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November 23, 2010

VIA FEDERAL EXPRESS

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

RECEIVED

NOV 23 2010

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

Re: Petition of PECO Energy Company for Approval of (1) A Process to Procure Alternative Energy Credits During the AEPS Banking Period And (2) A Section 1307 Surcharge and Tariff to Recover AEPS Costs

Docket No. P-00072260

Dear Secretary Chiavetta:

On November 17, 2010, PECO filed its *Petition of PECO for Expedited Approval to Apply Banked Alternative Energy Credits in AEPS Reporting Years 2011-2012 and 2012-2013*.

This filing was supposed to contain an Exhibit A, which consisted of the initial Petition in this docket that was filed on March 19, 2007. (*Petition of PECO Energy Company for Approval of (1) A Process to Procure Alternative Energy Credits During the AEPS Banking Period And (2) A Section 1307 Surcharge and Tariff to Recover AEPS Costs*).

PECO inadvertently failed to include this exhibit with its November 17, 2010 filing. Therefore, PECO is now submitting an original and eight (8) copies of its Exhibit A to the Commission for inclusion in PECO's November 17, 2010 filing. PECO is also submitting copies of this exhibit by First Class Mail to all parties listed on the service list.

Very truly yours,



Jeanne J. Dworetzky
Enclosures

cc: All Parties on the Service List



An Exelon Company

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Director
Rates & Regulatory Affairs

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Philadelphia, PA 19103

Mail To: P.O. Box 8699
Philadelphia, PA 19101-8699

March 19, 2007

P-00072260

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

FedEx

Mr. James J. McNulty, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Petition of PECO Energy Company for Approval of (1) A Process to Procure Alternative Energy Credits During the AEPS Banking Period and (2) A Section 1307 Surcharge and Tariff to Recover AEPS Costs
Docket No. P-

Dear Mr. McNulty:

Enclosed are an original and three copies of the Petition of PECO Energy Company for approval of:

- (1) Process to procure Alternative Energy Credits during the AEPS Banking Period and
- (2) A Section 1307 Surcharge and Tariff to Recover AEPS Costs.

Please acknowledge receipt of the foregoing by stamping the enclosed copy of this letter and returning it in the self-addressed stamped envelope provided. Thank you for your assistance in this matter.

Sincerely,

Enclosures

BDC/mtg

cc: Certificate of Service

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

RECEIVED

NOV 23 2010

**PETITION OF PECO ENERGY
COMPANY FOR APPROVAL OF (1) A
PROCESS TO PROCURE
ALTERNATIVE ENERGY CREDITS
DURING THE AEPS BANKING PERIOD
AND (2) A SECTION 1307 SURCHARGE
AND TARIFF TO RECOVER AEPS
COSTS**

DOCKET NO. P-

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

PETITION

PECO Energy Company ("PECO" or the "Company"), pursuant to the Alternative Energy Portfolio Standards Act of 2004, 73 Pa. C.S. § 1648.1 *et seq.* ("AEPS" or "Act 213") and Section 1307 of the Public Utility Code, 66 Pa. C.S. § 1307 and 66 Pa. C.S. § 1308 (relating to automatic rate adjustment), hereby petitions the Pennsylvania Public Utility Commission (the "Commission") to approve PECO's voluntary initial procurement of up to 450,000 non-solar Tier I alternative energy credits annually for an interim five-year period (corresponding to the annual output of approximately 240 MW of wind power), to satisfy a portion of PECO's future AEPS requirements. Specifically, PECO requests the Commission to: (1) find that PECO's Request for Proposals ("RFP"), attached hereto, will result in reasonable prices for the alternative energy credits purchased under contracts entered into pursuant to the RFP for cost recovery through a Section 1307 surcharge; (2) approve PECO's banking of such alternative energy credits, as permitted by Act 213; (3) approve PECO's form alternative energy credits purchase and sale agreement for execution with successful bidders; (4) approve PECO's proposed AEPS tariff provision imposing a Section 1307 surcharge (on a per kWh basis) to fully

recover PECO's on-going AEPS compliance costs, including, for a one-year period commencing January 1, 2011, all costs associated with banked credits, with a return on the unamortized balances of such costs; and (5) provide other relief as requested herein.

This Petition is the first petition filed by a Pennsylvania electric distribution company under Act 213's provisions for early procurement and banking of alternative energy credits for future compliance with AEPS portfolio requirements. While this voluntary procurement will not address all of PECO's future AEPS obligations, PECO believes that this early action is a reasonable first step towards PECO's compliance with Act 213. PECO therefore requests that the Commission expedite review of this Petition so that PECO may issue the RFP, begin procurement of alternative energy credits from successful bidders, and bank those credits for future compliance with Act 213.

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 November 30, 2004, Governor Edward Rendell signed Act 213 into law. As of its effective date on February 28, 2005, an alternative energy portfolio standard was established in Pennsylvania. Generally, Act 213 requires a certain increasing percentage of electricity sold to retail customers in Pennsylvania by Electric Distribution Companies ("EDCs") and Electric Generation Suppliers ("EGSs") be derived from alternative energy sources, as defined in the Act. An EDC's compliance with this requirement is measured using alternative energy credits ("AECs"). An alternative energy credit is equal to one-megawatt hour of

qualified alternative energy generation, and may be purchased, traded, and owned separately from the underlying energy that generates the credit. *See generally* 73 Pa. C.S. § 1648.3.

3. Act 213 has several components, including (1) a timetable and associated yearly percentage requirements which EDCs and EGSs must satisfy, as well as an exemption period (the "Cost-Recovery Period") linked to an EDC's transition (or stranded cost recovery) period established under the Electricity Generation Customer Choice and Competition Act, 66 Pa. C.S. §§ 2801 *et seq.* (the "Competition Act"); (2) provisions under which EDCs may bank AECs procured before the expiration of their Cost-Recovery Period for future AEPS compliance; and (3) a provision which allows EDCs to fully recover all AEPS-related costs for generation from alternative energy sources and/or AECs from their retail customers.

