezers and room air conditioning units, and to ensure that they are disposed of safely. Under the program, a participating customer will have its old appliance picked up by a CSP. After the unit has been removed, the CSP will mail a rebate check to the customer.
- G. Commercial/Industrial Equipment Incentives Program.** The Commercial and Industrial ("C&I") Equipment Incentives Program is designed to encourage C&I customers to improve the energy efficiency of their business facilities by providing them with financial incentives to install high-efficiency equipment – either specific types of equipment for fixed incentives or custom equipment for incentives based on the energy savings of the custom measure.

- H. Commercial/Industrial New Construction Program.** The C&I New Construction Program is designed to encourage energy efficiency in the design of new commercial and industrial buildings and buildings that are being reconstructed for commercial and industrial use. Program incentives will be available to providers of design and construction services and to facility owners. In addition, as part of the program, training and design assistance will be provided to architects, engineers, designers, builders and contractors.
- I. Government/Public/Non-Profit Facility Energy Savings Program.** In order to meet Act 129's requirement that 10% of savings be derived from the anticipated energy usage of government and non-profit entities and to facilitate measurement and verification, PECO is proposing a separate program to encourage the installation of energy efficient equipment and technology in public buildings, and in the use and upgrading of street and traffic lights. This program will include fixed and custom measure rebates to help public entities reduce the cost of installing energy efficient measures. Investment grade audits of government buildings may also qualify for partial reimbursement.
- J. Renewable Resources Program.** The purpose of this program is to increase the number of homes and commercial buildings using renewable resources to offset some or all of their electric use or gas use for hot water heating. The program will educate customers about financial incentives (including Federal stimulus bill and tax credit incentives) for solar

photovoltaic and solar hot water systems, and also provide rebates for installing such measures.

11. Below is a summary of PECO's proposed demand reduction programs, which are also described in detail in Section 3.3 of PECO's EE&C Plan:

- A. **Residential Direct Load Control Program.** This program is a demand reduction program through which PECO will remotely control a participating customer's central air conditioning system and/or electric hot water heater and cycle the equipment on and off during times of peak demand. The customers will receive incentive payments for allowing PECO to control their equipment.
  
- B. **Residential Super Peak Time of Use ("TOU") Program.** This program is a TOU rate program for PECO's residential customers, designed to provide an incentive to reduce peak demand by charging a higher price for electricity during peak hours offset by a lower price during non-peak hours. Customers in this program can reduce their electricity bills by shifting their electricity consumption from peak to off-peak hours or by otherwise reducing their usage during peak hours. This program will be offered after January 1, 2011, when PECO's existing generation rate caps expire, and will only be available to customers who receive default generation service from PECO.
  
- C. **C&I Direct Load Control Program.** PECO will also offer its C&I customers a direct load control program for central air conditioning. In



this program, PECO will remotely control a C&I customer's central air conditioning unit through a programmable communicating thermostat, which, unlike the residential program equipment, allows PECO to control the temperature setting on the unit. Similar to the residential program, however, this device would only be used during times of peak demand. C&I customers participating in the program would receive incentive payments for allowing PECO to control their air conditioning units.

**D. C&I Super Peak TOU Program.** This program operates in the same fashion as the residential program. C&I customers on this rate will be charged a higher price for electricity during peak hours that will be offset by a lower price during all remaining hours. The rate will only be offered after PECO's generation rate caps expire and then only to default service customers.

**E. Demand Reduction Aggregator Contract Program.** Through this program, PECO will contract with one or more curtailment service providers who will recruit PECO customers to provide load reduction resources. The curtailment service providers will be contractually obligated to meet agreed upon load reduction targets, which will result in the energy savings and demand reduction projected for this program.

**F. Distributed Energy Resources Program.** The goal of this program is to obtain energy savings and peak demand reductions from C&I customers who have existing back-up generation resources or who are interested in



having grid-connected generating units installed at their facilities. These resources or units would then be dispatched by PECO to ensure a reduction in load during the highest peak hours. Custom incentives would be provided to participating customers.

**G. Permanent Load Reduction Program.** This program is designed to provide customers with an incentive to permanently shift their electricity usage from peak to off-peak times, or to eliminate some usage altogether.

**H. Conservation Voltage Reduction Program.** This program is designed to lower voltage levels for all customers – within regulatory requirements – to reduce the associated higher voltage energy consumption and demand.

12. In order to implement the TOU and direct load control programs for both residential and C&I customers, PECO is also proposing new tariff provisions that set forth the specific rules and requirements for these programs. These tariff provisions - the Residential Direct Load Control Rider, the Small Commercial and Industrial Direct Load Control Rider, the Residential Super Peak Time of Use Rate, and the Small Commercial, Large Commercial and Industrial Super Peak Time of Use Rates - are discussed in detail by Mr. Schlesinger in his testimony.

13. The following table summarizes both projected energy savings and demand reductions for each of the above programs, as well as the costs of PECO's four-year Plan (including CFLs and other materials, customer incentives, educational programs, information technology upgrades, operations and maintenance, and administrative costs):

**Table 1. PECO's Projected Energy Savings, Peak Demand Reductions, and Program Budget.**

Program	Energy Savings (MWh)	Peak Demand Reduction (MW)	Budget (Million \$)
	PY 2012	PY 2012	4-Year Total
<b>Energy Efficiency Programs</b>			
1. CFL Initiative	290,297	15.8	\$19.7
2. Residential Low-Income Energy	79,660	5.3	\$27.4
3. Residential Whole Home Performance	5,542	0.1	\$4.0
4. Residential Home Energy Incentives	123,514	4.9	\$35.5
5. Residential New Construction	904	0.1	\$3.1
6. Residential Appliance Pickup	74,944	14.4	\$9.7
7. Commercial/Industrial Equipment Incentives	273,012	62.3	\$61.7
8. Commercial/Industrial New Construction	25,000	3.0	\$4.8
9. Government/Public Facility Energy Savings	216,792	42.9	\$45.8
10. Renewable Resources	1,097	1.4	\$5.1
<b>Subtotal Energy Efficiency Programs</b>	<b>1,090,762</b>	<b>150.2</b>	<b>\$216.9</b>
<b>Demand Reduction Programs</b>			
1. Residential Direct Load Control	5,086	60.9	\$41.3
2. Residential Super Peak TOU	2,546	25.5	\$8.8
3. Commercial/Industrial Direct Load Control	1,460	14.6	\$13.1
4. Commercial/Industrial Super Peak TOU	2,822	28.2	\$10.1
5. DR Aggregator Contracts	15,000	150.0	\$22.4
6. Distributed Energy Resources	39,000	50.0	\$18.3
7. Permanent Load Reduction	28,888	14.7	\$6.2
8. Conservation Voltage Reduction	110,000	11.3	\$4.6
<b>Subtotal Demand Reduction Programs</b>	<b>204,803</b>	<b>355.2</b>	<b>\$124.7</b>
<b>Grand Total -- All Programs</b>	<b>1,295,565</b>	<b>505.4</b>	<b>\$341.6</b>
<b>PECO Goals</b>	<b>1,181,550</b>	<b>355.0</b>	<b>\$341.9</b>
<b>Percent of Goal</b>	<b>110%</b>	<b>142%</b>	<b>100%</b>

14. As required by Act 129, PECO has also applied the TRC test to each proposed program, as well as the Plan as a whole. As shown in the following table, PECO's Plan has an overall TRC score of 1.76, demonstrating significant benefits to PECO's customers compared to the total costs of the proposed energy efficiency and demand reduction measures.

The projected energy savings and demand reductions and TRC calculations shown in the

tables are detailed in PECO's Plan and accompanying appendices.

**Table 2. Estimated TRC Results.**

Program	TRC Analysis			
	Benefits (Million \$)	Costs (Million \$)	Net Benefits (Million \$)	B/C Ratio
<b>Energy Efficiency Programs</b>				
1. CFL Initiative	\$158	\$47	\$111	3.36
2. Residential Low-Income Energy	\$43	\$25	\$18	1.71
3. Residential Whole Home Performance	\$5	\$4	\$1	1.17
4. Residential Home Energy Incentives	\$130	\$82	\$48	1.59
5. Residential New Construction	\$1	\$3	-\$2	0.31
6. Residential Appliance Pickup	\$63	\$7	\$56	9.20
7. Commercial/Industrial Equipment Incentives	\$203	\$137	\$66	1.48
8. Commercial/Industrial New Construction	\$17	\$8	\$9	2.14
9. Government/Public Facility Energy Savings	\$171	\$103	\$68	1.66
10. Renewable Resources	\$2	\$9	-\$7	0.20
<b>Subtotal Energy Efficiency Programs</b>	<b>\$792.1</b>	<b>\$425.0</b>	<b>\$367.1</b>	<b>1.86</b>
<b>Demand Reduction Programs</b>				
1. Residential Direct Load Control	\$44	\$41	\$3	1.07
2. Residential Super Peak TOU	\$18	\$11	\$7	1.59
3. Commercial/Industrial Direct Load Control	\$10	\$9	\$1	1.14
4. Commercial/Industrial Super Peak TOU	\$19	\$10	\$9	1.84
5. DR Aggregator Contracts	\$104	\$95	\$9	1.09
6. Distributed Energy Resources	\$58	\$55	\$3	1.06
7. Permanent Load Reduction	\$28	\$19	\$9	1.49
8. Conservation Voltage Reduction	\$110	\$5	\$105	23.51
<b>Subtotal Demand Reduction Programs</b>	<b>\$391.2</b>	<b>\$245.5</b>	<b>\$145.6</b>	<b>1.59</b>
<b>Grand Total -- All Programs</b>	<b>\$1,183.3</b>	<b>\$670.5</b>	<b>\$512.7</b>	<b>1.76</b>



15. As described in its EE&C Plan, PECO proposes to use CSPs in each of the above programs (with the exception of the Conservation Voltage Reduction Program, which will be handled primarily by PECO staff in light of its relationship to certain components of PECO's distribution system). CSPs will be responsible for program implementation, staffing, training and the tracking of programs and measures pursuant to CSP contracts. Wherever possible, incentives and penalties will be built into contracts to ensure performance. Consistent with the *Implementation Order*, PECO's Plan includes a contract with a CSP (Eccs Consulting, Inc.) to implement PECO's CFL program, which was previously filed with the Commission for approval, and a contract with Global Energy Partners, LLC, for which PECO is seeking approval herein. See Plan § 4.3 & Appendix C.

16. As required by Act 129 (see 66 Pa. C.S. § 2806.1(b)(1)(i)(K)), PECO's Plan also includes an analysis of its expected administrative costs. As shown in Section 4.2.3 of the Plan, PECO anticipates its administrative expenses – including PECO and contract direct labor expenses, expenses for program tracking and evaluation, and costs of the Statewide Evaluator required by the Commission – will account for approximately 9.6% of its total Plan budget, which PECO believes is reasonable and consistent with benchmark administration costs associated with other utility energy efficiency and conservation programs.

17. Consistent with PECO's Act 129 obligations, the Plan also includes an extensive set of quality assurance and performance mechanisms for evaluating the Plan on a continuous basis. Each of PECO's proposed programs has detailed measurement and verification ("M&V") requirements tailored to the program, and PECO will be retaining the services of an experienced CSP to provide M&V services as well as a separate CSP to develop an M&V tracking system for maintaining data and generating reports on each program. A description of PECO's overall

approach to quality control and the anticipated tracking system functions are set forth in Sections 5 and 6 of the Plan.

### **III. REQUEST FOR EXPEDITED APPROVAL OF PECO'S CFL PROGRAM**

18. With respect to one of PECO's eighteen programs – the CFL program – PECO requests expedited approval by the Commission to facilitate customer energy savings as early as possible and to benefit from a separate national program to encourage CFL use sponsored by the federal government.

19. As explained by Mr. Jiruska, a CFL is an energy savings measure that is easy to distribute, easy for customers to install and use, and very effective, both from a cost and a savings standpoint. Under the Commission's TRC test, PECO's CFL program is one of the most beneficial and cost effective programs in PECO's Plan for obtaining energy efficiency savings.

20. Unlike other proposed programs, PECO has a unique opportunity to leverage expenditures for its initial CFL deployment by linking that deployment to the 2009 ENERGY STAR "Change A Light, Change The World" program sponsored by the United States Department of Energy and the United States Environmental Protection Agency. This event, which is held each October, encourages people across America to join together to take small steps, including the installation of CFLs, to make a difference in the fight against global warming. PECO has already taken steps to prepare to roll out its CFL program concurrent with the federal campaign, including the entering into a contract (currently awaiting Commission approval) with a CSP with national experience in CFL distribution.

21. Given the relative ease and speed with which the CFL program can be implemented, the significant and immediate customer savings which can be realized, and the



opportunity to leverage federal spending to achieve greater customer participation. PECO believes that expedited approval for its CFL program by the Commission at its public meeting on July 23, 2009 is appropriate. In the event the Commission should determine not to grant expedited approval, PECO anticipates that it will not launch this program until early 2010, which will result in less customer savings and lower initial customer participation.

#### **IV. THE ENERGY EFFICIENCY AND CONSERVATION RECOVERY CHARGE**

22. Act 129 provides that PECO's EE&C Plan costs are recoverable through a Section 1307 cost-recovery mechanism. *See Implementation Order*, p. 38. As described by Mr. Schlesinger, PECO proposes to recover these costs from all customers through an Energy Efficiency & Conservation Program Charge ("EEPC"), which would be a fully reconcilable, non-bypassable charge in accordance with the Act. The costs PECO seeks to recover through the EEPC would include all of the costs of designing and developing the Plan programs, including the necessary information technology costs, program outreach and promotion costs, incremental labor, program administration costs, measurement & verification costs, and incentives that will be offered to customers to participate in these programs.

23. A separate recovery charge will be established for each customer class, corresponding to the costs of the programs that target that class. This ensures that the rate classes that finance the measures are the classes that receive the direct energy and conservation benefits. *See Implementation Order*, p. 36. For programs that provide benefits to more than one class (e.g., Commercial/Industrial Equipment Incentive Program) or to all classes (e.g., Conservation Voltage Reduction Program), costs will be allocated using reasonable and generally accepted cost-of-service principles. *See Implementation Order*, p. 37. Mr. Schlesinger's testimony includes an estimate of the proposed charges for each customer class.

24. While Plan expenditures will vary over the four-year program period of the Plan, PECO is proposing that the recovery charges remain constant during the cost recovery period, in accordance with stakeholder input during the Plan development process. Under this mechanism, PECO would recover budgeted Plan expenditures on a levelized basis, with a “true-up” to the actual Plan costs by the end of the recovery period. In order to simplify the cost recovery mechanism, no interest would be charged on over/under collections (if any) corresponding to the amounts received from customers and amounts directly spent in the preceding years of the Plan. PECO believes this simplified cost recovery mechanism will avoid significant administrative complexity and expense as PECO “ramps up” its programs. See 66 Pa. C. S. §§ 2806.1(b)(2), (c)(3) and (d)(2). In order to implement this mechanism, PECO respectfully requests a waiver from Section 1307(e)(3)’s requirement that utilities refund or recover over/under collections associated with a Section 1307 adjustment clause on an annual basis.

25. While the *Implementation Order* envisions an annual review and adjustment process for EDC programs, PECO believes that more flexibility is appropriate in light of both the nature of the programs PECO is seeking to introduce in its service territory for the first time and the extensive evaluation mechanisms and data collection measures PECO will have in place from the beginning of Plan implementation. As described by Mr. Schlesinger, PECO is proposing additional mechanisms for Plan adjustment, as follows:

- **Intra-Class Plan Changes.** For intra-class Plan changes (e.g., within programs solely involving residential customers), PECO requests flexibility to redirect dollars from underperforming programs to better performing programs within a rate class as needed. PECO would discuss any proposed changes with its stakeholders to keep them informed but would not need to seek approval from the

Commission for these changes since there would be no change in the recovery charges that will be in effect. PECO would, however, notify the Commission as part of its annual plan reporting of the changes that were made to the Plan.

- **Inter-Class Plan Changes Involving Less Than \$20 Million.** For inter-class Plan changes involving less than \$20 million over the period of the Plan (e.g., programs involving different customer groups, such as residential and commercial customers), PECO again would be allowed to redirect dollars from underperforming program(s) to better performing program(s) but this could be done between programs targeted at different customer classes. PECO would also discuss such changes with its stakeholders, and any accompanying change in program expenditures would be reallocated for cost recovery purposes to avoid cross-subsidization. PECO would again notify the Commission of the changes that were made to the Plan as part of its annual plan evaluation and reporting requirements.
- **Inter-Class Plan Changes Greater Than \$20 million.** Finally, for inter-class changes of greater than \$20 million over the period of the Plan, the same process would be followed as for changes involving less than \$20 million but PECO would work with its stakeholders to submit a modification to the Plan to the Commission for approval.

Together, these additional mechanisms will help ensure PECO is able to maximize energy savings and demand reductions by focusing on the most cost-effective programs throughout the Plan period.



## V. PROCEDURAL ISSUES

Act 129 provides that the Commission shall have 120 days to approve or disapprove an EE&C plan. 66 Pa. C.S. § 2806.1(e)(2). Consistent with that time limitation, PECO proposes the following schedule for consideration of its Plan:

July 1, 2009	Petition Filing
July 18, 2009	Publication of Notice of Filing in <i>Pennsylvania Bulletin</i>
July 30, 2009	Prehearing Conference
August 7, 2009	Due Date for Filing of Intervention Petitions/Notices and Filing of Intervenor Comments and Testimony
August 21, 2009	PECO Response to August 7, 2009 Comments and Testimony
August 26-28, 2009	Public and Evidentiary Hearings
September 14, 2009	Initial Briefs
September 24, 2009	Reply Briefs
October 29, 2009	Commission Order

## VI. NOTICE

26. PECO is publishing notices of this filing in all of the major newspapers serving PECO's service territory, and is also issuing a press release to all major media (newspapers, television and radio stations) in its service territory. All notices will refer to PECO's website, ([www.peco.com/know](http://www.peco.com/know)), where a copy of the entire filing will be maintained.

27. In addition to the above notice, PECO is also serving copies of this filing on the Pennsylvania Office of Consumer Advocate, the Pennsylvania Office of Small Business Advocate, and the Commission's Law Bureau.

28. PECO respectfully requests the Commission publish notice of this filing in the Pennsylvania Bulletin on July 18, 2009 and further direct interested parties that they may (1)



seek to intervene in this proceeding by filing appropriate notices/petitions on or before August 7, 2009 and (2) submit comments or testimony on PECO's proposed EE&C Plan on or before August 7, 2009. Should the Commission conclude that further notice of this filing is appropriate, PECO will provide such additional notice as directed by the Commission.

## VII. CONCLUSION

Based upon the foregoing, including the attached testimony and exhibits, PECO respectfully requests that the Commission grant this Petition and enter an Order:

(1) Approving PECO's Energy Efficiency and Conservation Plan and finding that the Plan satisfies the requirements of 66 Pa. C.S. § 2806.1(b)(1)(i)(A)-(K);

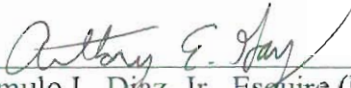
(2) Approving PECO's proposed tariff provisions and Section 1307(e) waiver request to implement the Plan and fully recover PECO's costs incurred in the implementation and operation of its Plan;

(3) Approving PECO's proposed Residential Direct Load Control Rider, the Small Commercial and Industrial Direct Load Control Rider, the Residential Super Peak Time of Use Rate, and the Small Commercial, Large Commercial and Industrial Super Peak Time of Use Rates; and

(4) Approving the contract between PECO and Global Energy Partners, LLC.

In addition, by separate order, PECO respectfully requests that the Commission authorize PECO to implement its proposed Compact Fluorescent Lamp Program, on or about August 1, 2009, with costs to be recovered in accordance with PECO's proposed Plan.

Respectfully submitted,

  
Romulo L. Diaz, Jr., Esquire (Pa. No. 88795)  
Anthony E. Gay, Esquire (Pa. No. 74624)  
PECO Energy Company  
2301 Market Street  
P.O. Box 8699  
Philadelphia, PA 19101-8699  
Phone: 215.841.4635  
Fax: 215.568.3389  
E-mail: [Anthony.Gay@Exeloncorp.com](mailto:Anthony.Gay@Exeloncorp.com)

Thomas P. Gadsden, Esquire (Pa. No. 28478)  
Kenneth M. Kulak, Esquire (Pa. No. 75509)  
Anthony C. DeCusatis, Esquire (Pa. No. 25700)  
Catherine G. Davis (Pa. No. 210254)  
Morgan, Lewis & Bockius LLP  
1701 Market Street  
Philadelphia, PA 19103-2921  
Phone: 215.963.5234  
Fax: 215.963.5001  
E-mail: [tgadsden@morganlewis.com](mailto:tgadsden@morganlewis.com)

July 1, 2009

For PECO Energy Company



**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF PECO ENERGY COMPANY  
FOR APPROVAL OF ITS ACT 129  
ENERGY EFFICIENCY AND CONSERVATION PLAN  
AND EXPEDITED APPROVAL OF ITS  
COMPACT FLUORESCENT LAMP PROGRAM**

**DOCKET NO. M-2009-2093215**

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**DIRECT TESTIMONY**

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**WITNESS: FRANK J. JIRUSKA**

**SUBJECT: OVERVIEW OF PECO ENERGY  
COMPANY'S ACT 129 ENERGY  
EFFICIENCY AND CONSERVATION  
PLAN**

**DATED: JULY 1, 2009**



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3  
**DIRECT TESTIMONY  
OF  
FRANK J. JURUSKA**

4  
**I. INTRODUCTION AND PURPOSE OF TESTIMONY**

5 1. Q. **Please state your full name, professional position, and business address.**

6 A. My name is Frank J. Jiruska. I am Director of Energy and Marketing Services for  
7 PECO Energy Company ("PECO" or the "Company"). My business address is  
8 PECO Energy Company, 2301 Market Street, Philadelphia, Pennsylvania, 19103.

9 2. Q. **Please describe your educational background, your experience in the energy  
10 industry, and your responsibilities as PECO's Director of Energy and Marketing  
11 Services.**

12 A. I have earned a Bachelor of Science degree in Business Administration from  
13 Marquette University. I have also earned a Masters of Business Administration from  
14 Northern Illinois University.

15 I began my career in the energy industry in 1996, as Director of Consumer Marketing  
16 for Commonwealth Edison Company ("ComEd") in Chicago, Illinois. In this  
17 position, I was responsible for sales, marketing and customer service for ComEd's  
18 large commercial, industrial, and residential electricity customers. In 1998, I was  
19 promoted to Vice-President, Energy Services, with larger responsibility for managing  
20 ComEd's sales, marketing and customer service initiatives.

1 I became PECO's Vice-President for Customer and Marketing Services in 2002. In  
2 this position, I was responsible for managing PECO's call centers, its billing and  
3 collection efforts, its meter reading, and large account services.

4 Since 2003, I have been Director of PECO's Energy and Marketing Services  
5 department. I am responsible for PECO's energy efficiency, conservation and  
6 demand side response programs, PECO's marketing efforts across all of its customer  
7 segments, and customer service for PECO's large commercial and industrial  
8 customers. I am also responsible for the development and execution of PECO's Act  
9 129 Energy Efficiency and Conservation Plan (the "EE&C Plan" or "Plan"), which is  
10 the subject of this proceeding.

11 **3. Q. Mr. Jiruska, have you previously submitted testimony before the Pennsylvania  
12 Public Utility Commission (the "Commission")?**

13 A. Yes. I submitted direct and rebuttal testimony in PECO's proceeding seeking  
14 approval of its Residential Real-Time Pricing Program.<sup>1</sup> I also submitted rebuttal  
15 testimony in PECO's Default Service and Rate Mitigation Plan proceeding before the  
16 Commission.<sup>2</sup>

17 **4. Q. What is the purpose of your direct testimony?**

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<sup>1</sup> *Petition of PECO Energy Company for Approval of Phase I of its Residential Real-Time Pricing Program*, Docket No. P-2008-2032333.

<sup>2</sup> *Petition of PECO Energy Company for Approval of Its Default Service Program and Rate Mitigation Plan*, Docket P-2008-2062739.

1 A. Pursuant to Pennsylvania Act 129 of 2008 (“Act 129” or the “Act”), and the  
2 Commission’s orders implementing the requirements of the Act, PECO has filed its  
3 EE&C Plan with the Commission, accompanied by my direct testimony and other  
4 supporting testimony. The purpose of my direct testimony is to explain the principles  
5 that guided PECO in developing its EE&C Plan and to provide the Commission with  
6 an overview of the Plan. The purpose of my testimony is also to request expedited  
7 approval of PECO’s proposed Compact Fluorescent Lamp (“CFL”) Program, which  
8 is the opening program – and one of the most beneficial programs – of the Plan. My  
9 testimony will explain why it is important for the Commission to grant approval of  
10 PECO’s CFL Program on an expedited basis.

11 **5. Q. Please explain how PECO’s filing is organized.**

12 A. PECO’s filing contains the following documents and testimony:

- 13 1) PECO’s Petition for Approval of its Act 129 Energy Efficiency and  
14 Conservation Plan and Expedited Approval of its Compact Fluorescent Lamp  
15 Program;
- 16 2) My direct testimony providing an overview of the Plan;
- 17 3) the Direct Testimony of Gregory A. Wikler, Vice President of Global Energy  
18 Partners, LLC, discussing the details of PECO’s Plan;<sup>3</sup>
- 19 4) the Direct Testimony of Richard A. Schlesinger, PECO Principal Rate  
20 Administrator, discussing the Plan’s cost recovery mechanism and tariffs; and  
21

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<sup>3</sup> Global Energy Partners is a Conservation Service Provider and PECO’s Plan consultant.



1 5) PECO's Plan, filed in the template format approved by the Commission.<sup>4</sup>

2 **6. Q. Please explain how your testimony is organized.**

3 A. The balance of my testimony is set forth in three sections. *First*, I briefly discuss the  
4 background of Act 129 and then explain the Act's energy efficiency and demand  
5 reduction requirements. I also discuss the challenges Act 129 presents for  
6 Pennsylvania's electric distribution companies ("EDCs"), the principles that guided  
7 PECO as it sought to address these challenges, and PECO's solutions to them.

8 *Second*, I provide an overview of the energy efficiency and demand reduction  
9 programs in PECO's EE&C Plan. I begin by discussing PECO's CFL Program and  
10 explain why PECO is seeking expedited Commission approval of this program. I  
11 then discuss the additional energy efficiency programs in PECO's Plan. Finally in  
12 this section, I provide an overview of the demand reduction programs of PECO's  
13 Plan.

14 *Third*, I discuss the additional benefits of PECO's Plan to both its customers and its  
15 stakeholders. The benefits that I discuss here are in addition to the direct energy  
16 savings resulting from the Plan.

17 **II. BACKGROUND, ENERGY EFFICIENCY AND CONSERVATION**  
18 **REQUIREMENTS, AND CHALLENGES OF ACT 129**

19 **A. Background and Requirements of the Act**

20 **7. Q. Mr. Jiruska, please provide your understanding of the background of Act 129.**

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<sup>4</sup> *Implementation of Act 129 of 2008, Energy Efficiency and Conservation Plan Template*, Docket No. M-2008-2069887, Secretarial Letter of James J. McNulty dated May 7, 2009.

1 A. On October 8, 2008, the Pennsylvania General Assembly passed what was then  
2 known as House Bill 2200 and sent it to Governor Edward G. Rendell for his  
3 signature. On October 15, Governor Rendell signed House Bill 2200 into law as Act  
4 129 of 2008. The Act became effective on November 14, 2008.

5 The Act contains several provisions addressing EDC obligations. Most importantly,  
6 for purposes of this proceeding, it sets forth EDC energy efficiency and demand  
7 reduction requirements.

8 On January 15, 2009, the Commission adopted its Act 129 Energy Efficiency and  
9 Conservation Program Implementation Order (the "Implementation Order").<sup>5</sup> This  
10 Order – along with later orders addressing Conservation Service Provider ("CSP")  
11 issues; the Commission's Total Resource Cost ("TRC") test; an updated Technical  
12 Reference Manual ("TRM") for calculating deemed savings from EE&C programs;  
13 and a uniform EE&C plan template – provided EDCs with the framework for  
14 developing and filing their EE&C plans.

15 **8. Q. Please describe the Act's energy efficiency and demand reduction requirements.**

16 A. Act 129's energy efficiency provisions require each EDC with at least 100,000  
17 customers to adopt a plan that will achieve annual consumption savings of at least 1%  
18 for its retail customer base by May 31, 2011 and at least 3% by May 31, 2013. These  
19 reductions are to be measured against the EDC's forecasted customer consumption  
20 for the period June 1, 2009 through May 31, 2010.

---

<sup>5</sup> *Energy Efficiency and Conservation Program*, Docket No. M-2008-2069887, Implementation Order (Order entered January 16, 2009).

1 The Act's demand reduction provisions require that each EDC with at least 100,000  
2 customers reduce the average system peak demand for its retail customers in the 100  
3 highest hours of demand by a minimum of 4.5% by May 31, 2013. This demand  
4 reduction is to be measured against the EDC's average peak demand for the 100  
5 highest hours over the period June 1, 2007 through September 30, 2007.

6 **9. Q. Do the Act's energy efficiency and demand reduction provisions impose any**  
7 **program requirements on EDCs?**

8 A. Yes, and I would divide them into two categories: 1) requirements for programs  
9 directed to specific customer groups; and 2) requirements with respect to the  
10 administration of the EDC's EE&C programs.

11 **10. Q. Please describe these requirements.**

12 A. With regard to programs directed to specific customer groups, the Act provides that a  
13 minimum of 10% of an EDC's consumption reductions must come from federal, state  
14 and local government, including municipalities, school districts, colleges and  
15 nonprofit agencies. The Act also states that each EDC's plan must include specific  
16 energy efficiency programs for low-income households (defined as households at or  
17 below 150% of the Federal poverty income guidelines). The Act further requires that  
18 an EDC's low-income programs must be coordinated with other programs  
19 administered by the Commission, or other government entities, and that spending for  
20 these programs must be in addition to existing Low-Income Usage Reduction  
21 Program ("LIURP") spending by the EDC.

1 As to plan administration, the Act requires that each EDC's plan include a contract  
2 with at least one or more CSPs to implement all or part of the plan. In addition, the  
3 Act limits an EDC's annual EE&C plan expenditures to 2% of its total annual  
4 revenue as of December 31, 2006. (For PECO, this 2% figure is approximately \$85.5  
5 million.) Finally, the Act states that no more than 2% of the plan's funds can be used  
6 for experimental equipment or devices.

7 **11. Q. Are there any other restrictions on energy efficiency programs that can be**  
8 **included in an EDC's plan?**

9 A. Pursuant to the Act, and a Commission order interpreting the Act, an EDC's Plan,  
10 viewed as a whole, must pass a TRC test,<sup>6</sup> which is a test that determines whether the  
11 plan's benefits exceed its cost. Other than the foregoing requirements, there are no  
12 additional restrictions concerning the types of programs or measures that can be part  
13 of an EDC's plan. Indeed, Act 129 is very broad in this respect.

14 The Act states that energy efficiency and conservation measures shall include: solar  
15 measures; solar photovoltaic panels; energy efficient windows, doors, and lighting  
16 (including certain retrofits of these measures); energy efficient traffic signals;  
17 geothermal heating; insulation; air sealing; reflective roof coatings; energy efficient  
18 heating and cooling equipment; energy efficient appliances; and other technologies or  
19 measures approved by the Commission. The Act also defines energy efficiency and  
20 conservation measures as those for which "the cost[s] of the acquisition or installation

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<sup>6</sup> *Implementation of Act 129 of 2008 – Total Resource Cost Test*, Docket, No. M-2009- 210860, Order (Order entered June 23, 2009), at 8 (the "TRC Order").



1 . . . [are] directly incurred in whole or in part” by the EDC.<sup>7</sup> In other words, the Act  
2 permits EDCs to get full energy savings credit for programs that they implement in  
3 cooperation with other entities.

4 **12. Q. What happens if an EDC’s plan fails to meet the Act’s energy efficiency and**  
5 **demand reduction requirements?**

6 A. An EDC can be fined not less than \$1 million and up to a maximum of \$20 million  
7 for failure to meet the Act’s requirements. In addition, an EDC will not be allowed to  
8 recover these fines from its customers and will be required to transfer the  
9 management of the EE&C plan for its service territory to the Commission. If this  
10 occurs, the Commission may then administer the program or contract with a CSP to  
11 administer the program.

12 **B. Challenges Presented by the Act and PECO’s Solutions to Those Challenges**

13 **13. Q. Mr. Jiruska, earlier you stated that the Act’s requirements present certain**  
14 **challenges for EDCs. Please explain these challenges.**

15 A. The challenges the Act presents for EDCs working to comply with its requirements  
16 can be summed up as follows: 1) extremely aggressive goals; 2) a very short  
17 timeframe to meet the goals; and 3) a strict limit on how much EDCs can spend to  
18 meet the goals. I will begin by explaining the challenges with respect to the Act’s  
19 energy efficiency goals.

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<sup>7</sup> 66 Pa. C.S. § 2806.1(m).

1 As I noted before, Act 129 requires EDCs to achieve a 1% reduction in annual  
2 customer consumption by May 31, 2011 and a 3% reduction by May 31, 2013. For  
3 PECO, this means consumption reductions of approximately 394 million kWh in  
4 program year (PY) 2010 and 1.2 billion kWh in PY 2012.

5 After the Commission completes its review and approval of EDC plans that comply  
6 with Act 129 by the end of October 2009,<sup>8</sup> EDCs will have less than two years to  
7 implement their plans and educate customers about them, and to meet the Act's May  
8 31, 2011 1% reduction goal. For the May 31, 2013 3% goal, EDCs will have just  
9 two-and-a half years.

10 Compare this with California, which is considered by many observers to be an early  
11 leader in energy efficiency programs, and which has had energy efficiency and  
12 conservation programs and educational efforts in place for many years. In 2004,  
13 California, through its public utility commission, set an energy savings goal for the  
14 state's investor-owned utilities of 1% of total forecasted electricity sales per year for  
15 2004 through 2013. It is my understanding that California utilities are having  
16 difficulty meeting this goal, even with a customer base that is well-informed about the  
17 benefits of energy efficiency and conservation, and after having several years to get  
18 their programs up and running.

19 Another example is Illinois, where PECO's affiliate ComEd operates. In 2007, the  
20 Illinois legislature established utility energy efficiency program requirements.

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<sup>8</sup> Page 15 of the Commission's Implementation Order, footnote 10, states that the "Commission must complete its review of all plans by October 29, 2009."

1 Pursuant to this legislation, Illinois electric utilities are to meet annual energy savings  
2 goals of 0.2% of energy delivered in 2008 and 0.4% in 2009, rising over time to 2.0%  
3 annually for 2015 and subsequent years. As these requirements show, Illinois utilities  
4 have a much more significant lead-time to educate their consumers about energy  
5 efficiency and conservation, to implement their programs, and to achieve increasing  
6 savings from the programs.

7 **14. Q. Please explain the demand reduction challenges presented by the Act.**

8 A. With regard to the Act's required 4.5% demand reduction in the top 100 hours of  
9 demand to be achieved by 2013, the Commission has interpreted the Act to require  
10 actual demand reductions, instead of the capability to reduce demand once it exceeds  
11 the peak. (In contrast, in California demand reductions are called only when the  
12 reduction is needed as a result of system constraints.) For PECO, this goal will  
13 require it to reduce its customer demand by approximately 355 MW by the summer of  
14 2012.<sup>9</sup> This peak demand reduction requirement presents several challenges for both  
15 retail electric customers and EDCs.