4. Under Act 213, for retail default service generation sales between January 1, 2011 and May 31, 2011, PECO will be required to procure AECs from Tier I resources (e.g., wind, geothermal, biomass) equal to three percent (3%) of the electricity sold by PECO to retail customers in Pennsylvania, with .0203% of Tier I sales met with AECs derived from solar photovoltaic (PV) or solar thermal resources. The Tier I resource requirements become 3.5% on June 1, 2011. These percentage requirements increase annually, up to 8%, until 2020.

5. All direct and indirect costs for alternative energy and/or AECs purchased by an EDC for compliance with these requirements are recoverable on "a full and current basis pursuant to an automatic energy adjustment clause" under Section 1307, as a cost of generation supply. 73 Pa. C.S. § 1648.3(a)(3).

6. Act 213 encourages EDCs to take steps during their Cost-Recovery Periods towards satisfaction of these future requirements. The AEPS banking provisions expressly permit an EDC to acquire AECs during its Cost-Recovery Period, which can then be used for

compliance purposes during two consecutive AEPS reporting periods in the first three reporting periods following the conclusion of an EDC's exemption period. *See* 73 Pa. C.S. 1648.3(e)(7); Order, *Implementation of the Alternative Energy Portfolio Standards Act*, Docket No. M-00051865 (July 18, 2005). Under these provisions, AECs that PECO voluntarily acquires prior to January 1, 2011 (the end of its Cost-Recovery Period) can be applied by PECO to satisfy PECO's AEPS requirements for a consecutive two-year period during the following three years (i.e., up to and including the June 1, 2012-May 31, 2013 reporting period). The costs of such early-procurement AECs are also fully recoverable from PECO's default service customers, but the costs are to be deferred as a regulatory asset and recovered under an automatic energy adjustment clause entirely during the first year after the expiration of PECO's Cost-Recovery Period, with a return on the unamortized balance. *See* 73 Pa. C.S. § 1648.3(a)(3).

7. PECO is voluntarily undertaking this early procurement program in accordance with Act 213's express provisions permitting EDCs to purchase and bank AECs during an EDC's Cost-Recovery Period. Furthermore, PECO's proposal, as set forth in this Petition, is consistent with the Commission's proposed AEPS rules issued July 25, 2006. *See* Proposed Rulemaking Order, *Implementation of the Alternative Energy Portfolio Standards Act of 2004*, Docket No. L-00060180 (July 25, 2006) ("AEPS Rulemaking Order"). While PECO is fully participating in the AEPS rulemaking process and recognizes that the Commission's proposed rules may change before being finalized, PECO has concluded that it is important to take action now towards satisfying PECO's substantial future Tier I AEPS requirements for the initial compliance years.

8. PECO recognizes that this voluntary procurement will not satisfy all of PECO's future AEPS requirements, and nothing in this Petition or the proposed procurement described

herein should be considered as precedent for future procurements PECO undertakes to meet its AEPS obligations. PECO anticipates taking additional steps to comply with the Act and to procure AECs as alternative energy markets continue to develop. Such additional steps may include procurements in other forms, including auctions, requests for proposals for AECs along with energy, and other procurement mechanisms not yet determined at this time.

9. Upon approval of this Petition, PECO will solicit bids for a five-year annual supply of up to 450,000 non-solar, Tier I AECs from facilities qualified as "Alternative Energy Systems" under the Act. PECO will conduct two separate competitive procurements: The first procurement, in 2007, will solicit contracts to deliver up to 250,000 AECs annually; the second procurement, in 2008, will solicit contracts for the remaining amount of AECs necessary for PECO to receive a total of 450,000 AECs annually. All bidders must be owners of Alternative Energy Systems or own the rights to AECs generated by such systems, and both existing systems and projects under development are eligible to participate as bidders. All deliveries of AECs must be through the PJM Generation Attribute Tracking System ("PJM GATS"), from Alternative Energy Systems interconnected to PJM or located within the Commonwealth of Pennsylvania.

10. PECO anticipates that conducting two procurements will permit more Alternative Energy System developers to participate, facilitating increased price competition over time as the alternative energy market develops. Upon completion of each competitive procurement and approval by the Commission of the bidding process and prices offered by successful bidders, those bidders will enter into Alternative Energy Credits Purchase and Sale Agreements ("AECPA's") to deliver AECs to PECO for a five-year period at a fixed price for each AEC. For an existing system, the five-year term will commence upon execution of the AECPA; for a new

system, the five-year term will begin when the system commences commercial operation, as that term is defined in the AECPA attached hereto in Exhibit 1.1. The contract term for both new and existing systems will be extended by an initial period necessary for each of the five contract term years to synchronize with an AEPS reporting period (June 1 through May 31). In accordance with the Act, the costs incurred by PECO for AECs delivered prior to January 1, 2011 will be deferred as a regulatory asset, with a return on the unamortized balance, and entirely recovered through a Section 1307 AEPS surcharge over a one-year period commencing on January 1, 2011.

11. PECO will be competitively procuring only AECs, and not energy or capacity. Each successful bidder will retain title to the electricity generated by its system and any associated capacity, and will be wholly responsible for scheduling and delivering the energy to control areas managed by PJM Interconnection, L.L.C. ("PJM"), and all related costs.

12. This Petition describes the procedures for each procurement, key provisions of the form PECO AECPA, and the Section 1307 AEPS surcharge tariff provision for which PECO seeks Commission review and approval. This Petition includes the following exhibits, which are attached hereto and incorporated herein by reference:

PECO Statement No. 1 – Testimony of John J. McCawley, P.E., Director,
PECO Energy Acquisition

Exhibit 1.1 – Request for Proposals (including form Alternative Energy
Credits Purchase and Sale Agreement)

PECO Statement No. 2 – Testimony of Alan B. Cohn, Manager,
Division of Rates

Exhibit 2.1 – Proposed Section 1307 AEPS Surcharge Tariff

Exhibit 2.2 – Example of Surcharge Calculation and Customer Charges

Exhibit 2.3 – Form of Customer Notice

**PECO Statement No. 3 – Testimony of Dr. Susan F. Tierney,
The Analysis Group¹**

**II. THE REQUEST FOR PROPOSALS AND AEC PURCHASE AND SALE
AGREEMENT**

13. As described in detail in the attached testimony of John J. McCawley, PECO's proposed RFP process is designed to obtain competitive, five-year fixed price supply contracts for up to 450,000 AECs per year from AEPS Tier I non-solar resources. (This amount of AECs corresponds to approximately 240 MW of wind power). PECO will enter into standardized AECAs with successful bidders under which PECO will purchase and bank AECs for compliance beginning in 2011. Successful bidders will be obligated to ensure delivery of the energy underlying the AECs into PJM, but PECO will not purchase or take title to that energy or the capacity associated with the generating facilities producing the AECs. Upon approval of this Petition and a Commission determination that PECO's RFP will result in reasonable prices for AECs for recovery through a Section 1307 surcharge, PECO will promptly conduct the first procurement for up to 250,000 AECs in annual deliveries in accordance with the RFP, with the expectation of executing AECAs with successful bidders within 90 days. PECO anticipates conducting the second procurement in 2008 for the remaining AEC requirements (i.e., for a total of 450,000 AECs delivered annually).

14. As discussed in the testimony of Mr. McCawley and Dr. Tierney, the RFP procedures and the form AECAs incorporate several key features to obtain reasonable prices for AECs and to address the current state of alternative energy markets and resources.

¹ Dr. Tierney provides expert analysis on renewable energy markets and the reasonableness of PECO's proposed RFP.

- **No Discrimination among AEPS Tier I Resources.** With the exception of solar photovoltaic and other solar resources, the RFP does not restrict the potential Tier I source for AECs. Bidders may submit bids based upon all non-solar AEPS Tier I sources, including wind, low-impact hydropower, methane, geothermal, biomass and fuel cells. PECO has not included solar resources in the RFP, but will continue to evaluate the development of the solar marketplace and may seek approval of a subsequent early procurement and banking plan for solar AECs during its transition period. As the Commission recognized in the AEPS Rulemaking Order (at 16), the solar requirement presents “unique challenges” which PECO is continuing to evaluate.

- **Fixed Contract Price for AECs only, for Five-Year Term.** RFP bidders are required to offer a fixed price for AECs for the entire five-year term of the AECPA. PECO believes that it is reasonable to purchase AECs for a five-year term in light of the number and size of projects (both existing and in development) which will qualify as Alternative Energy Systems under the Act as well as the regulatory and market developments that will continue as Act 213 is implemented.

- **Staggered Procurement and Flexibility on Project Service Dates.** PECO will conduct two separate procurements using the same RFP process (the first in 2007 and the second in 2008). In addition, the RFP will use an “on or before” date for commercial operation for projects in development in order to assure that AECs will be procured and banked according to plan, while providing maximum flexibility on project schedules. For the RFP in 2007, bidders submitting bids based upon projects in development must be able to demonstrate that delivery of AECs will commence no later than December 31, 2008; for the RFP in 2008, projects in development must commence delivery by December 31, 2009.

- **Two-Stage Bid Procedure, with Independent RFP Monitor Oversight and Commission Review and Approval.** There are two stages to the RFP to minimize expense (both for PECO and for potential bidders) and to facilitate the ranking of bids by price. An independent RFP monitor (the "RFP Monitor") will participate in both stages of the bidding process, and a Commission representative will be invited to attend.

In the first stage, bidders will submit an application to PECO demonstrating their qualifications, including details of their ability to provide AECs to PECO from a Tier I, non-solar Alternative Energy System located in the Commonwealth of Pennsylvania or within the PJM territory over the entire term of the AECPA. Bidder qualifications are described in the RFP, and include typical requirements for demonstration of bidder experience, the status of an interconnection agreement and required permits, equipment supply (e.g., wind turbines), and project financing. Bidder qualifications will be evaluated by PECO based upon a standard protocol, with oversight by the RFP Monitor. Bidders must also demonstrate that the energy underlying the AECs will be delivered into the PJM transmission grid.

In the second stage of the RFP, each qualified bidder may submit one or more bids to deliver a specified amount of AECs from an Alternative Energy System for a term of five years, with a single fixed price for each delivered AEC. All deliveries of AECs must be through PJM GATS.

The bids will be opened by the RFP Monitor and ordered by price, up to the maximum amount of AECs to be procured under the RFP. The RFP Monitor shall prepare a confidential report for the Commission on bidder qualification and bid results. Upon Commission approval of the report (within one business day) as consistent with procedures described in this Petition and approval of the bid prices offered by successful bidders, PECO shall notify the successful

and unsuccessful bidders and enter into AECAs with the successful bidders. The participation of the RFP Monitor, together with Commission review and approval of the bidding process and prices obtained from successful bidders, will ensure a competitive process, with reasonable prices for AECs.

In support of PECO's qualification requirements, all bidders will be required to post security from \$5,000 for bids up to 4,999 AECs to \$50,000 for bids totaling over 100,000 AECs, which will be returned immediately to bidders who are determined to be unqualified in the first stage or whose bids in the second stage are not selected, and to successful bidders upon execution of an AECAs.

- **Reasonable Development and Performance Requirements.** In light of the importance of this process for PECO's future AEPs compliance, the AECAs includes specific milestones and reporting requirements for alternative energy facilities in development and reasonable security provisions corresponding to potential costs to PECO and its customers that could arise from contract failure by developers and operators. A project in development will be required to post a "Development Fee" with PECO (in cash or using a letter of credit) in the amount of \$3.75 for each AEC the bidder agrees to deliver annually to PECO. The Development Fee (corresponding to three months of contract value at an assumed AEC price of \$15) shall be returned to the bidder upon the project achieving commercial operation. Existing systems – and developing systems, after achieving commercial operation – must post and maintain "Performance Security" with PECO (in cash or using a letter of credit) during the term of the AECAs in the amount of \$7.50 for each AEC the bidder agrees to deliver annually (corresponding to six months of contract value at an assumed AEC price of \$15). The Performance Security will be security for the bidder's AEC delivery and other obligations under

the AECPA. The Performance Security will be returned to the bidder upon successful completion of all obligations in the AECPA.