16 First, PECO has not had to call a voluntary or mandatory demand reduction event for  
17 its commercial and industrial ("C&I") customers since 2007. These are the customers  
18 with the largest amount of potentially available demand resources. Second, our  
19 residential and small commercial customers have never had to reduce their energy

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<sup>9</sup> The Implementation Order, at page 29, states that "To be in compliance [with the Act's demand reduction requirement] the EDCs must demonstrate that its [sic] EE&C plan produced demand savings during the 100 hours of highest demand for the period June 1, 2012, through *September 30, 2012*, equal to at least 4.5% of the average of the 100 highest peak hours during the period from June 1, 2007 to September 30, 2007." (Emphasis added.)

1 usage in response to a demand reduction call by PECO. Accordingly, all of PECO's  
2 customers – residential, small and medium C&I, and large C&I – will need  
3 *significant* education and incentives to help PECO meet the 4.5% goal. I would  
4 expect that a similar situation exists for other EDCs.

5 Third, from an EDC perspective, the Act's requirement that demand be reduced 4.5%  
6 in the 100 peak hours will be difficult to implement because it will be hard to predict  
7 those peak 100 hours. Indeed, an EDC cannot know for certain what the top 100  
8 hours of demand will be for its service territory until after its peak season has ended.  
9 Therefore, demand reduction calls will have to be made in significantly more than  
10 100 hours to make sure that the peak 100 hours of demand are captured. In addition,  
11 demand calls will likely have to be made at times when it would appear to the public  
12 that they may not be necessary, for example, on a relatively mild summer day.

13 15. Q. **Why is the Act's annual 2% spending limit, based on 2006 revenues, a**  
14 **challenge?**

15 A. Programs to promote voluntary energy efficiency, conservation and demand reduction  
16 by customers are fundamentally incentive programs. You educate customers about  
17 the benefits of energy efficiency and demand reduction and provide them with  
18 financial incentives for measures that will reduce their consumption and demand for  
19 electricity. When you combine the fact that Act 129's goals are very aggressive with  
20 the fact that the ability of EDCs to provide customers with incentives to achieve these  
21 goals is limited, you have a very challenging situation. In the event that the



1 incentives are insufficient to change consumer behavior, the incentives will not  
2 generate the Act's required savings.

3 **16. Q. What is PECO's strategy for meeting these challenges?**

4 A. Let me respond to that question by explaining PECO's guiding principles with respect  
5 to developing and implementing its EE&C Plan, and how those principles coalesced  
6 to form our strategy.

7 Our first guiding principle is *Plan for Stakeholder Involvement and Investment*.

8 From the very beginning of our planning process, we determined that we would share  
9 our proposed strategy for complying with the Act's requirements with PECO's  
10 stakeholders, involve them in the development of our Plan, and seek their input so  
11 they would become invested in our Plan. We did this through seven stakeholder  
12 meetings and numerous direct communications with individual stakeholders.

13 I want to commend our stakeholders for their constructive input into our Plan.<sup>10</sup>

14 Indeed, several have provided us with statements in support of the Plan, which are  
15 attached to my testimony as Exhibit FJJ-1. We look forward to continuing to work  
16 with our stakeholders as we implement the Plan.

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<sup>10</sup> Active participants in PECO's stakeholder meetings included: the PA Office of Consumer Advocate; the PA Office of Small Business Advocate; the PA Department of Environmental Protection; the PA Environmental Council; the City of Philadelphia; the Mayor's Office of Sustainability; the Energy Coordinating Agency; the Delaware Valley Regional Planning Commission; the Philadelphia Area Industrial Energy Users Group; PennFuture; Philadelphia Gas Works; the PA Utility Law Project; Community Legal Services; The Sustainable Development Fund; the Sustainable Business Network; the U.S. Environmental Protection Agency; the Energy Association of Pennsylvania; Clean Markets; Mondre Energy; and Reliant Energy.

1 Our second guiding principle is *Plan for Flexibility*. PECO's Plan is designed to be  
2 flexible with respect to program spending to achieve the most savings through the  
3 most effective measures. Thus, to meet the challenges of aggressive savings goals  
4 and limited resources, PECO designed its Plan so that the Company will be able to  
5 quickly determine which programs are the most effective, and to redirect spending to  
6 them from programs that are less effective.

7 In some cases this may result in spending being redirected from one program to  
8 another within a customer class; in others, it may result in spending being redirected  
9 from a program in one customer class to a program in another customer class.<sup>11</sup> This  
10 guiding principle is consistent with the Commission's Implementation Order, which  
11 emphasized that "EDCs should develop plans to achieve the most energy savings per  
12 expenditure [and the] driving principle should be the most cost effective use of  
13 resources so that benefits can accrue to all customers . . ."<sup>12</sup>

14 PECO's third guiding principle is *Plan to Excel*. This guiding principle is  
15 particularly applicable to the Act's demand reduction goals. As I noted earlier, PECO  
16 will not know the peak 100 hours of demand in advance of having to meet the Act's  
17 demand reduction requirement. Accordingly, PECO's demand reduction programs  
18 have been designed to produce savings that exceed the Act's goal so that the  
19 Company has the best opportunity to avoid a shortfall after the top 100 demand hours  
20 are known.

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<sup>11</sup> In this circumstance, costs would be assigned, as appropriate, so that recovery is sought from the customer class that benefited from the measure(s). Mr. Schlesinger explains this in further detail in his direct testimony.

<sup>12</sup> Implementation Order, p. 22.

1 PECO’s fourth guiding principle is *Plan for Savings from Day 1*. This guiding  
2 principle stems from PECO’s recognition that it needs to “hit the ground running” to  
3 meet the Act’s May 31, 2011 energy savings goal, as well as the May 31, 2013  
4 energy savings and demand reduction goals. Accordingly, PECO will use the July 1  
5 Plan filing date as the date from which energy efficiency measures to which PECO  
6 contributes will count towards its Act 129 requirements. This is consistent with – and  
7 well within – the Act’s definition of energy efficiency and conservation measures as  
8 “technologies, management practices or other measures . . . *installed on or after the*  
9 *effective date* of this section at the location of a retail customer”<sup>13</sup>

10 PECO’s fifth guiding principle is *Plan to Partner*. Pursuant to this principle, PECO  
11 has planned to partner with other organizations and agencies to expand the reach and  
12 benefits of PECO’s EE&C efforts. This is consistent with the Act’s provisions  
13 concerning governmental and low-income customer programs, and will enhance  
14 programs that are being considered or initiated by governmental and institutional  
15 agencies that need additional funding.

16 PECO’s sixth guiding principle – which was developed in consultation with the  
17 Office of Consumer Advocate – is *Plan for a Level Customer Cost Impact*. Act 129  
18 allows for EDC cost recovery through a reconcilable surcharge. However, because  
19 Plan spending may fluctuate as programs begin, are expanded, or are contracted or  
20 terminated, customers could be faced with a surcharge that fluctuates significantly  
21 every year. To smooth the impact of these potential fluctuations, PECO has crafted

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<sup>13</sup> 66 Pa. C.S. § 2806.1(m) (emphasis added).



1 its cost recovery methodology so that the surcharge will be level throughout all four  
2 years of its Plan and any over or under recovery will be collected or returned at the  
3 end of the Plan. While this principle does not affect PECO's ability to meet the Act's  
4 requirements, PECO believes that, to the extent possible, the Act's cost impact to  
5 customers should not fluctuate annually.

6 PECO's final guiding principle is *Plan to Return Savings Benefits to Customers*.  
7 Several of PECO's EE&C Plan programs will qualify to be bid into PJM  
8 Interconnection as demand response resources. Any value received from these  
9 resources will be credited to the appropriate customer class or classes to reduce the  
10 cost impact of PECO's Plan to these customers.

11 In sum, these principles, and our application of them to PECO's Plan, constitute the  
12 Company's aggressive strategy for meeting (or exceeding) Act 129's requirements,  
13 while taking into account the cost impacts to our customers.

14 **III. OVERVIEW OF THE PROGRAMS IN PECO'S ENERGY EFFICIENCY AND**  
15 **CONSERVATION PLAN**

16 **17. Q. Mr. Jiruska, before providing an overview of the programs in PECO's EE&C**  
17 **Plan, please explain how PECO decided to include these specific programs in the**  
18 **Plan.**

19 A. Our process began with members of PECO's Energy and Marketing Services  
20 department reviewing Act 129, and the Commission's draft and final orders with  
21 respect to the implementation of its EE&C provisions, to determine our initial  
22 strategy for complying with the Act's requirements. Next, we retained Global Energy



1 Partners, LLC (“Global”), an experienced energy efficiency consultant, to partner  
2 with us to determine the best methods and most effective programs to meet the Act’s  
3 goals.

4 Together with Global, we analyzed our customer base through various studies to  
5 determine how our customers use electricity, how they have responded to PECO’s  
6 existing energy efficiency programs, and their potential to take full advantage of new  
7 programs. We also benchmarked programs that have been shown to work in other  
8 jurisdictions, and held several meetings with state, regional, municipal, regulatory and  
9 customer stakeholders to get their input on what programs should be part of our Plan  
10 and how they should be structured.

11 Finally, the resulting programs were evaluated based on the Act’s requirements, the  
12 Commission’s TRM and the TRC. What we finally developed is a comprehensive  
13 Plan that includes a broad portfolio of programs, targeting all of the Company’s  
14 customer segments, which has a strong potential for achieving the Act’s energy  
15 efficiency and demand reduction requirements.

16 **18. Q. Are the measures that resulted in the programs in PECO’s Plan fully consistent**  
17 **with the Commission’s TRM and TRC?**

18 A. The measures we used to develop the Plan are fully consistent with the TRM. With  
19 regard to the TRC, the measures in the Plan are generally consistent with the  
20 Commission’s TRC methodology. However, given the Act’s July 1 filing deadline,  
21 many of our calculations and programs were completed before the final TRC Order  
22 was released on June 23, 2009 – most notably, our avoided cost methodology.

1 In the TRC Order, the Commission correctly recognized the tight time constraints  
2 presented by the Act, and expressly authorized EDCs to file amendments to their  
3 EE&C plans “prior to August 1, 2009” to take into account the methodologies in its  
4 final TRC Order. Accordingly, we expect to make a supplemental EE&C plan filing  
5 with the Commission consistent with this deadline.

6 **19. Q. Has PECO taken steps to ensure that its programs are consistent with those**  
7 **being offered by other EDCs so as to promote energy efficiency programs across**  
8 **the state?**

9 A. Yes. While we have tailored our programs to the characteristics of our customers and  
10 service territory, PECO has collaborated with other EDCs to offer common incentives  
11 for certain programs and measures where it makes sense to do so.

#### 12 **A. The Plan’s Energy Efficiency Programs**

13 **1. PECO’s CFL Program and Request for Expedited Approval of the Program**

14 **20. Q. Mr. Jiruska, please provide an overview of the Plan’s CFL Program.**

15 A. PECO’s CFL initiative is a program designed to significantly increase the use of  
16 CFLs by PECO’s 1.4 million residential customers. We plan to make approximately  
17 6 million CFLs available to our customers over the course of the program through  
18 giveaway events and partnerships with retailers and manufacturers to provide  
19 discounted bulbs for purchase.

20 As part of our commitment to the environment, we have also made sure that  
21 customers can return used bulbs at participating retailers for disposal. Moreover, as

1 part of our customer education efforts, we will advise customers how to clean up  
2 debris from bulbs that may break.

3 **21. Q. What are the expected consumption savings and demand reductions from the**  
4 **CFL program?**

5 A. We expect the CFL program to produce 290,297 MWh in energy savings and up to  
6 15.8 MW in Plan Year (“PY”) 2012. The total budget for the program is  
7 approximately \$19.7 million. As noted by Mr. Wikler in his testimony, when the  
8 TRC test is applied to the CFL program, it is shown to be one of the most beneficial  
9 and cost-effective programs in PECO’s portfolio.

10 **22. Q. Why is PECO seeking expedited approval of its CFL Program?**

11 A. For several reasons. First, CFLs are an energy savings measure that are easy to  
12 distribute, easy for customers to install and use, and are very effective, both from a  
13 cost and a savings standpoint. Indeed, the Commission has often encouraged the use  
14 of CFLs as an energy savings tool for Pennsylvanians.<sup>14</sup>

15 Second, PECO’s CFL program is one of the key programs in its Plan portfolio. The  
16 program will be our first to launch and it represents a significant portion of the EE&C  
17 Plan’s early savings. Consistent with this fact and our guiding principle to “Plan for  
18 Savings from Day 1,” we filed our CFL CSP contract with the Commission in

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<sup>14</sup> Refer, for example, to the Commission’s April 15, 2008 Earth Day Press Release noting that installing CFLs is “one simple change that could help save consumers money and create a more energy efficient home.”  
[http://www.puc.state.pa.us/General/press\\_releases/Press\\_Releases.aspx?ShowPR=1949](http://www.puc.state.pa.us/General/press_releases/Press_Releases.aspx?ShowPR=1949)

1 advance of filing our Plan. We did this so that we could have the contract approved  
2 and begin preparations for the program as early as possible.

3 Third, we want to leverage our CFL program launch with the ENERGY STAR®  
4 “Change A Light, Change the World” program. Sponsored by the U.S.  
5 Environmental Protection Agency and the U.S. Department of Energy, this national  
6 program encourages people across America to join together to take small steps such  
7 as installing CFLs to make a difference in the fight against global warming. The  
8 “Change A Light, Change the World” program is an annual event that runs through  
9 the month of October. Therefore, PECO needs to have its CFL program up and  
10 running in advance of October so that it can promote the program, prepare for the  
11 participation of retail suppliers, and ensure that the CFLs are available for  
12 distribution. By doing so, PECO will be able to prudently leverage the promotional  
13 advantage of “Change A Light, Change the World” to the benefit of its customers and  
14 its EE&C Plan.

15 **23. Q. When does PECO need approval of its CFL program in order for it to provide**  
16 **the most benefits to PECO’s customers and to leverage the attention drawn by**  
17 **the national “Change A Light, Change the World” program?**

18 A. We request that the Commission approve our proposed CFL program at its July 23,  
19 2009 public meeting. I realize this is an aggressive schedule; however, given the  
20 Commission’s recognition of the benefits of CFLs and our stakeholders’  
21 acknowledgement of these benefits during our stakeholder meetings, I believe this  
22 deadline is achievable.



1 If our CFL initiative is not approved by the end of July, we will not be able to launch  
2 our CFL program in conjunction with the “Change A Light, Change the World”  
3 program. Moreover, based on our experience with earlier PECO programs, we know  
4 that as we get closer to the Thanksgiving and winter holidays, customers tend to focus  
5 on those celebrations and energy efficiency promotions are less effective. Therefore,  
6 if we miss the “Change A Light, Change the World” window, we will likely have to  
7 postpone the launch to early 2010.

## 8 2. The Plan’s Additional Energy Efficiency Programs

9 **24. Q. Please describe the other energy efficiency programs in PECO’s EE&C Plan**  
10 **portfolio.**

11 A. PECO’s Plan includes nine additional energy efficiency programs that are intended to  
12 meet the Act’s requirement that EE&C plans include a variety of measures provided  
13 to all customer classes. I will begin by discussing the **Low-Income Energy**  
14 **Efficiency Program.**

15 The purpose of the Low-Income Energy Efficiency Program is to educate income  
16 eligible customers on how to make their homes more energy efficient and thereby  
17 reduce their energy bills, and to provide and install energy efficient measures for  
18 these customers.

19 The program is modeled after PECO’s LIURP Program, but is separate from and in  
20 addition to PECO’s existing LIURP expenditures. The program will provide home  
21 energy audits to participants, and direct installation of needed energy efficiency  
22 measures, at no charge to the participants.

1 The Low-Income Energy Efficiency Program is expected to produce a total of 79,660  
2 MWh in energy savings and up to 5.3 MW in average peak demand reductions in PY  
3 2012. The budget for the program is approximately \$27.4 million.

4 **25. Q. Does this program meet the Act's requirement that low-income programs be**  
5 **developed for households at or below 150% of the Federal poverty income**  
6 **guidelines?**

7 A. Yes. I would also note that while PECO's Low-Income Energy Efficiency Program  
8 targets customers with household incomes at or below 150% of the Federal poverty  
9 level ("FPL"), the program also has the flexibility to include customers with incomes  
10 up to 200% of the FPL. We included this flexibility in PECO's program so that  
11 customers eligible for assistance through the American Recovery and Reinvestment  
12 Act of 2009, which provides benefits to households at or below 200% of the FPL,  
13 would be able to utilize PECO's program as well.

14 **26. Q. Please describe the next program in the EE&C Plan portfolio.**

15 A. The next program is the **Whole Home Performance Program**. The purpose of this  
16 program is to help PECO's residential customers improve the energy efficiency of  
17 their homes and the savings they can achieve on their energy bills.

18 Participants in this program will pay for a home energy performance audit. As part of  
19 the audit, a CSP will install energy savings measures such as faucet aerators, low-  
20 flow showerheads, heater blankets and CFLs. Participants will also receive rebates to

1 help them purchase additional energy efficiency measures identified through the  
2 audit.

3 The Whole Home Performance Program will produce 5,542 MWh in energy savings  
4 and 0.1 MW in average peak demand reductions in PY 2012. The budget for the  
5 program is approximately \$4 million.

6 **27. Q. What is the next program?**

7 A. The next program is the **Residential Home Energy Incentives Program**. This  
8 program is designed to increase the penetration of ENERGY STAR appliances and  
9 other high-efficiency measures in residential customers' homes. The program will  
10 provide rebates to customers to help defray the cost of purchasing high-efficiency  
11 models of common home equipment, and therefore give them an incentive to choose  
12 this equipment over standard efficiency appliances.

13 We project that the Home Energy Incentives Program will produce a total of 123,514  
14 MWh in energy savings and up to 4.9 MW in average peak demand reductions in PY  
15 2012. The Plan budget for the program is approximately \$35.5 million.

16 **28. Q. Please describe the next energy efficiency program.**

17 A. Next in the portfolio is the **Residential New Construction Program**. This program  
18 provides financial incentives to builders who incorporate energy efficiency designs,  
19 measures and equipment in new homes and homes that are being completely  
20 renovated. The program will offer rebate packages to builders based on the number  
21 of measures they install.

1 We expect that this program will produce a total of 904 MWh in energy savings and  
2 up to 0.1 MW in average peak demand savings in PY 2012. The Plan budget for the  
3 program is approximately \$3.1 million.

4 29. Q. **Please describe the next energy efficiency program.**

5 A. The next program is the **Residential Appliance Pickup Program**. This program is  
6 designed to induce PECO's residential customers to dispose of working, old and  
7 inefficient refrigerators, freezers and air conditioning units, and to ensure that they are  
8 disposed of safely. Under the program, a participating customer will have its old  
9 appliance picked up by a CSP. After the unit has been removed, the CSP will mail a  
10 rebate check to the customer.

11 We expect that this program will produce energy savings of 79,944 MWh and an  
12 average peak demand reduction of up to 14.4 MW. The budget for the program is  
13 approximately \$9.7 million.

14 30. Q. **Does PECO's Plan include any programs for C&I customers?**

15 A. Yes, the next two programs are directed to PECO's C&I customers. The first is the  
16 **Commercial/Industrial Equipment Incentives Program** ("C&I Equipment  
17 Incentives Program"). The second is the **Commercial/Industrial New Construction**  
18 **Program** ("C&I New Construction Program").

19 The C&I Equipment Incentives Program is designed to encourage C&I customers to  
20 improve the energy efficiency of their business facilities by providing them with  
21 financial incentives to install high-efficiency equipment – either specific types of



1 equipment for fixed incentives or custom equipment for incentives based on the  
2 energy savings of the custom measure. We expect that this program will produce  
3 energy savings of 273,012 MWh and an average peak demand reduction of up to 62.3  
4 MW in PY 2012. The budget for the program is approximately \$61.7 million.

5 The C&I New Construction Program is designed to encourage energy efficiency in  
6 the design of new commercial and industrial buildings and buildings that are being  
7 reconstructed for commercial and industrial use. Program incentives will be available  
8 to providers of design and construction services and to facility owners. In addition, as  
9 part of the program, training and design assistance will be provided to architects,  
10 engineers, designers, builders and contractors.

11 We project that this program will produce energy savings of 25,000 MWh and an  
12 average peak demand reduction of up to 3 MW in PY 2012. The proposed budget for  
13 the program is approximately \$4.8 million.

14 **31. Q. Does the Plan contain a program directed to government and institutional**  
15 **customers?**

16 A. Yes, the program is PECO's **Government/Public/Non-Profit Facility Energy**  
17 **Savings Program**. This program provides educational, financial and technical  
18 assistance to government and non-profit entities to encourage the installation of  
19 energy efficient equipment and technology in public buildings, and in the use and  
20 upgrading of street and traffic lights. This program will include fixed and custom  
21 measure rebates to help these entities reduce the cost of installing energy efficiency

1 measures. Investment grade audits of government buildings may also qualify for  
2 partial reimbursement.

3 This program is expected to produce a cumulative energy savings of 216,792 MWh  
4 and an average peak demand reduction of up to 42.9 MW in PY 2012. The proposed  
5 budget for the program is approximately \$45.8 million.

6 **32. Q. Does this program meet the Act's requirement that a minimum of 10% of an**  
7 **EDC's consumption reductions must come from government entities?**

8 A. Yes. In fact, the program's energy savings of 216,792 MWh in PY 2012 exceed  
9 PECO's requirement under the Act of 118,200 MWh by 83%.

10 **33. Q. What is the final energy efficiency program?**

11 A. It is PECO's **Renewable Resources Program**. The purpose of this program is to  
12 increase the number of homes and commercial buildings using renewable resources to  
13 offset some or all of their electric or gas use for hot water heating. The program will  
14 educate customers about financial incentives (Federal stimulus bill and tax credit  
15 incentives) for solar photovoltaic and hot water systems. The program will also  
16 provide rebates for installing such measures. The projected energy savings for this  
17 program are 1,097 MWh. The projected average peak demand reductions rise to 1.4  
18 MW. The proposed budget for the program is approximately \$5.1 million.

19 **34. Q. Mr. Jiruska, will PECO be offering any financing programs to assist its**  
20 **customers in purchasing energy efficiency equipment?**

1 A. No, PECO will not. We considered this at the request of several of our stakeholders.  
2 However, given the 2% annual spending limit imposed by the Act, and the current  
3 financial markets, it simply is not a viable option. Moreover, we believe that our  
4 incentive rebates provide significant assistance to customers who wish to install  
5 energy efficiency measures in their homes or businesses. I would note that there are  
6 other programs that provide financing, including Pennsylvania's Keystone HELP  
7 program.

#### 8 **B. The Plan's Demand Reduction Programs**

9 **35. Q. Please describe the demand reduction programs in PECO's EE&C Plan**  
10 **portfolio.**

11 A. PECO's Plan includes eight demand reduction programs. Of these, two are targeted  
12 specifically to PECO's residential customers. They are the **Residential Direct Load**  
13 **Control Program** and the **Residential Super Peak Time-of-Use ("TOU")**  
14 **Program.**

15 The Residential Direct Load Control Program is a demand reduction program through  
16 which PECO remotely controls a participating customer's central air conditioning and  
17 electric hot water heater and cycles them on and off during times of peak demand.

18 The customers will receive incentive payments for allowing PECO to control their  
19 equipment. This program is expected to achieve an average peak demand reduction  
20 of 60.9 MW and an energy savings of 5,086 MWh. The proposed budget for the  
21 program is approximately \$41.3 million.

1 The Residential Super Peak TOU Program is a TOU rate for PECO's residential  
2 customers. The rate is designed to provide customers with an incentive to reduce  
3 their peak demand by charging a higher price for electricity during peak hours offset  
4 by a lower price during non-peak hours. Customers in this program can reduce their  
5 electricity bills by shifting their electricity consumption from peak to off-peak hours  
6 or by reducing their usage during peak hours.

7 Customer enrollment in this rate will not begin until after PECO's generation rate  
8 caps expire at the end of 2010, and, accordingly, the Super Peak TOU rate will be  
9 considered part of PECO's Default Service Plan ("DSP"). As such, participants must  
10 be PECO customers should they wish to enroll in this program.

11 The Residential Super Peak TOU Program is expected to achieve an average peak  
12 demand reduction of 25.5 MW and an energy savings of 2,546 MWh in PY 2012.  
13 The proposed budget for the program is approximately \$8.8 million.

14 **36. Q. Is PECO going to offer a real-time pricing program to customers as part of its**  
15 **EE&C Plan?**

16 A. That is not part of our initial EE&C Plan, given that the Act's smart meter provisions  
17 specifically state that a real-time pricing product must be offered as part of EDC  
18 smart meter efforts. PECO is still developing its smart meter plan based on the  
19 Commission's recent release of its smart meter implementation order. Accordingly,  
20 offering a real-time pricing plan to customers is being considered as part of that  
21 effort.



1 37. Q. Earlier you stated that the C&I customer classes have the largest amount of  
2 potentially available demand resources. What are the Plan's C&I demand  
3 reduction programs?

4 A. They are the C&I Direct Load Control Program and the C&I Super Peak TOU  
5 Program.

6 In the C&I Direct Load Control Program, PECO will remotely control a C&I  
7 customer's central air conditioning unit through a programmable communicating  
8 thermostat, which, unlike the residential program, allows PECO to control the  
9 temperature setting on the unit. Similar to the residential program, however, this  
10 device would only be used during times of peak demand.

11 C&I customers participating in the program would receive incentives for allowing  
12 PECO to control their air conditioning units. This program is expected to yield an  
13 average peak demand reduction of 14.6 MW and an energy savings of 1,460 MWh in  
14 PY 2012. The total proposed budget for the program is approximately \$13.1 million.

15 The C&I Super Peak TOU Program operates in the same fashion as the residential  
16 program, meaning that C&I customers on this rate will be charged a higher price for  
17 electricity during peak hours that will be offset by a lower price during all remaining  
18 hours, and the rate will only be offered after PECO's generation rate caps expire.

19 This program is expected to result in an average peak demand reduction of 28.2 MW  
20 and an energy savings of 2,822 MWh in PY 2012. The total proposed budget for the  
21 program is approximately \$10.1 million.

1 38. Q. What is the next EE&C Plan demand reduction program?

2 A. The next demand reduction program is the **Demand Reduction Aggregator**  
3 **Contracts Program** (“DR Aggregator Contracts Program”). Through this program,  
4 PECO will contract with one or more curtailment service providers who will recruit  
5 PECO customers to provide demand reductions. The curtailment service providers  
6 will be contractually obligated to meet agreed upon demand reduction targets, which  
7 will result in the demand reductions and energy savings projected for this program.  
8 This program is expected to yield an average peak demand reduction of 150 MW and  
9 an energy savings of 15,000 MWh in PY 2012. The proposed budget for the program  
10 is approximately \$22.4 million.

11 39. Q. Please explain the next program.

12 A. The next program is the **Distributed Energy Resources Program**. The goal of this  
13 program is to obtain peak demand reductions and energy savings from C&I customers  
14 who have existing back-up generation resources, or who are interested in having grid-  
15 connected generating units installed at their facilities. These resources or units would  
16 then be dispatched by PECO to ensure a reduction in load during the highest peak  
17 hours. Custom incentives would be provided to participating customers.

18 The average peak demand reductions for this program are 50 MW and the expected  
19 energy savings are 39,000 MWh. The proposed budget for the program is  
20 approximately \$18.3 million.

21 40. Q. Please describe the final two programs in the demand reduction portfolio.

1 A. They are the **Permanent Load Reduction Program** and the **Conservation Voltage**  
2 **Reduction Program.**

3 The Permanent Load Reduction Program is designed to encourage customers to  
4 permanently shift their electricity usage from peak to off-peak times, or to eliminate  
5 usage altogether, through, for example, thermal energy storage or fuel switching.

6 Custom incentives would be used to achieve the goals of this program. The expected  
7 PY 2012 average peak demand reductions are 14.7 MW and the expected PY 2012  
8 energy savings for this program are 28,888 MWh. The proposed budget for the  
9 program is approximately \$6.2 million.

10 Finally, the Conservation Voltage Reduction Program is designed to lower voltage  
11 levels for all customers – within regulatory requirements – to reduce the associated  
12 energy consumption and demand. The expected average peak demand reductions for  
13 this program in PY 2012 are 11.3 MW and the expected energy savings in PY 2012  
14 are 110,000 MWh. The proposed budget for the program is approximately \$4.6  
15 million.

#### 16 **IV. DISCUSSION OF THE ADDITIONAL BENEFITS OF PECO'S PLAN**

17 **41. Q. Mr. Jiruska, at the beginning of your testimony you stated that there are**  
18 **additional benefits to PECO's customers and stakeholders from the EE&C Plan.**  
19 **Please explain these benefits.**

20 A. One of the most significant additional benefits of PECO's Plan is its cumulative  
21 impact for customers. Customers will experience cumulative savings *over the life* of  
22 PECO's Plan. In total, that cumulative savings will be nearly **3 million MWh.**

1 42. Q. Are there other additional benefits?

2 A. Yes. In addition to the cumulative customer savings, I believe there are at least four  
3 additional benefits that stem from PECO's EE&C Plan, and the plans of other EDCs,  
4 that go beyond the direct energy and demand reduction savings provided to  
5 customers.

6 First, in addition to the reduced electric bills that customers will experience as a result  
7 of Act 129 programs, these programs will have the further effect of moderating  
8 electricity prices, over time, as they reduce peak demand. Indeed, a January 2007  
9 Brattle Group study found that "even a modest 3% load reduction in each of five PJM  
10 zones' 100 super-peak hours, amounting to 0.9% of PJM's peak load, would have  
11 substantial energy and capacity market benefits to both curtailed and non-curtailed  
12 loads."<sup>15</sup> While the 4.5% reduction required by the Act will not directly affect  
13 customers outside of Pennsylvania, I believe that the cumulative impact of having all  
14 Pennsylvania's EDCs with more than 100,000 customers attempting to meet this  
15 target will have an effect on energy prices throughout the PJM over time.

16 Second, the customer empowerment that will result from these programs is an  
17 additional benefit that will have a long-term impact in Pennsylvania. Currently,  
18 Pennsylvania has limited experience with energy efficiency programs. Indeed, I  
19 believe that Act 129 is the Commonwealth's first concerted effort to implement  
20 measurable energy efficiency plans. As a result of the Act, Pennsylvanians will

---

<sup>15</sup> *Quantifying Demand Response Benefits*, prepared by The Brattle Group for PJM Interconnection, LLC and the Mid-Atlantic Distributed Resources Initiative (MADRI), January 29, 2007.



1 become more knowledgeable about their energy usage, how to reduce that usage, and,  
2 thereby, how to reduce their energy bills.

3 Third, there will be job creation benefits as a result of these programs. While I cannot  
4 predict the exact figures, I do expect that with all of Pennsylvania's large EDCs filing  
5 and implementing their EE&C plans at the same time, the demand for CSP services  
6 will increase, and CSPs will need employees to help them provide their services.

7 Indeed, PECO plans to encourage in its RFP process that bidding CSPs investigate  
8 opportunities to hire low-income and unemployed workers through various programs  
9 operated by entities throughout the State, such as the Pennsylvania Employment,  
10 Advancement and Retention Network and Philadelphia Workforce Development  
11 Corporation.

12 Finally, a significant benefit resulted from the stakeholder meetings that led to this  
13 Plan and other EDC plans. From a PECO perspective, I believe we forged sound  
14 working relationships with our stakeholders, some of whom we normally see on the  
15 other side of adversarial Commission proceedings. The constructive relationships we  
16 established will benefit our customers, clients and constituencies as we continue to  
17 prepare for the expiration of the remaining rate caps in Pennsylvania.

## 18 V. CONCLUSION

19 **43. Q. Please summarize your testimony.**

20 A. As a result of our work with the Commission's Staff and our stakeholders, PECO has  
21 developed an EE&C Plan that complies with the Act and includes a broad portfolio of  
22 programs targeting all of the Company's customer segments. For these reasons, and

1 those I stated before, PECO urges the Commission to approve its CFL program on an  
2 expedited basis, and to approve the additional programs in the Company's Plan at the  
3 conclusion of this proceeding in October.

4 44. Q. Does this conclude your direct testimony?

5 A. Yes, it does.





Energy Coordinating Agency 1924 Arch Street, Philadelphia, Pa. 19103 215/988-0929 [www.ecasavesenergy.org](http://www.ecasavesenergy.org)

June 23, 2009

**VIA FIRST-CLASS MAIL**

James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

**Re: Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan – Pa. PUC Docket No.**

Dear Secretary McNulty:

On behalf of the [Energy Coordinating Agency](http://www.ecasavesenergy.org), I am writing this letter in support of PECO Energy Company's Act 129 Energy Efficiency and Conservation Plan.

Through PECO's monthly Energy Efficiency and Conservation Plan stakeholder meetings, I was able to meaningfully participate in the development of PECO's plan. PECO was not only open to our suggestions, but diligently worked to incorporate them - and those of other stakeholders - into its plan. We commend PECO for the collaborative approach it took in the development of its plan. We look forward to continuing our cooperative relationship with the company in the implementation phase of its plan.

We have reviewed the plan and believe that it is well designed, comprehensive, and cost effective. For all of these reasons, we support PECO's plan and urge the Pennsylvania Public Utility Commission to approve it expeditiously. We believe that doing so is consistent with Act 129's goal of encouraging the adoption of energy efficiency, conservation and demand reduction measures that will benefit all Pennsylvanians.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Liz Robinson', written in a cursive style.

Liz Robinson  
Executive Director



June 22, 2009

**VIA FIRST-CLASS MAIL**

James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

**Re: Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan – Pa. PUC Docket No.**

Dear Secretary McNulty:

On behalf of the Pennsylvania Environmental Council, I am writing this letter in support of PECO Energy Company's Act 129 Energy Efficiency and Conservation Plan.

Through PECO's monthly Energy Efficiency and Conservation Plan stakeholder meetings, Spencer Finch, our Director of Sustainable Development, was able to meaningfully participate in the development of PECO's plan. PECO was not only open to our suggestions, but worked to incorporate them - and those of other stakeholders - into its plan. We commend PECO for the collaborative approach it took in the development of its plan.

We look forward to continuing our cooperative relationship with the company in the implementation phase of its plan, which can only be successful if all of the region's government entities, non-profit organizations, and the private sector work in a collaborative and information-sharing approach.

We have reviewed the plan and believe that it is well designed, comprehensive, and cost effective. For all of these reasons, we support PECO's plan and urge the Pennsylvania Public Utility Commission to approve it expeditiously. We believe that doing so is consistent with Act 129's goal of encouraging the adoption of energy efficiency, conservation and demand reduction measures that will benefit all Pennsylvanians.