- **PJM-GATS, AEC Replacement and Rollover.** The AECPA requires that certificates for all AECs to be delivered under the AECPA must be transferred on a monthly basis to PECO's PJM GATS account, in accordance with PJM GATS' operating rules. Deliveries of AECs to PECO through PJM GATS will be the definitive measure of the amount of AECs actually delivered to PECO under each AECPA. In the event that a seller is unable to deliver the full amount of AECs required from the Alternative Energy System specified in its AECPA, the seller must procure and deliver "replacement" AECs equivalent to the AECs the seller was unable to provide (e.g., non-solar Tier I AECs useable during the same compliance periods as the undelivered AECs). In addition, to the extent that a seller has AECs produced from the specified system in excess of the annual amount the seller contracted to deliver to PECO, the seller may provide notice to PECO of the existence of such "excess AECs" and then "rollover" those AECs to satisfy contract requirements during the subsequent contract year.

15. Based upon this RFP process and the form AECPA, as more fully described in Mr. McCawley's testimony, PECO requests the Commission determine that the proposed RFP process and the form AECPA will result in reasonable costs for AECs for recovery by PECO through a Section 1307 surcharge. As part of this determination, PECO further requests that the Commission (1) find that the form AECPA also satisfies the requirements of 66 Pa. C.S.A. § 2102, such that an affiliate of PECO could enter into an AECPA if it is a successful bidder without triggering the need for additional Commission approvals; and (2) grant PECO a prospective waiver to the extent that the RFP process and the resulting AECPA PECO enters

into with successful bidders do not conform with the final AEPS regulations that may be adopted by the Commission.

III. BANKING OF ALTERNATIVE ENERGY CREDITS FOR AEPS COMPLIANCE

16. Act 213 permits EDCs to bank AECs from Tier I and Tier II sources generated and purchased prior to the end of an EDC's Cost-Recovery Period to meet an EDC's future compliance requirements. 73 Pa. C.S. § 1648.3(e)(7). However, these credits can only be used for compliance "for no more than two reporting years following the conclusion of the Cost-Recovery Period." *Id.*

17. The Commission has determined that an EDC may defer the application of banked AECs until the first two full, consecutive reporting years after the conclusion of its Cost-Recovery Period. *See* AEPS Implementation Order II, Docket No. M-00051865 (July 14, 2005). As the Commission explained, based upon PECO's Cost-Recovery Period ending on December 31, 2010, "PECO may elect to use any banked credits for up to two consecutive years within years [2011, 2012, and 2013]. We find that this [interpretation of AEPS] serves the public interest by providing EDCs and EGSs with more incentives to take advantage of reasonable procurement opportunities that might present themselves during their respective exemption periods." *Id.*

18. The AEPS Rulemaking Order proposes regulations consistent with the Commission's July 14, 2005 Order. In Section 75.41(b)(2) of the proposed rules, the Commission expressly provides that an EDC may bank AECs during its Cost-Recovery Period for use in the first two full, 12 month reporting periods following the expiration of the Cost-Recovery Period. AEPS Rulemaking Order, at 20.

19. Consistent with AEPS Implementation Order II and the AEPS Rulemaking Order, PECO requests that the Commission approve PECO's banking of all AECs procured through the RFP process for compliance use during any two consecutive compliance years between January 1, 2011 and May 31, 2013. In accordance with the Commission's Orders, PECO will require winning bidders to transfer AECs into PECO's GATS account where they will remain until PECO uses the AECs for compliance purposes. Beginning in 2011, PECO will draw down on its GATS account and will retire the AECs banked in accordance with its compliance obligations.

IV. THE AEPS CUSTOMER SURCHARGE

20. Act 213 expressly provides that the costs associated with procurement of alternative energy and/or AECs shall be fully recovered by an EDC. *See* 73 Pa. C.S. § 1648.3. As set forth in detail in the testimony of Alan B. Cohn (attached as PECO Statement No. 2 to this Petition), PECO seeks Commission approval of a Section 1307 AEPS surcharge in accordance with Act 213 and submits a proposed tariff provision attached to this Petition to implement this surcharge.

21. Because Act 213 requires that the cost of alternative energy and/or credits not be recovered during an EDC's stranded Cost-Recovery Period, *see* 73 Pa. C.S. § 1648.3(3), customers will not pay for AECs until after December 31, 2010 if the Commission approves PECO's AEPS surcharge. Act 213 also provides that the cost of credits banked during an EDC's Cost-Recovery Period shall be entirely recovered in the first year after the expiration of the Cost-Recovery Period. *See id.* Therefore, for the first year after PECO's Cost-Recovery Period (January 1, 2011 – December 31, 2011), PECO's AEPS surcharge will recover, from PECO's default service customers, the deferred costs of banked AECs (with a return on the unamortized balance) as well as the projected costs of AECs typically included in the 1307 surcharge.

Starting January 1, 2011 the 1307 AEPS surcharge will recover, subject to reconciliation and adjustment for over/under collection, the costs for AECs procured during the remaining term of the AECPAs and other ongoing AEPS compliance costs, including payments to the Commission's AEPS program administrator, for its costs of administering an AEC program, payments to PJM GATS for operating the AEC registry, any charge levied by PJM to ensure that alternative energy sources are reliable, the cost of AEPS compliance payments that are deemed recoverable by the Commission, and any other direct or indirect cost of acquiring Alternative Energy and/or AECs and complying with the AEPS statute (including the costs of administering other procurements, the expense of an RFP Monitor, etc.).