Sincerely,



Donald S. Welsh, President and CEO  
Pennsylvania Environmental Council

Central  
Regional Office  
130 Locust Street  
Suite 200  
Harrisburg, PA 17101  
phone: 717-230-8044  
fax: 717-230-8045

Northwest  
Regional Office  
301 Chestnut Street  
Meadville, PA 16335  
phone: 814-332-2946  
fax: 814-724-5446

Northeast  
Regional Office  
175 Main Street  
Luzerne, PA 18709  
phone: 570-718-6507  
fax: 570-718-6508

Southeast  
Regional Office  
123 Chestnut Street  
Suite 401  
Philadelphia, PA 19106  
phone: 215-592-7020  
fax: 215-592-7026

Southwest  
Regional Office  
22 Terminal Way  
Pittsburgh, PA 15219  
phone: 412-481-9400  
fax: 412-481-9401



# THE ELECTRICAL ASSOCIATION OF PHILADELPHIA, INC.

527 PLYMOUTH ROAD • SUITE 408 • PLYMOUTH MEETING, PENNSYLVANIA 19462-1641 (610) 825-1600 • FAX: (610) 825-1603  
E-MAIL: [electric@eap.org](mailto:electric@eap.org) WEB SITE: [www.eap.org](http://www.eap.org)

June 17, 2009

Mr. James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

**Re: Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan – Pa. PUC Docket No.**

Dear Secretary McNulty:

The Electrical Association of Philadelphia (EAP) fully supports PECO Energy Company's (PECO's) Act 129 Energy Efficiency and Conservation Plan. We have reviewed the plan and believe that it is well designed, comprehensive, and cost effective.

We have been very impressed with the process PECO developed to obtain input from all interested parties (stakeholders). Through PECO's monthly Energy Efficiency and Conservation Plan stakeholder meetings, the EAP was able to meaningfully participate in the development of PECO's plan. As a participant in these meetings, I was witness to the fact that the competing views and concerns of all stakeholders were not only solicited, but carefully considered. In each case PECO reported back to the stakeholders on the issues raised. PECO consistently provided an acceptable explanation or resolution, or would explore the issue further with additional questions posed to the stakeholders.

We have also been impressed with the sincerity of PECO's efforts. It leaves us with no doubts that the company is fully committed to both the goals of Act 129, and to playing a key role in fulfilling those goals. The EAP has worked cooperatively with PECO over many years in advancing energy efficiency. We look forward to continuing our cooperative relationship with the company in the implementation phase of its plan.

Thank you for considering our views in support of PECO's Energy and Conservation Plan.

Sincerely,

Dwight C. Price  
Executive Director

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#### MISSION STATEMENT

The Electrical Association of Philadelphia is dedicated to helping our members and our industry achieve the highest level of business success. We are committed to enhancing our members' effectiveness, and to bringing satisfaction to the roles our members play in the electrical industry.





www.cleanmarketswork.com

June 26, 2009

James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

**Re: Petition of PECO Energy Company for Approval of its Act 129 Energy Efficiency and Conservation Plan – Pa. PUC Docket No. \_\_\_\_\_**

Dear Secretary McNulty:

On behalf of Clean Markets, a market development firm working to increase the market penetration of clean energy technologies, I am writing to support PECO Energy Company's Act 129 Energy Efficiency and Conservation Plan. I have been involved with researching the energy efficiency programs of utilities throughout the state and the US for many years, and it is clear that PECO has done an extremely thorough job in preparing it's plan.

Through PECO's monthly Energy Efficiency and Conservation Plan stakeholder meetings, I was able to meaningfully participate in the development of PECO's plan. PECO was not only open to our suggestions, but diligently worked to incorporate them - and those of other stakeholders - into its plan. We commend PECO for the collaborative approach it took in the development of its plan. We look forward to continuing our cooperative relationship with the company in the implementation phase of its plan.

We have reviewed the plan and believe that it is well designed, comprehensive, and cost effective. For all of these reasons, we support PECO's plan and urge the Pennsylvania Public Utility Commission to approve it expeditiously. We believe that doing so is consistent with Act 129's goal of encouraging the near term adoption of energy efficiency, conservation and demand reduction measures.

Sincerely yours,

Ellen D. Lutz  
President and CEO



**DELAWARE  
VALLEY  
REGIONAL  
PLANNING  
COMMISSION**

C R E A T I N G > T O M O R R O W > T O D A Y

190 N. INDEPENDENCE MALL WEST  
8TH FLOOR  
PHILADELPHIA, PA 19106-1520

PHONE: 215.592.1800  
FAX: 215.592.9125  
WEB: [www.dvrpc.org](http://www.dvrpc.org)

June 29, 2009

James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor  
Harrisburg, PA 17120

**Re: Petition of PECO Energy Company for Approval of its *Act 129 Energy Efficiency and Conservation Plan***

Dear Secretary McNulty:

On behalf of the Delaware Valley Regional Planning Commission (DVRPC), I am pleased to write this letter in support of PECO Energy Company's *Act 129 Energy Efficiency and Conservation Plan*. DVRPC is the federally-designated Metropolitan Planning Organization (MPO) for the nine counties of Greater Philadelphia, including the Pennsylvania counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia, and includes almost all of PECO's service territory. Act 129's goals of energy efficiency and conservation align with DVRPC's mission to enhance our regional economy by assuring access to an electricity infrastructure that supports efficiency and conservation.

Through its participation in PECO's monthly Energy Efficiency and Conservation Plan stakeholder meetings, DVRPC was able to participate meaningfully in the development of PECO's plan. PECO was not only open to our suggestions, but diligently worked to incorporate them—and those of other stakeholders—into its plan. We have reviewed the plan and believe it is well designed, comprehensive, and cost effective. We especially wish to commend Frank Jiruska, PECO's Director of Energy and Marketing Services, and the entire PECO team for the collaborative approach PECO took in the development of its plan. We look forward to continuing our cooperative relationship with the company in the implementation phase of its plan, particularly with regards to those aspects directed to government, public, and non-profit facility energy savings.

For all of these reasons, we support PECO's plan and urge the Pennsylvania Public Utility Commission to approve it expeditiously. We believe that doing so is consistent with Act 129's goal of encouraging the adoption of energy efficiency, conservation and demand reduction that will benefit all Pennsylvanians.

DVRPC encourages the PUC to foster flexibility in the implementation of all of the Act 129 plans, allowing reasonable amendments and revisions as may be required to allow lessons learned in the early stages of implementation to be incorporated into the later years of the plan. We also encourage the PUC to approve PECO's request for retroactive reimbursement of approved measures implemented between the time the plan is submitted by PECO and the time

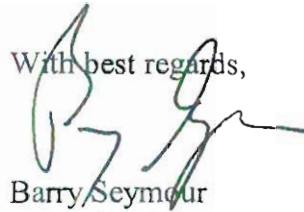


June 29, 2009  
James J. McNulty, Secretary  
Pennsylvania Public Utility Commission  
Page 2

that it is approved by the PUC. This will allow the most effective use of Federal funds issued under the American Recovery and Reimbursement Act (ARRA), particularly the Energy Efficiency and Conservation Block Grant (EECBG) programs directed to the municipalities and counties in our region.

DVRPC appreciates this opportunity to participate in the continued national leadership of Pennsylvania in developing the cleanest, least expensive, locally generated source of electricity: efficiency and conservation.

With best regards,

A handwritten signature in black ink, appearing to read "Barry Seymour", written over the typed name below.

Barry Seymour  
Executive Director

cc. Denis O'Brien  
Frank Jiruska



**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF PECO ENERGY COMPANY  
FOR APPROVAL OF ITS ACT 129  
ENERGY EFFICIENCY AND CONSERVATION PLAN  
AND EXPEDITED APPROVAL OF ITS  
COMPACT FLUORESCENT LAMP PROGRAM**

**DOCKET NO. M-2009-2093215**

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**DIRECT TESTIMONY**

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**WITNESS: GREGORY A. WIKLER**

**SUBJECT: DEVELOPMENT OF PECO ENERGY  
COMPANY'S ACT 129 ENERGY  
EFFICIENCY AND CONSERVATION PLAN  
AND SUMMARY OF PRINCIPAL FINDINGS**

**DATED: JULY 1, 2009**

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**DIRECT TESTIMONY  
OF  
GREGORY A. WIKLER**

**I. INTRODUCTION AND PURPOSE OF TESTIMONY**

**1. Q. Please state your name and business address.**

A. My name is Gregory A. Wikler. My business address is 500 Ygnacio Valley Road, Suite 450, Walnut Creek, California.

**2. Q. By whom are you employed and in what capacity?**

A. I am employed by Global Energy Partners, LLC (“Global”) as a Vice President and Senior Research Officer.

**3. Q. Please state your educational background.**

A. I received a BS degree in Energy Economics from the University of California at Davis in 1982 and MS degrees in Economics and Urban Planning, both from the University of Oregon in 1987.

**4. Q. Please describe your current and prior work experience.**

A. My resume is set forth in Exhibit GAW-1. In summary, for the past twenty-four years I have been employed as a consultant to the utility industry on matters related to demand-side management (“DSM”) program planning, design and evaluation. I currently work for Global, which is a consulting firm specializing in technical studies for the energy industry. My work covers topics such as energy efficiency and demand response program planning and analysis, demand response program

1 implementation, electric industry restructuring, project development and financial  
2 assessment, environmental assessments and public/private partnership development.  
3 Previously, I held consulting positions with NEOS Corporation, Barakat &  
4 Chamberlin, ADM Associates and National Economic Research Associates. I have  
5 also worked for the Electricity Generating Authority of Thailand as a DSM Planning  
6 Advisor under a Global Environment Facility grant managed by the World Bank.

7 **5. Q. Have you previously testified in any regulatory proceedings?**

8 A. Yes. I testified before the Minnesota Public Utilities Commission in early 2008 on  
9 behalf of several utilities that were applying for a transmission line permit and  
10 required my expertise in support of their energy efficiency plans (Docket #TR-05-  
11 1275). I testified twice before the Hawaii Public Utilities Commission on behalf of  
12 Hawaiian Electric Company, first presenting an energy efficiency program  
13 assessment in a rate case in 2004 (Docket #04-0113), and later participating in an  
14 energy efficiency policy proceeding in 2006 (Docket #05-0069). I also testified  
15 before the Wisconsin Public Service Commission in 2002 on behalf of Wisconsin  
16 Power & Light Company in support of its energy efficiency program (Docket #6680-  
17 UR-112). I appeared before the Iowa Utilities Board in 1993 on behalf of Midwest  
18 Gas Company and Iowa-Illinois Gas & Electric Company in support of their energy  
19 efficiency programs. Finally, I represented Potomac Electric Power Company and  
20 Public Service Company of Colorado in their respective energy efficiency  
21 collaborative proceedings during the mid-1990s.

22 **6. Q. What is the purpose of your testimony in this case?**

1 A. Global was retained by PECO Energy Company (“PECO”) to assist it in the  
2 development of its Act 129 Energy Efficiency and Conservation Plan (the “EE&C  
3 Plan” or “Plan”).<sup>1</sup> The purpose of my testimony is (1) to describe the process by  
4 which PECO and Global identified, evaluated and selected energy efficiency and  
5 demand reduction programs for inclusion in the EE&C Plan and (2) to summarize our  
6 principal findings in terms of projected energy consumption and peak load savings,  
7 program expenditures and Total Resource Cost (“TRC”) net benefits.

8 **7. Q. How is your testimony organized?**

9 A. I first describe the process employed in developing the EE&C Plan. Next, I discuss  
10 the results of certain data gathering initiatives that were undertaken, including a  
11 saturation survey of residential customers; market research involving PECO customer  
12 focus groups; and a detailed study of potentially achievable energy and demand  
13 savings. I then summarize the EE&C programs that PECO is proposing to implement  
14 and conclude by offering my observations of the EE&C Plan’s viability based on my  
15 twenty-plus years of experience in the energy efficiency industry. As to the latter  
16 point, I present: (1) a comparison of the EE&C Plan estimates to the maximum  
17 achievable potential for energy efficiency in the PECO territory; (2) a comparison of  
18 the EE&C Plan estimates to the reductions that other U.S. electric utilities have been  
19 able to achieve in their energy efficiency program efforts; (3) a discussion of the  
20 extensive stakeholder process that PECO facilitated and the actions that resulted from

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<sup>1</sup> I understand that the EE&C Plan comprises four volumes and is being submitted contemporaneously with my testimony. Volume II of PECO’s filing is the body of the Plan and tracks the template issued by the Pennsylvania Public Utility Commission (the “Commission”). Volumes III, IV and V contain Appendices to the Plan.

1 that process; and (4) a discussion of the common barriers encountered in  
2 implementing energy efficiency and demand response programs. I conclude my  
3 testimony with my recommendations for ways in which PECO can implement this  
4 Plan and successfully achieve the goals and objectives set forth in Act 129.

## 5 II. PROCESS FOR DEVELOPING THE EE&C PLAN

### 6 8. Q. Please describe the process employed in developing the EE&C Plan.

7 A. Four primary elements were employed in developing PECO's EE&C Plan, all of  
8 which were based on practices and approaches that are well-established in the  
9 industry and which I have employed for the better part of the past two decades. First,  
10 the necessary supporting data were assembled and reviewed. Second, an energy  
11 efficiency potential study was conducted. Third, potential energy efficiency and  
12 demand reductions programs suitable for the PECO service territory were identified.  
13 Finally, an analysis of those programs was performed to determine their cost-  
14 effectiveness.

### 15 9. Q. How were the necessary supporting data developed?

16 A. The development of the necessary supporting data consisted of two components.  
17 First, we collected all available secondary data and then supplemented that effort with  
18 primary data collection where necessary. The types of secondary data that we  
19 assembled included industry studies of energy efficiency potential from organizations  
20 such as the Electric Power Research Institute, the Lawrence Berkeley National



1 Laboratory and the American Council for an Energy Efficient Economy. The  
2 primary data comprised PECO-specific load forecasts, historical customer billing  
3 records, avoided cost information, discount rates, previous market research studies,  
4 previous program evaluation studies, and the like. We then collected additional  
5 market and customer data that could be used to drive many of the Plan's key  
6 assumptions. This included two primary activities: a saturation survey of PECO  
7 residential and low-income customers and a market research study of PECO  
8 residential, low-income and business customers. The saturation survey was geared  
9 toward obtaining a better understanding of the ways in which PECO customers use  
10 energy, the number of energy-using devices that customers have, and the levels of  
11 energy efficiency that PECO customers already experience as a result of installing  
12 energy efficiency measures. The saturation survey was an on-line survey that was  
13 completed by over 1,400 residential and low-income customers. The market research  
14 study was conducted by holding focus group sessions with different groups of  
15 customers.

16 **10. Q. Please describe the second element that you identified previously - - the energy**  
17 **efficiency potential study.**

18 A. The purpose of the energy efficiency potential study was to identify the size of the  
19 energy efficiency market. In particular, we measured three types of potential savings:  
20 technical, economic and maximum achievable. The technical potential metric  
21 represents the maximum possible savings regardless of cost and customer preference.  
22 It is often used to gauge what might be the absolute upper boundary of savings  
23 resulting from energy efficiency measures. It is a hypothetical concept that helps

1 guide planning efforts and should not be used as a basis for setting savings goals.  
2 The economic potential metric represents the maximum savings for those energy  
3 efficiency measures that pass an economic screen without regard to program  
4 administration costs or customer preferences. The maximum achievable potential  
5 metric, or MAP, represents the energy savings potential from energy efficiency  
6 measures after taking into account program administration costs and customer  
7 acceptance rates. In that sense, MAP represents a theoretical upper boundary of what  
8 could be achieved vis-à-vis energy efficiency programs under ideal market conditions  
9 (e.g., maximum incentives, perfect information conveyed to customers about energy  
10 efficiency). Later in my testimony, I will discuss some MAP estimates from other  
11 studies.

12 **11. Q. Was it at this point in your analysis that you identified the various**  
13 **programmatic measures that might be considered for inclusion in PECO's**  
14 **EE&C Plan?**

15 A. Yes. Armed with the information we had assembled and developed, we conducted a  
16 thorough assessment of the various energy efficiency and demand reduction  
17 measures. We began this effort by identifying a universal list of measures based on  
18 our experience in the industry, as supplemented by the input and feedback that we  
19 received during numerous meetings with PECO Stakeholder groups. We then ran  
20 those measures through a series of qualitative screens to eliminate measures that  
21 either were not applicable to PECO customers or could not feasibly be implemented  
22 during the initial term of PECO's EE&C Plan (from late 2009 to mid-2013). Finally,  
23 we assessed the benefits of each individual measure relative to that measure's cost.

1 The results of the economic screen were then fed into the program development  
2 process.

3 **12. Q. How were specific EE&C programs selected?**

4 A. A representative portfolio of energy efficiency and demand reduction programs was  
5 developed drawing upon the results of our data collection efforts and the savings  
6 potential study. In addition, we reviewed energy efficiency and demand reduction  
7 programs from other parts of the country to determine whether the programs that we  
8 came up with were consistent with what had worked well elsewhere.

9 **13. Q. How involved was PECO in the process of developing the programs?**

10 A. It was very involved at every step in the process. In fact, I was quite impressed by the  
11 depth and breadth of PECO's involvement. Along the way, PECO personnel  
12 repeatedly asked me to gather more information about common practices elsewhere  
13 and then decided amongst themselves how best to tailor or customize the programs to  
14 suit the uniqueness of PECO's customer base.

15 **14. Q. Please describe the PECO Stakeholder process.**

16 A. Very early in the project, PECO convened a group of Stakeholders comprised of  
17 representatives of state and local agencies, customer interest groups and other  
18 advocacy organizations. A total of seven Stakeholder meetings were held between  
19 December 2008 and June 2009. The meetings were intended to inform the  
20 Stakeholders of the process that PECO was utilizing in developing its EE&C Plan

1 and, more importantly, to solicit their input regarding potential programs.<sup>2</sup> We  
2 investigated every suggestion and, where feasible, incorporated the information into  
3 our lineup of programs. Examples include white roofs, whole home performance  
4 measures and partnerships with other organizations to leverage the most effective  
5 delivery of energy efficiency and demand reduction program services.

6 **15. Q. Did you participate in all of the Stakeholder meetings?**

7 A. Yes, I did.

8 **16. Q. Please describe the fourth element of the process – the analysis of specific  
9 programs.**

10 A. Initially, it was necessary to develop the various parameters that would enable us to  
11 conduct a detailed cost-effectiveness analysis. These parameters included identifying  
12 the specific energy efficiency and demand reduction measures for each program  
13 (drawing upon the measure screen results described earlier); the number of customers  
14 that might participate in the program each year (drawing upon the savings potential  
15 analysis described earlier); the total incremental cost of each measure; the amount of  
16 rebate or incentive that would be offered to offset that cost; any ancillary costs such  
17 as disposal once the measure has reached the end of its service lifetime; and the costs  
18 to administer the program.

19 **17. Q. Did you utilize the Technical Reference Manual (“TRM”) adopted by the PUC  
20 in quantifying program savings?**

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<sup>2</sup> PECO’s presentations at such Stakeholder meetings are provided in Appendix F-9 (Volume V).



1 A. Yes. Whenever a measure was identified in the TRM and passed through our various  
2 screens, we included it in the program analysis. We used the deemed savings  
3 specified in the TRM as the basis for that measure's contribution toward overall  
4 savings. For example, the TRM specifies deemed energy and peak demand savings  
5 for compact fluorescent lamps ("CFL") and so we used those unit-level savings  
6 estimates as the key input in our analysis of various programs where CFLs were  
7 featured in the Plan.

8 **18. Q. How did you determine customer participation rates?**

9 A. We drew upon the results of the energy efficiency potential study in order to identify  
10 the available population of customers for each program. We then further defined  
11 eligibility criteria for each program. For example, the Residential Low Income  
12 Energy Efficiency program only includes those PECO customers that satisfy specific  
13 income eligibility criteria (e.g., 200% of the federal poverty guidelines, consistent  
14 with stimulus funding). We then considered customer acceptance rates for each  
15 individual measure based largely on our observation of the experience of other  
16 comparable programs. Adjustments to these rates were then made based on  
17 discussions with PECO staff and its experience working with customers in the greater  
18 Philadelphia area. We also utilized input from key vendors and prospective  
19 Conservation Service Providers ("CSPs"). For example, PECO invited CFL and  
20 refrigerator buyback vendors to provide their assessments of specific program designs  
21 based on their experience in having implemented similar programs elsewhere.  
22 Further, we contacted potential CSPs that already offer comparable services to PECO  
23 customers for another purpose in order to gain their perspectives on the relative

1 market size. In particular, several curtailment service companies who currently  
2 operate PJM demand response programs within the PECO service territory were  
3 asked about the market potential for a PECO-sponsored demand reduction program.

4 **19. Q. How certain are you that these participation rates can be achieved?**

5 A. While it is difficult to predict how a market will react to a particular program or  
6 initiative, we believe that the experience gained elsewhere provides an excellent basis  
7 by which to estimate likely acceptance in the PECO market area. In addition, we  
8 conducted sensitivity analyses to determine which measures might have the largest  
9 impact at the least cost and how to maximize customer acceptance of those measures  
10 by focusing on increased customer awareness, education, and promotion.

11 **20. Q. You mentioned that once the parameters were developed, you then conducted a  
12 cost-effectiveness analysis. How was that done?**

13 A. We followed Act 129 and employed a Total Resource Cost (“TRC”) test as the basis  
14 for judging the economic viability of the program. To this end, we worked with  
15 PECO to determine representative avoided costs for energy and capacity, as well as  
16 other important drivers including system loss factors, discount rates, and cost  
17 escalation rates. In addition to the TRC test, we developed levelized costs of saved  
18 energy and capacity, which were calculated by dividing the lifetime costs of a  
19 program by the lifetime savings associated with that program. We calculated  
20 levelized costs from both the TRC perspective and the utility or administrator  
21 perspective. Oftentimes, the industry looks to the levelized cost to better understand  
22 whether that cost is in line with industry best practice.

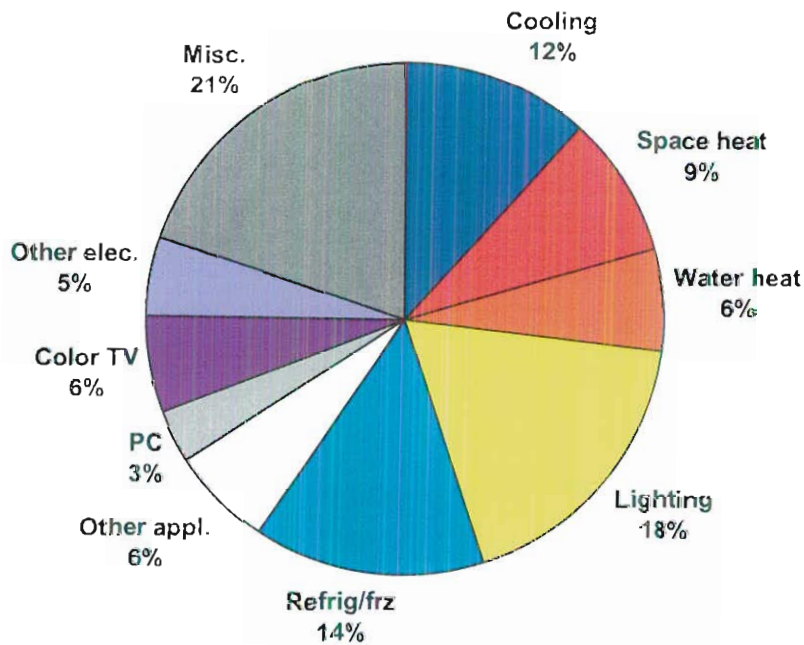


- Detailed technology inventories to correspond with energy-efficiency measures; and
- Attitudinal characteristics.

23. Q. What were some of the key findings of the saturation survey?

A. While the survey yielded a number of findings that are documented in the Plan, I found the breakdown of residential electrical usage by end-use to be particularly informative and important for the purpose of this study.<sup>4</sup> Figure 1 illustrates the percentage breakdown of energy use for all electrical end-uses in a home and indicates that nearly half of home electricity usage is attributable to cooling, lighting, water heating and refrigeration. This finding helped to inform us about potential areas where energy efficiency programs might be most effective.

Figure 1: Breakdown of Electrical Usage by End-Use for PECO Customers



<sup>4</sup> The saturation survey and survey results are provided in Appendix F-2 (Volume IV) to the Plan.



1     **24. Q. Please summarize the market research effort.**

2           A. The market research effort involved conducting focus groups with PECO customers  
3           from the residential and business sectors.<sup>5</sup> The objective of the research was to  
4           understand the impact that new energy efficiency and demand response programs  
5           might have on total use of, and peak demand for, electricity. As part of this  
6           assessment, insights were gleaned as to the way in which both residential and  
7           business customers are likely to respond to a wide variety of new programs and  
8           services that PECO proposes to offer.

9     **25. Q. What were some of the key findings of the market research?**

10          A. We found that audiences were very receptive to the idea of PECO-sponsored energy  
11          efficiency programs, more so than demand reduction programs. In addition,  
12          customers indicated that saving money was a key driver for their participation in both  
13          energy efficiency and demand reduction programs. Though nearly all residential  
14          customers indicated that environmental concerns were important to them, cutting  
15          electric bills appeared to be a higher priority. Business customers' primary focus was  
16          the bottom line and controlling costs; they were less likely to mention environmental  
17          issues as a factor in decision-making. As suggested by the universal focus on cost  
18          cutting, the current economic climate appears to be affecting customer decisions on  
19          energy-related issues. Most customers indicated that, while they have not been

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<sup>5</sup> The market research materials are provided in Appendix F-3 (Volume IV) to the Plan.

1 dramatically affected by the current recession personally, they are taking a more  
2 conservative approach to capital expenditures and more closely monitoring ongoing  
3 operating costs. The implications for energy-related decisions are that customers  
4 currently prefer to extend the life of old appliances or equipment than to purchase  
5 new, more efficient equipment. In addition, if there are low/no cost ways to reduce  
6 operating costs, these would be viewed positively.

7 **26. Q. Finally, what were the key findings of the energy efficiency potential study?**

8 A. Across the four-year time horizon comprising PECO's proposed EE&C Plan, the  
9 maximum achievable potential findings suggest average consumption (gigawatt hour)  
10 savings of 1.8% per year. The achievable potential is 636 GWh in Program Year  
11 (PY) 2009 and increases to 3,130 GWh by PY 2012. This represents 1.7% of the  
12 baseline forecast in PY 2009 and 7.2% in PY 2012. In addition, the achievable  
13 potential savings for coincident peak demand for energy efficiency measures is  
14 estimated at 257 MW in PY 2009 growing to 1,204 MW by PY 2012. The study led  
15 us to conclude that significant potential exists within the lighting and high efficiency  
16 air conditioning markets for both residential and commercial customers.

17 **27. Q. Did you conduct a comparable assessment of demand reduction program**  
18 **potential?**

19 A. There is no companion study of demand reduction potential. While the energy  
20 efficiency potential study captured the demand impacts associated with individual  
21 energy efficiency measures, demand reduction programs are not typically driven by  
22 individual measures or technologies but rather by actions that are taken temporarily to

1 achieve the program reduction goals. As such, the analysis of proposed DR programs  
2 addresses the DR achievable potential at the program level.

#### 3 **IV. PROPOSED ENERGY EFFICIENCY AND** 4 **DEMAND REDUCTION PROGRAMS**

5 **28. Q. How many programs did PECO select for inclusion in its EE&C Plan?**

6 A. Eighteen programs, ten geared toward energy efficiency savings and eight geared  
7 toward demand reduction savings, were chosen:

##### 8 **Energy Efficiency Programs**

- 9 1. CFL Initiative
- 10 2. Residential Low-Income Energy Efficiency
- 11 3. Residential Whole Home Performance
- 12 4. Residential Home Energy Incentives
- 13 5. Residential New Construction
- 14 6. Residential Appliance Pickup
- 15 7. Commercial/Industrial Equipment Incentives
- 16 8. Commercial/Industrial New Construction
- 17 9. Government/Public/Non-Profit Facility Energy Savings
- 18 10. Renewable Resources

##### 19 **Demand Reduction Programs**

- 20 1. Residential Direct Load Control
- 21 2. Residential Super Peak Time Of Use (TOU)
- 22 3. Commercial/Industrial Direct Load Control
- 23 4. Commercial/Industrial Super Peak TOU
- 24 5. DR Aggregator Contracts

1                   6. Distributed Energy Resources

2                   7. Permanent Load Reduction

3                   8. Conservation Voltage Reduction

4 **29. Q. In the process of developing these programs, did you draw from a larger base of**  
5 **potential EE and DR programs?**

6 A. Yes, we looked at a large amount of benchmark information about best practices for  
7 energy efficiency and demand reduction programs. The PECO team spent a  
8 significant amount of time reviewing and assessing those potential programs to  
9 determine which might work for PECO customers. In addition, and as I explained  
10 previously, there was considerable give-and-take with PECO's various Stakeholder  
11 groups before ultimately landing on the eighteen programs.

12 **30. Q. Does PECO's filing contain more detailed descriptions of the proposed energy**  
13 **efficiency and demand reduction programs?**

14 A. Yes. Detailed descriptions of the eighteen programs are set forth in Section 3 of the  
15 EE&C Plan (Volume II) and, as to each program, provide the following information:

- 16 • Program Title and Years of Operation
- 17 • Objectives
- 18 • Target Market
- 19 • Program Description
- 20 • Implementation Strategy
- 21 • Program Issues, Risks, and Risk Management Strategies
- 22 • Ramp-up Strategy



- 1 • Marketing Strategy
- 2 • Program Schedule
- 3 • Evaluation, Measurement, and Verification Requirements
- 4 • Administrative Requirements
- 5 • Estimated Participation
- 6 • Estimated Program Budget
- 7 • Projected Energy and Peak Demand Savings
- 8 • Cost-Effectiveness

9 **31. Q. Please summarize the total energy savings projected for the Plan.**

10 A. Table 1 itemizes the projected energy savings by program for each year. The yearly  
11 savings represent the savings total for measures installed in that year plus the  
12 continuation of savings in that year for measures that were installed in each of the  
13 previous years. For example, for Program #1 – CFL Initiative, the annual PY 2012  
14 MWhs (290,297) are the sum of the savings from CFLs installed in PY 2012 plus the  
15 savings in PY 2012 from CFLs installed in PY 2009 through PY 2011. Thus, the  
16 savings of 290,297 MWhs are equal to 252,933 MWh from CFLs that were installed  
17 in PY 2009 – PY 2011 plus 38,364 MWh from the CFLs that were installed in PY  
18 2012. As indicated, the total annual savings anticipated to be achieved by the end of  
19 PY 2010 are 589 GWh, which is 50% higher than PECO’s requirement under Act 129  
20 of 394 GWh. This aggressive estimate of PY 2010 savings is largely attributable to  
21 PECO’s proposed early rollout of its CFL Initiative, which is expected to generate  
22 savings quickly and inexpensively. By PY 2012, the total savings are projected to

grow to 1,296 GWh, which is 10% higher than PECO's Act 129 requirement of 1,182 GWh.

**Table 1: PECO's Projected Annual Energy Savings by Program**

Program	Energy Savings (MWh)			
	PY 2009	PY 2010	PY 2011	PY 2012
<b>Energy Efficiency Programs</b>				
1. CFL Initiative	73,492	161,793	251,933	290,297
2. Residential Low-Income Energy	6,096	22,239	49,479	79,660
3. Residential Whole Home Performance	0	792	2,375	5,542
4. Residential Home Energy Incentives	9,810	44,267	83,801	123,514
5. Residential New Construction	0	100	502	904
6. Residential Appliance Pickup	7,494	29,977	52,460	74,944
7. Commercial/Industrial Equipment Incentives	14,321	109,547	191,471	273,012
8. Commercial/Industrial New Construction	0	0	8,750	25,000
9. Government/Public Facility Energy Savings	11,800	80,011	148,222	216,792
10. Renewable Resources	0	194	516	1,097
<b>Subtotal Energy Efficiency Programs</b>	<b>123,013</b>	<b>448,921</b>	<b>789,511</b>	<b>1,090,762</b>
<b>Demand Reduction Programs</b>				
1. Residential Direct Load Control	0	2,612	3,845	5,086
2. Residential Super Peak TOU	0	0	1,322	2,546
3. Commercial/Industrial Direct Load Control	0	584	1,095	1,460
4. Commercial/Industrial Super Peak TOU	0	0	1,306	2,822
5. DR Aggregator Contracts	0	5,000	10,000	15,000
6. Distributed Energy Resources	0	15,600	27,300	39,000
7. Permanent Load Reduction	451	6,325	17,607	28,888
8. Conservation Voltage Reduction	0	110,000	110,000	110,000
<b>Subtotal Demand Reduction Programs</b>	<b>451</b>	<b>140,121</b>	<b>172,474</b>	<b>204,803</b>
<b>Grand Total -- All Programs</b>	<b>123,464</b>	<b>589,042</b>	<b>961,985</b>	<b>1,295,565</b>
<b>PECO Goals</b>		<b>393,850</b>		<b>1,181,550</b>
<b>Percent of Goal</b>		<b>150%</b>		<b>110%</b>

32. Q. What are the total peak demand savings projected for the Plan?

A. Table 2 summarizes the projected peak demand savings for the top 100 peak hours in each year by program. The table indicates an estimated peak demand reduction for PY 2009 of 11.9 MW, which is anticipated to grow to over 505 MW by PY 2012. This is 42% higher than PECO's Act 129 requirement of 355 MW.

**Table 2: PECO's Projected Annual Peak Demand Savings by Program**

Program	Peak Demand Savings (MW)			
	PY 2009	PY 2010	PY 2011	PY 2012
<b>Energy Efficiency Programs</b>				
1. CFL Initiative	4.0	8.8	13.7	15.8
2. Residential Low-Income Energy	0.4	1.5	3.2	5.3
3. Residential Whole Home Performance	0.0	0.0	0.1	0.1
4. Residential Home Energy Incentives	0.4	1.8	3.3	4.9
5. Residential New Construction	0.0	0.0	0.0	0.1
6. Residential Appliance Pickup	1.4	5.8	10.1	14.4
7. Commercial/Industrial Equipment Incentives	3.3	25.1	43.7	62.3
8. Commercial/Industrial New Construction	0.0	0.0	1.1	3.0
9. Government/Public Facility Energy Savings	2.4	15.8	29.3	42.9
10. Renewable Resources	0.0	0.3	0.7	1.4
<b>Subtotal Energy Efficiency Programs</b>	<b>11.9</b>	<b>59.0</b>	<b>105.2</b>	<b>150.2</b>
<b>Demand Reduction Programs</b>				
1. Residential Direct Load Control	0.0	31.1	46.0	60.9
2. Residential Super Peak TOU	0.0	0.0	13.2	25.5
3. Commercial/Industrial Direct Load Control	0.0	5.8	11.0	14.6
4. Commercial/Industrial Super Peak TOU	0.0	0.0	13.1	28.2
5. DR Aggregator Contracts	0.0	50.0	100.0	150.0
6. Distributed Energy Resources	0.0	20.0	35.0	50.0
7. Permanent Load Reduction	0.0	3.9	9.3	14.7
8. Conservation Voltage Reduction	0.0	11.3	11.3	11.3
<b>Subtotal Demand Reduction Programs</b>	<b>0.0</b>	<b>122.1</b>	<b>238.8</b>	<b>355.2</b>
<b>Grand Total -- All Programs</b>	<b>11.9</b>	<b>181.1</b>	<b>344.0</b>	<b>505.4</b>
<b>PECO Goals</b>				<b>355.0</b>
<b>Percent of Goal</b>				<b>142%</b>



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33. Q. **Why is PECO’s EE&C Plan designed to produce more peak demand savings than required under Act 129?**

A. It is important for PECO to build a safety cushion into its demand reduction efforts because of the difficulties associated with sustaining the required peak demand savings over time. As such, we felt that developing a high level of participation in demand reduction for the Plan was appropriate.

34. Q. **What are the annual and cumulative program expenditures projected for the Plan?**

A. Table 3 lists the anticipated annual and total expenditures by program. In sum, PECO expects to spend \$341.6 million over the four-year time period in order to achieve the energy savings represented in Table 1 and the peak demand reductions represented in Table 2. That represents nearly 100% of PECO’s \$341.9 spending cap under Act 129. Of that total, PECO expects to spend 63% on energy efficiency programs and the balance on demand reduction programs.