22. In his testimony, Mr. Cohn explains that PECO's 1307 AEPS surcharge will be based upon a reporting period beginning on June 1 of each year. On April 1 of each year, PECO will file its proposed AEPS charge for the following reporting period for review by the Commission in accordance with Section 1307. Since PECO's Cost-Recovery Period ends in the middle of a compliance year (i.e. on January 1, 2011), the first AEPS charge will be for a five-month period ending May 31, 2011, and the proposed charge will be filed by November 1, 2010. Assuming a cost of \$15 per AEC for purposes of example only, PECO anticipates that the customer charge beginning January 1, 2011, for recovery of the costs of banked credits and on-going costs, will approximate \$0.0011 per kWh.

23. Act 213 permits EDCs to earn a return on the costs of AECs procured and banked during PECO's Cost-Recovery Period, but does not specify the rate of return to be applied to such costs. In light of the unique, one-time nature of the AEPS banking provisions, and in order to expedite this non-precedential proceeding and facilitate as early a procurement of AECs as possible, PECO proposes to use, for this procurement only, a carrying charge of six percent

(6%), corresponding to the statutory rate of interest under Pennsylvania law. *See* 41 P.S. § 202. By offering the 6% charge to be earned on banked credits, PECO is in no way conceding that it is compensatory for other procurements of AECs or generation supply.

V. PROCEDURAL ISSUES AND COMMISSION APPROVAL

24. PECO's determination to seek Commission approval to procure AECs at this time is based upon PECO's interest in taking early action to meet its forecasted future AEPS requirements. As described above, this voluntary, interim procurement for AECs will not satisfy all of PECO's AEPS obligations, and it is not intended to be precedent for future procurements by PECO to satisfy those obligations. PECO anticipates this Petition will be fairly non-controversial, and therefore PECO proposes the following schedule in order to facilitate the earliest possible commencement of its first AEC procurement:

March 19, 2007	Petition Filing
April 5, 2007	Prehearing Conference
May 4, 2007	Other Parties' Direct Testimony Due
May 24, 2007	Rebuttal Testimony Due
June 4, 2007	Hearings
June 22, 2007	Main Briefs
July 6, 2007	Reply Briefs
August 9, 2007	Recommended Decision
September 13, 2007	Commission Order

25. Lastly, PECO emphasizes that the issues presented by this Petition are interrelated and must be considered as a whole by the Commission. Absent express approval of PECO's proposed RFP procedures, the form AECPA, requested waivers, the Section 1307 AEPS surcharge mechanism and assurance of full future cost-recovery (including a return on deferred costs for AECs), PECO will be unable to proceed with the RFP. Upon approval of this Petition by the Commission, PECO shall retain the right not to proceed with this voluntary procurement, in its sole discretion.

VI. NOTICE

26. A customer notice setting forth the proposed AEPS surcharge is attached as PECO Exhibit 2.3. PECO will insert this notice in customer bills over a thirty-day period commencing approximately April 1, 2007. A link to this filing may also be found at www.peco.com.

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) Providing that PECO's voluntary RFP for up to 450,000 Tier I non-solar alternative energy credits annually for a five-year period will result in reasonable prices for such credits for recovery through a Section 1307 surcharge;

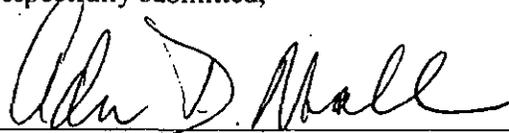
(2) Providing that PECO shall be permitted to bank all credits obtained during PECO's Cost-Recovery Period through contracts entered into pursuant to the RFP for use by PECO to satisfy future AEPS requirements;

(3) Approving PECO's form AECPA for execution with successful bidders, including any PECO affiliate;

(4) Waiving future AEPS regulations that may be approved by the Commission to the extent inconsistent with the RFP and the form AECPA; and

(5) Approving PECO's proposed AEPS tariff implementing a Section 1307 surcharge to fully recover PECO's on-going AEPS compliance costs including, for a one-year period commencing January 1, 2011, all costs associated with the banked credits, with a return on the unamortized balances of such costs.

Respectfully submitted,



Adrian D. Newall, Esquire (Pa. No. 76918)
PECO Energy Company
2301 Market Street
P.O. Box 8699
Philadelphia, PA 19101-8699

Thomas P. Gadsden, Esquire (Pa. No. 18483)
Kenneth M. Kulak, Esquire (Pa. No. 75509)
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921

For PECO Energy Company

March 19, 2007

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PETITION OF PECO ENERGY
COMPANY FOR APPROVAL OF (1) A
PROCESS TO PROCURE
ALTERNATIVE ENERGY CREDITS
DURING THE AEPS BANKING PERIOD
AND (2) A SECTION 1307 SURCHARGE
AND TARIFF TO RECOVER AEPS
COSTS

DOCKET NO. P-

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

DIRECT TESTIMONY OF
JOHN J. MCCAWLEY, P. E.

ON BEHALF OF
PECO ENERGY COMPANY

MARCH 19, 2007

I. INTRODUCTION

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

3 A. My name is John J. McCawley. My business address is 2301 Market Street,
4 Philadelphia, PA, 19103.

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

6 A. I am the Director, Energy Acquisition for PECO Energy Company ("PECO" or
7 the "Company").

8 3. Q. What is the purpose of your testimony?

9 A. The purpose of my testimony is to support PECO's requests, as set forth in the
10 *Petition of PECO Energy Company for Approval of (1) A Process to Procure*
11 *Alternative Energy Credits During the AEPS Banking Period and (2) A Section*
12 *1307 Surcharge and Tariff to Recover AEPS Costs*, that the Pennsylvania Public
13 Utility Commission (the "Commission") (1) find that PECO's voluntary
14 Request for Proposals for a total initial purchase of up to 450,000 of Tier I non-
15 solar alternative energy credits ("AECs"), as defined by Pennsylvania's
16 Alternative Energy Portfolio Standards Act of 2004, 73 Pa. C.S. § 1648.1 *et seq.*
17 ("AEPS" or "Act 213") to satisfy a portion of PECO's future AEPS
18 requirements annually for an interim five-year period, will result in reasonable
19 prices for such credits for recovery through a Section 1307 surcharge; and (2)
20 approve PECO's banking of AECs obtained through contracts entered into
21 pursuant to the RFP process to satisfy certain future AEPS requirements, as

1 permitted by Act 213. In addition, I explain why PECO requests expedited
2 consideration of its Petition.