**Table 3: PECO's Projected Yearly Expenditure by Program**

Program	Budget (Million \$)				
	PY 2009	PY 2010	PY 2011	PY 2012	4-Year Total
<b>Energy Efficiency Programs</b>					
1. CFL Initiative	\$5.5	\$5.7	\$5.8	\$2.7	\$19.7
2. Residential Low-Income Energy	\$1.9	\$4.8	\$8.6	\$12.1	\$27.4
3. Residential Whole Home Performance	\$0.3	\$0.9	\$1.1	\$1.6	\$4.0
4. Residential Home Energy Incentives	\$3.1	\$9.3	\$11.6	\$11.6	\$35.5
5. Residential New Construction	\$0.2	\$0.7	\$1.1	\$1.1	\$3.1
6. Residential Appliance Pickup	\$1.0	\$2.8	\$2.9	\$3.0	\$9.7
7. Commercial/Industrial Equipment Incentives	\$3.3	\$16.1	\$19.2	\$23.0	\$61.7
8. Commercial/Industrial New Construction	\$0.1	\$0.1	\$1.8	\$2.8	\$4.8
9. Government/Public Facility Energy Savings	\$2.7	\$12.0	\$14.3	\$16.8	\$45.8
10. Renewable Resources	\$0.1	\$1.2	\$1.6	\$2.2	\$5.1
<b>Subtotal Energy Efficiency Programs</b>	<b>\$18.3</b>	<b>\$53.7</b>	<b>\$67.9</b>	<b>\$76.9</b>	<b>\$216.9</b>
<b>Demand Reduction Programs</b>					
1. Residential Direct Load Control	\$1.7	\$9.4	\$13.1	\$17.1	\$41.3
2. Residential Super Peak TOU	\$0.1	\$1.1	\$3.1	\$4.4	\$8.8
3. Commercial/Industrial Direct Load Control	\$1.3	\$3.0	\$4.2	\$4.7	\$13.1
4. Commercial/Industrial Super Peak TOU	\$0.1	\$1.8	\$3.3	\$4.9	\$10.1
5. DR Aggregator Contracts	\$0.2	\$3.7	\$7.3	\$11.2	\$22.4
6. Distributed Energy Resources	\$1.8	\$4.1	\$5.7	\$6.7	\$18.3
7. Permanent Load Reduction	\$0.4	\$1.3	\$2.0	\$2.4	\$6.2
8. Conservation Voltage Reduction	\$2.1	\$2.1	\$0.2	\$0.2	\$4.6
<b>Subtotal Demand Reduction Programs</b>	<b>\$7.7</b>	<b>\$26.5</b>	<b>\$38.9</b>	<b>\$51.6</b>	<b>\$124.7</b>
<b>Grand Total -- All Programs</b>	<b>\$26.0</b>	<b>\$80.2</b>	<b>\$106.9</b>	<b>\$128.5</b>	<b>\$341.6</b>
<b>PECO Goals</b>	<b>\$85.5</b>	<b>\$85.5</b>	<b>\$85.5</b>	<b>\$85.5</b>	<b>\$341.9</b>
<b>Percent of Goal</b>	<b>30%</b>	<b>94%</b>	<b>125%</b>	<b>150%</b>	<b>100%</b>

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**35. Q. How does the Plan fare under the TRC test?**

A. Table 4 summarizes the results of the TRC analysis by program. For the Plan as a whole, the TRC benefit to cost ratio is 1.76, yielding net benefits of \$512.7 million. For the energy efficiency programs, the TRC ratio is 1.86. For the demand reduction programs, the TRC ratio is 1.59. Of the eighteen programs, only two (Residential New Construction and Renewable Resources) fail to pass the TRC test, albeit by a relatively modest amount. However, we believe that these programs should be included in the Plan because they address measures and markets that are very important for PECO’s customers, thus leading to a well-rounded portfolio of programs.

**Table 4: PECO's Estimated TRC Results by Program**

Program	TRC Analysis			
	Benefits (Million \$)	Costs (Million \$)	Net Benefits (Million \$)	B/C Ratio
<b>Energy Efficiency Programs</b>				
1. CFL Initiative	\$158	\$47	\$111	3.36
2. Residential Low-Income Energy	\$43	\$25	\$18	1.71
3. Residential Whole Home Performance	\$5	\$4	\$1	1.17
4. Residential Home Energy Incentives	\$130	\$82	\$48	1.59
5. Residential New Construction	\$1	\$3	-\$2	0.31
6. Residential Appliance Pickup	\$63	\$7	\$56	9.20
7. Commercial/Industrial Equipment Incentives	\$203	\$137	\$66	1.48
8. Commercial/Industrial New Construction	\$17	\$8	\$9	2.14
9. Government/Public Facility Energy Savings	\$171	\$103	\$68	1.66
10. Renewable Resources	\$2	\$9	-\$7	0.20
<b>Subtotal Energy Efficiency Programs</b>	<b>\$792.1</b>	<b>\$425.0</b>	<b>\$367.1</b>	<b>1.86</b>
<b>Demand Reduction Programs</b>				
1. Residential Direct Load Control	\$44	\$41	\$3	1.07
2. Residential Super Peak TOU	\$18	\$11	\$7	1.59
3. Commercial/Industrial Direct Load Control	\$10	\$9	\$1	1.14
4. Commercial/Industrial Super Peak TOU	\$19	\$10	\$9	1.84
5. DR Aggregator Contracts	\$104	\$95	\$9	1.09
6. Distributed Energy Resources	\$58	\$55	\$3	1.06
7. Permanent Load Reduction	\$28	\$19	\$9	1.49
8. Conservation Voltage Reduction	\$110	\$5	\$105	23.51
<b>Subtotal Demand Reduction Programs</b>	<b>\$391.2</b>	<b>\$245.5</b>	<b>\$145.6</b>	<b>1.59</b>
<b>Grand Total -- All Programs</b>	<b>\$1,183.3</b>	<b>\$670.5</b>	<b>\$512.7</b>	<b>1.76</b>

2     **36. Q. What is the levelized cost projected for the Plan?**

3     A. Table 5 summarizes the levelized cost of saved energy and reduced peak demand by  
4     program over the time period 2009 to 2023. The levelized cost is a measure of total  
5     costs to deliver the program (over the expected lifetime of the measures) divided by  
6     the expected savings (over the useful lifetime of the measures), with appropriate  
7     adjustments for time, value of money, etc. The energy efficiency programs have a



1 levelized cost of 3.9 cents/kWh. The demand reduction programs have a levelized  
 2 cost of \$48/kW-year.

3 **Table 5: PECO's Estimated Levelized Cost by Program**

Program	Levelized Cost Analysis	
	Levelized Cost of Saved Energy (\$/kWh)	Levelized Cost of Reduced Peak Demand (\$/kW-yr)
<b>Energy Efficiency Programs</b>		
1. CFL Initiative	\$0.029	\$537
2. Residential Low-Income Energy	\$0.055	\$767
3. Residential Whole Home Performance	\$0.068	\$2,660
4. Residential Home Energy Incentives	\$0.049	\$1,220
5. Residential New Construction	\$0.245	\$2,820
6. Residential Appliance Pickup	\$0.010	\$54
7. Commercial/Industrial Equipment Incentives	\$0.042	\$197
8. Commercial/Industrial New Construction	\$0.024	\$198
9. Government/Public Facility Energy Savings	\$0.036	\$192
10. Renewable Resources	\$0.580	\$446
<b>Subtotal Energy Efficiency Programs</b>	<b>\$0.039</b>	<b>\$264</b>
<b>Demand Reduction Programs</b>		
1. Residential Direct Load Control	\$0.563	\$47
2. Residential Super Peak TOU	\$0.318	\$32
3. Commercial/Industrial Direct Load Control	\$0.432	\$43
4. Commercial/Industrial Super Peak TOU	\$0.263	\$26
5. DR Aggregator Contracts	\$0.444	\$44
6. Distributed Energy Resources	\$0.098	\$76
7. Permanent Load Reduction	\$0.046	\$90
8. Conservation Voltage Reduction	\$0.003	\$27
<b>Subtotal Demand Reduction Programs</b>	<b>\$0.080</b>	<b>\$48</b>
<b>Grand Total -- All Programs</b>	<b>\$0.048</b>	<b>\$100</b>





1 into the EE and DR effort, with maximum incentives, perfect flow of information,  
2 functional vendor channels, available supply of energy efficiency products, etc.

3 **40. Q. Have you compared the Plan estimates to other studies?**

4 A. Yes. I have reviewed a number of recently-published national studies and  
5 publications and have compared the results of the PECO EE&C Plan with those  
6 sources. First, I compared PECO's estimates with a report by the Electric Power  
7 Research Institute (for which I was a co-author) that characterizes energy efficiency  
8 and demand response potential for the nation as a whole.<sup>8</sup> In particular, the EPRI  
9 study indicates that realistic achievable potential will result in a 0.5% reduction in  
10 baseline usage by 2010, growing to 4.8% by 2020. The PECO EE&C Plan estimate  
11 of 1,296 GWh savings by PY2012 represents a 3.2% reduction relative to baseline  
12 usage. While the EPRI study did not report potential savings in the years between  
13 2010 and 2020, it is reasonable to assume that PECO's 3.2% in 2012 would grow to  
14 at least 4.8% by 2020 if the energy efficiency programs remained in place. For peak  
15 demand, the EPRI study reports estimated peak demand reductions resulting from  
16 both energy efficiency programs and demand response programs of 2.2% in 2010,  
17 growing to 8.2% in 2020.

18 **41. Q. Are there studies that report savings as a percentage of base usage in much the**  
19 **same manner as required by Act 129?**

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<sup>8</sup> Electric Power Research Institute. 2009. 'Assessment of Achievable Potential from Energy Efficiency and Demand Response Programs in the U.S.' Global Energy Partners and The Brattle Group. January 2009.

1 A. Yes, there are. I am familiar with a study by ACEEE that reports savings impacts  
 2 associated with public benefits energy efficiency spending in a number of states.<sup>9</sup>  
 3 This study, while somewhat dated, found that annual energy efficiency program  
 4 savings as a percentage of total electricity sales range from about 0.1 percent to 0.8  
 5 percent.<sup>10</sup> Table 6 shows the percentage savings figures reported for twelve different  
 6 states. The mean value for the states for which annual savings data were available is  
 7 0.4 percent. One should note that the states that report these data also tend to be the  
 8 states with the largest and the most sophisticated monitoring and reporting  
 9 requirements. Therefore, the national average is likely to be much lower.

10 **Table 6: Energy Efficiency Program savings<sup>11</sup>**

State	Electricity savings (as % of sales)
California	0.8%
Connecticut	0.8%
Rhode Island	0.8%
Vermont	0.8%
Massachusetts	0.7%
Oregon	0.4%
Wisconsin	0.4%
Maine	0.3%
New York	0.3%
New Jersey	0.2%
Texas	0.2%
New Hampshire	0.1%

11 The figures in the foregoing table represent savings over a two year period. Over  
 12 time, as programs are introduced, measures are adopted and more customers

<sup>9</sup> Kushler Martin, Dan York, and Patti White. 2004. *Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies.* American Council for an Energy Efficiency Economy, April 2004.

<sup>10</sup> The savings percent is the amount of new electricity savings achieved from programs in a reporting year expressed as an annual-not lifetime- amount divided by the total reported electricity sales in the state.

<sup>11</sup> Data taken from Table 3, pp 27 of 'Kushler Martin, Dan York, and Patti White. 2004. *Five Years In: An Examination of the First Half-Decade of Public Benefits Energy Efficiency Policies.* American Council for an Energy Efficiency Economy, April 2004'. The data reported is for the years 2002 and 2003.



1 participate, the energy savings as percentage of utility revenue would be expected to  
2 increase.

3 Another recent ACEEE study reports on the cumulative energy efficiency savings  
4 achieved over eleven years (from 1993 to 2004).<sup>12</sup> The average cumulative savings  
5 over the eleven year period, expressed as a percentage of kWh for the United States,  
6 is 2.1 percent. The range for the top ten states is from 8.3% (for Connecticut) to 4.3%  
7 (for Montana). Minnesota is reported to have achieved 7.6% in cumulative savings  
8 over 10 years, which translates into an average annual savings of about 0.7% per  
9 year

10 **42. Q. What have been some specific utility experiences with respect to achieving**  
11 **energy efficiency savings targets?**

12 A. Program results reported by other utilities and program administrators indicate that  
13 experienced energy efficiency savings as a percentage of retail sales are generally  
14 lower than the required reductions set forth in Act 129. Some of the best programs in  
15 the industry have achieved savings lower than what is required for PECO to achieve.  
16 Best program experiences from California's investor-owned utilities ("IOUs") show  
17 that programs implemented in 2004 alone provided savings equivalent to nearly 1  
18 percent of retail sales by the three utilities.<sup>13</sup> Both Seattle City Light's and Puget  
19 Sound Energy's energy efficiency programs have saved 0.8 percent of retail

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<sup>12</sup> York Dan, Marty Kushler. 2005. *'A Nationwide Assessment of Utility Sector Energy Efficiency Spending, Savings, and Integration with Utility Resource Acquisition'*. American Council for an Energy Efficiency Economy, 2006 ACEEE Summer Study on Energy Efficiency in Buildings.



1 electricity sales.<sup>14</sup> Actual savings results from Xcel Energy are at 0.8 percent of retail  
2 sales in Minnesota and 0.2 percent of retail sales in Colorado during the year 2006.<sup>15</sup>  
3 The Save-a-Watt program by Duke achieved 0.3 percent annual energy efficiency  
4 savings.<sup>16</sup> The 2007 goal for the 'Focus on Energy' program savings in Wisconsin is  
5 set at 0.4 percent of the load.<sup>17</sup>

6 **43. Q. Drawing on these experiences, do you believe that the savings targets set forth in**  
7 **PECO's EE&C Plan are achievable?**

8 A. Yes, I do. While achieving the sizable savings projected by PECO will be a  
9 challenge, I believe that the market is ripe for the types of programs that PECO is  
10 planning for two reasons. First, current economic conditions have made all  
11 consumers more cost conscious. Second, as the awareness of climate change issues  
12 has reached the national mainstream, PECO customers are attuned to the importance  
13 of reducing their carbon footprints.

14 **44. Q. How do achieved energy efficiency program savings compare with estimates of**  
15 **potential savings?**

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<sup>13</sup> Western Governors' Association Clean and Diversified Energy Initiative. Energy Efficiency Task Force Report. January 2006.

<sup>14</sup> Western Governors' Association Clean and Diversified Energy Initiative. Energy Efficiency Task Force Report. January 2006.

<sup>15</sup> Presentation by Suzanne Doyle of Xcel Energy at ACEEE's Fourth National Conference on 'Energy Efficiency as a Resource' held between September 30- October 2, 2007 at Berkeley, California.

<sup>16</sup> Presentation by John Wilson of 'Southern Alliance for Clean Energy' at ACEEE's Fourth National Conference on 'Energy Efficiency as a Resource' held between September 30- October 2, 2007 at Berkeley, California

<sup>17</sup> Presentation by Janet Brandt of Wisconsin Energy Conservation Corporation at ACEEE's Fourth National Conference on 'Energy Efficiency as a Resource' held between September 30- October 2, 2007 at Berkeley, California.

1 A. In practice, the energy efficiency savings actually achieved typically fall far short of  
2 maximum achievable potential estimates. And, as I previously explained, MAP, in  
3 turn, is only a small fraction of the overall technical potential. Another ACEEE  
4 report, which is a meta-analysis of eleven potential assessment studies, reports that  
5 the median MAP value is 1.2 percent per year for electricity savings. It also found  
6 that, for electricity, the median technical potential is 33 percent, median economic  
7 potential is 20 percent, and median achievable potential is 24 percent.<sup>18</sup> The  
8 achievable potential ranged from 10 to 33 percent. High achievable potential  
9 estimates were applicable for those with very aggressive program and policy efforts.  
10 For example, a Vermont study states that its estimated “maximum achievable”  
11 savings could only be achieved “if the state made a concerted, sustained campaign  
12 involving highly aggressive strategies” including “sustained marketing to consumers  
13 and upstream suppliers;” “generous financial incentives covering full technology  
14 costs;” “comprehensive technical and information services to all market participants;  
15 and complete customer service delivery.” The potential estimates also varied  
16 according to end-use sectors. Thus, the median technical potential was 32 percent for  
17 the residential sector, 36 percent for the commercial sector, and only 21 percent for  
18 the industrial sector. The median achievable potentials were even lower at 26  
19 percent, 22 percent and 14 percent, respectively.<sup>19</sup>

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<sup>18</sup> Nadel Steven, Anna Shipley and R. Neal Elliott. 2004. ‘The Technical, Economic and Achievable Potential for Energy-Efficiency in the U.S. – A Meta-Analysis of Recent Studies’. American Council for an Energy-Efficient Economy, 2004

<sup>19</sup> Nadel Steven, Anna Shipley and R. Neal Elliott. 2004. ‘The Technical, Economic and Achievable Potential for Energy-Efficiency in the U.S. – A Meta-Analysis of Recent Studies’. American Council for an Energy-Efficient Economy, 2004

1 45. Q. What are the factors that lead to achieved energy efficiency program savings  
2 falling short of what was projected in the MAP studies?

3 A. There are a number of factors that lead to actual program savings falling short of  
4 MAP.<sup>20</sup> Some of these are:

- 5 • Customer acceptance rates used for the MAP are based on a hypothetical upper-  
6 boundary that presumes ideal market conditions – including maximum rebates,  
7 perfect knowledge and dissemination of information on the part of participants, a  
8 chain of appropriately skilled and proven trade allies, and a supply of energy  
9 efficiency products to meet the entire demand.
- 10 • MAP estimates are made before DSM programs are defined. Once the details of  
11 the programs are specified and more precise knowledge about the market  
12 conditions are identified (e.g., constraints on the availability of qualified  
13 contractors), the predicted customer acceptance rates oftentimes will be lower  
14 than the upper-boundaries specified in the MAP.
- 15 • The DSM program development process involves striking a balance between  
16 achieving the maximum level of savings and other important considerations such  
17 as budgetary, cost-effectiveness, and equitable distribution of programs across  
18 customer segments. These other factors taken in combination tend to result in a  
19 lower program potential relative to the MAP.
- 20 • In cases where actual spending falls short of authorized spending levels, less than  
21 100% of the achievable target is likely to be attained.
- 22 • Program marketing and outreach challenges that restrict communication to  
23 customers' lower penetration rates as compared to that envisaged in the achievable  
24 potential.
- 25 • The administrative burden on implementer and program participants can  
26 effectively lower customer acceptance and participation rates.
- 27 • For some programs targeted towards a specific customer segment such as multi-  
28 family housing, transaction costs can be high for activities such as recruiting  
29 smaller properties, conducting training workshops, spreading incentives across  
30 multiple organizations, maximizing measure comprehensiveness at measure  
31 installation sites, and so on. These problems are not anticipated at the time the

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<sup>20</sup> Gellings Clark W., Greg Wikler and Debyani Ghosh. *Assessment of U.S. Electric End-Use Energy Efficiency Potential*. The Electricity Journal. November 2006, Vol. 19, Issue 9.



1            achievable potential is estimated and also lead to attained savings falling short of  
2            the achievable value.

3            **VI. COMMON BARRIERS IN ENERGY EFFICIENCY AND**  
4            **DEMAND REDUCTION PROGRAMS**

5    46.    Q.    **What are some of the common barriers to the effective implementation of energy**  
6            **efficiency and demand reduction programs that lead to achieved savings falling**  
7            **short of goals?**

8            A.    Experience points to a number of barriers that impede achieving energy efficiency  
9            and demand reduction goals/targets. Some of these common barriers are:

- 10            • Consumers lacking or having incomplete information about energy efficiency and  
11            demand reduction options.
- 12            • Decision-making that does not consider or value energy efficiency and demand  
13            reduction.
- 14            • The perceived risk associated with the performance of relatively new energy  
15            efficiency and demand reduction measures.
- 16            • Limited supply and availability of certain energy efficiency measures (e.g., newer  
17            measures manufactured on a limited scale or not yet widely marketed).
- 18            • Lack of capital to invest in energy efficiency measures and demand reduction-  
19            enabling technologies.
- 20            • Lack of staffing or time within businesses and industries.
- 21            • Lack of interest because energy costs are a small fraction of total costs.



- Split incentives whereby the party designing, constructing, or purchasing a building or piece of equipment does not pay the operating costs.
- Demand reduction program customers having difficulty sustaining their load shedding capabilities for the entire peak time period.

47. **Q. How well documented are these barriers?**

A. There is a large body of research documenting barriers on the consumer side towards adopting energy efficiency products and practices. Often, consumers are poorly informed about technology characteristics and energy efficiency opportunities. Some do not know where to find credible information on energy efficiency options. For example, while consumers may know how much more an energy-efficient air conditioner or water heater costs, they may not know how much they will save in their annual utility bills by purchasing the more efficient technology. In addition, it can take many years to inform and educate a large majority of households and businesses about energy efficiency options. Indeed, after nearly eight years of active promotion of and, at times, incentives for CFLs, nearly one-third of households surveyed in the Pacific Northwest in late 2004 were still unaware of this energy efficiency measure.<sup>21</sup>

48. **Q. How is this possible given the rising awareness among consumers about the state of our environment and the effects of global climate change?**

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<sup>21</sup> Rasmussen, T., V. Goepfrich, and K. Horkitz. 2005. "Drivers of CFL Purchase Behavior and Satisfaction: What Makes a Consumer Buy and Keep Buying?" Reducing Uncertainty Through Evaluation. Brooklyn, NY: International Energy Program Evaluation Conference. August 2005. pp. 897-910.

1 A. Consumers often lack the ability or time to process and evaluate the information they  
2 do have, a situation sometimes referred to as “bounded rationality.” For example,  
3 they often have difficulty using information on energy labels or calculating the  
4 payback period for a more efficient appliance. Even when performance ratings are  
5 available (such as ENERGY STAR® labeling), consumers may not know how the  
6 energy-efficient device will function and how much energy and money it will save.  
7 Also, many individual consumers do not value the lifetime energy savings provided  
8 by more efficient appliances, or other energy efficiency measures.

9 In addition, there are situations where consumers perceive that energy efficiency  
10 technologies do not perform as well as the standard, less-efficient products they are  
11 used to. For example, they may believe that energy-efficient fluorescent lamps  
12 provide poorer quality light compared to incandescent lamps, or that energy-efficient  
13 furnaces or air conditioners are less reliable than “low tech” standard efficiency  
14 models.

15 **49. Q. How important are available markets for energy efficient products?**

16 A. They are critical. Some energy efficiency measures are relatively new and are still  
17 not widely available in the marketplace nor well-supported by product providers.  
18 Examples are highly-efficient light fixtures, reflective roofing materials, heat pump  
19 water heaters, and modern evaporative coolers. Also, some very effective energy

1 efficiency services such as duct testing and sealing and existing building re-  
2 commissioning may not be widely available or marketed.<sup>22</sup>

3 **50. Q. Can you elaborate on the barriers faced by small business?**

4 A. Certain businesses, especially medium and small ones, often lack the necessary time  
5 and staff to make educated decisions on energy efficiency. Furthermore, businesses  
6 are most concerned with developing new products, maintaining production, and  
7 increasing sales. As a result, energy consumption is usually a secondary or tertiary  
8 consideration.

9 Businesses tend to pay limited attention to energy use and energy savings  
10 opportunities if energy costs are a small fraction of the total cost of owning or  
11 operating the business or factory or if energy efficiency is not viewed as a priority by  
12 company management. Due to these factors, many businesses limit energy efficiency  
13 investments to projects with payback periods of no more than two or three years.<sup>23</sup>

14 **51. Q. Are there other barriers that you would like to point out?**

15 A. Yes. Misplaced incentives, also known as split incentives, exist in rental markets  
16 where building owners are responsible for investment decisions but tenants pay the  
17 energy bills. A number of studies have revealed lower levels of energy efficiency in  
18 dwellings occupied by renters compared to those occupied by owners. Misplaced

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<sup>22</sup> Western Governors' Association Clean and Diversified Energy Initiative. Energy Efficiency Task Force Report. January 2006

<sup>23</sup> Geller, H. 2003. Energy Revolution: Policies for a Sustainable Future. Washington, DC: Island Press.

1 incentives also are found in construction markets where decisions about building  
2 design and features are made by people not responsible for paying the energy bills.

3 **52. Q. Is the lack of awareness issue mentioned earlier compounded in these situations?**

4 A. Yes. The awareness problem is more pronounced for these customer segments.

5 Experience shows that the main avenue for participants to learn about energy  
6 efficiency programs is by word-of-mouth. Therefore, unless households are  
7 connected into personal networks, they may not become aware of the programs at all.

8 In such situations, proactive outreach activities such as on-site visits may be  
9 necessary. There may also be situations where consumers are aware of the programs,  
10 but do not have contact information or know eligibility requirements. Other  
11 customers may not know how or where to sign up, may not have enough time to sign  
12 up, or may perceive the program enrollment process to be too complicated and time  
13 consuming. We have taken many steps to try to minimize and potentially overcome  
14 these barriers through program design features. For example, many of the programs  
15 proposed in PECO's EE&C Plan include targeted promotional campaigns. Also,  
16 customer education is stressed in the context of each specific energy efficiency  
17 program.



1 **VII. CONCLUSION AND RECOMMENDATIONS**

2 **53. Q. Do you have any concluding thoughts about PECO's EE&C Plan?**

3 A. Yes. First, I believe that PECO is proposing an outstanding portfolio of energy  
4 efficiency and demand reduction programs that offer customers a wide variety of  
5 options to actively participate in the implementation of Act 129. Second, the targets  
6 are aggressive but manageable. PECO's energy efficiency staff invested a significant  
7 amount of time and effort to develop this Plan. They were presented all of the  
8 options that could be considered and ultimately landed on a Plan that is aggressive,  
9 yet practical and manageable within the four-year timeframe that is available for this  
10 study. Third, I believe that PECO's EE&C Plan will provide significant benefits to  
11 residents and businesses of the Philadelphia metropolitan area. PECO was very  
12 careful to think through all of the cost elements that would be needed to effectively  
13 implement the Plan. The fact that this Plan meets the spending target is no  
14 coincidence as PECO spent a considerable amount of time refining and assessing  
15 various implementation options. Fourth, PECO was very inclusive in the  
16 development of this Plan. Holding seven formal Stakeholder meetings and numerous  
17 other informal meetings with interested parties proved to me that PECO was sincerely  
18 committed to incorporating the ideas and feedback of all interested parties.

19 **54. Q. Does this conclude your direct testimony?**

20 A. Yes, it does.



**GREGORY A. WIKLER**  
*Vice President and Senior Research Officer*

**QUALIFICATIONS**

- Over 20 years experience as an energy economist and project manager for strategic planning and market evaluation projects for electric utilities
- Substantial knowledge of residential, commercial and industrial energy use practices and the application of end-use technologies
- Recognized expert in energy efficiency and demand response program planning, design, implementation and performance assessment
- Expertise in technology assessment and market analysis for demand response and distributed generation technologies
- Conducts projects related to energy efficiency measures, demand response programs, building analysis and modeling, and market research related to customer decision making processes
- Areas of expertise include:
  - Integrated resource planning
  - Economic and cost-benefit analysis
  - Market analysis and strategic planning
  - Financial and profitability analysis
  - Technology and market assessments of new products and services
  - Environmental and pollution reduction technology assessments
  - End-use data and engineering analysis
  - Energy audit and facility data collection project management

**EDUCATION**

MS, Economics, University of Oregon, Eugene  
Master of Urban Planning, University of Oregon, Eugene  
BS, Energy Economics, University of California, Davis

**PROFESSIONAL EXPERIENCE**

**2000 – Present**    *Vice President*  
**Global Energy Partners, LLC, Lafayette, California**

As a Vice President for Global Energy Partners, Mr. Wikler conducts technical, economic and financial assessments related to the electric industry. His expertise addresses current industry topics such as energy efficiency and demand response program planning, demand response program implementation, environmental assessments, and regulatory support and strategic analysis. Representative projects include:

- For *PECO Energy*, leading a multi-disciplinary team that is developing PECO's Energy Efficiency and Conservation Plan as required according to Pennsylvania Act 129. The Plan elements include collecting primary market data on energy use and customer attitudes, development assessments of energy efficiency potential, designing energy efficiency and demand reduction programs, developing cost-effectiveness analyses, and leading a group of stakeholders representing state and local governments, customer interest groups and advocacy organizations.



- For the *Federal Energy Regulatory Commission (FERC)*, conducted an analysis of demand response potential for the U.S. as a whole and for each of the individual 50 states. The analysis included estimating the long-range economic and achievable potential for various demand response measures and initiatives related to emergency-based DR programs such as interruptible tariffs and direct load control as well as price-based programs such as critical peak pricing and real-time pricing. The project is FERC's implementation of Congressional mandates. Global worked on this project as part of a project team lead by the Brattle Group.
- For *Pacific Gas & Electric (PG&E) and Southern California Edison (SCE)*, directing the turn-key implementation of Automated Demand Response (Auto-DR) Programs. Working with the Lawrence Berkeley National Laboratory, efforts are aimed at commercializing the Auto-DR technology concept in operating utility-based demand response programs. The programs have peak demand reduction goals of 30 MW and 10 MW, respectively. They are open to PG&E and SCE customers greater than 200 kW who are currently participating or are planning to participate in various demand response programs including Critical Peak Pricing, Demand Bidding, Business Energy Coalition and Peak Choice Programs. Program administration functions include managing customer incentives for technical assistance, communication equipment, and participation incentives.
- For the *Electric Power Research Institute (EPRI) and the Edison Electric Institute (EEI)*, developed national estimates of energy efficiency and demand response potential drawing upon the latest technical information and data sources. The study estimated technical, economic, maximum achievable, and realistic potential across key end-uses in the residential, commercial, and industrial sectors for four Census regions and for the nation as a whole. It also considered a variety of policy and technology scenarios drawing upon a panel of industry experts for insights and perspective.
- For *Hawaiian Electric Company and Hawaii Electric & Light*, directed a number of studies and collaborative workshops in support of each company's integrated resource plan filings with the Hawaii Public Utilities Commission. In addition, he provided expert testimony in connection with an energy efficiency docket and rate case proceeding for each company.
- For *BC Hydro*, conducted an assessment of the technical potential for capacity reduction measures applied throughout the Province. The assessment included conducting an exhaustive investigation of applicable energy efficiency and demand response measures that could be installed at customer sites ranging from single-family residential to large commercial office buildings. Then estimates of future demand reductions were developed based on the measures identified combined with load forecasts provided by BC Hydro. Recommendations were provided in terms of next steps that should be taken in order to realize the significant potential that was identified in this study.
- For *Alliant Energy* (serving electric and gas customers in the US States of Iowa, Wisconsin and Minnesota), directed a number of studies that supported the Company's various energy efficiency and rate case proceedings in each state. This included a study of energy efficiency potential, energy efficiency program designs, performance contracting resource assessments and expert testimony, monitoring and evaluation plans, and a number of benchmarking studies of energy efficiency-related topics.
- For the *California Measurement and Advisory Council (CALMAC)*, conducted a summary study of all California energy efficiency program efforts during the 2001 energy crisis. The study drew upon savings and costs reported by the implementing entities (e.g., utilities, agencies, third parties) as part of the measurement and verification protocols.
- For the *California Energy Commission*, developed and administered a Demand Curtailment program initiative that delivered 57 megawatts of demand responsive infrastructure and capability to buildings and factories throughout the state of California. The program targeted HVAC, lighting and process demand reductions for commercial, manufacturing and state/local government facilities. The program utilized a combination of strategies that enable load curtailment notification



through web-based applications and telecommunication devices that activated automatic curtailments during peak demand periods.

- For *EPRI*, managed the Market-Driven Demand Response R&D program for utility clients. The program involved conducting research on current issues related to demand response industry activities including technology developments, program-related benchmarking, and demonstration programs. The program served two-dozen utility clients from around the world during the timeframe 2004-2006.
- For the Louis Berger Group, supported the USAID Greenhouse Gas Emission Reduction (GEP) project in India. The assignment involved conducting benchmarking studies of existing solid waste management practices and studying the feasibility of developing methane recovery systems in order to power engines and turbines that would be used for generating electricity. Methane recovery also has the benefit of substantially reducing carbon emissions and thus potentially serving the broader objectives of the Government of India and USAID in reducing greenhouse gases. Other project activities included developing and running in-country research forums that focused on other renewable technology development and broader implementation of energy efficiency initiatives.

**1998 - 2000**      ***Expert Advisor for DSM and IRP***  
**Electricity Generating Authority of Thailand, Bangkok, Thailand**

As their Planning/IRP Advisor for 19-months, Mr. Wikler advised EGAT on issues related to long-range planning of energy resources as well as electric industry restructuring and the role of energy efficiency in the privatized electric power market. He oversaw numerous short-term consulting assignments covering topics related to load research data collection efforts, load management program effectiveness studies, energy efficiency market assessments, and impact and process evaluation studies for a variety of programs and applications. Mr. Wikler directed the development of EGAT's long-range integrated resource plan (IRP) that placed supply-side resources on a level playing field with demand-side resources. The EGAT project was funded in part through a US\$15.5 million grant from the Global Environmental Facility/Government of Australia and managed by the World Bank.

**1995 - 1998**      ***Senior Associate/Project Manager***  
**NEOS Corporation, Lafayette, California**

Conducted economic and engineering analysis consulting assignments for clients representing investor-owned utilities, federal and state power agencies, and international utilities. Representative project experience includes:

- For the *Electric Power Research Institute*, conducted a load volatility assessment to support the enhancement of product pricing tools already developed by EPRI. Also assessed the feasibility of load management techniques to address increasing utility concerns regarding peak load management.
- For *Potomac Electric Power*, developed resource potential estimates for commercial-sector DSM and load management programs. Results of the study were included in Pepco's Least Cost Plan filing with the DC and Maryland commissions.
- For *Sempra Energy*, provided market planning analysis and support for non-residential markets. Activities included the development of customer energy analysis tools to support the sales staff and market segmentation strategies aimed at new product planning and design.
- For *Electricity Generating Authority of Thailand*, conducted energy audits and engineering simulation studies for 50 large commercial buildings in Bangkok. Results supported development of an important DSM program database for future program planning.
- As project manager for the NEOS medical waste technology initiative, conducted technology and market assessments for seven utility clients to identify electric-based technologies that could be used for disposal of bio-hazardous medical waste.

1989 - 1995

***Project Director*****Barakat & Chamberlin, Inc., Oakland, California**

(Project Director 1994-95, Sr. Associate, 1991-93; Consultant, 1989-91)

Conducted economic analyses and strategic planning for domestic and international utility clients. Projects encompassed a variety of issues related to DSM program planning and development, market and technology research, and urban and regional planning. Areas of project expertise included the following:

- Market Analysis and Strategic Planning. Developed segmentation analyses and competitive technology assessments for utility industrial sectors, conducted market potential assessments for competitive technology implementation and identified utility customer needs as they relate to environmental mitigation strategies. He directed such projects for *Duke Power, Tennessee Valley Authority, Texas Utilities* and *EPRI*.
- Competitive Technology Assessments. Provided direction for detailed technical studies requiring the use of engineering simulation models such as DOE-2 and ESPRE to determine the load impacts for DSM measures, electrotechnologies and environmental technologies. He directed such studies for *Potomac Electric Power, Pacific Gas & Electric*, and the *U.S. Congress Office of Technology Assessment*.
- Demand-side Management. Managed long-range DSM potential studies that included forecasts of DSM technical, economic, and achievable potential. He has managed program impact evaluation studies focusing on load impacts derived through engineering models, net-to-gross assessments, and evaluation. He has extensive experience in utilizing existing models and analytical techniques such as engineering thermal load models including DOE-2, cost effectiveness models, and prototype simulations. He directed DSM planning studies for numerous clients including *PG&E, Duke Power, PEPCO, the Gas Research Institute*, and *EPRI*.
- Regulatory Support and Expert Testimony. Prepared DSM-related testimony in various rate case proceedings, including Midwest Gas' 1992 DSM Hearings, PG&E's 1993 General Rate Case and PEPCO's 1990, 1992 and 1994 Least Cost Planning work.
- Planning hearings. He testified before the Iowa Utilities Board regarding Midwest Gas' 1992 DSM plan.