3 **4. Q. What exhibits are attached to and incorporated in your direct testimony?**

4 A. I have attached one exhibit to my testimony, which itself contains several
5 exhibits.

6 **PECO Ex. 1.1** is PECO's proposed "Request for Proposals To Supply
7 Alternative Energy Credits In Compliance With Pennsylvania's Alternative
8 Energy Portfolio Standards Act." I will refer to this document as the RFP. The
9 RFP is a narrative comprised of seven sections (Articles 1 through 7) which
10 provide (1) an introduction to the RFP; (2) the RFP Schedule and PECO's plans
11 for a bidder teleconference and other bidder information; (3) a description of the
12 eligible "Alternative Energy Systems" (as defined by the Act) and other
13 requirements; (4) procedures for bidder qualification; (5) submission of bid
14 proposals; (6) evaluation of bid proposals; and (7) other general RFP conditions.
15 As described in the Petition, PECO proposes to use this RFP for two
16 procurements (one in 2007 and one in 2008).

17 The RFP itself includes the following exhibits:

- 18 Exhibit 1: Form of PECO AEC Purchase and Sale Agreement
19 Exhibit 2: Non-Binding Notice of Intent to Bid
20 Exhibit 3: Bidder Application Checklist
21 Exhibit 4: Form of Bidder Application
22 Exhibit 5: Bid Proposal Form
23 Exhibit 6: Confidentiality Agreement
24

1 **II. BACKGROUND AND QUALIFICATIONS**

2 **5. Q. Mr. McCawley, what are your current duties and responsibilities as Director,**
3 **Energy Acquisition?**

4 A. As Director of Energy Acquisition for PECO, I am responsible for the
5 procurement and administration of wholesale power supply contracts and
6 purchase agreements for PECO's default service obligations. I also am
7 responsible for administration of PECO's supplier coordination functions as
8 they relate to electric and gas choice. I have been performing these functions
9 since 1998.

10 **6. Q. Please summarize your prior professional experience.**

11 A. I have been employed by PECO and Exelon Corporation since 1984. Since that
12 time, I have held engineering and management positions in the areas of nuclear,
13 fossil fuel, and hydroelectric generation, corporate strategy, planning and
14 budgeting.

15 **7. Q. What is your educational background?**

16 A. I hold a BS degree in Electrical Engineering from Lehigh University; an MBA
17 from Villanova University; and a MS Finance degree from Drexel University. I
18 am also a Registered Professional Engineer in the Commonwealth of
19 Pennsylvania.

1 like PECO, and Electric Generation Suppliers (“EGSs”) to be derived from
2 alternative energy sources. The Act divides qualifying alternative energy
3 sources into two categories designated as Tier I and Tier II. Tier I includes
4 energy derived from solar photovoltaic, solar thermal, wind, low-impact hydro,
5 geothermal, biomass, coal mine methane, biologically derived methane gas, and
6 fuel cells. Tier II includes energy derived from waste coal, distributed
7 generation systems, demand-side response and energy efficiency, large-scale
8 hydropower, municipal solid waste, integrated coal gasification technology, and
9 wood pulp residue.

10 An EDC’s compliance with AEPS requirements is measured using AECs. One
11 AEC is equal to the attributes of one megawatt-hour of qualified alternative
12 energy resource generation. An AEC may be unbundled, purchased, traded,
13 owned and used to meet AEPS requirements separately from the underlying
14 energy that generates the credit. An EDC’s cost of procuring alternative energy
15 and/or AECs to meet Act 213’s requirements is fully recoverable from the
16 EDC’s default service customers through an automatic adjustment charge on
17 customers’ bills.

18 Act 213 provides that, beginning on February 28, 2007 (two years after the
19 effective date of the Act), at least 1.5% of the retail electricity sold by a
20 Pennsylvania EDC, as measured by AECs, shall be from Tier I sources, with an
21 additional 4.2% generated from Tier II sources. *See Implementation of the*
22 *Alternative Energy Portfolio Standards Act*, Docket No. M-00051865 (Order
23 entered March 23, 2005), at 4. By 2020, the Tier I percentage increases to 8%,

1 while the Tier II percentage increases to 10%. In addition, Act 213 establishes a
2 solar resource "set-aside," which must be satisfied through solar photovoltaic or
3 solar thermal power (increasing from 0.0013% of EDC sales in the first
4 reporting year to 0.5% of EDC sales by 2020).

5 **10. Q. What is your understanding of PECO's current alternative energy portfolio**
6 **obligations under Act 213?**

7 A. PECO has no current obligations under Act 213, and will not have an obligation
8 until January 1, 2011. This is because Act 213 exempts EDCs, like PECO,
9 from complying with AEPS requirements during an EDC's "Cost-Recovery
10 Period," which includes the period during which an EDC is collecting
11 competitive or intangible transition charges established during that EDC's
12 restructuring under Pennsylvania's Electricity Generation Customer Choice and
13 Competition Act. For PECO, which is still collecting transition charges in
14 accordance with the Commission's orders approving its restructuring, this Cost-
15 Recovery Period will end on December 31, 2010. Consequently, PECO will be
16 required to satisfy its AEPS obligations beginning January 1, 2011.

17 **11. Q. What is your understanding of PECO's alternative energy portfolio**
18 **requirements when its Cost-Recovery Period terminates?**

19 A. Beginning January 1, 2011, PECO will need to comply with the Act 213
20 requirements in place for the reporting year that runs from June 1, 2010 through
21 May 31, 2011. From January 1, 2011 through May 31, 2011, PECO will require
22 AECs from Tier I resources (e.g., wind, geothermal, biomass) equal to 3% of its

1 default service sales, with 0.0203% of these Tier I sales met with AECs derived
2 from solar resources. In addition, PECO will require AECs from Tier II
3 resources equal to 6.2% of its default service sales. These percentage
4 obligations will then increase through 2020, as provided in Act 213.