1987 - 1989

***Senior Economist*****ADM Associates, Sacramento, California**

Performed comprehensive energy-related analyses for investor-owned utilities and federal power marketing agencies. Prepared technical analyses related to energy efficiency technology assessment, market analysis and economic feasibility. Performed comprehensive end-user surveys for the consumer and commercial market segments.

1986 - 1987

***Research Assistant*****Bureau of Governmental Research and Service, University of Oregon, Eugene, Oregon**

Assisted Oregon cities and counties in the implementation of energy management programs. Conducted utility rate analyses and compiled inventories of municipal streetlighting systems.

1984 - 1985

***Research Associate*****National Economic Research Associates, Los Angeles, California**

Performed economic analyses related to antitrust litigation for clients in the oil and gas, aircraft, shipbuilding, and cosmetic industries. Researched issues of market definition, pricing, and profitability relevant to the evaluation of anti-competitive behavior.



## EXPERT TESTIMONY

- Minnesota Public Utilities Commission on behalf of Otter Tail Power, Missouri River Energy Services, Heartland Power and Central Minnesota Municipal Power Agency (Docket No. TR-05-1275). January 2008.
- Hawaii Public Utilities Commission on behalf of Hawaiian Electric Company (Docket No. 05-0069). August 2006.
- Wisconsin Public Service Commission on behalf of Wisconsin Power and Light Corporation (Docket #6680-UR-112). November 2002.
- Iowa Utilities Board on behalf of Iowa-Illinois Gas and Electric. 1993.
- Iowa Utilities Board on behalf of Midwest Gas. 1993.

## PROFESSIONAL ORGANIZATIONS

- Association of Energy Service Professionals (AESP) – Active member and Vice Chair of AESP Topic Committees on Demand Response
- Peak Load Management Alliance (PLMA) – Board member and chair of PLMA Awards Committee

## SELECTED PUBLICATIONS

“Commercialization of the Automated Demand Response Technology.” With Albert Chiu, Mary Ann Piette, Sila Kiliccote, Dan Hennage, and Chuck Thomas. *Proceedings of the 2008 ACEEE Summer Study on Energy Efficiency in Buildings*, August 2008.

“U.S. Potential for Energy Efficiency and Demand Response in a Carbon-Constrained Future.” With Ingrid Rohmund, Ahmad Faruqui, Rick Tempchin, Omar Siddiqui. *Proceedings of the 2008 ACEEE Summer Study on Energy Efficiency in Buildings*, August 2008.

“Installation and Commissioning Automated Demand Response Systems,” With Sila Kiliccote, Mary Ann Piette and Albert Chiu. *Proceedings of the National Conference on Building Commissioning*. April 2008.

“Enhancing Price Response Programs through Auto-DR: California’s 2007 Implementation Experience.” With Albert Chiu, Mary Ann Piette, Sila Kiliccote, Dan Hennage, and Chuck Thomas. *Proceedings of the National Conference of the Association of Energy Services Professionals*, January 2008.

“Assessment of US Electric End-Use Energy Efficiency Potential.” With Clark Gellings and Debyani Ghosh. *Electricity Journal*, November 2006.

“The Long View of Demand-Side Management Programs.” With Ahmad Faruqui, and Ingrid Bran, in *Markets, Pricing and Deregulation of Utilities*, Michael A. Crew and Joseph C. Schuh, editors, *Kluwer Academic Publishers*, 2002, pp. 53-68.

“Clouds in the Future of DSM.” With Ahmad Faruqui and John Chamberlin. *Electricity Journal*, July 1994.





**PECO ENERGY COMPANY  
STATEMENT NO. 3**

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**PETITION OF PECO ENERGY COMPANY  
FOR APPROVAL OF ITS  
ENERGY EFFICIENCY AND CONSERVATION PLAN**

**DOCKET NO. M-2009-2093215**

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**DIRECT TESTIMONY**

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**WITNESS: RICHARD A. SCHLESINGER**

**SUBJECT: PECO ENERGY COMPANY'S  
PROPOSED TARIFF TO IMPLEMENT  
ITS ENERGY EFFICIENCY AND  
CONSERVATION PLAN**

**DATED: July 1, 2009**

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**DIRECT TESTIMONY  
OF  
RICHARD A. SCHLESINGER**

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**I. INTRODUCTION AND PURPOSE**

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1. **Q. Please state your full name and business address.**

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A. My name is Richard A. Schlesinger. My business address is PECO Energy Company, 2301 Market Street, 15<sup>th</sup> Floor, Philadelphia, Pennsylvania, 19101.

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2. **Q. What is your current position within PECO Energy Company (“PECO”)?**

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A. I am a Principal Rate Administrator in the Retail Rates Group of the Regulatory and External Affairs Department. In this position, I am responsible for all aspects of PECO’s rate analyses and strategies relating to its electric distribution business.

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3. **Q. Please describe your educational background.**

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A. I have a Bachelor of Science Degree in Engineering from Widener University. In addition, I have a Masters Degree in Business Administration from Saint Joseph’s University.

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4. **Q. Please describe your work experience in the energy industry.**

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A. I was hired in 1986 by PECO as a System Engineer in the Plant Operations group supporting the Limerick Nuclear Generating Station. From 1998 to 1991, I held several positions of increasing responsibility supporting plant operations, management, and quality assurance. In 1992, I transferred to the position of Rate Engineer in what was then the Rates and Regulatory Affairs group. In 1997, I was appointed to the position of Project Manager, Customer Choice Implementation, and

1 was responsible for many regulatory activities related to the phase-in of electric and  
2 gas retail choice for all of PECO's two million electric and gas distribution  
3 customers. In 2000, I transferred to the Company's Customer and Marketing  
4 Services Department and served as e-Commerce Manager and then as Project  
5 Manager, overseeing the implementation of various business and information  
6 technology system changes. In 2004, I joined the Regulatory and External Affairs  
7 Department, where I hold my current position of Principal Rate Administrator.

8 **5. Q. Have you previously submitted testimony in a regulatory proceeding?**

9 A. Yes, I have testified before the Pennsylvania Public Utility Commission (the  
10 "Commission") concerning PECO's 2005 Competitive Transition Charge  
11 Reconciliation Statement and its 2005 Universal Services Fund Charge  
12 Reconciliation Statement. I also submitted testimony in support of PECO's Market  
13 Rate Transition Energy Efficiency Package<sup>1</sup> and its Residential Real-Time Pricing  
14 Program.<sup>2</sup>

15 **6. Q. Mr. Schlesinger, what is the purpose of your direct testimony?**

16 A. I am sponsoring Supplement No. 94 to PECO's Tariff-Electric No. 3 ("Supplement  
17 No. 94"), bearing a proposed effective date of January 1, 2010, which contains  
18 various provisions designed to implement PECO's proposed Energy Efficiency and  
19 Conservation Plan ("EE&C Plan" or "Plan"). Accordingly, my testimony identifies  
20 and explains the changes to PECO's current tariff that are set forth in Supplement No.  
21 94. As part of this discussion, I will also: (1) describe the rate adjustment mechanism

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<sup>1</sup> Docket No. P-2008-2062740.

<sup>2</sup> Docket No. P-2008-2032333.



1 the Company proposes to establish under Section 1307 of the Public Utility Code to  
2 recover the cost of the Plan; (2) identify the categories of costs the new rate  
3 mechanism will recover and provide the Company's current estimates of those costs;  
4 and (3) explain how the proposed approach to cost recovery accommodates the need  
5 for flexibility in program spending by allowing for "mid-course corrections" (i.e., by  
6 shifting spending among programs within the same or different customer classes).

7 **7. Q. Have you prepared exhibits to accompany your testimony?**

8 A. Yes, I have prepared four exhibits, which consist of the following:

9 **PECO Exhibit RAS-1** – Supplement No. 94.

10 **PECO Exhibit RAS-2** – Program costs by rate class.

11 **PECO Exhibit RAS-3** – Calculations of the levelized cost recovery charges by rate  
12 class.

13 **PECO Exhibit RAS-4** – Responses to the Commission filing requirements at 52 Pa.  
14 Code § 53.52.

15 **II. PECO'S PROPOSED ENERGY EFFICIENCY PROGRAMS AND THE TARIFF**  
16 **CHANGES TO IMPLEMENT THEM**

17 **8. Q. Please describe the energy efficiency programs for which PECO is seeking cost**  
18 **recovery.**

19 A. As discussed in detail in the testimony Mr. Frank Jiruska, PECO's Director of Energy  
20 and Marketing Services (PECO Statement No. 1), PECO will offer ten new energy  
21 efficiency programs and eight new demand response programs, which will be  
22 available to the residential, small commercial/industrial ("SC&I"), large  
23 commercial/industrial ("LC&I), and municipal lighting (street and traffic lights)

1 (“ML”) customer sectors. Of these 18 new programs, 14 can be implemented without  
2 the need for changes or additions to PECO’s current tariff. Four of the new programs  
3 are new rates and, therefore, PECO’s tariff must be amended to set forth those rates  
4 and their respective terms and conditions of service.

5 9. Q. **What are the four new programs in PECO’s EE&C Plan that are being offered**  
6 **as tariff rates?**

7 A. The four new tariff programs consist of: (1) the residential Direct Load Control Rider;  
8 (2) the SC&I/LC&I Direct Load Control Rider; (3) the residential Super Peak Time  
9 of Use rate; and (4) the SC&I/LC&I Super Peak Time of Use rate.

10 10. Q. **Please explain the proposed Direct Load Control rates.**

11 A. The rates, terms and conditions of Direct Load Control service, including the  
12 availability criteria, are set forth in two riders contained in Supplement No. 94 at  
13 pages 93A-93C. The Residential Direct Load Control Rider applies to service offered  
14 to residential customers, which, for purposes of this rider are defined as customers  
15 taking service under Rates R (Residence Service), RH (Residential Heating Service),  
16 RS-2 (Net Metering), or CAP (Customer Assistance Program). The SC&I/LC&I  
17 Direct Load Control Rider applies to commercial and industrial customers, which, for  
18 purposes of this rider are defined as customer taking service under rates GS (General  
19 Service), PD (Primary Distribution Power), or HT (High Tension Power). Both riders  
20 are voluntary rate provisions and, as such, must be affirmatively elected by  
21 customers.

1 The Residential Direct Load Control Rider is available to residential customers with  
2 electric air conditioning systems and electric water heaters. The SC&I/LC&I Direct  
3 Load Control Rider is available to SC&I/LC&I customers with electric central air  
4 conditioning systems. Eligible customers that elect to be served under these riders  
5 receive a billing credit. In exchange for that credit, the customers allow PECO to  
6 directly control the compressors on their air conditioning systems (residential and  
7 SC&I/LC&I customers) and water heaters (residential customers) in order to interrupt  
8 service during peak periods.

9 **11. Q. Please explain the proposed Super Peak Time of Use rates.**

10 A. Supplement No. 94 will offer four new Super Peak Time of Use rate schedules. A  
11 Residential Super Peak Time of Use rate is being offered to residential customers  
12 taking service under Rates R, RH, RS-2 and CAP. The Company is also offering  
13 three new rates for commercial and industrial customers. The GS-Super Peak Time  
14 of Use rate is available to commercial and industrial customers with standard single-  
15 phase or polyphase secondary services.; the PD-Super Peak Time of Use rate is  
16 available to customers with standard primary service; and the HT-Super Peak Time of  
17 Use Rate is available to customers with standard high tension service. These are all  
18 voluntary rates and, as such, must be affirmatively elected by eligible customers that  
19 choose service under these rates.

20  
21 The Super Peak Time of Use rates are “dynamic pricing” rates, which are designed to  
22 provide price signals to customers to encourage them to curtail usage during peak  
23 periods, when the price of electricity is generally higher, and to shift load from on-  
24 peak to off-peak periods. In order to achieve this change in customer behavior, the



1 rates impose a high energy and capacity charge for a relatively short duration  
2 (typically two to four hours) during peak demand periods on weekdays during the  
3 summer. For all other hours during the summer and all non-summer periods,  
4 customers on these rates pay energy and demand charges that are lower than what  
5 they would pay on their otherwise applicable non-Super Peak Time of Use rate. The  
6 rates will be designed to be revenue neutral if all eligible customers were to elect  
7 service under their applicable rate and they retained their existing usage patterns. Of  
8 course, if customers that elect service under these rates respond to the pricing signals  
9 the rates provide, they will save money by reducing their on-peak usage and, as a  
10 result, the total revenues produced by the Super Peak Time of Use rates will be less  
11 than the level of revenue used to design those rates.

12 **12. Q. Are the rates, terms and conditions of service for each of the proposed Super-**  
13 **Peak Time of Use rate set forth in Supplement No. 94?**

14 A. The terms and conditions of service are set forth, for each rate, at pages 36A-36B of  
15 Supplement No. 94. However, the pricing and the hours that will be designated  
16 “super peak” are not included. The Super-Peak Time of Use rates will be supplied by  
17 PECO’s Default Service Plan procurements. Consequently, the specific prices cannot  
18 be developed until the fall of 2010, when PECO will have completed the competitive  
19 procurement process for its default service generation supply for 2011. As I will  
20 explain later in my testimony, the Super Peak Time of Use pricing will be developed  
21 on the basis of the single price for each applicable procurement class that results from  
22 the Company’s competitive default service generation supply procurement. Based on  
23 the method for developing the Super Peak Time of Use rates, which I will explain  
24 later, the Company will design the specific rates for each rate schedule and include



1 them in a compliance filing. The compliance filing will be made not more than 30  
2 days after PECO makes public the price results of its default service generation  
3 supply procurement for 2011.

4 **13. Q. Has the Company determined what the “super peak” period will be?**

5 A. Not yet. The super peak period will occur during weekdays in the months of June  
6 through September. However, the Company has not yet determined what the super  
7 peak hours should be during those days. The Company is analyzing contiguous  
8 hourly blocks of not less than two hours nor more than four hours within the 2:00 PM  
9 to 10 PM time frame as candidates for the super-peak hours.

10 **14. Q. Explain the method the Company will use to calculate the charges that will apply**  
11 **during the super peak periods and the non-super peak periods.**

12 A. The starting point will be the generation supply adjustment (“GSA”) GSA for each  
13 applicable procurement group obtained from PECO’s default service supply  
14 procurement process. From that starting point, the super peak energy and capacity  
15 charges will be developed through a five-step process, as follows:

- 16 1. From the single GSA for each class, the Company will deduct its estimate  
17 of the capacity costs, expressed as dollars per Megawatt hour, included in  
18 that price.
- 19 2. Average demand for each class will be calculated by dividing total class  
20 sales by 8760 hours (365 x 24).
- 21 3. The Company’s estimate of demand charges will be removed from each  
22 class’ GSA. The cost associated with average demand for each class will

1 be determined based on the PJM Interconnection LLC (“PJM”) Reliability  
2 Pricing Model auction results for the appropriate period. The cost thus  
3 determined will be converted to dollars per Megawatt hour based on class  
4 sales.

5 4. The remainder of the price to compare (“PTC”) for each class, which, after  
6 the deductions explained above, consists of the price of energy only, will  
7 be adjusted by multiplying that figure by the ratio of the load weighted  
8 average price of energy during peak hours to the load-weighted average  
9 price of energy.

10 5. The capacity cost associated with demand in excess of average demand  
11 will be divided by the kilowatt hours in the super peak block and added to  
12 the energy price calculated in step 4 along with the capacity cost  
13 associated with average demand calculated in step 3 to obtain the super  
14 peak rate.

15 The super peak rates derived from the five-step process explained above will be high  
16 enough, relative to the non-super peak rates, to send a price signal that provides a  
17 reasonable incentive for customers to curtail on-peak usage or shift their on-peak  
18 usage to non-peak periods.

19 The non-super peak rate will be calculated by multiplying the single GSA by the class  
20 sales and subtracting the super peak revenue (super peak rate multiplied by the  
21 kilowatt hours in the super peak period) and dividing by non-super peak kilowatt  
22 hours. Sales will be based upon actual sales during the most recent calendar year.

### III. PECO'S PROPOSED METHOD OF COST RECOVERY

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**15. Q. What do Act 129<sup>3</sup> and the Commission's Energy Efficiency and Conservation Implementation Order<sup>4</sup> provide with regard to an electric distribution company's ("EDC") right to recover the costs of its EE&C Plan?**

A. Act 129<sup>5</sup> and the Commission's Implementation Order<sup>6</sup> provide that an EDC has the right to recover the costs of its EE&C Plan under an adjustment clause authorized by Section 1307 of the Public Utility Code that imposes a reconcilable, non-bypassable charge.

**16. Q. Please explain the cost recovery mechanism that PECO is proposing?**

A. PECO proposes to recover the cost of its EE&C Plan through an Energy Efficiency and Conservation Program Charge ("EEPC ") that will be imposed under Section 1307 of the Public Utility Code and will be reconcilable and non-bypassable. As proposed by the Company, the EEPC will not be a separate line item on customers' bills and will not be included in the GSA. Instead, customers' distribution rates will be adjusted by the amount of the charge calculated for each rate class. Page 34D of Supplement No. 3 contains the tariff provisions that impose the EEPC. The tariff language provides a general description of the cost recovery method, the formula for calculating the charge and the charges specific to each rate class. All of the rate schedules containing distribution rates that would have to be adjusted to reflect the EEPC are also provided in Supplement No. 94.

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<sup>3</sup> 66 Pa. C.S. § 2806.1, et seq.

<sup>4</sup> Docket No. M-2008-2069887 (January 16, 2009)("Implementation Order").

<sup>5</sup> 66 Pa. C.S. § 2806.1(k).

<sup>6</sup> Implementation Order, p. 38.

1 17. Q. What are the categories of costs that the EEPC will recover?

2 A. The costs that will be recovered by the EEPC consist of all of the costs of designing  
3 and implementing the eighteen energy efficiency and conservation (“EE&C”)  
4 programs included in the EE&C Plan, which include, among others, the cost of  
5 information technology needed to design and implement the programs; the costs of  
6 customer outreach and program promotion; incremental labor costs incurred to  
7 manage and administer the programs on an on going basis; the cost to measure and  
8 verify program results; and the cost of incentives offered to customers to participate  
9 in the approved programs. The Company’s estimates of the costs it will incur for  
10 each of its eighteen proposed programs are set forth in Table A in Section 1.3 of its  
11 EE&C Plan.

12 18. Q. What are the Company’s budgeted expenditures for its proposed EE&C Plan?

13 A. As set forth in Section 7 of the EE&C Plan, the Company has budgeted expenditures  
14 totaling \$341,580,634 for the duration of the Plan.<sup>7</sup> The portions of the budgeted  
15 expenditures projected for each rate class are: \$153 million for the residential class;  
16 \$80 million for the SC&I class; \$101 million for the LC&I class; and \$8 million for  
17 the ML class. PECO Exhibit RAS-2 contains a summary of the projected  
18 expenditures for each of the eighteen programs across these rate classes.

19 19. Q. Has the Company considered input from stakeholders in developing the EEPC?

20 A. Yes, the Company has considered stakeholder input, which has been reflected in the  
21 design of the EEPC. In particular, the Company responded to stakeholder input that

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<sup>7</sup> Total allowable expenditures determined on the basis of the criteria in Act 129 are \$341,908,662.



1 recommended levelizing the charge, structuring the cost recovery mechanism to avoid  
2 inter-class subsidies, and not accruing interest on over or under recoveries, as I will  
3 explain in more detail later in my testimony. Additionally, the Company has adopted  
4 recommendations to incorporate flexibility into the program by providing for “mid-  
5 course corrections” in the spending levels for specific programs, as I will also explain  
6 later.

7 **20. Q. Please explain further why the Company proposes to levelize the EEPC over the**  
8 **term of its EE&C Plan?**

9 A. As I previously explained, the Company has budgeted expenditures of approximately  
10 \$342 million over the term of the Plan. However, the Company’s expenditures will  
11 not be distributed proportionately over that period. Rather, expenditures will “ramp  
12 up” and, as a result, actual expenditures in the early years of the plan will be less than  
13 the annual average of expenditures over the Plan’s term, while expenditures in the  
14 later years will exceed the annual average. For example, the Company projects that  
15 its actual expenditures in the first year of the Plan will total approximately \$26  
16 million as compared to an annual average over the four-year term of the Plan of \$85.5  
17 million (\$342 million/4 years). Therefore, if the EEPC were designed to track actual  
18 yearly expenditures, customers would experience relatively smaller charges in the  
19 early years of the Plan and relatively larger charges in the later years of the Plan. In  
20 order to avoid this uneven distribution of cost recovery, the Company is proposing to  
21 levelize the EEPC by developing a charge that will recover total budgeted  
22 expenditures over a three and one-half year recovery period.

23 **21. Q. What is the recovery period and when will it begin?**

1 A. The recovery period would begin with bills sent to customers during January 2010  
2 and will continue through bills sent to customers in June 2013. The January 2010  
3 starting point is designed to coincide with other rate changes that occur in January,  
4 namely, the true up of the Universal Services Fund Charge; the true-up of Intangible  
5 Transition Charges and Competitive Transition Charges (up to 2011); and changes in  
6 the Generation Supply Adjustment (after 2010). This will avoid the need to make  
7 multiple rate changes, issue multiple customer notices and make multiple revisions to  
8 the Company's billing system.

9 **22. Q. How will the Company ensure that the EEPC recovers the cost of programs**  
10 **included in the EE&C Plan from the classes of customers that will receive the**  
11 **benefits those programs provide?**

12 A. The cost of programs that target specific rate classes are directly assigned to those  
13 classes for purposes of developing the recovery charge. Programs that will provide  
14 benefits to more than one rate class, such as the Commercial and Industrial  
15 Equipment Incentive Program, or to all classes, such as the Conservation Voltage  
16 Reduction Program, have been allocated among the affected rate classes using  
17 allocation factors developed on the basis of reasonable, generally-accepted cost of  
18 service principles.<sup>8</sup> The allocation, by program and by rate class, is shown in PECO  
19 Exhibit RAS-2.

20 **23. Q. Can you provide an example that illustrates the concept you just described?**

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<sup>8</sup> Implementation Order, p. 37.

1 A. Yes The residential class EEPC of 0.35 cents per kilowatt hour includes all of the  
2 costs of the six proposed programs that are targeted to the residential class (i.e.,  
3 Compact Florescent Lighting, Low-Income, Whole Home Performance, Home  
4 Energy Incentives, New Construction, and Appliance Pickup). These costs were  
5 directly assigned to the residential class. The charge also includes an allocation of the  
6 costs of the two common programs that are available to all rate classes (i.e.,  
7 Renewable Resources and Conservation Voltage Reduction). These costs were  
8 allocated based on sales (i.e., residential class sales as a percentage of total sales of all  
9 classes). The same process was used to allocate costs for the other classes (SC&I,  
10 LC&I and ML), as shown in PECO Exhibit RAS-2.

11 **24. Q. Have you developed cost recovery rates under the EEPC for each customer**  
12 **class?**

13 A. Yes, I have developed cost recovery rates based on the total program expenditures  
14 allocated to each rate class for the duration of the Plan. To develop the recovery  
15 charge for each rate class, the total expenditure for that class was divided by the  
16 appropriate projected class billing units (e.g. kilowatt hours of energy use or kilowatts  
17 of demand) for the period from January 1, 2010 through May 31, 2013. The resulting  
18 charge per billing unit was grossed up to provide for recovery of Pennsylvania Gross  
19 Receipts Tax. This calculation produces a charge that will recover the total  
20 expenditures on a levelized basis over the recovery period. PECO Exhibit RAS-3  
21 contains the detailed calculations for the development of the recovery charges for  
22 each class.

23 **25. Q. How will the EEPC be developed for customers that are on Rate CAP?**

1 A. Residential customers on Rate CAP receive a discount that differs based on whether  
2 they are on one of five “sub-rates” within Rate CAP (i.e., CAP A, B, C, D, and E).  
3 These discounts range from about 25% to 85% and are based on a customer’s income  
4 relative to Federal poverty guidelines. PECO has calculated an EEPC for each CAP  
5 sub-rate that is proportional to the CAP discount currently received under that sub-  
6 rate. This ensures that CAP customers pay the appropriate amount of EE&C Plan  
7 costs relative to their discount level. The EEPCs for CAP customers will need to be  
8 calculated in this manner only through bills rendered in December 2010. Starting  
9 with bills rendered in January 2011, PECO’s Default Service Program tariff approved  
10 at Docket No. P-2008-2062739 will become effective and PECO’s CAP rates will be  
11 based on a different discounting methodology. At that time, a separate CAP EEPC  
12 will not be required to ensure that CAP customers pay their appropriate share of  
13 EE&C Plan costs.

14 26. Q. **How does the Company propose to true up its expenditures with the revenues**  
15 **billed under the EEPC Charge?**

16 A. The Company proposes to perform a single true-up, after May 31, 2013 that will  
17 compare expenditures through May 31, 2013 to amounts billed under the EEPC  
18 through that date. If the true-up shows an over or under-collection, the Company will  
19 establish a revised recovery charge designed to refund any over-collection or recoup  
20 any under-collection over the six-month period from June 1, 2013 to December 31,  
21 2013. In response to stakeholder input, the Company is proposing that interest not  
22 accrue or be paid on any net over or under-collection, which will simplify the  
23 recovery mechanism.



1 27. Q. As proposed by the Company, refunding or recouping any over or under  
2 collection that may occur under the EEPC Charge would take place at the end of  
3 the recovery period rather than on an annual basis. Does the Company believe  
4 that this approach is permitted under Section 1307(e) of the Public Utility Code?

5 A. Yes, the Company believes that a levelized EEPC developed in the manner it has  
6 proposed provides a benefit to customers for the reasons I discussed above and,  
7 therefore, it has established “good reason” to depart from annual refunding or  
8 recouping, as permitted by Section 1307(e)(3) of the Public Utility Code.

#### 9 IV. FLEXIBILITY IN PROGRAM SPENDING

10 28. Q. Please explain the parameters for changes in program expenditures that the  
11 Company is asking the Commission to approve in order to provide needed  
12 flexibility in program spending.

13 A. The Commission’s Act 129 Implementation Order outlines an annual process by  
14 which an EDC, the statewide evaluator and stakeholders may make recommendations  
15 for improvements in the EDC’s energy efficiency and conservation plan, and for the  
16 EDC to adjust its programs in light of those recommendations.<sup>9</sup> However, PECO  
17 believes that more flexibility in making mid-course corrections is appropriate.  
18 Accordingly, PECO’s Plan incorporates the following processes for implementing  
19 changes in spending levels for approved programs.

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<sup>9</sup> Implementation Order, pp. 23-24.

## **Intra-Class Plan Changes**

For intra-class plan changes (for example, changes that affect programs applying only to the residential sector), PECO would be permitted to redirect expenditures from underperforming programs to better performing programs as PECO determines appropriate. PECO would discuss any proposed changes with stakeholders at its regularly scheduled stakeholder meetings or between regular meetings, as necessary, to inform them of proposed changes before they occur. PECO would not be required to seek prior Commission approval to implement such changes because the changes would have no impact on its EEPC. PECO would, however, notify the Commission of such changes as part of its annual plan evaluation and reporting requirements.

## **Inter-Class Plan Changes That Redirect Less Than \$20 Million, In Total, Over The Term Of The Plan**

PECO would be permitted to redirect expenditures of less than \$20 million over the term of the Plan from one or more underperforming programs within one class to one or more better performing programs within another class (e.g., from a residential sector program to an SC&I sector program). PECO would discuss any proposed changes with stakeholders at its regularly scheduled stakeholder meetings or between regular meetings, as necessary, to inform them of proposed changes before they occur. PECO would not be required to seek prior Commission approval to implement such changes. To the extent such changes would affect cost recovery under the EEPC, the impact of the changes on cost recovery by each affected class would be reconciled during the true-up process at the end of the recovery period. PECO would,







# PECO Energy Company

Electric Service Tariff

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COMPANY OFFICE LOCATION

2301 Market Street

Philadelphia, Pennsylvania 19101

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For List of Communities Served, See Page 4.

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Issued July 1, 2009

Effective: January 1, 2010

ISSUED BY: D. P. O'Brien – President  
PECO Energy Distribution Company  
2301 MARKET STREET  
PHILADELPHIA, PA. 19101

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# NOTICE.

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LIST OF CHANGES MADE BY THIS SUPPLEMENT

PROVISIONS FOR RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAM COSTS – Original Page No. 34D

RATE R RESIDENCE SERVICE – 25th Revised Page No. 35 and 13th Revised Page No. 36

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE R – RESIDENCE – SUPER PEAK TIME OF USE – Original Page No. 36A and 36B

New Rate is added.

RATE RT RESIDENCE TIME-OF-USE SERVICE – 27<sup>th</sup> Revised Page No. 37 and 12<sup>th</sup> Revised Page No. 38

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE R-H RESIDENTIAL HEATING SERVICE – 28<sup>th</sup> Revised Page No. 39 and 7<sup>th</sup> Revised Page No. 40

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE GS – GENERAL SERVICE – 20TH Revised Page No. 45, 16<sup>th</sup> revised page no. 46, 16<sup>th</sup> Revised Page 47

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE GS – GENERAL SERVICE SUPER PEAK TIME OF USE – Original Page No. 46A, and 46B

New Rate is added.

RATE PD – PRIMARY DISTRIBUTION POWER – 20TH Revised Page No. 48

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE PD – PRIMARY DISTRIBUTION POWER SUPER PEAK TIME OF USE – Original Page No. 48A

New Rate is added.

Rate HT HIGH TENSION POWER 20<sup>th</sup> Revised Page No. 49

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE HT – HIGH TENSION POWER SUPER PEAK TIME OF USE – Original Page No. 49A and 49B

New rate is added.

RATE POL – PRIVATE OUTDOOR LIGHTING 16<sup>th</sup> Revised Page No. 51

Fixed Distribution Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE SL-P STREET LIGHTING IN CITY OF PHILADELPHIA 14<sup>TH</sup> REVISED PAGE NO. 53

Fixed Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE SL-S STREET LIGHTING – SUBURBAN COUNTIES – 16<sup>TH</sup> REVISED PAGE NO. 56

Fixed Distribution Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE SL-E STREET LIGHTING CUSTOMER OWNED FACILITIES – 13<sup>TH</sup> REVISED PAGE NO. 58

Fixed Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE TL – TRAFFIC LIGHTING SERVICE – 12<sup>TH</sup> REVISED PAGE NO. 60

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE EP – ELECTRIC PROPULSION 20<sup>TH</sup> REVISED PAGE NO. 62

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

RATE AL – ALLEY LIGHTING IN CITY OF PHILADELPHIA – 12<sup>TH</sup> REVISED PAGE NO. 64

Fixed Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

APPLICABILITY INDEX OF RIDERS – 15<sup>TH</sup> REVISED PAGE NO. 65

New Riders are added.

CUSTOMER ASSISTANCE PROGRAM (CAP) Rider – 68A<sup>10TH</sup>, 68B<sup>9TH</sup>, 68C<sup>9TH</sup>, 68D<sup>9TH</sup>

Variable Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program is added.

RESIDENTIAL DIRECT LOAD CONTROL PROGRAM RIDER – ORIGINAL PAGE NO. 93A, ORIGINAL PAGE NO. 93B, ORIGINAL PAGE NO 93C

New Rider is added.

COMMERCIAL/INDUSTRIAL DIRECT LOAD CONTROL PROGRAM RIDER – ORIGINAL PAGE NO. 94A and ORIGINAL PAGE 94B

New Rider is added.

SUBURBAN STREET LIGHTING RIDER – 11<sup>TH</sup> REVISED PAGE NO. 96A

Fixed Distribution Service Charge is increased. Reference to the Provision for the Energy Efficiency & Conservation Program costs is added.

TRANSMISSION CHARGES – 5<sup>th</sup> Revised Page No. 99

New Rates are added.



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PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAM COSTS (EEPC)  
(G)

**Purpose:** The purpose of this surcharge is to provide for full and current cost recovery of expenditures associated with the Company's Energy Efficiency and Demand Reduction Program Costs (EEPC).

**Applicability:** The surcharge shall be calculated to the nearest one-hundredth of a cent, which shall be added to the distribution rates for billing purposes for all customers. The rate shall be charged to each rate schedule, as follows:

Rates R, R-SP, RT, RH, OP, CAP:	x.xxxx ¢/kWh
Rates GS, GS-SP, TL, AL:	x.xxxxx ¢/kWh
Rates POL, SL-S, SL-E, SLP:	¢/Service Location
Rates HT, HT-SP, PD, PD-SP, EP:	¢/kW

Calculation of EEPC Surcharge:

**Billing Provisions:** The surcharge shall be calculated by rate schedule using the following formula:

$$EEPC = \frac{(C)}{(BU)} \times \frac{(1)}{(1-T)} \quad \text{where;}$$

**C** -- The cost of the Energy Efficiency and Demand Reduction Program includes: all expenditures, of the individual programs such as materials, equipment, installation, custom programs, measurement/verifications, educating customers about availability to the extent not included in Consumer Education cost not recovered through any separate recovery mechanism, evaluation, and any other cost associated with implementation of the programs. Any direct load control benefits to the Company from the programs shall be credited against the cost. The program costs are those approved by the PAPUC and audit costs for the program ending May 31, 2013.

**BU** -- The total Billing Units for the applicable recovery period commencing on January 1, 2010 and ending May 31, 2013. The specific Billing Units for each rate schedule are indicated in the Applicability Section.

**T** -- The current Pennsylvania gross receipts tax rate included in base rates.

**Filings and Reconciliations:** A reconciliation filing will be made May 31 of each year although the rates will not be adjusted until May 31, 2013 of the final plan year, at which time any under or over recoveries will be reflected in rates in effect through December 31, 2013. If it is apparent that such methodology would result in a significant over or under recovery at May 31, 2013 for an individual customer class the Company will propose a rate adjustment prior to May 31, 2013. Interest will not be applied to any over or undercollections.

(C)Indicates Change

RATE R RESIDENCE SERVICE

AVAILABILITY.

Single-phase service in the entire territory of the Company to the dwelling and appurtenances of a single private family (or to a multiple dwelling unit building consisting of two to five dwelling units, whether occupied or not), for the domestic requirements of its members when such service is supplied through one meter. Service is also available for related farm purposes when such service is supplied through one meter in conjunction with the farmhouse domestic requirements.

Each dwelling unit connected after May 10, 1980 except those dwelling units under construction or under written contract for construction as of that date must be individually metered for their basic service supply. Centrally supplied master metered heating, cooling or water heating service may be provided if such supply will result in energy conservation.