5 **12. Q. May PECO take action during its Cost-Recovery Period to meet its future**
6 **AEPS requirements?**

7 A. Yes. It is my understanding that Act 213 permits PECO to satisfy certain future
8 AEPS requirements by purchasing either alternative energy and AECs, or AECs
9 alone, and banking those AECs during its Cost-Recovery Period. These banked
10 AECs can then be used in two consecutive AEPS reporting years within the first
11 three reporting years after the conclusion of PECO's Cost-Recovery Period. I
12 also understand that PECO will be able to recover the full cost of AECs
13 procured during this Cost-Recovery Period with a return pursuant to an
14 automatic adjustment clause, but that cost-recovery will be delayed until the
15 first year after the end of PECO's Cost-Recovery Period.

16 **13. Q. Please explain why PECO is seeking approval of a program to acquire AECs**
17 **now for use in future compliance years.**

18 A. PECO believes that, considering the developing nature of the renewable energy
19 marketplace and increasing renewable portfolio standards requirements in other
20 states, there may be increasing competition for the energy and AECs generated
21 by Alternative Energy Systems in the Tier I category. For some alternative
22 energy resources, the more cost effective projects will likely be developed first.

1 Therefore, PECO believes that it is reasonable to initiate a process now to
2 attempt to begin to acquire a portion of PECO's expected future AEPS
3 requirements. Moreover, initiating a multi-year competitive procurement
4 process over 2007 and 2008 will allow PECO to take advantage of Act 213's
5 AEC banking provisions in order to build an AEC inventory in a way that
6 mitigates the possibility of having to buy more AECs at a later time and over a
7 shorter procurement period, when the demand for credits might be higher. If
8 PECO were to wait and attempt to procure credits to satisfy all of its AEPS
9 requirements at one time, then PECO would miss out on this unique opportunity
10 enabled by Act 213.

11 14. Q. Will PECO satisfy all of its AEPS obligations through this procurement?

12 A. No. This voluntary procurement will not satisfy all of PECO's future AEPS
13 requirements, and nothing in the Petition or the proposed procurement should be
14 considered precedent for future procurements PECO undertakes to meet its
15 AEPS obligations. Given the current alternative energy market, PECO believes
16 that it is reasonable at this time to acquire AECs sufficient to meet a portion of
17 its future AEPS obligations through this RFP. PECO anticipates taking
18 additional steps to comply with the Act as alternative energy markets continue
19 to develop. Such additional steps may include procurements in other forms,
20 including auctions, requests for proposals for AECs along with energy, and
21 other procurement mechanisms not yet determined at this time.

1 The 450,000 total AEC target for this procurement represents the amount of
2 AECs necessary to satisfy AEPS requirements associated with sixty percent
3 (60%) of PECO's projected service territory load. Conducting two separate
4 requests for proposals to obtain these AECs is also expected to permit more
5 Alternative Energy System developers to participate, facilitating increased price
6 competition.

7 This procurement does not discriminate among non-solar Tier 1 resources under
8 the Act. However, in order to provide an understanding of approximately how
9 much capacity may be used by successful bidders in response to this
10 procurement, I note that the 450,000 AEC target also corresponds to the annual
11 output of approximately 240 MW of wind power, assuming a capacity factor of
12 25%.

13 **15. Q. In the AEPS Proposed Order, the Commission sought comments as to**
14 **whether the Act bars the banking of credits from existing Alternative Energy**
15 **Systems in quantities equal to their Pennsylvania retail sales for the year**
16 **prior to the Act's effective date (February 28, 2005). If the Commission**
17 **concludes that the Act imposes this requirement and changes Section 75.41 of**
18 **its proposed AEPS regulations accordingly, will that preclude PECO from**
19 **banking AECs obtained through this procurement?**

20 **A. No. Such a conclusion would not preclude PECO from banking AECs obtained**
21 **through this procurement, but that interpretation of the Act will significantly**
22 **restrict the participation of existing alternative energy facilities in responding to**
23 **the RFP. In its comments submitted in response to the AEPS Proposed Order,**

1 PECO explained that Section 1648.3(e)(7) of the Act – the authority the
2 Commission cites for Section 75.41 of its proposed regulations – provides that
3 EDCs and EGSs may not bank credits for retail sales of electricity from
4 alternative energy resources unless the credits are associated with electricity
5 sold from such sources over and above the volume included in the retail sales of
6 the EDC or EGS for the year prior to the effective date of the Act. For example,
7 if one percent (1%) of an EDC’s retail sales in the year prior to enactment of the
8 Act were provided from alternative energy resources, only AECs corresponding
9 to energy in amounts above one percent (1%) could be banked during the Cost-
10 Recovery Period. The language of this section of the Act places no restriction
11 on credits generated by Alternative Energy Systems. An interpretation which
12 limits banking to only AECs associated with “new” alternative energy from
13 such systems will effectively preclude existing systems from bidding. Imposing
14 this restriction on potential bidders may have the effect of increasing the price
15 of AECs for PECO’s customers.¹

16 **16. Q. Why shouldn’t PECO wait until after the Commission completes its AEPS**
17 **rulemaking and issues final AEPS regulations?**

18 A. For reasons already discussed, PECO believes that it is reasonable to begin now
19 to acquire AECs to meet certain future AEPS compliance requirements, as
20 permitted by Act 213. PECO is, and has been, an active participant in the AEPS
21 rulemaking process, and strongly supports completion and issuance of AEPS

¹ Because this issue may not be fully resolved at the time PECO issues its first RFP following a Commission approval of this Petition, PECO specifically requests a waiver of Section 75.41 if the Commission’s final regulations differ from the proposed regulation.

1 regulations by the Commission as soon as possible. Moreover, PECO has
2 developed this proposed early AEPS procurement process and its tariff
3 provision for cost-recovery by paying careful attention to the Proposed AEPS
4 Rulemaking and believes that there is nothing PECO is proposing in its Petition
5 that is inconsistent with the AEPS Rulemaking Order.