The term "residence service" includes service to: (a) the separate dwelling unit in an apartment house or condominium, but not the halls, basement, or other portions of such building common to more than one such unit; (b) the premises occupied as the living quarters of five persons or less who unite to establish a common dwelling place for their own personal comfort and convenience on a cost-sharing basis; (c) the premises owned by a church, and primarily designated or set aside for, and actually occupied and used as, the dwelling place of a priest, rabbi, pastor, rector, nun or other functioning Church Divine, and the resident associates; (d) private dwellings in which a portion of the space is used for the conduct of business by a person residing therein; (e) farm purpose uses by an individual employing the natural processes of growth for the production of grain, stock, dairy, poultry, garden truck, or other agricultural products.

The term does NOT include service to: (a) Premises institutional in character including Clubs, Fraternities, Orphanages or Homes; (b) premises defined as a rooming house or boarding house in the Municipal Code for Cities of the First Class enacted by Act of General Assembly; (c) a premises containing a residence unit but primarily devoted to a professional or other office, studio, or other gainful pursuit; (d) farms operated principally to sell, prepare, or process products produced by others, or farms using air conditioning for climatic control in conjunction with growth processes (except those customers receiving such service as of August 2, 1969); (e) electric furnaces or welding apparatus other than a transformer type "limited input" arc welder with an input not to exceed 37-1/2 amperes at 240 volts.

**CURRENT CHARACTERISTICS.** Standard single-phase secondary service.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE.** \$5.31

**METERING AND BILLING CREDITS.** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

**SUMMER MONTHS.** (June through September)

5.16¢ per kWh for the first 500 kWh per dwelling unit (I)

5.92¢ per kWh for additional kWh. (I)

**WINTER MONTHS.** (October through May)

5.16¢ per kWh (I)

**COMPETITIVE TRANSITION CHARGE:**

**SUMMER MONTHS.** (June through September)

2.92¢ per kWh for the first 500 kWh per dwelling unit

3.39¢ per kWh for additional kWh.

**WINTER MONTHS.** (October through May)

2.92¢ per kWh

**ENERGY AND CAPACITY CHARGE:**

Standard Pricing Option-The following Energy and Capacity Charges, which are not applicable to a customer who obtains Competitive Energy Supply, will apply to the customer who received Default PLR Service as of the effective date of this tariff, and continues to receive this service, or is a customer who returns to Default PLR Service and receives this service for a minimum period of twelve months or is a customer on the Company's Monthly Pricing Option and wants to return to the Standard Pricing Option and meets certain conditions described in the Monthly Pricing Option. The requirement for a minimum period of 12 months is not applicable unless the Monthly Pricing Option has been implemented by the Company. A customer returning from Competitive Default Service will not be subject to the minimum twelve month stay provision.

**SUMMER MONTHS.** (June through September)

6.60¢ per kWh for the first 500 kWh per dwelling unit

7.39¢ per kWh for additional kWh.

**WINTER MONTHS.** (October through May)

6.60¢ per kWh

Monthly Pricing Option-Upon 60 days prior written notice to the PaPUC, the Company may implement this Monthly Pricing Option, which allows customers who return to Default PLR Service to elect their service on a monthly basis. The following Energy and Capacity Charges apply to the Monthly Pricing Option.

(I) Indicates Increase



RATE R RESIDENCE SERVICE (continued)

SUMMER MONTHS. (June through September)

The Company will determine a market rate by May 1<sup>st</sup> for the subsequent summer months in the year in which the Monthly Pricing Option is implemented by the Company.

WINTER MONTHS. (October through May)

Same as the Standard Pricing Option winter months charge.

If the returning customer, within the first twelve months of the customer's return to the Company, is on the Monthly Pricing Option and requests to be removed from the Monthly Pricing Option and switched to the Standard Pricing Option, then the customer will be required to stay with the Company for the remainder of this initial twelve month period under the Standard Pricing Option. The customer will be switched to the Standard Pricing Option on the regularly scheduled meter reading date which falls five calendar days following the customer's request.

If the returning customer has stayed with the Company for at least twelve months and is on the Monthly Pricing Option, the customer can request to be switched to the Standard Pricing Option with no minimum stay provision on this option. The customer will be switched to the Standard Pricing Option on the regularly scheduled meter reading date which falls five calendar days following the customer's request.

The prices for Default PLR Service were determined in accordance with Section L, paragraph 38(e) of the Joint Petition for Full Settlement at Docket Nos. R-00973953 and P-00971265.

Within one business day of a request from a customer, or a customer's EGS, to return the customer to PLR Service, the Company will send a letter to the customer requesting the customer to choose between the Standard Pricing Option and the Monthly Pricing Option. If the Company does not receive a response from the Customer within ten calendar days from the date of the letter, the terms and conditions of the Standard Pricing Option will apply. The Customer's return to PLR Service will become effective as of the next scheduled meter reading date, provided that the Company received the request for the return at least 16 days prior.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

MINIMUM CHARGE: The minimum charge per month will be the Fixed Distribution Service Charge.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, UNIVERSAL SERVICE FUND CHARGE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS and PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE. (C)

PAYMENT TERMS. Standard.

(C) Denotes Change

PECO Energy Company

**RATE R-SP RESIDENCE SUPER PEAK TIME-OF-USE SERVICE**

(C)

**AVAILABILITY.**

Single-phase service on or after January 1, 2011 in the entire territory of the Company to the dwelling and appurtenances of a single private family for the domestic requirements of its members when such service is provided through one meter. Service is also available for related farm purposes when such service is provided through one meter in conjunction with the farmhouse domestic requirements.

The term "residence service" includes service to: (a) the separate dwelling unit in an apartment house or condominium, but not the halls, basement, or other portions of such building common to more than one such unit; (b) the premises occupied as the living quarters of five persons or less who unite to establish a common dwelling place for their own personal comfort and convenience on a cost-sharing basis; (c) the premises owned by a church, and primarily designated or set aside for, and actually occupied and used as, the dwelling place of a priest, rabbi, pastor, rector, nun or other functioning Church Divine, and the resident associates; (d) private dwellings in which a portion of the space is used for the conduct of business by a person residing therein; (e) farm purpose uses by an individual employing the natural processes of growth for the production of grain, stock, dairy, poultry, garden truck, or other agricultural products.

The term does NOT include service to: (a) Premises institutional in character including Clubs, Fraternities, Orphanages or Homes; (b) premises defined as a rooming house or boarding house in the Municipal Code for Cities of the First Class enacted by Act of General Assembly; (c) a premises containing a residence unit but primarily devoted to a professional or other office, studio, or other gainful pursuit; (d) farms operated principally to sell, prepare, or process products produced by others, or farms using air conditioning for climatic control in conjunction with growth processes (except those customers receiving such service as of August 2, 1969); (e) electric furnaces or welding apparatus other than a transformer type "limited input" arc welder with an input not to exceed 37-1/2 amperes at 240 volts.

Customers may not receive supply from an alternative electric generation supplier for one year from the effective date of receiving service under this rate.

**CURRENT CHARACTERISTICS.** Standard single-phase secondary service.

**DEFINITION OF PEAK-HOURS.** On-Peak Hours are defined as the hours between x:xx am and x:xx pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays during the summer period (June through September). Off-Peak Hours are defined as the hours other than those specified as on-peak hours. The Company will establish the On-Peak Hours in conjunction with the calculation of the energy supply charge as described below.

**MONTHLY RATE TABLE.**

FIXED DISTRIBUTION SERVICE CHARGE: \$5.31

VARIABLE DISTRIBUTION SERVICE CHARGE:

SUMMER MONTHS (June through September)

2.02¢ per off-peak kWh

7.85¢ per on-peak kWh

WINTER MONTHS (October through May)

2.02¢ per off-peak kWh

7.21¢ per on-peak kWh

**ENERGY SUPPLY CHARGE:** The Company will calculate the energy supply charge following the release of its 2011 default service procurement results.

SUMMER MONTHS (June through September)

xx.xx¢ per off-peak kWh

y.yy¢ per on-peak kWh

WINTER MONTHS (October through May)

z.zz¢ per off-peak kWh

(C) Indicates Change



RATE RS-P RESIDENCE SUPER PEAK TIME-OF-USE SERVICE (continued)

(C)

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT SERVICE: unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

MINIMUM CHARGE. The minimum charge per month will be the Fixed Distribution Service Charge.

STATE TAX ADJUSTMENT CLAUSE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, UNIVERSAL SERVICE FUND AND MITIGATION PLAN SURCHARGE CHARGE APPLY TO THIS RATE.

CONTRACT TERM. Not less than twelve months.

PAYMENT TERMS. Standard.

(C) Denotes Change

RATE RT RESIDENCE TIME-OF-USE SERVICE**AVAILABILITY.**

Single-phase service in the entire territory of the Company to the dwelling and appurtenances of a single private family for the domestic requirements of its members when such service is provided through one meter. Service is also available for related farm purposes when such service is provided through one meter in conjunction with the farmhouse domestic requirements.

The term "residence service" includes service to: (a) the separate dwelling unit in an apartment house or condominium, but not the halls, basement, or other portions of such building common to more than one such unit; (b) the premises occupied as the living quarters of five persons or less who unite to establish a common dwelling place for their own personal comfort and convenience on a cost-sharing basis; (c) the premises owned by a church, and primarily designated or set aside for, and actually occupied and used as, the dwelling place of a priest, rabbi, pastor, rector, nun or other functioning Church D'vine, and the resident associates; (d) private dwellings in which a portion of the space is used for the conduct of business by a person residing therein; (e) farm purpose uses by an individual employing the natural processes of growth for the production of grain, stock, dairy, poultry, garden truck, or other agricultural products.

The term does NOT include service to: (a) Premises institutional in character including Clubs, Fraternities, Orphanages or Homes; (b) premises defined as a rooming house or boarding house in the Municipal Code for Cities of the First Class enacted by Act of General Assembly; (c) a premises containing a residence unit but primarily devoted to a professional or other office, studio, or other gainful pursuit; (d) farms operated principally to sell, prepare, or process products produced by others, or farms using air conditioning for climatic control in conjunction with growth processes (except those customers receiving such service as of August 2, 1969); (e) electric furnaces or welding apparatus other than a transformer type "limited input" arc welder with an input not to exceed 37-1/2 amperes at 240 volts.

**CURRENT CHARACTERISTICS.** Standard single-phase secondary service.

**DEFINITION OF PEAK-HOURS.** On-Peak Hours are defined as the hours between 8:00 am and 8:00 pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays; except that the on-peak hours will end at 4.00 pm on Fridays. Off-Peak Hours are defined as the hours other than those specified as on-peak hours.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE:** \$10.48

**METERING AND BILLING CREDITS** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

**SUMMER MONTHS (June through September)**

2.42¢ per off-peak kWh

8.25¢ per on-peak kWh

**WINTER MONTHS (October through May)**

2.42¢ per off-peak kWh

7.61¢ per on-peak kWh

(I)

(I)

(I)

(I)

**COMPETITIVE TRANSITION CHARGE:**

**SUMMER MONTHS. (June through September)**

1.61¢ per off-peak kWh

6.40¢ per on-peak kWh

**WINTER MONTHS. (October through May)**

1.61¢ per off-peak kWh

5.87¢ per on-peak kWh

**ENERGY AND CAPACITY CHARGE:**

Standard Pricing Option-The following Energy and Capacity Charges, which are not applicable to a customer who obtains Competitive Energy Supply, will apply to the customer who received Default PLR Service as of the effective date of this tariff, and continues to receive this service, or is a customer who returns to Default PLR Service and receives this service for a minimum period of twelve months or is a customer on the Company's Monthly Pricing Option and wants to return to the Standard Pricing Option and meets certain conditions described in the Monthly Pricing Option. The requirement for a minimum period of 12 months is not applicable unless the monthly pricing option has been implemented by the Company. A customer returning from Competitive Default Service will not be subject to the minimum twelve month stay provision.

**SUMMER MONTHS. (June through September)**

4.28¢ per off-peak kWh

12.02¢ per on-peak kWh

**WINTER MONTHS. (October through May)**

4.28¢ per off-peak kWh

11.17¢ per on-peak kWh

Monthly Pricing Option- Upon 60 days prior written notice to the PaPUC, the Company may implement this Monthly Pricing Option, which allows Customers who return to Default PLR Service to elect their service on a monthly basis. The following Energy and Capacity Charges apply to the Monthly Pricing Option.

(I) Indicates Increase



RATE RT RESIDENCE TIME-OF-USE SERVICE (continued)

SUMMER MONTHS. (June through September)

The Company will determine a market rate by May 1<sup>st</sup> for the subsequent summer months in the year in which the Monthly Pricing Option is implemented by the Company.

WINTER MONTHS. (October through May)

Same as the Standard Pricing Option winter months charge.

If the returning customer, within the first twelve months of the customer's return to the Company, is on the Monthly Pricing option and requests to be removed from the Monthly Pricing Option and switched to the Standard Pricing Option, then the customer will be required to stay with the Company for the remainder of this initial twelve month period under the Standard Pricing Option. The customer will be switched to the Standard Pricing Option on the regularly scheduled meter reading date which falls five calendar days following the customer's request.

If the returning customer has stayed with the Company for at least twelve months and is on the Monthly Pricing Option, the customer can request to be switched to the Standard Pricing Option with no minimum stay provision on this option. The customer will be switched to the Standard Pricing Option on the regularly scheduled meter reading date which falls five calendar days following the customer's request.

The prices for Default PLR Service were determined in accordance with Section L, paragraph 38(e) of the Joint Petition for Full Settlement at Docket Nos. R-00973953 and P-00971265.

Within one business day of a request from a customer, or a customer's EGS, to return the customer to PLR Service, the Company will send a letter to the customer requesting the customer to choose between the Standard Pricing Option and the Monthly Pricing Option. If the Company does not receive a response from the Customer within ten calendar days from the date of the letter, the terms and conditions of the Standard Pricing Option will apply. The Customer's return to PLR Service will become effective as of the next scheduled meter reading date, provided that the Company received the request for the return at least 16 days prior.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

MINIMUM CHARGE. The minimum charge per month will be the Fixed Distribution Service Charge.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, UNIVERSAL SERVICE FUND CHARGE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS AND PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE.

(C)

CONTRACT TERM. Not less than twelve months.

PAYMENT TERMS. Standard.

(C) Denotes Change

**RATE R-H RESIDENTIAL HEATING SERVICE**

**AVAILABILITY.**

Single-phase service to the dwelling and appurtenances of a single private family (or to a multiple dwelling unit building consisting of two to five dwelling units, whether occupied or not), for domestic requirements when such service is provided through one meter and where the dwelling is heated by specified types of electric space heating systems. The systems eligible for this rate are (a) permanently connected electric resistance heaters where such heaters supply all of the heating requirements of the dwelling, (b) heat pump installations where the heat pump serves as the heating system for the dwelling and all of the supplementary heating required is supplied by electric resistance heaters, and (c) heat pump installations where the heat pump serves as the heating system for the dwelling and all of the supplementary heating required is supplied by non-electric energy sources and/or by electric energy sources served on Rate O-P Off-Peak Service. All space heating installations must meet Company requirements. This rate schedule is not available for commercial, institutional or industrial establishments.

Wood, solar, wind, water, and biomass systems may be used to supply a portion of the heating requirements in conjunction with service provided hereunder. Any customer system of this type that produces electric energy may not be operated concurrently with service provided by the Company except under written agreement setting forth the conditions of such operation as provided by and in accordance with the provisions of the Auxiliary Service Rider.

Each dwelling unit connected after May 10, 1980 except those dwelling units under construction or under written contract for construction as of that date, must be individually metered.

**CURRENT CHARACTERISTICS.** Standard single-phase secondary service.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE:** \$5.31

**METERING AND BILLING CREDITS:** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

**SUMMER MONTHS.** (June through September)

4.94¢ per kWh for the first 500 kWh per dwelling unit (I)

5.66¢ per kWh for additional kWh. (I)

**WINTER MONTHS.** (October through May)

4.94¢ per kWh for the first 600 kWh per dwelling unit (I)

2.36¢ per kWh for additional kWh. (I)

**COMPETITIVE TRANSITION CHARGE:**

**SUMMER MONTHS.** (June through September)

2.84¢ per kWh for the first 500 kWh per dwelling unit

3.30¢ per kWh for additional kWh.

**WINTER MONTHS.** (October through May)

2.84¢ per kWh for the first 600 kWh per dwelling unit

1.19¢ per kWh for additional kWh.

**ENERGY AND CAPACITY CHARGE:**

Standard Pricing Option-The following Energy and Capacity Charges, which are not applicable to a customer who obtains Competitive Energy Supply, will apply to the customer who received Default PLR Service as of the effective date of this tariff, and continues to receive this service, or is a customer who returns to Default PLR Service and receives this service for a minimum period of twelve months or is a customer on the Company's Monthly Pricing Option and wants to return to the Standard Pricing Option and meets certain conditions described in the Monthly Pricing Option. The requirement for a minimum period of 12 months is not applicable unless the monthly pricing option has been implemented by the Company. A customer returning from Competitive Default Service will not be subject to the minimum twelve month stay provision.

**SUMMER MONTHS.** (June through September)

6.85¢ per kWh for the first 500 kWh per dwelling unit

7.67¢ per kWh for additional kWh

**WINTER MONTHS.** (October through May)

6.85¢ per kWh for the first 600 kWh per dwelling unit

3.89¢ per kWh for additional kWh

Monthly Pricing Option- Upon 60 days prior written notice to the PaPUC, the Company may implement this Monthly Pricing Option, which allows Customers who return to Default PLR Service to elect their service on a monthly basis. The following Energy and Capacity Charges apply to the Monthly Pricing Option.

**SUMMER MONTHS.** (June through September)

The Company will determine a market rate by May 1<sup>st</sup> for the subsequent summer months in the year in which the Monthly Pricing Option is implemented by the Company.

**WINTER MONTHS.** (October through May)

Same as the Standard Pricing Option winter months charge.

(I) Indicates Increase



**RATE R-H RESIDENTIAL HEATING SERVICE (continued)**

If the returning customer, within the first twelve months of the customer's return to the Company, is on the Monthly Pricing Option and requests to be removed from the Monthly Pricing Option and switched to the Standard Pricing Option, then the customer will be required to stay with the Company for the remainder of this initial twelve month period under the Standard Pricing Option. The customer will be switched to the Standard Pricing Option on the regularly scheduled meter reading date which falls five calendar days following the customer's request.

If the returning customer has stayed with the Company for at least twelve months and is on the Monthly Pricing Option, the customer can request to be switched to the Standard Pricing Option with no minimum stay provision on this option. The customer will be switched to the Standard Pricing Option on the regularly scheduled meter reading date which falls five calendar days following the customer's request.

The prices for Default PLR Service were determined in accordance with Section L, paragraph 38(e) of the Joint Petition for Full Settlement at Docket Nos. R-00973953 and P-00971265.

Within one business day of a request from a customer, or a customer's EGS, to return the customer to PLR Service, the Company will send a letter to the customer requesting the customer to choose between the Standard Pricing Option and the Monthly Pricing Option. If the Company does not receive a response from the Customer within ten calendar days from the date of the letter, the terms and conditions of the Standard Pricing Option will apply. The Customer's return to PLR Service will become effective as of the next scheduled meter reading date, provided that the Company received the request for the return at least 16 days prior.

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**MINIMUM CHARGE.** The minimum charge per month will be the Fixed Distribution Service Charge.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, UNIVERSAL SERVICE FUND CHARGE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS AND PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE (C)

**COMBINED RESIDENTIAL AND COMMERCIAL SERVICE.** Where a portion of the service provided is used for commercial purposes, the appropriate general service rate is applicable to all service; or, at the option of the customer, the wiring may be so arranged that the residential service may be separately metered and this rate is then applicable to the residential service only.

**PAYMENT TERMS.** Standard.

(C) Indicates Change

RATE-GS GENERAL SERVICE

**AVAILABILITY.**

Service through a single metering installation for offices, professional, commercial or industrial establishments, governmental agencies, and other applications outside the scope of the Residence Service rate schedules.

**CURRENT CHARACTERISTICS.**

Standard single-phase or polyphase secondary service.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE:**

- \$ 6.86 for single-phase service without demand measurement, or
- \$ 8.93 for single-phase service with demand measurement, or
- \$23.94 for polyphase service.

**METERING AND BILLING CREDITS** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

- 3.92¢ per kWh for the first 80 hours' use of billing demand (I)
- \* 1.99¢ per kWh for the next 80 hours' use of the billing demand (I)
- 1.36¢ per kWh for additional use; except (I)
- 0.75¢ per kWh over both 400 hours' use of billing demand and 2,000 kWh (I)

**COMPETITIVE TRANSITION CHARGE:**

- 7.27¢ per kWh for the first 80 hours' use of billing demand
- \* 3.43¢ per kWh for the next 80 hours' use of billing demand
- 2.17¢ per kWh for additional use; except
- 0.96¢ per kWh over both 400 hours' use of billing demand and 2,000 kWh

**ENERGY AND CAPACITY CHARGE:** The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

- 12.71¢ per kWh for the first 80 hours' use of billing demand
- \* 6.90¢ per kWh for the next 80 hours' use of billing demand
- 5.00¢ per kWh for additional use; except
- 3.18¢ per kWh over both 400 hours' use of billing demand and 2,000 kWh.

\* During October through May this block is eliminated.

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT APPLY, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS and PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE.** (C)

**DETERMINATION OF DEMAND.**

The billing demand will be measured where consumption exceeds 1,100 kilowatt-hours per month for three consecutive months; or where load tests indicate a demand of five or more kilowatts; or where the heating modification is applied; or where the customer requests demand measurement. Measured demands will be determined to the nearest 0.1 of a kilowatt but will not be less than 1.2 kilowatts, and will be adjusted for power factor in accordance with the Rules and Regulations.

For those customers with demand measurement, during October through May the billing demand will not be less than 40% of the highest billing demand in the preceding months of June through September (applied on an unbundled basis), nor less than the minimum value stated in the contract for service. If a measured demand customer has less than 1,100 monthly kilowatt-hours of use, the monthly billing demand will be the measured demand or the metered monthly kilowatt-hours divided by 175 hours, whichever is less, but not less than 40% of the highest billing demand in the preceding months of June through September, nor less than 1.2 kilowatts. There will be a one-time waiver of the application of the previous sentences as they relate to minimums associated with PLR Energy and Capacity charges the first time a customer at a service location elects to receive Competitive Energy Supply. This one-time waiver is specific to a particular service location unless a new entity has assumed operation of the service location from a customer which has ceased operations at that location as a result of dissolution provided the new entity was not created through merger, partnership, joint venture, acquisition and/or any other type of combined business structure with the former customer.

For those customers without demand measurement, the monthly billing demand will be computed by dividing the metered monthly kilowatt-hours by 175 hours. The computed demand will be determined to the nearest 0.1 of a kilowatt, but will not be less than 1.2 kilowatts.

(C) Indicates Change  
(I) Indicates Increase



RATE-GS GENERAL SERVICE (continued)

**MINIMUM CHARGE**

The monthly minimum charge for customers without demand measurement will be the Fixed Distribution Service Charge. The monthly minimum charge for customers with demand measurement will be the Fixed Distribution Service Charge, plus a charge of \$5.93 per KW of billing demand, as follows: **Variable Distribution-\$0.93 per kW; Competitive Transition Charge-\$1.82 per kW; Energy and Capacity-\$3.18 per kW (Energy and Capacity Charge applicable only if Customer receives Default PLR Service).**

**HEATING MODIFICATION.**

Wood, solar, wind, water, and biomass systems may be used to supply a portion of the heating requirements in conjunction with service provided hereunder. Any customer system of this type that produces electric energy may not be operated concurrently with service provided by the Company except under written agreement setting forth the conditions of such operation as provided by and in accordance with the provisions of the Auxiliary Service Rider.

**METERING.**

**A. Single Meter.**

Applicable where the area served through the single meter is heated solely by permanently connected electric space heating installations (1) acceptable to the Company; (2) sensitive to outdoor temperature; and (3) not less than 5 kilowatts. Qualifying electric heating systems are (1) electric resistance coils, (2) electric resistance baseboards, (3) electric boilers and (4) heat pumps with electric back-up.

During October through May the monthly maximum measured demand shall be reduced by one-half of the difference between the peak winter measured demand and the base load demand over the two most recent winter seasons preceding the start of the current winter season (October 1st). The demand reduction will be subject to annual review and any revisions will be based on the two most recent winter seasons. The base load demand will be defined as the lowest measured demand during the period from October to May. For time-of-use metered customers, the demand reduction will be based upon the difference between the peak winter and base load demands regardless of whether they occur on or off peak. During this period, the billing demand shall never be less than 15 kilowatts; except for those customers in service as of February 18, 1971, the billing demand during October through May shall not be less than one-half of the monthly measured demand.

A customer whose demand reduction was calculated under the methods in effect on October 17, 1996, will continue to receive the same reduction until January 2, 2000 unless the current method (described in the preceding paragraph) yields a smaller billed demand for the customer.

A customer who adds new electrical connected heating load will receive the same proportion of forgiven demand to total demand that they currently receive.

This demand modification will only be applicable within 30 days of the date that the customer requests billing under this provision. It shall be the responsibility of the customer to notify the Company of any subsequent changes to its heating equipment or requirements.

**B. Separate Meters.**

At the option of the customer, electricity supplying permanently connected space heating installations or heating equipment sensitive to outdoor temperature with a total capacity of not less than 5 kilowatts, which are acceptable to the Company, will be measured apart from the customer's other requirements for electric service at the premises. Air conditioning equipment of rated electrical capacity up to twice that of the heating equipment also may be supplied through this separate heating circuit.

During October through May the usage of this separate circuit shall be billed at the charges listed below in lieu of the pricing of the basic Monthly Rate Table.

VARIABLE DISTRIBUTION SERVICE CHARGE: 1.13¢ per kWh

COMPETITIVE TRANSITION CHARGE: 1.71¢ per kWh

ENERGY AND CAPACITY CHARGE: The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains

Competitive Energy Supply: 4.31¢ per kWh

(1)

During June through September the combined usage shall be billed under the price provisions of the basic Monthly Rate Table.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**OFF-PEAK THERMAL STORAGE PROVISION.**

Off-peak energy may be provided exclusively for qualifying Thermal Storage applications only in conjunction with this rate schedule when the load supplied is separately metered. This service will be billed separately at the rate of \$11.39 per month, plus the charges listed below.

**OFF-PEAK USAGE DURING THE WINTER AND SUMMER MONTHS:**

VARIABLE DISTRIBUTION SERVICE CHARGE: 1.43¢ per kWh

COMPETITIVE TRANSITION CHARGE: 0.96¢ per kWh

ENERGY AND CAPACITY CHARGE: The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply:

2.10¢ per kWh

(1) Indicates Increase



PECO Energy Company

**RATE-GS-SP GENERAL SERVICE SUPER PEAK TIME OF USE**

(C)

**AVAILABILITY.**

To customers with service on or after January 1, 2011 through a single metering installation for offices, professional, commercial or industrial establishments, governmental agencies, and other applications outside the scope of the Residence Service rate schedules, who have peak measured demands less than or equal to 50 kW.

Customers may not receive supply from an alternative electric generation supplier for one year from the effective date of receiving service under this rate.

**CURRENT CHARACTERISTICS.**

Standard single-phase or polyphase secondary service.

**DEFINITION OF PEAK-HOURS.** On-Peak Hours are defined as the hours between x:xx am and x:xx pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays during the summer period (June through September). Off-Peak Hours are defined as the hours other than those specified as on-peak hours. The Company will establish the On-Peak Hours in conjunction with the calculation of the energy supply charge as described below.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE:**

- \$ 6.86 for single-phase service without demand measurement, or
- \$ 8.93 for single-phase service with demand measurement, or
- \$23.94 for polyphase service.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

- 3.92¢ per kWh for the first 80 hours' use of billing demand
- \* 1.99¢ per kWh for the next 80 hours' use of the billing demand
- 1.36¢ per kWh for additional use; except
- 0.95¢ per kWh over both 400 hours' use of billing demand and 2,000 kWh

**ENERGY SUPPLY CHARGE:** The Company will calculate the energy supply charge following the release of its 2011 default service procurement results.

**SUMMER MONTHS (June through September)**

- xx.xx¢ per off-peak kWh
- y.yy¢ per on-peak kWh

**WINTER MONTHS (October through May)**

- z.zz¢ per off-peak kWh
- \* During October through May this block is eliminated.

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**STATE TAX ADJUSTMENT CLAUSE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS, NUCLEAR DECOMMISSIONING COST ADJUSTMENT AND MITIGATION PLAN SURCHARGE APPLY TO THIS RATE.**

**DETERMINATION OF DEMAND.**

The billing demand will be measured where consumption exceeds 1,100 kilowatt-hours per month for three consecutive months; or where load tests indicate a demand of five or more kilowatts; or where the heating modification is applied; or where the customer requests demand measurement. Measured demands will be determined to the nearest 0.1 of a kilowatt but will not be less than 1.2 kilowatts, and will be adjusted for power factor in accordance with the Rules and Regulations.

For those customers with demand measurement, during October through May the billing demand will not be less than 40% of the highest billing demand in the preceding months of June through September (applied on an unbundled basis), nor less than the minimum value stated in the contract for service. If a measured demand customer has less than 1,100 monthly kilowatt-hours of use, the monthly billing demand will be the measured demand or the metered monthly kilowatt-hours divided by 175 hours, whichever is less, but not less than 40% of the highest billing demand in the preceding months of June through September, nor less than 1.2 kilowatts.

For those customers without demand measurement, the monthly billing demand will be computed by dividing the metered monthly kilowatt-hours by 175 hours. The computed demand will be determined to the nearest 0.1 of a kilowatt, but will not be less than 1.2 kilowatts.

(C) Indicates Change



PECO Energy Company

RATE-GS-SP GENERAL SERVICE SUPER PEAK TIME OF USE (continued) \_\_\_\_\_ (C)

**MINIMUM CHARGE**

The monthly minimum charge for customers without demand measurement will be the Fixed Distribution Service Charge. The monthly minimum charge for customers with demand measurement will be the Fixed Distribution Service Charge, plus a charge of \$0.93 per KW of billing demand, plus in the case of hourly service customers, charges assessed on PJM's reliability pricing model.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**SPECIAL PROVISION.**

In accordance with Section 1511, Title 66 Public Utilities, a volunteer fire company, non-profit rescue squad, non-profit ambulance service or a non-profit senior citizen center meeting the requirements set forth below, may, upon application, elect to have its electric service billed at any of the following rate schedules: Rate R Residential Service, Rate RT Residential Time of Use, Rate R-H Residential Heating Service, or Rate OP Off-Peak Service as appropriate for the application. The execution of an electric service contract for a minimum term of one year at the chosen rate will be required of any entity electing service pursuant to the options provided by this provision.

For the purposes of this provision, the following words and terms shall have the following meanings, unless the context clearly indicates otherwise:

**VOLUNTEER FIRE COMPANY** - a separately metered service location consisting of a building, sirens, a garage for housing vehicular fire fighting equipment, or a facility certified by the Pennsylvania Emergency Management Agency (PEMA) for fire fighter training. The use of electric service at this location shall be to support the activities of the volunteer fire company. Any fund raising activities at this service location must be used solely to support volunteer fire fighting operations.

The customer of record at this service location must be a predominantly volunteer fire company recognized by the local municipality or PEMA as a provider of fire fighting services.

**NON-PROFIT SENIOR CITIZEN CENTER** - a separately metered service location consisting of a facility for the use of senior citizens coming together as individuals or groups and where access to a wide range of services to senior citizens is provided. The customer of record at this service location must be an organization recognized by the Internal Revenue Service (IRS) or the Commonwealth as a non-profit entity and recognized by the Pennsylvania Department of Aging as an operator of a senior citizen center.

**NON-PROFIT RESCUE SQUAD** - a separately metered service location consisting of a building, sirens, a garage for housing vehicular rescue equipment; and qualified by the Commonwealth as a non-profit entity; and a facility recognized by the Pennsylvania Emergency Management Agency (PEMA) or the Pennsylvania Department of Health as a provider of rescue services. The use of electric service at this location shall be to support the activities of the non-profit rescue squad. Any fund raising activities at this service location must be used solely to support the non-profit rescue squad operations.

**NON-PROFIT AMBULANCE SERVICE** - a separately metered service location consisting of a building, sirens, a garage for housing vehicular rescue equipment; and qualified by the Commonwealth as a non-profit entity; and a facility licensed by the Pennsylvania Department of Health as a provider of ambulance services. The use of electric service at this location shall be to support the activities of the non-profit ambulance service. Any fund raising activities at this service location must be used solely to support the non-profit ambulance service operations.

**TERM OF CONTRACT.** The initial contract term shall be for at least one year. Customers who are served under this rate may not also take service under any Interruptible Service rate other riders.

**PAYMENT TERMS.**

Standard.

(C) Indicates Change



**PECO Energy Company**

**Superseding Nineteenth Revised Page No. 48**

**RATE-PD PRIMARY-DISTRIBUTION POWER**

**AVAILABILITY.**

Untransformed service from the primary supply lines of the Company's distribution system where the customer installs, owns, and maintains any transforming, switching and other receiving equipment required. However, standard primary service is not available in areas where the distribution voltage has been changed to either 13 kV or 33 kV unless the customer was served with standard primary service before the conversion of the area to either 13 kV or 33 kV. This rate is available only for service locations served on this rate on July 6, 1987 as long as the original primary service has not been removed. PECO Energy may refuse to increase the load supplied to a customer served under this rate when, in PECO Energy's sole judgment, any transmission or distribution capacity limitations exist. If a customer changes the billing rate of a location being served on this rate, PECO Energy may refuse to change that location back to Rate PD when, in PECO Energy's sole judgment, any transmission or distribution capacity limitations exist.

**CURRENT CHARACTERISTICS.**

Standard primary service.

**MONTHLY RATE TABLE.**

FIXED DISTRIBUTION SERVICE CHARGE: \$279.76

METERING AND BILLING CREDITS A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

VARIABLE DISTRIBUTION SERVICE CHARGE:

\$2.71 per kW of billing demand  
1.61¢ per kWh of the first 150 hours' use of billing demand  
0.95¢ per kWh of the first next 150 hours' use of billing demand  
0.30¢ per kWh for additional use.

(I)

COMPETITIVE TRANSITION CHARGE:

\$3.19 per kW of billing demand  
2.83¢ per kWh of the first 150 hours' use of billing demand  
1.68¢ per kWh for the next 150 hours' use of billing demand  
0.55¢ per kWh for additional use.

ENERGY AND CAPACITY CHARGE: The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

\$4.82 per kW of billing demand  
6.04¢ per kWh of the first 150 hours' use of billing demand  
4.30¢ per kWh for the next 150 hours' use of billing demand  
2.58¢ per kWh for additional use.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS AND PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE.

(C)

**DETERMINATION OF BILLING DEMAND.**

The billing demand will be computed to the nearest kilowatt and will never be less than the measured demand, adjusted for power factor in accordance with the Rules and Regulations, nor less than 25 kilowatts. Additionally, during the eight months of October through May the billing demand will not be less than 40% of the maximum demand specified in the contract nor less than 80% of the highest billing demand in the preceding months of June through September (applied on an unbundled basis). There will be a one-time waiver of the application of the previous sentence as it relates to minimums associated with PLR Energy and Capacity charges the first time a customer at a service location elects to receive Competitive Energy Supply. This one-time waiver is specific to a particular service location unless a new entity has assumed operation of the service location from a customer which has ceased operations at that location as a result of dissolution provided the new entity was not created through merger, partnership, joint venture, acquisition and/or any other type of combined business structure with the former customer.

**MINIMUM CHARGE.**

The monthly minimum charge shall be the Fixed Distribution Service Charge, plus the charge per kW component of the Variable Distribution Service Charge, the CTC, and the Energy and Capacity Charge.

**TERM OF CONTRACT.**

The initial contract term shall be for at least three years.

**PAYMENT TERMS.**

Standard.

{C} Indicates Change

{I} Indicates Increase



**PECO Energy Company**

**RATE-PD-SP PRIMARY-DISTRIBUTION POWER SUPER PEAK TIME OF USE**

(C)

**AVAILABILITY.**

To customers with service on or after January 1, 2011 with peak measured demands of less than or equal to 500 kW who have untransformed service from the primary supply lines of the Company's distribution system where the customer installs, owns, and maintains any transforming, switching and other receiving equipment required. However, standard primary service is not available in areas where the distribution voltage has been changed to either 13 kV or 33 kV unless the customer was served with standard primary service before the conversion of the area to either 13 kV or 33 kV. This rate is available only for service locations served on this rate on July 6, 1987 as long as the original primary service has not been removed. PECO Energy may refuse to increase the load supplied to a customer served under this rate when, in PECO Energy's sole judgment, any transmission or distribution capacity limitations exist. If a customer changes the billing rate of a location being served on this rate, PECO Energy may refuse to change that location back to Rate PD when, in PECO Energy's sole judgment, any transmission or distribution capacity limitations exist. Service hereunder is restricted to customers that obtain full requirements electric supply from the Company under Default Service.

Customers may not receive supply from an alternative electric generation supplier for one year from the effective date of receiving service under this rate.

**CURRENT CHARACTERISTICS.**

Standard primary service.

**DEFINITION OF PEAK-HOURS.** On-Peak Hours are defined as the hours between x:xx am and x:xx pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays during the summer period (June through September). Off-Peak Hours are defined as the hours other than those specified as on-peak hours. The Company will establish the On-Peak Hours in conjunction with the calculation of the energy supply charge as described below.

**MONTHLY RATE TABLE.**

FIXED DISTRIBUTION SERVICE CHARGE: \$279.76

VARIABLE DISTRIBUTION SERVICE CHARGE:

\$2.71 per kW of billing demand

1.61¢ per kWh of the first 150 hours' use of billing demand

0.95¢ per kWh of the first next 150 hours' use of billing demand

0.30¢ per kWh for additional use.

ENERGY SUPPLY CHARGE: The Company will calculate the energy supply charge following the release of its 2011 default service procurement results.

SUMMER MONTHS (June through September)

xx.xx¢ per off-peak kWh

y.yy¢ per on-peak kWh

WINTER MONTHS (October through May)

z.zz¢ per off-peak kWh

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS, NUCLEAR DECOMMISSIONING COST ADJUSTMENT AND MITIGATION PLAN SURCHARGE APPLY TO THIS RATE.

**DETERMINATION OF BILLING DEMAND.**

The billing demand will be computed to the nearest kilowatt and will never be less than the measured demand, adjusted for power factor in accordance with the Rules and Regulations, nor less than 25 kilowatts. Additionally, during the eight months of October through May the billing demand will not be less than 40% of the maximum demand specified in the contract nor less than 80% of the highest billing demand in the preceding months of June through September exclusive of energy supply charges.

**MINIMUM CHARGE.**

The monthly minimum charge shall be the Fixed Distribution Service Charge, plus the charge per kW component of the Variable Distribution Service Charge, and plus in the case of Procurement Class 4 customers, charges assessed under PJM's reliability pricing model.

**TERM OF CONTRACT.**

The initial contract term shall be for at least three years.

Customers who are served under this rate may not also take service under any Interruptible rate other riders.

**PAYMENT TERMS.**

Standard.

(C) Indicates Change



**RATE-HT HIGH-TENSION POWER**

**AVAILABILITY.**

Untransformed service from the Company's standard high-tension lines, where the customer installs, owns, and maintains, any transforming, switching and other receiving equipment required.

**CURRENT CHARACTERISTICS.**

Standard high-tension service.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE: \$291.52**

**METERING AND BILLING CREDITS** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

- \$2.57 per kW of billing demand
- 0.90¢ per kWh of the first 150 hours' use of billing demand
- 0.53¢ per kWh of the next 150 hours' use of billing demand, but not more than 7,500,000 kWh
- 0.17¢ per kWh for additional use.

(I)

**COMPETITIVE TRANSITION CHARGE:**

- \$4.72 per kW of billing demand
- 2.53¢ per kWh for the first 150 hours' use of billing demand
- 1.50¢ per kWh for the next 150 hours' use of billing demand, but not more than 7,500,000 kWh
- 0.48¢ per kWh for additional use.

**ENERGY AND CAPACITY CHARGE:** The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

- \$7.13 per kW of billing demand
- 5.46¢ per kWh for the first 150 hours' use of billing demand
- 3.90¢ per kWh for the next 150 hours' use of billing demand, but not more than 7,500,000 kWh
- 2.35¢ per kWh for additional use.

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**TIME-OF-USE ADJUSTMENT:**

Customers with measured demand of 2,000 kW or greater will be given a credit for energy use during off-peak hours and will be subject to an additional charge for energy use during on-peak hours. On-peak hours are defined as the hours between 8:00 am and 8:00 pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays; except that the on-peak hours will end at 4:00 pm on Fridays. Off-peak hours are defined as the hours other than those specified as on-peak hours. The credits and charges are as follows:

	Summer Months (June through September)	Winter Months (October through May)
Off-peak credit.....	0.21¢ per kWh	0.21¢ per kWh
On-peak charge.....	0.58¢ per kWh	0.22¢ per kWh

If the customer receives Default PLR Service, the rate adjustments shall apply. They shall not apply if the customer obtains competitive energy supply.

**HIGH VOLTAGE DISTRIBUTION DISCOUNT:**

- For customers supplied at 33,000 volts: 7¢ per kW of measured demand.
- For customers supplied at 69,000 volts: 28¢ per kW for first 10,000 kW of measured demand.
- For customers supplied over 69,000 volts: 28¢ per kW for first 100,000 kW of measured demand.

**STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS AND PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE.** (C)

APPLY TO THIS RATE.

(C) Indicates Change  
 (I) Indicates Increase

**PECO Energy Company**

**RATE-HT-SP HIGH-TENSION POWER SUPER PEAK TIME OF USE**

(C)

**AVAILABILITY.**

To customers with service on or after January 1, 2011 with peak measured demands of less than or equal to 500 kW who have untransformed service from the Company's standard high-tension lines, where the customer installs, owns, and maintains, any transforming, switching and other receiving equipment required service hereunder is restricted to customers that obtain full requirements electric supply from the Company under Default Service.

Customers may not receive supply from an alternative electric generation supplier for one year from the effective date of receiving service under this rate.

**CURRENT CHARACTERISTICS.**

Standard high-tension service.

**DEFINITION OF PEAK-HOURS.** On-Peak Hours are defined as the hours between x:xx am and x:xx pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays during the summer period (June through September). Off-Peak Hours are defined as the hours other than those specified as on-peak hours. The Company will establish the On-Peak Hours in conjunction with the calculation of the energy supply charge as described below.

**MONTHLY RATE TABLE.**

FIXED DISTRIBUTION SERVICE CHARGE: \$291.52

VARIABLE DISTRIBUTION SERVICE CHARGE:

- \$2.57 per kW of billing demand
- 0.90¢ per kWh of the first 150 hours' use of billing demand
- 0.53¢ per kWh of the next 150 hours' use of billing demand,  
but not more than 7,500,000 kWh
- 0.17¢ per kWh for additional use.

ENERGY SUPPLY CHARGE: The Company will calculate the energy supply charge following the release of its 2011 default service procurement results.

SUMMER MONTHS (June through September)

xx.xx¢ per off-peak kWh

y.yy¢ per on-peak kWh

WINTER MONTHS (October through May)

z.zz¢ per off-peak kWh

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

HIGH VOLTAGE DISTRIBUTION DISCOUNT:

For customers supplied at 33,000 volts: 7¢ per kW of measured demand.

For customers supplied at 69,000 volts: 28¢ per kW for first 10,000 kW of measured demand.

For customers supplied over 69,000 volts: 28¢ per kW for first 100,000 kW of measured demand.

STATE TAX ADJUSTMENT CLAUSE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS, NUCLEAR DECOMMISSIONING COST ADJUSTMENT AND MITIGATION PLAN SURCHARGE APPLY TO THIS RATE.

(C) Indicates Change



PECO Energy Company

RATE-HT-SP HIGH-TENSION POWER SUPER PEAK TIME OF USE (continued)

(C)

**DETERMINATION OF BILLING DEMAND.**

The billing demand will be computed to the nearest kilowatt and will never be less than the measured demand, adjusted for power factor in accordance with the Rules and Regulations, nor less than 25 kilowatts. Additionally, during the eight months of October through May the billing demand will not be less than 40% of the maximum demand specified in the contract nor less than 80% of the highest billing demand in the preceding months of June through September exclusive of energy supply charge.

**DELIVERY POINTS.**

Where the load of a customer located on single or contiguous premises becomes greater than the capacity of the standard circuit or circuits established by the Company to supply the customer, an additional separate delivery point may be established for such premises upon the written request of the customer with billing continued as if the service were being delivered and metered at a single point, provided such multi-point delivery is not advantageous to the Company.

**MINIMUM CHARGE.**

The monthly minimum charge shall be the Fixed Distribution Service Charge, plus the charge per kW component of the Variable Distribution Service Charge, and modify less the high voltage discount where applicable plus in the case of Procurement Class 4 customers, charges assessed on PJM's reliability pricing model.

**TERM OF CONTRACT.**

The initial contract term shall be for at least three years.

Customers who are served under this rate may not also take service under any Interruptible rate other riders.

**PAYMENT TERMS.**

Standard.

(C) Indicates Change



**RATE POL PRIVATE OUTDOOR LIGHTING**

**AVAILABILITY.**

Outdoor lighting of sidewalks, driveways, yards, lots and similar places, outside the scope of service under Rate SL-P, SL-S and S-E.

**MONTHLY RATE TABLE.**

<u>MERCURY-VAPOR LAMPS</u>	<u>PRICE PER LIGHTING UNIT</u>						
	<u>CTC</u>		<u>ENERGY &amp; CAPACITY</u>		<u>DISTRIBUTION</u>		
	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	
100 Watts (nominally 4,000 Lumens)	\$1.06	\$0.99	\$1.78	\$1.61	\$11.46	\$10.27	(C)
175 Watts (nominally 8,000 Lumens)	\$1.44	\$1.39	\$2.43	\$2.25	\$15.56	\$14.42	(C)
250 Watts (nominally 12,000 Lumens)	\$1.79	\$1.75	\$2.99	\$2.83	\$19.22	\$18.20	(C)
400 Watts (nominally 20,000 Lumens)	\$2.32	\$2.25	\$3.85	\$3.66	\$24.88	\$23.54	(C)
400 Watts Floodlight (nominally 22,000 Lumens)	\$2.50	\$2.43	\$4.17	\$3.97	\$26.87	\$25.53	(C)
<u>SODIUM-VAPOR LAMPS</u>	<u>CTC</u>		<u>ENERGY&amp;CAPACITY</u>		<u>DISTRIBUTION</u>		
	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	
70 Watts (nominally 5,800 Lumens)	\$1.45	\$1.40	\$2.44	\$2.26	\$15.57	\$14.42	(C)
250 Watts (nominally 25,000 Lumens)	\$2.34	\$2.27	\$3.88	\$3.69	\$24.92	\$23.59	(C)
400 Watts (nominally 50,000 Lumens)	\$2.57	\$2.50	\$4.27	\$4.07	\$27.48	\$26.14	(C)
400 Watts Floodlight (nominally 50,000 Lumens)	\$2.76	\$2.70	\$4.58	\$4.38	\$29.46	\$28.13	(C)
<u>STANDARD METAL HALIDE LAMPS</u>	<u>CTC</u>		<u>ENERGY&amp;CAPACITY</u>		<u>DISTRIBUTION</u>		
	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	
100 Watts (nominally 7,800 Lumens)	\$0.35	\$0.42	\$0.94	\$0.90	\$23.36	\$22.59	(C)
175 Watts (nominally 13,000 Lumens)	\$0.36	\$0.68	\$1.56	\$1.52	\$24.54	\$23.12	(C)
250 Watts (nominally 20,500 Lumens)	\$0.55	\$1.09	\$2.48	\$2.38	\$26.01	\$24.60	(C)
400 Watts (nominally 36,000 Lumens)	\$2.71	\$2.65	\$4.51	\$4.31	\$29.02	\$27.72	(C)
1000 Watts (nominally 110,000 Lumens)	\$4.81	\$4.74	\$7.90	\$7.71	\$51.06	\$49.77	(C)
<u>STANDARD HIGH PRESSURE SODIUM LAMPS</u>	<u>CTC</u>		<u>ENERGY&amp;CAPACITY</u>		<u>DISTRIBUTION</u>		
	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	<u>(Co.Pole)</u>	<u>(Cust.Pole)</u>	
50 Watts (nominally 4,000 Lumens)	\$1.58	\$1.50	\$2.34	\$1.73	\$18.62	\$17.20	
70 Watts (nominally 5,800 Lumens)	\$1.63	\$1.57	\$2.74	\$2.55	\$17.50	\$16.20	(C)
100 Watts (nominally 9,500 Lumens)	\$1.73	\$1.66	\$2.90	\$2.70	\$18.53	\$17.23	(C)
150 Watts (nominally 16,000 Lumens)	\$1.89	\$1.82	\$3.17	\$2.98	\$20.28	\$18.99	(C)
250 Watts (nominally 25,000 Lumens)	\$2.24	\$2.17	\$3.72	\$3.53	\$23.89	\$22.58	(C)
400 Watts (nominally 50,000 Lumens)	\$2.72	\$2.66	\$4.52	\$4.32	\$29.07	\$27.76	(C)
1,000 Watts (nominally 130,000 Lumens)	\$3.06	\$3.00	\$11.36	\$10.86	\$33.79	\$33.79	(C)

The Energy and Capacity Charges set forth above will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE. (C)

**GENERAL PROVISIONS.**

1. Standard Lighting Unit. A Standard Lighting Unit shall be a Cobra Head or Floodlight comprised of a bracket, the lead wires and a luminaire, including lamp, reactor and control.

2. Standard Installations. In connection with the standard service provided herein, the Company will install, own and maintain all facilities within highway limits, and all standard service-supply lines and all Lighting Units. The customer will install, own and maintain all poles on the customer's property and all service extensions on the customer's property from the Company's standard service-supply lines.

(C) Indicates Change

**RATE SL-P STREET LIGHTING IN CITY OF PHILADELPHIA**

**AVAILABILITY.**

For the safety and convenience of the public, only to a governmental agency, municipal, state or federal, for outdoor lighting of streets, highways, bridges, parks or similar places located within the City of Philadelphia, including directional highway signs at locations where other outdoor lighting service is provided hereunder, and by incandescent filament, mercury-vapor, fluorescent or sodium-vapor lamps of standard sizes and types approved by the Company, only if the customer installs, owns and maintains all Utilization Facilities as hereinafter defined. Service will be provided under this rate for street Lighting Units supported in a conventional manner such as on poles, posts, brackets or hangers, and under conditions of installation and supply acceptable to the Company.

**CHARACTERISTICS OF SUPPLY.**

Service under this rate will be from series 6.6 ampere circuits or from standard single-phase secondary circuits, as specified by the Company, except that, where conditions require, or where existing standard secondary circuits are not available, the Company at its option may supply service from nonstandard secondary circuits, providing nominally 240 volts.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE:**

For Lighting Units in service as of the fifteenth day of the month.

\$12.06 per Lighting Unit supplied from standard secondary (aerial or underground) circuits where the customer owns the individual control for such Lighting Unit. (I)

\$ 8.96 per Lighting Unit supplied from aerial (series or secondary) circuits where the Company provides group controls.

\$12.50 per Lighting Unit supplied from underground (series or secondary) circuits where the Company provides group controls.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

0.15¢ per watt

0.79¢ per kWh of energy billed

**COMPETITIVE TRANSITION CHARGE:**

0.18¢ per watt.

1.39¢ per kWh of energy billed

**ENERGY AND CAPACITY CHARGE:** The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

0.14¢ per watt

2.94¢ per kWh

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**MINIMUM CHARGE:** The minimum charge per month will be the Fixed Distribution Service Charge.

**STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE.** (C)

**LIGHTING UNIT.**

A Lighting Unit shall comprise each lighting installation which is separately connected to a delivery point on the Company's series or secondary circuit.

**DETERMINATION OF BILLING DEMAND.**

The wattage, expressed to the nearest tenth of a watt, of a Lighting Unit shall be composed of manufacturer's rating of its lamps, ballasts, transformers, individual controls and other load components required for its operation. The aggregate of wattages of all Lighting Units in service as of the fifteenth day of a month shall constitute the billing demand for the month.

**DETERMINATION OF ENERGY BILLED.**

The energy use for a month of a Lighting Unit shall be computed to the nearest kilowatt-hour as the product of one-thousandth of its wattage and the effective hours of use of such wattage during the calendar month under the established operation schedules approved by the authorized representatives of the customer and the Company. The aggregate of the kilowatt-hours thus computed for all Lighting Units in service as of the fifteenth day of a month shall constitute the energy billed for the month.

(I) Indicates Increase

(C) Indicates Change



**RATE SL-S STREET LIGHTING-SUBURBAN COUNTIES****AVAILABILITY.**

Outdoor lighting of streets, highways, bridges, parks and similar places located in Suburban Counties.

**ANNUAL RATE TABLE - MANUFACTURER'S RATING OF LAMP SIZES.****Incandescent Filament Lamps**

<u>Size of Lamp</u>	<u>Billing Watts</u>	<u>Distribution</u>	<u>CTC</u>	<u>Energy &amp; Capacity</u>	
320 Lumens	32	\$ 77.41	\$ 14.06	\$20.12	(C)
600 Lumens	58	\$108.69	\$ 19.58	\$28.04	(C)
1,000 Lumens	103	\$153.78	\$ 27.49	\$39.32	(C)
2,500 Lumens	202	\$215.32	\$ 37.80	\$54.12	(C)
6,000 Lumens	448	\$258.99	\$ 43.13	\$61.75	(C)
10,000 Lumens	690	\$277.20	\$ 51.64	\$73.91	

**Mercury Vapor Lamps**

<u>Size of Lamp</u>	<u>Billing Watts</u>	<u>Distribution</u>	<u>CTC</u>	<u>Energy &amp; Capacity</u>	
4,000 Lumens	115	\$180.59	\$32.34	\$46.28	(C)
8,000 Lumens	191	\$194.99	\$34.15	\$48.87	(C)
12,000 Lumens	275	\$212.28	\$36.42	\$52.11	(C)
20,000 Lumens	429	\$255.86	\$42.77	\$61.21	(C)
42,000 Lumens	768	\$374.08	\$60.93	\$87.21	(C)
59,000 Lumens	1,090	\$435.40	\$68.68	\$98.30	(C)

**Sodium-Vapor Lamps**

<u>Size of Lamp</u>	<u>Billing Watts</u>	<u>Distribution</u>	<u>CTC</u>	<u>Energy &amp; Capacity</u>	
5,800 Lumens	94	\$178.00	\$32.09	\$45.93	(C)
9,500 Lumens	131	\$195.31	\$34.88	\$49.94	(C)
16,000 Lumens	192	\$222.10	\$39.19	\$56.09	(C)
25,000 Lumens	294	\$256.98	\$44.52	\$63.72	(C)
50,000 Lumens	450	\$312.30	\$53.04	\$75.93	(C)

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE. (C)

The Energy and Capacity Charges set forth above will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**GENERAL PROVISIONS.**

1. Service. The lighting service will be operated on an all-night, every-night lighting schedule of approximately 4,100 hours annual burning time (average monthly burning hours = 341.11 hours), under which lights are turned on after sunset and off before sunrise. It includes the supply of lamps and their removal when burned out or broken.

2. Outage Allowances. Written notice to the Company prior to 4:00 pm of the failure of any light to burn on the previous night shall entitle the customer to a pro rata reduction to the Company's monthly Variable Distribution Service and CTC charges. If the customer receives Default PLR service, the outage allowance will also apply to the Energy & Capacity and Transmission Charges. The monthly bill will be adjusted, pro rate, for the hours of failure if such failure continues for a period in excess of 12 hours after the notice is received. Allowances will not be made for outages resulting from the customer's failure to protect the lighting system or from riot, fire, storm, flood, interference by civil or military authorities, or any other cause beyond the Company's control.

3. Lighting Installations. The prices in the Rate Table apply to all Company-approved installations for (a) federal, state, county and municipal authorities and community associations entering into a contract for lighting service; and (b) building operation developers for lighting, during the development period, of streets that are to be dedicated, where the municipality has approved the lighting and agreed to subsequently assume the charges for it under a standard contract.

Standard lighting installations under standard conditions of supply will be made on the public highways at the expense of the Company to the extent warranted by the revenue in prospect, any additional investment to be assumed by the customer.

(C) Indicates Change



PECO Energy Company

RATE SL-E STREET LIGHTING CUSTOMER-OWNED FACILITIES

**AVAILABILITY.**

To any governmental agency for outdoor lighting provided for the safety and convenience of the public of streets, highways, bridges, parks or similar places located outside of the City of Philadelphia, including directional highway signs at locations where other outdoor lighting service is established hereunder only if all of the utilization facilities, as defined in Terms and Conditions in this Base Rate, are installed, owned and maintained by a governmental agency.

This rate is also available to community associations of residential property owners both inside and outside the City of Philadelphia for the lighting of streets that are not dedicated. This rate is not available to commercial or industrial customers. All facilities and their installation shall be approved by the Company.

A qualified agency or association may receive service under this tariff effective with their first scheduled billing cycle beginning after September 6, 1999.

**MONTHLY RATE TABLE.**

SERVICE LOCATION DISTRIBUTION CHARGE:	\$7.89 per Service Location (as defined below)	(I)
COMPETITIVE TRANSITION CHARGE:	0.23¢ per Watt	
	1.44¢ per kWh	

ENERGY AND CAPACITY CHARGE: The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

0.35 ¢ per Watt  
3.67 ¢ per kWh

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE. (C)

**SERVICE LOCATION.**

A Service Location shall comprise each lighting installation and must be separately connected to a delivery point on the Company's secondary circuit.

**DETERMINATION OF BILLING DEMAND.**

The wattage, expressed to the nearest tenth of a watt, of a Service Location shall be composed of manufacturer's rating of its lamps, ballasts, transformers, individual controls and other load components required for its operation. The aggregate of wattages of all Service Locations in service shall constitute the billing demand for the month.

**DETERMINATION OF ENERGY BILLED.**

The energy use for a month of a Service Location shall be computed to the nearest kilowatt-hour as the product of one-thousandth of its wattage and the effective hours of use of such wattage during the calendar month under the established operation schedules as set forth under Terms and Conditions, Paragraph 6 Service. The aggregate of the kilowatt-hours thus computed for all Active Service Locations shall constitute the energy billed for the month.

**TERMS AND CONDITIONS.**

1 Ownership of Utilization Facilities.

a. Service Locations Supplied from Aerial Circuits: customer shall provide, own and maintain the Utilization Facilities comprising the brackets, hangers, luminaries, lamps, ballasts, transformers, individual controls, conductors, molding and supporting insulators between the lamp receptacles and line wires of the Company's distribution facilities and any other components as required for the operation of each Service Location.

The Company shall provide the supporting pole or post for such aerially supplied Service Location and will issue authorization to permit the customer to install thereon the said Utilization Facilities.

b. Service Locations Supplied from Underground Circuits: customer shall provide, own and maintain the Utilization Facilities comprising the supporting pole or post, foundation with 90-degree pipe bend, brackets or hangers, luminaries, lamps, ballasts, transformers, individual controls, conductors and conduits from the lamp receptacles to sidewalk level, or in special cases, such as Federally and State financed limited access highways, to a delivery point designated by the Company on its secondary voltage circuit, and shall assume all costs of installing such utilization facilities.

Except as provided in Paragraph 4 Supply Facilities, the Company shall own conduit from the distribution circuit to the 90-degree pipe bend, shall own conductors from its distribution system to the designated delivery point and shall provide sufficient length of conductors for splicing at the designated delivery point or in the post base where sidewalk level access is provided.

2. Standards of Construction for Utilization Facilities. Customer construction shall meet the Company's standards which are based upon the National Electrical Safety Code. Designs of proposed construction deviating from such standards shall be submitted to the Company for approval before proceeding with any work.

(I) Indicates Increase  
(C) Indicates Change

RATE TL TRAFFIC LIGHTING SERVICE

**AVAILABILITY.**

To any municipality using the Company's standard service for electric traffic signal lights installed, owned and maintained by the municipality.

**CURRENT CHARACTERISTICS.**

Standard single-phase secondary service.

**RATE TABLE.**

VARIABLE DISTRIBUTION SERVICE CHARGE: 3.70¢ per kWh

COMPETITIVE TRANSITION CHARGE: 2.77¢ per kWh

ENERGY AND CAPACITY CHARGE: The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

6.72¢ per kWh

(I)

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE.

(C)

**SPECIAL RULES AND REGULATIONS.**

The use of energy will be estimated by the Company on the basis of the size of lamps and controlling apparatus and the burning-hours. The customer shall immediately notify the Company whenever any change is made in the equipment or the burning-hours, so that the Company may forthwith revise its estimate of the energy used.

The Company shall not be liable for damage to person or property arising, accruing or resulting from the attachment of the signal equipment to its poles, wires, or fixtures.

**MINIMUM CHARGE.**

\$3.56 per month per signal light.

**TERM OF CONTRACT.**

The initial contract term for each signal light installation shall be for at least one year.

**PAYMENT TERMS.**

Standard.

(C) Indicates Change

(I) Indicates Increase



**PECO Energy Company**

RATE EP ELECTRIC PROPULSION

**AVAILABILITY.**

This rate is available only to the National Rail Passenger Corporation (AMTRAK) and to the Southeastern Pennsylvania Transportation Authority (SEPTA) for untransformed service from the Company's standard high-tension lines, where the customer installs, owns, and maintains any transforming, switching and other receiving equipment required and where the service is provided for the operation of electrified transit and railroad systems and appurtenances.

**CURRENT CHARACTERISTICS.**

Standard sixty hertz (60 Hz) high-tension service.

**MONTHLY RATE TABLE.**

**FIXED DISTRIBUTION SERVICE CHARGE:** \$1,263.68 per delivery point

**METERING AND BILLING CREDITS** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for this Base Rate in Appendix B to the Joint Petition for Full Settlement.

**VARIABLE DISTRIBUTION SERVICE CHARGE:**

\$3.92 per kW of billing demand

**COMPETITIVE TRANSITION CHARGE:**

\$5.70 per kW of billing demand

0.44¢ per kWh

**ENERGY AND CAPACITY CHARGE:** The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

\$8.69 per kW of billing demand

2.32¢ per kWh

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**TIME-OF-USE ADJUSTMENT:**

There will be a credit for energy use during off-peak hours and an additional charge for energy use during on-peak hours. On-peak hours are defined as the hours between 8:00 am and 8:00 pm, Eastern Standard Time or Daylight Savings Time, whichever is in common use, daily except Saturdays, Sundays and holidays; except that the on-peak hours will end at 4:00 pm on Fridays. Off-peak hours are defined as the hours other than those specified as on-peak hours. The credits and charges are as follows:

	Summer Months (June through September)	Winter Months (October through May)
Off-peak credit	0.21¢ per kWh	0.21¢ per kWh
On-peak charge	0.58¢ per kWh	0.22¢ per kWh

If the customer receives Default PLR Service, the rate adjustments shall apply. They shall not apply if the customer obtains competitive energy supply.

**HIGH VOLTAGE DISTRIBUTION DISCOUNT:**

For delivery points supplied at 33,000 volts: 7¢ per kW

For delivery points supplied at 69,000 volts: 28¢ per kW for first 10,000 kW of measured demand.

For delivery points supplied over 69,000 volts: 28¢ per kW for first 100,000 kW of measured demand.

**STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE.**

**DETERMINATION OF BILLING DEMAND.**

The billing demand will be computed to the nearest kilowatt and will never be less than the measured demand, adjusted for power factor in accordance with the Rules and Regulations, nor less than 5,000 kilowatts. Additionally, during the eight months of October through May the billing demand will not be less than 40% of the maximum demand specified in the contract nor less than 80% of the highest billing demand in the preceding months of June through September (applied on an unbundled basis).

There will be a one-time waiver of the application of the previous sentence as it relates to minimums associated with PLR Energy and Capacity charges the first time a customer at a service location elects to receive Competitive Energy Supply. This one-time waiver is specific to a particular service location unless a new entity has assumed operation of the service location from a customer which has ceased operations at that location as a result of dissolution provided the new entity was not created through merger, partnership, joint venture, acquisition and/or any other type of combined business structure with the former customer.

**CONJUNCTIVE BILLING OF MULTIPLE DELIVERY POINTS:**

If the load of a customer located at a delivery point becomes greater than the capacity of the circuits established by the Company to supply the customer at that delivery point, upon the written request of the customer, the Company will establish a new delivery point &

(C) Indicates Change  
 (I) Indicates Increase



RATE AL - ALLEY LIGHTING IN CITY OF PHILADELPHIA

**APPLICABILITY.** To multiple, unmetered lighting service supplied the City of Philadelphia to operate incandescent lamps and appurtenances installed, owned and maintained by the City, which assumes the cost involved in making the connections to the Company's facilities.

**LIGHTING DISTRIBUTION SERVICE DEFINED.** All-night outdoor lighting of alleys and courts by incandescent lights installed on poles or supports supplied by the City.

**NOTICE TO COMPANY.** The City shall give advance notice to the Company of all proposed new installations or of the replacement or reconstruction of existing installations. The City shall advise the Company as to each new installation or change in the equipment or connected load of an existing installation, including any change in burning hours and the date on which such new or changed operation took effect.

**MONTHLY RATE TABLE.**

VARIABLE DISTRIBUTION SERVICE CHARGE:	12.85¢ per kWh	(I)
COMPETITIVE TRANSITION CHARGE:	1.09¢ per kWh	

**ENERGY AND CAPACITY CHARGE:** The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

1.79¢ per kWh

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE:** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

**STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT CLAUSE and PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS CHARGE APPLY TO THIS RATE.**

**PLAN OF MONTHLY BILLING.**

Bills may be rendered in equal monthly installments, computed from the calculated annual use of energy, adjusted each month to give effect to any new or changed rate of annual use, by reason of changes in the City's installation, with charge or credit for fractional parts of the month during which a change occurred.

**LIABILITY PROVISION.**

The Company shall not be liable for damage, or for claims for damage, to persons or property, arising, accruing or resulting from, installation, location or use of lamps, wires, fixtures and appurtenances; or resulting from failure of any light, or lights, to burn for any cause whatsoever.

**TERM OF CONTRACT.**

The initial contract term for each lighting unit shall be for at least one year.

(C) Indicates Change  
(I) Indicates Increase

**APPLICABILITY INDEX OF RIDERS**  
**Introductory Statement**

Customers under different rates of this Tariff frequently desire services or present situations and conditions of supply which require special supply terms, charges or guarantees or which warrant modification of the amount or method of charge from the prices set forth in the Base Rate under which they are provided service. Modifications for such conditions are defined by rider provisions included as a part of this Tariff. Riders may be employed when applicable, with or without signed agreement between the customer and the Company as the case may require, notwithstanding anything to the contrary contained in the Base Rate to which the rider is applied.

Riders	Page No.	R	RT	RH	RS	OP	GS	PD	HT	POL	SL-P	SL-S	SL-E	EP	BLI	AL	TL
Auxiliary Service	66	X	X	X	X	X	X	X	X								
CAP Rider	68A-68D	X		X													
Capacity Reservation	69								X								
Casualty	70	X	X	X	X	X	X	X	X					X			
Construction	71							X	X					X			
Cooling Therm. Storage HT	72								X								
Curtailment HT	73								[5]								
Economic Efficiency	74						X		X								
Emergency Energy Conservation	76								X					X			
Employment & Economic Recovery	77						[3]	X	X								
Incremental Process	80						X	X	X								
IR - 1	82								X								
IR - 2	84A						X	X	X								
Investment Return Guarantee	85						X	X	X								
Keystone Opportunity Zone Rider	85A						X	X	X								
LILR	86								[4]					[4]			
Night Service GS	89						X										
Night Service HT	90								X					X			
Night Service PD	91							X									
Off-Peak	92								[2]	[2]							
Receivership	93	X	X	X	X	X	X	X	X								
Residential DLC	93A	X	X	X	X	X [7]											
Seasonal Cap.Charge	94								X								
Com/Ind DLC	94A						X	X	X								
Temporary Service	95	X		X	X	X	X	X	X								
Transformer Rental	96								[1]	[1]							
Sl-E <sup>(6)</sup>	96A																
Wind Energy Service	96B	X		X			X	X	X					X			
Voluntary Market Phase-In Rider	96C	X	X	X		X	X	X	X	X	X	X	X			X	X

(C)  
(C)

NOTES:  
 [1] Rider restricted to customers served prior to October 15, 1963.  
 [2] Rider restricted to customers served as of October 5, 1972.  
 [3] Effective June 3, 1985 this rider is available under Rate GS, but only when the qualifying or new service location is in an Enterprise Development Area as described in Title 12, Chapter 121 of the Pennsylvania Code.  
 [4] Rider restricted to customers under contract on December 1, 1995.  
 [5] Rider restricted to customers under contract on January 1, 1999.  
 [6] Rider restricted to qualified governmental agencies and community associations that were served under Base Rate SL-E as of 7/8/99.  
 [7] OP customers are limited to the central air conditioning provision of this rider.

(C) Indicates Change



**Customer Assistance Program (CAP) Rider**

**AVAILABILITY:**

To payment-troubled customers who are currently served under or otherwise qualify for Rate R or Rate RH (does not include multiple dwelling unit buildings consisting of two to five dwelling units). Customers must apply for the rates contained in this rider and must demonstrate annual household gross income at or below 150% of the Federal Poverty guidelines. Based on the applicable level of income and other criteria, the following CAP Rate categories (A through E) apply. Alternatively, when a customer receives LIHEAP cash grants, the customer will automatically be enrolled into PECO's CAP Rate E, provided the customer has been identified through LIHEAP as having income not exceeding 150% of the Federal Poverty Level. Such customers automatically enrolled in CAP Rate E will be screened further to the extent practicable for the purpose of reassessing the CAP level placement based on percentage of Federal Poverty Guidelines.

**CAP A - PECO Cares Program:** Customers with annual household gross incomes at or below 25% of the Federal poverty income guidelines with documented extenuating circumstances will be eligible for CAP A which provides for Residential Rate R customers a nominal bundled rate of \$12/month for all usage up to 1,000 KWH; for usage above 1,000 KWH the CAP D rate structure will apply. For Residential Heating customers Rate RH, CAP A provides a nominal bundled rate of \$30/month for all usage up to 2,000 KWH in the Winter<sup>1</sup>/1,000 KWH in the Summer<sup>1</sup>; for usage above 2,000/1,000 KWH the CAP D rate structure will apply.

Extenuating circumstances shall include those individuals who demonstrate an inability to pay the billed rate of CAP B as a result of unique circumstances such as:

- Health related matters:
  - Injury or illness
  - High medical bills
  - Medically related usage
  - Death in the family
- Sudden loss of employment
- Households that include at risk individuals such as:
  - Children below 8 years of age
  - Disabled persons
  - Infirm elderly
- Inability to maintain at least two CAP B payment arrangements
- High usage related to shelter conditions which are not treatable by LIURP

**MONTHLY RATE – CAP A:**

	RATE R		RATE RH	
<b>Fixed Distribution Service Charge</b>		\$5.23		\$5.23
<b>Variable Distribution Service Charge</b>				
	1 <sup>st</sup> 1000 KWH	\$2.42	1 <sup>st</sup> 2,000 KWH Winter <sup>1</sup>	\$8.30
	Additional KWH	CAP D <sup>2</sup>	1 <sup>st</sup> 1,000 KWH Summer <sup>1</sup>	\$8.30
			Additional KWH	CAP D <sup>2</sup>
<b>Competitive Transition Charge</b>				
	1 <sup>st</sup> 1000 KWH	\$1.27	1 <sup>st</sup> 2,000 KWH Winter <sup>1</sup>	\$4.60
	Additional KWH	CAP D <sup>2</sup>	1 <sup>st</sup> 1,000 KWH Summer <sup>1</sup>	\$4.60
			Additional KWH	CAP D <sup>2</sup>
<b>Energy and Capacity Charge</b>				
	1 <sup>st</sup> 1000 KWH	\$2.92	1 <sup>st</sup> 2,000 KWH Winter <sup>1</sup>	\$10.95
	Additional KWH	CAP D <sup>2</sup>	1 <sup>st</sup> 1,000 KWH Summer <sup>1</sup>	\$10.95
			Additional KWH	CAP D <sup>2</sup>

<sup>1</sup> Winter refers to the 9 months (October – June); Summer refers to the 3 peak usage summer months (July-September).

<sup>2</sup> Rate R - for the usage exceeding 1000 kWh, the rate structure equates to the unbundled CAP D Rate, which will provide a nominal 50% discount on the energy pricing for the next 650 kWh used. Rate RH - for the usage exceeding 2000 kWh winter/1000 kWh summer the rate structure equates to the unbundled CAP D Rate, which will provide a nominal 50% discount on the energy pricing for the next 650 kWh used.

**Program Provisions:** The CAP A Rate is limited to 7,500 customers and these customers will be re-certified annually. CAP A customers will be targeted to receive LIURP treatments; and they will be assigned to a PECO Cares Representative to maximize the assistance available to them. In addition, these customers will not be able to obtain Competitive Energy Supply.

(I) Indicates Increase



Customer Assistance Program (CAP) Rider – (Continued)

**CAP B:** Customers with annual household gross incomes at or below 25% of the Federal poverty income guidelines and who are not eligible for CAP A will be eligible for the CAP B Rate which provides a nominal 85% discount on the pricing of the first 650 kWh of usage, and a nominal 30% discount on the next 100 kWh billed in the months of July, August and September.

**CAP C:** Customers with annual household gross incomes at or greater than 26% but less than 51% of the Federal poverty income guidelines will be eligible for the CAP C Rate which provides a nominal 75% discount on the pricing of the first 650 kWh of usage and a nominal 30% discount on the next 100 kWh billed in the months of July, August and September.

**CAP D:** Customers with annual household gross incomes at or greater than 51% but less than 101% of the Federal poverty income guidelines will be eligible for the CAP D Rate which provides a nominal 50% discount on the pricing of the first 650 kWh of usage.

**CAP E:** Customers with annual household gross incomes from 101% up to and including 150% of the Federal poverty income guidelines will be eligible for the Customer Assistance Program CAP E Rate which provides a nominal 26% discount on the pricing of the first 650 kWh of usage.

MONTHLY RATE TABLES (CAP B – E Rates):

RATE R

	CAP B	CAP C	CAP D	CAP E	
<b>Fixed Distribution Service Charge</b>	\$5.31	\$5.31	\$5.31	\$5.31	
	¢/kWh	¢/kWh	¢/kWh	¢/kWh	
<b>Variable Distribution Service Charge</b>					
first 650 kWh	0.6605	1.1009	2.2517	3.4426	(I)
Next 100 kWh (July - Sept Only)	3.0805	3.0809	----	----	(I)
additional kWh	4.3905	4.3909	4.6417	4.6426	(I)
<b>Competitive Transition Charge</b>					
first 650 kWh	0.44	0.73	1.17	1.79	
Next 100 kWh (July - Sept Only)	2.04	2.04	----	----	
additional kWh	2.92	2.92	2.42	2.42	
<b>Energy and Capacity Charge *</b>					
first 650 kWh	.99	1.65	2.72	4.18	
Next 100 kWh (July - Sept Only)	4.63	4.63	----	----	
additional kWh	6.60	6.60	5.63	5.63	

(I) Indicates Increase

Customer Assistance Program (CAP) Rider – (Continued)

RATE RH

	CAP B Summer	CAP B Winter	CAP C Summer	CAP C Winter	CAP D Summer	CAP D Winter	CAP E Summer	CAP E Winter
<b>Fixed Distribution Service Charge</b>	\$5.31	\$5.31	\$5.31	\$5.31	\$5.31	\$5.31	\$5.31	\$5.31
	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh
<b>Variable Distribution Service Charge</b>								
first 650 kWh	0.6305	0.6305	1.0509	1.0509	2.1317	2.1317	3.2726	3.2726 (I)
next 100 kWh (July - Sept Only)	2.9405	----	2.9409	----	----	----	----	---- (I)
(additional kWh)	4.2005	2.1305	4.2009	2.1309	4.4217	2.1317	4.4226	2.1326 (I)
<b>Competitive Transition Charge</b>								
first 650 kWh	.42	.42	.70	.70	1.16	1.16	1.80	2.49
next 100 kWh (July - Sept Only)	1.99	----	1.99	----	----	----	----	----
additional kWh	2.84	1.16	2.84	1.16	2.41	1.16	2.41	1.16
<b>Energy and Capacity Charge *</b>								
first 650 kWh	1.03	1.03	1.71	1.71	2.84	2.84	4.34	4.49
next 100 kWh (July - Sept Only)	4.80	----	4.80	----	----	----	----	----
additional kWh	6.85	2.84	6.85	2.84	5.87	2.84	5.87	2.84

\* CAP (A - C) Rate customers will not be able to obtain Competitive Energy Supply.

**ENERGY AND CAPACITY CHARGE:** The preceding Energy and Capacity Charges are not applicable to the customer if the customer is eligible for and obtains Competitive Energy Supply, and therefore will only apply if the customer receives Default PLR Service.

If the customer obtains Competitive Energy Supply, the customer will receive a credit, on the first 650 kWh of usage on their PECO Energy bill, as follows:

(I) Indicates Increase

Customer Assistance Program (CAP) Rider – Continued

CUSTOMER CREDIT WHEN OBTAINING COMPETITIVE ENERGY SUPPLY (applicable to CAP D & E only):

RATE R		RATE RH			
CAP D	CAP E	CAP D		CAP E	
		Summer	Winter	Summer	Winter
3.88¢/kWh	2.42 ¢/kWh	4.01 ¢/kWh	4.01 ¢/kWh	2.51 ¢/kWh	2.36 ¢/kWh

**METERING AND BILLING CREDITS.** A customer receiving Advanced Meter Services from a AMSP other than the Company will receive a credit on the Fixed Distribution Service Charge equal to the Total Metering Credit set forth for Rate R or RH as applicable in Appendix B to the Joint Petition for Full Settlement. A customer receiving Consolidated EGS Billing will receive a credit on the Fixed Distribution Service Charge equal to the Billing and Collection Credit set forth for Rate R or RH as applicable in Appendix B to the Joint Petition for Full Settlement.

**CERTIFICATION.** Certification by various State agencies that a customer is receiving certain government assistance payments may be used where possible to expedite the eligibility process. These payments include (but are not limited to) AFDC, SSI, Food Stamps, PACE and Medicaid. Information available from the Pa. Department of Revenue may also be used where appropriate to expedite the process. In addition, PECO may also utilize the LIHEAP cash grant amount to help determine income level.

A process will be established to provide verification of eligibility for customers who do not fit the above processes. Asset testing will also be used where necessary and appropriate. Customers being considered for the CAP Rider will be required to:

- Waive certain privacy rights to enable PECO Energy to effectively conduct the above certification process.
- Apply for and assign to PECO Energy at least one energy assistance grant from the Commonwealth.
- Participate in various energy education and conservation programs facilitated by PECO Energy.

**MINIMUM CHARGE.** The minimum charge per month will be the Fixed Distribution Service Charge.

**TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE.** Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT, UNIVERSAL SERVICE FUND CHARGE, PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS AND PROVISION FOR THE RECOVERY OF CONSUMER EDUCATION PLAN COSTS APPLY TO THIS RATE. (C)

**ARREARAGE.**

Customers who qualify and are placed on the CAP Rider will have their pre-program arrearage forgiven if they remain current on their CAP bill for six consecutive months. The development of any new arrearage during this period will delay forgiveness. Customers that develop any new arrearage will be offered a payment agreement.

**EFFECTIVE APRIL 1, 2009**

Customers who qualify and are placed on the CAP Rate will have their pre-program arrearage forgiven on the following basis: For each month in which the customer pays their outstanding balance in full and on time, one-twelfth (1/12th) of the customer's pre-program arrearage will be forgiven. If the customer develops any in-program arrearage while on the CAP Rate -- that is, if the customer does not pay the entire outstanding balance -- then preprogram arrearage forgiveness will not resume until the first month in which the full outstanding balance is paid. At PECO's discretion, customers who develop in-program arrearages may be offered a payment agreement for those in-program arrearages, but PECO is not required to offer such a payment arrangement.

(C) Indicates Change



RESIDENTIAL DIRECT LOAD CONTROL PROGRAM (DLC) RIDER

(C)

**AVAILABILITY.**

This rider is available to any residential retail customer served under rates R, RH, RS-2, RT, OP, and CAP that (a) is the owner of the premises at which service hereunder is to be provided; (b) is provided with electric service at such premises through a separate meter; (c) has a fully functional electric central air conditioning system (CAC) as the principal and dedicated source of air conditioning for such premises, the electric service for which is delivered by the Company through such separate meter and the compressor(s), and/or a fully functioning electric water heater system for which is (are) capable of accepting a Company control device(s), as determined by the Company or its agent (d) allows the Company to periodically cycle such AC compressor(s) and/or electric water heater(s); and (e) is located at a premises where the Company's control signal can reach a control unit mounted near such AC compressor(s) and/or electric water heater(s).

Availability of this rider for rate OP customers is limited to the central air system provision.

Service hereunder is not restricted to residential retail customers that obtain full requirements electric supply from the Company under Default Service.

Notwithstanding the previous provisions of this Availability section, the availability of this rider is limited by the ability of the Company and its agent to purchase and install the necessary controls needed to implement and administer the Residential Direct Load Control (DLC) Program.

**PROGRAM PROVISIONS.**

The DLC Program allows the Company to obtain temporary reductions in the electric power and energy demands on the electric delivery system located in its service territory through prearranged voluntary reductions in residential retail customers' electric power and energy requirements. The Company reserves the right to activate the DLC Program for any reason, including (a) response to shortages of available capacity on the Company's distribution system; (b) response to shortages of available capacity on the transmission system located in the Company's service territory; or (c) preservation of the availability of other load response resources. A residential retail customer to which this rider is available that elects service hereunder is defined as a participant.

An activation of the DLC Program is defined as an event.

During an event, a participant in the DLC Program allows the Company to remotely control the duty cycle of such participant's AC compressor(s) and/or water heater(s). The Company is allowed to exercise such control without notice at anytime on weekdays during the period beginning June 1 and extending through September 30 of each year, except holidays.

RESIDENTIAL DIRECT LOAD CONTROL PROGRAM (DLC) RIDER (continued)

(C)

**INSTALLATION.**

The Company or its agent installs the remote control device(s) used to cycle the AC compressor(s) and/or electric water heater(s), and the Company owns, operates, and maintains such device(s). The participant is responsible for maintaining a safe operating environment for such device(s). For a situation in which the participant replaces its AC compressor(s) and/or water heaters, the participant is responsible for providing the Company with adequate notice so that the Company has time to schedule the removal of such device(s) from the AC compressor(s) and/or water heater(s) being removed and the installation of such device(s) on the replacement AC compressor(s) and/or electric water heater(s).

The Company is allowed to inspect the remote control device(s) mounted externally to customer premise at any time and without notice to insure such device(s) is (are) fully operational, and the participant grants the Company permission to enter upon its premises to conduct such inspections upon reasonable notice. If, in the course of such inspection, the Company determines that the participant interfered with the functionality of the device(s) in any way, (a) the participant is immediately removed from the DLC Program and service hereunder is terminated, with such termination effective as of the date of the installation of such device(s) or of the most recent passing inspection, whichever is more recent; and (b) such participant is not eligible to take service hereunder or participate in the DLC Program for a period of not less one (1) calendar year following such effective termination date.

For a situation in which the Company performs excessive maintenance or replacement of any remote control device(s) due to vandalism or other cause, the Company may remove the participant for which such device(s) is (are) provided from the DLC Program and terminate service hereunder to such participant. In such situation, the Company may deny future participation in the DLC Program to such participant.

**MONTHLY RATE TABLE.**

The Company provides a credit to the participant on each bill issued for the Summer Period, defined as the four billing periods, which include the days of June 1 to September 30.

AC Compressor Cycling Credit \$30.00 per bill  
Electric Water Heater Cycling Credit \$12.00 per bill

The total credit amount provided to a participant for the AC Compressor Cycling Option cannot exceed \$120.00 per year. In instances where the customer premise is served by 2 or more CAC units, a credit will be issued for each participating CAC unit. The total credit amount provided to a participant for the Electric Water Heater Cycling Option cannot exceed \$48.00 per year.

The credit provided in accordance with this rider is separately stated on the participant's bill.

(C) Indicates Change

RESIDENTIAL DIRECT LOAD CONTROL PROGRAM (DLC) RIDER (continued)

(C)

**MINIMUM CHARGE.**

The minimum charges for the rate schedules listed in the Availability section apply to service under this rider. The credits under this rider cannot be applied against any applicable minimum charges.

**MISCELLANEOUS GENERAL PROVISIONS.**

The Company is not liable for any damage or injury, including any consequential damage, resulting from the intentional or unintentional interruption of the operation of the participant's AC compressor(s) and/or water heater(s). Only CAC units are eligible for program participation. Window mounted air conditioners do not qualify.

**TERM OF CONTRACT.**

A participant commences service hereunder on the date the Company inspects and approves the functionality of the participant's AC compressor(s) and/or water heater(s) and installs the remote control device(s). The initial term of participation expires on the November 1 following the first June 1 through September 30 period of participation. Upon expiration, the initial and subsequent terms of participation automatically renew for twelve (12) months, unless terminated by the participant or the Company.

A participant may terminate service hereunder and participation in the DLC Program at any time, but cannot again elect to take service hereunder and participate in the DLC Program at the same premises for a period of at least twelve (12) months.

THE STATE TAX ADJUSTMENT CLAUSE APPLIES TO THIS RIDER.

(C) Indicates Change



COMMERCIAL/INDUSTRIAL DIRECT LOAD CONTROL PROGRAM (DLC) RIDER

(C)

**AVAILABILITY.**

This rider is available to any small commercial or industrial retail customer with peak measured demands less than or equal to 100kW served under rates GS, PD, or HT that (a) is the owner of or leases the premises at which service hereunder is to be provided; (b) is provided with electric service at such premises through a separate meter; (c) has a fully functional electric central air conditioning system (CAC), with a rating of at least 5-tons, as the principal and dedicated source of air conditioning for such premises, the electric service for which is delivered by the Company through such separate meter and the AC system for which is (are) capable of accepting a Company provided control device(s) – Programmable Communicating Thermostat ("PCT"), as determined by the Company or its agent; (d) allows the Company to periodically adjust the temperature setting by approximately 2-4 degrees F of such AC system; and (e) is located at a premise where the Company's control signal can reach the PCT(s) and provide proper control to the AC system.

For determining the initial eligibility of existing small commercial/industrial retail customers under this rider, the peak measured demand level will be calculated by a process similar to that as described in PECO's Default Service Program, Docket No. P-2008-2062739. For new customers, the peak measured demand level shall be based upon an engineering estimate of their diversified peak demand for a new facility or an existing facility with a substantially different use. A new customer in an existing facility shall be assigned the same peak measured demand level as the last customer in that facility.

Service hereunder is not restricted to small commercial/industrial retail customers that obtain full requirements electric supply from the Company under Default Service.

Notwithstanding the previous provisions of this Availability section, the availability of this rider is limited by the ability of the Company and its agent to purchase and install the necessary controls needed to implement and administer the Commercial/Industrial Direct Load Control (DLC) Program.

**PROGRAM PROVISIONS.**

The DLC Program allows the Company to obtain temporary reductions in the electric power and energy demands on the electric delivery system located in its service territory through prearranged voluntary reductions in commercial/industrial retail customers' electric power and energy requirements. The Company reserves the right to activate the DLC Program for any reason, including (a) response to shortages of available capacity on the Company's distribution system; (b) response to shortages of available capacity on the transmission system located in the Company's service territory; or (c) preservation of the availability of other load response resources. A commercial/industrial retail customer to which this rider is available that elects service hereunder is defined as a participant.

An activation of the DLC Program is defined as an event.

During an event, a participant in the DLC Program allows the Company to remotely control the temperature setting of such participant's CAC. The Company is allowed to exercise such control without notice, at anytime on weekdays during the period beginning June 1 and extending through September 30 of each year, except holidays.

**INSTALLATION.**

The Company or its agent installs the PCT used to adjust participant CAC temperature during a called event. The participant is responsible for maintaining a safe operating environment for such device(s).

The Company is allowed to inspect the PCT(s) at any time during normal business hours and without notice to insure such device(s) is (are) fully operational, and the participant grants the Company permission to enter upon its premises to conduct such inspections. If, in the course of such inspection, the Company determines that the participant interfered with the functionality of the device(s) in any way, (a) the participant is immediately removed from the DLC Program and service hereunder is terminated, with such termination effective as of the date of the installation of such device(s) or of the most recent passing inspection, whichever is more recent; and (b) such participant is not eligible to take service hereunder or participate in the DLC Program for a period of not less one (1) calendar year following such effective termination date.

For a situation in which the Company performs excessive maintenance or replacement of any remote control device(s) due to vandalism or other cause, the Company may remove the participant for which such device(s) is (are) provided from the DLC Program and terminate service hereunder to such participant. In such situation, the Company may deny future participation in the DLC Program to such participant.

Normal service interruptions are not included in the determination of the above hours of control in a calendar year

(C) Indicates Change

COMMERCIAL/INDUSTRIAL DIRECT LOAD CONTROL PROGRAM (DLC) RIDER (continued)

(C)

**MONTHLY RATE TABLE.**

The Company provides a credit to the participant on each bill issued for the Summer Period, defined as the four billing periods, which include the days of June 1 to September 30. The credit applied to such participant's bill is as follows:

PCT A/C Control Credit \$ 30.00 per bill

The total credit amount provided to a participant cannot exceed \$120.00 per year per PCT (if multiple qualified CAC units are controlled at the same premises, a credit will be issued for each participating CAC unit).

The credit provided in accordance with this rider is separately stated on the participant's bill.

**MINIMUM CHARGE.**

The minimum charges for the rate schedules listed in the Availability section apply to service under this rider. The credits under this rider cannot be applied against any applicable minimum charges.

**MISCELLANEOUS GENERAL PROVISIONS.**

The Company is not liable for any damage or injury, including any consequential damage, resulting from the intentional or unintentional interruption of the operation of the participant's AC compressor(s).

**TERM OF CONTRACT.**

A participant commences service hereunder on the date the Company inspects and approves the functionality of the participant's AC compressor(s) and installs the remote control device(s).

The initial term of participation expires on the November 1 following the first June 1 through September 30 period of participation. Upon expiration, the initial and subsequent terms of participation automatically renew for twelve (12) months, unless terminated by the participant or the Company.

A participant may terminate service hereunder and participation in the DLC Program at any time, but cannot again elect to take service hereunder and participate in the DLC Program at the same premises for a period of at least twelve (12) months.

THE STATE TAX ADJUSTMENT CLAUSE APPLIES TO THIS RIDER.

(C) Indicates Change



PECO Energy Company

**SUBURBAN STREET LIGHTING RIDER**

**AVAILABILITY.**

Available with the first regular billing cycle beginning after September 6, 1999 and limited to qualified governmental agencies and community associations that were served under base Rate SL-E as of July 8, 1999. If, however, any qualified customer that utilizes this rider chooses at any point to switch to base Rate SL-E, said customer may not thereafter return to this rider.

This rate is not available to commercial or industrial customers. All facilities and their installation shall be approved by the Company.

**MONTHLY RATE TABLE.**

SERVICE LOCATION DISTRIBUTION CHARGE: \$10.46 per Service Location (as defined below) (I)  
SERVICE LOCATION CTC CHARGE: \$0.32 per Service Location (as defined below)

ENERGY AND CAPACITY CHARGE: The following Energy and Capacity Charges will apply to the customer if the customer receives Default PLR Service. These charges are not applicable to the customer if it obtains Competitive Energy Supply.

0.29¢ per Watt  
1.86¢ per kWh

TRANSMISSION SERVICE FOR CUSTOMERS RECEIVING DEFAULT PLR SERVICE: Unless such a customer is able to obtain transmission service on its own, PECO Energy will provide transmission service, and will impose charges on such a customer for such transmission service.

STATE TAX ADJUSTMENT CLAUSE, NUCLEAR DECOMMISSIONING COST ADJUSTMENT AND PROVISION FOR THE RECOVERY OF ENERGY EFFICIENCY AND CONSERVATION PROGRAMS COSTS APPLY TO THIS RATE. (C)

**SERVICE LOCATION.** A Service Location shall comprise each lighting installation and must be separately connected to a delivery point on the Company's secondary circuit.

**DETERMINATION OF BILLING DEMAND.** The wattage, expressed to the nearest tenth of a watt, of a Service Location shall be composed of manufacturer's rating of its lamps, ballasts, transformers, individual controls and other load components required for its operation. The aggregate of wattages of all Service Locations in service shall constitute the billing demand for the month.

**DETERMINATION OF ENERGY BILLED.** The energy use for a month of a Service Location shall be computed to the nearest kilowatt-hour as the product of one-thousandth of its wattage and the effective hours of use of such wattage during the calendar month under the established operation schedules as set forth under Terms and Conditions, Paragraph 6 Service. The aggregate of the kilowatt-hours thus computed for all Active Service Locations shall constitute the energy billed for the month.

**TERMS AND CONDITIONS.** Per Rate SL-E.

(D) Indicates Decrease



Transmission Charges

NOTE: These charges are set forth for informational purposes only, as they are not regulated by the PaPUC. These charges together with the Fixed and Variable Distribution charges in this Tariff, comply with the transmission and distribution rate cap under paragraph 21 of the Settlement.

	<u>Per kWh (except where noted)</u>	
Rate R, RS-P		(C)
1st 500 kWh	0.55¢	
Over 500 kWh Winter	0.55¢	
Over 500 kWh Summer	0.64¢	
Rate RT		
Off-peak kWh Winter	0.30¢	
On-Peak kWh Winter	1.13¢	
Off-peak kWh Summer	0.30¢	
On-Peak kWh Summer	1.23¢	
Rate RH		
1st 600 kWh Winter	0.56¢	
Additional Winter	0.23¢	
1st 500 kWh Summer	0.56¢	
Additional Summer	0.65¢	
Rate OP		
All kWh	0.05¢	
Rate GS, GS-SP		
	(C)	
1st 80 Hrs. Use	1.29¢	
Next 80 Hrs. Summer	0.61¢	
Additional Use-Except	0.38¢	
Over 400 Hrs&2000 kWh	0.17¢	
Space Heating	0.30¢	
Minimum Demand Charge	34.00¢/KW **	
Rate Off-Peak Thermal Storage Provision		
On-Peak kWh	0.25¢	
Off-Peak kWh	0.16¢	
Rate PD, PD-SP		
	(C)	
Capacity Charge kW	57.00¢/KW**	
1st 150 hrs. use	0.50¢	
Next 150 hrs. use	0.30¢	
Additional use	0.10¢	
Rate HT, HT-SP		
	(C)	
Capacity Charge KW	80.00¢/KW**	
1st 150 hrs. use	0.43¢	
Next 150 hrs. use	0.25¢	
Additional use	0.08¢	

\*\*Also applicable for calculating minimum charges. For rules of application, see Rate GS, Determination of Demand, and Rates PD, HT and EP, Determination of Billing Demand.

(C) Indicates Charge



**PROGRAM COSTS BY RATE CLASS - (PY2009-PY2012)**

Program	Residential <sup>1</sup>	Small C&I <sup>2</sup>	Large C&I <sup>3</sup>	Municipal Lighting <sup>4</sup>	Total 4-Year Budget
<b>Energy Efficiency Programs</b>					
1. CFL Initiative	\$19,731,768	\$0	\$0	\$0	\$19,731,768
2. Residential Low-Income Energy Improvements	\$27,410,156	\$0	\$0	\$0	\$27,410,156
3. Residential Whole Home Performance	\$3,983,466	\$0	\$0	\$0	\$3,983,466
4. Residential Home Energy Incentives	\$35,522,928	\$0	\$0	\$0	\$35,522,928
5. Residential New Construction	\$3,104,851	\$0	\$0	\$0	\$3,104,851
6. Residential Appliance Pickup	\$9,732,848	\$0	\$0	\$0	\$9,732,848
7. Commercial/Industrial Equipment Incentives	\$0	\$30,217,367	\$31,481,403	\$0	\$61,698,770
8. Commercial/Industrial New Construction	\$0	\$1,825,134	\$3,008,976	\$0	\$4,834,110
9. Government/Public Facility Energy Savings	\$0	\$8,222,076	\$29,267,824	\$8,291,430	\$45,781,330
10. Renewable Resources	\$1,689,344	\$980,594	\$2,394,824	\$0	\$5,064,762
<b>Subtotal Energy Efficiency Programs</b>	<b>\$101,175,361</b>	<b>\$41,245,171</b>	<b>\$66,153,027</b>	<b>\$8,291,430</b>	<b>\$216,864,989</b>
<b>Demand Reduction Programs</b>					
1. Residential Direct Load Control	\$41,271,680	\$0	\$0	\$0	\$41,271,680
2. Residential Super Peak TOU	\$8,771,264	\$0	\$0	\$0	\$8,771,264
3. Commercial/Industrial Direct Load Control	\$0	\$12,932,174	\$179,177	\$0	\$13,111,351
4. Commercial/Industrial Super Peak TOU	\$0	\$8,587,967	\$1,510,042	\$0	\$10,098,009
5. DR Aggregator Contracts	\$0	\$8,233,848	\$14,163,837	\$0	\$22,397,685
6. Distributed Energy Resources	\$0	\$6,732,668	\$11,581,514	\$0	\$18,314,182
7. Permanent Load Reduction	\$0	\$1,110,566	\$5,059,420	\$0	\$6,169,986
8. Conservation Voltage Reduction	\$1,528,149	\$887,027	\$2,166,313	\$0	\$4,581,489
<b>Subtotal Demand Reduction Programs</b>	<b>\$51,571,093</b>	<b>\$38,484,250</b>	<b>\$34,660,303</b>	<b>\$0</b>	<b>\$124,715,645</b>
<b>Grand Total -- All Programs</b>	<b>\$152,746,453</b>	<b>\$79,729,421</b>	<b>\$100,813,330</b>	<b>\$8,291,430</b>	<b>\$341,580,634</b>
<b>Percent of Total</b>	<b>45%</b>	<b>23%</b>	<b>30%</b>	<b>2%</b>	

<sup>1</sup> Costs for the Residential sector are allocated to Rates R, RT, RH, and CAP.

<sup>2</sup> Costs for the Small Commercial & Industrial sector are allocated to Rates GS and POL.

<sup>3</sup> Costs for the Large Commercial & Industrial sector are allocated to Rates PD, HT, and EP.

<sup>4</sup> Municipal lighting is a subset of the governmental public facility program. Costs for this program are allocated to Rates AL, TL, SLP, SLS, SLE, and SLE Rider.





**PECO**  
**Energy Efficiency and Conservation Plan**  
**C-Factor Calculation**

C-Factor Year	Residential		Commercial		Industrial		Streetlighting	
	Expenditures	Estimated Sales kWh	Expenditures	Estimated Sales kWh	Expenditures	Estimated Demand kW	Expenditures	Estimated Sales kWh
2010	\$ 14,531,859	13,702,184,254		8,777,174,000		35,147,548		165,300,000
2011	\$ 35,796,562	13,702,184,254		8,777,174,000		35,147,548		165,300,000
2012	\$ 47,883,136	13,702,184,254		8,777,174,000		35,147,548		165,300,000
2013	\$ 54,534,897	5,709,243,440		3,657,155,833		14,644,812		68,875,000
<b>Est Recovery C-Factor</b>	<b>\$ 152,746,453</b>	<b>46,815,796,201</b>	<b>\$ 79,729,421</b>	<b>29,988,677,833</b>	<b>\$ 100,813,330</b>	<b>120,087,456</b>	<b>\$ 8,291,430</b>	<b>\$ 564,775,000</b>
							<b>\$ 0.0028</b>	<b>\$ 0.8921</b>
								<b>\$ 0.0156</b>

Residential CAP Breakdown 2010	Estimated Sales kWh	Projected Rate (a) \$/kWh
CAP A	91,979,295	\$ 0.0002
CAP B	149,767,177	\$ 0.0005
CAP C	235,702,426	\$ 0.0009
CAP D	235,702,426	\$ 0.0017
CAPE	287,831,598	\$ 0.0026
Non CAP	45,814,813,279	\$ 0.0035
<b>Total</b>	<b>46,815,796,201</b>	<b>\$ 0.0035</b>

(a) Rate includes tax gross-up factor of 1/(1-0.059) = 1.0627

# PECO Energy Efficiency and Conservation Plan CAP Revised Sales

All Residential Rates			
	Estimated Expenditures \$	Estimated Sales kWh	Projected Rate \$/kWh (a)
2010	\$ 14,531,859	13,702,184,254	
2011	\$ 35,796,562	13,702,184,254	
2012	\$ 47,883,136	13,702,184,254	
2013	\$ 54,534,897	5,709,243,440	
	\$ 152,746,453	46,815,796,201	\$ 0.0035

	Estimated Sales (kWh)	Projected Rate \$/kWh	Estimated Cost Recovery	Proposed Discount	Projected Rate \$/kWh	Revised Cost Recovery	Cost Recovery Shortfall
<b>Residential</b>							
CAP A	91,979,295	\$ 0.0035	\$ 318,918	95%	\$ 0.0002	\$ 15,946	\$ 302,972
CAP B	149,767,177	\$ 0.0035	\$ 519,285	85%	\$ 0.0005	\$ 77,893	\$ 441,393
CAP C	235,702,426	\$ 0.0035	\$ 817,247	75%	\$ 0.0009	\$ 204,312	\$ 612,935
CAP D	235,702,426	\$ 0.0035	\$ 817,247	50%	\$ 0.0017	\$ 408,624	\$ 408,624
CAPE	287,831,598	\$ 0.0035	\$ 997,994	26%	\$ 0.0026	\$ 738,515	\$ 259,478
<b>Total for 2010</b>	<b>1,000,982,922</b>		<b>\$ 3,470,692</b>		<b>\$</b>	<b>\$ 1,445,290</b>	<b>\$ 2,025,402</b>

<b>Residential</b>	<b>Non CAP - 41 mos (a)</b>	<b>\$ 45,814,813,279</b>	<b>\$ 0.0035</b>	<b>\$ 158,852,964</b>
	<b>Revised - 41 mos (a)</b>	<b>\$ 45,814,813,279</b>	<b>\$ 0.0035</b>	<b>\$ 160,878,366</b>

(a) Rate includes tax gross-up factor of  $1/(1-0.059) = 1.0627$





**Responses to the Questions in 52 Pa. Code, Section 53.52(a)**

**(a)(1) The specific reason for each change**

This tariff change is being made to implement the Company's Energy Efficiency and Conservation Plan (EE&C) as required by Act 129.

**(a)(2) The total number of customers served by the utility.**

As of May 31, 2009, PECO Energy served 1,563,677 million electric customers.

**(a)(3) A calculation of the number of customers, by tariff subdivision, whose bills will be affected by the change.**

All 1.6 million PECO customers bills will be affected by the implementation of the EE&C plans, as all customers will fund the EE&C Plan.

Residential:	1,403,599
Commercial:	156,985
Industrial:	3,093

**(a)(4) The effect of the change on the utility's customers.**

The applicable distribution charge of residential & small commercial and industrial customers will be increased by the EE&C charge.

**(a)(5) The effect, whether direct or indirect, of the proposed change on the utility's revenue and expenses.**

PECO Energy will also incur additional incremental administrative and infrastructure costs and expenses associated with development and implementation of the EE&C Plan. Revenues are projected to decrease by an \$117M over the 4-year plan period due to decreased sales and reduced demand.

**(a)(6) The effect of the change on the service rendered by the utility.**

None.

**(a)(7) A list of factors considered by the utility in its determination to make a change. The list shall include a comprehensive statement as to why these factors were chosen and the relative importance of each. This subsection does not apply to a portion of a tariff change seeking a general rate increase as defined in 66 Pa. CS 1308.**

PECO is required to submit an EE&C Plan per Act 129.

**(a)(8) Studies undertaken by the utility in order to draft its proposed change. This paragraph does not apply to a portion of the tariff change seeking a general rate increase as defined in 66 Pa. C.S. 1308.**

PECO conducted a technical potential study to identify the size of the energy efficiency market. There are three types of potential that were evaluated technical, economic and maximum achievable potential. Technical potential is the maximum possible savings regardless of costs and customer preference; economic potential represents the maximum savings for those energy efficiency measures that pass an economic screen but are otherwise not subject to program administration or customer preferences. Finally, maximum achievable potential represents the energy savings potential from energy efficiency measures taking into account program and administration costs and customer acceptance rates studies in order to develop the proposed programs in the EE&C filing.

- (a)(9) **Customer polls taken and other documents, which indicate customer acceptance and desire for the proposed change. If the poll or other documents reveal discernable public opposition, an explanation of why the change is in the public interest shall be provided.**

PECO conducted two types of customer surveys. First was a saturation survey of PECO's residential and low income. The survey was administered to over 1,400 residential and low income customers to gain a better understanding of the ways in which PECO customers use energy, the number of energy-using devices that customers have, and the levels of energy efficiency that PECO customers already experience as a result of installing energy efficiency measures. Secondly, PECO conducted focus groups with residential, low income and small and large businesses to gain a better understanding of the likelihood of customer adoption and the drivers that would allow customers to make informed decisions to participate.

- (a)(10) **Plans the utility has for introducing or implementing the changes with respect to ratepayers.**

The Company plans to communicate to ratepayers with a multi-faceted approach. The Company will have a public relations campaign announcing the availability of EE&C programs. In addition, the Company will have a customer education and enrollment campaign for each of the programs informing customers how the programs can help them save energy. The company will utilize a multi channel approach to communicate program information as well as educate customers. The communication channels will vary by program and may include but not be limited to the following: bill inserts, [energy@home](mailto:energy@home), [energy@work](mailto:energy@work), web communications, direct mail, grass roots initiative, earned media and paid media.

- (a)(11) **F.C.C., FERC, or Commission orders or ruling applicable to the filing.**

The following orders are applicable to the filing:  
Docket No. M-2008-2069887 - Implementation Order; Secretarial letter dated 5/7/09  
Docket No. M-2009-2108601 - Order on TRC test  
Docket No. M-00051865 - 2009 Final Order and Technical Manual  
Docket No. M-2008-2074154 - Final Order - Registry of Conservation Service Providers