6 **17. Q. How will issuance of default service regulations and recovery of default**
7 **service generation costs affect PECO's anticipated procurement of AECs**
8 **using the RFP?**

9 A. While the Commission has not yet issued final default service regulations and
10 PECO has not yet initiated proceedings to procure default service generation for
11 the period following the expiration of existing rate caps on December 31, 2010,
12 PECO expects that this initial early procurement program of Tier I AECs,
13 developed to take advantage of the Act 213 banking provisions, will not conflict
14 with subsequent auctions or other procurement methodologies for default
15 service generation. Act 213 clearly entitles default service providers to full
16 recovery of the costs they incur to comply with AEPS, and the Commission's
17 proposed AEPS rules incorporate full cost-recovery provisions with cross-
18 references to the Commission's proposed default service regulations.

19 PECO believes that this competitive, early procurement of Tier I non-solar
20 resources is necessary at this time as a "bridge," or special-purpose transition
21 strategy, during the initial years of AEPS market development and to take
22 advantage of the banking provisions of Act 213 during PECO's Cost-Recovery

1 Period. Procurement beginning now through the RFP will enable PECO to
2 obtain Tier I AECs to apply towards its initial AEPS obligations, but will not
3 foreclose future procurement of the additional AEPS resources using a different
4 procurement methodology.

5 **V. THE REQUEST FOR PROPOSALS**

6 **18. Q. Mr. McCawley, please provide an overview of PECO's RFP, including**
7 **PECO's proposed Alternative Energy Credits Purchase and Sale Agreement.**

8 A. The RFP sets forth the process by which PECO will invite and evaluate bids to
9 allow it to annually procure up to 450,000 AECs from Tier I non-solar
10 alternative resources, as defined by Act 213. The RFP will conform to the terms
11 reflected in the document attached to my testimony as PECO Ex. 1.1.

12 Qualified bidders must own Tier I non-solar Alternative Energy Systems or the
13 rights to the energy and associated AECs from such systems, and for systems in
14 development, the ability to commence commercial operation and begin delivery
15 of AECs to PECO by specific dates. Such Alternative Energy Systems must be
16 located in the Commonwealth of Pennsylvania or within the PJM territory.
17 Successful bidders will be obligated to ensure that the generated energy
18 associated with the AECs is delivered to PJM and the AECs are certified by the
19 PJM Generation Attribute Tracking System ("GATS"), but PECO will not
20 purchase or take title to the energy or the capacity associated with the generating
21 facilities producing the AECs.

PECO STATEMENT NO. 1

1 In order to avoid the potential problems of a one-time procurement process for a
2 significant portion of PECO's initial AEPS non-solar Tier I requirements, PECO
3 proposes to conduct two procurements (the first in 2007 and the second in 2008)
4 using the RFP, for aggregate annual amounts up to 450,000 AECs. The first
5 procurement, for up to 250,000 AECs annually, will be conducted during 2007,
6 with a commercial operation date for bidders no later than December 31, 2008,
7 and the second during 2008, with a commercial operation date for bidders no
8 later than December 31, 2009 for the remaining AECs not procured on the first
9 round.

10 The RFP includes a form of an Alternative Energy Credits Purchase and Sale
11 Agreement (the "AECPA"), which all successful bidders will be required to
12 execute. The form AECPA is a comprehensive agreement for the purchase of
13 AECs. It includes detailed provisions designed to ensure that PECO will receive
14 the AECs it is seeking for compliance, including sections on generator
15 obligations and credit requirements. The AECPA also includes customary
16 provisions for assignment, binding arbitration, and default by a party and
17 associated remedies. Data on the specific project of a successful bidder will be
18 inserted in the form contract (e.g., type of system, project development
19 milestones, price, delivery, quantity, etc.), but PECO will not engage in
20 subsequent negotiations or revisions to the form contract during or after a
21 procurement process. As the RFP provides, a bid that is based upon or
22 contingent on modifications to the form AECPA will be a non-conforming bid
23 and will be rejected by PECO.

1 The RFP procedures and the AECPA have several additional important features
2 to address the current state of the alternative energy marketplace and resources
3 and to obtain reasonable prices for AECs, including:

- 4 • **No discrimination among AEPS Tier I Resources.** With the exception
5 of solar photovoltaic or solar thermal resources, the RFP does not restrict
6 the potential alternative energy source for AECs. Bidders may submit
7 bids based upon all non-solar AEPS Tier I sources, including wind, low-
8 impact hydropower, coal mine and biologically derived methane,
9 geothermal energy, biomass energy and fuel cells. This will encourage
10 AEC price competition between Tier I resources.
- 11 • **Fixed Contract Price for AECs only, for Five-Year term.** Bidders are
12 required to offer a fixed price for AECs for the entire five-year term of
13 the AECPA. PECO believes that it is reasonable to purchase AECs for a
14 five-year term in light of the number and size of projects (both existing
15 and in development) that will qualify as Alternative Energy Systems
16 under the Act as well as the regulatory and market developments that
17 will continue as Act 213 is implemented.
- 18 • **Staggered Procurement and Flexibility on Project In-Service Dates.**
19 The RFP will use an "on or before" date for commercial operation for
20 projects in development in order to assure that AECs will be procured
21 and banked according to plan, while providing maximum flexibility on
22 new project development schedules. Two procurements (in 2007 and
23 2008) with commercial operation dates one year apart also provide

1 opportunities for projects with anticipated commercial operation dates
2 occurring after December 31, 2008 but by December 31, 2009, while still
3 building up the AEC inventory during the banking period.

- 4 • **Two-Stage Bid Procedure, with Independent RFP Monitor and**
5 **Commission Review and Approval.** There are two stages in the RFP to
6 minimize expense (both for PECO and for potential bidders) and to
7 facilitate ranking of bids by price. An RFP Monitor will participate at
8 both stages of the bidding process, and a PUC representative will be
9 invited to attend.

10 In the first stage, potential bidders will submit an application to PECO
11 for qualification, demonstrating their eligibility, including details of their
12 ability to provide AECs to PECO from a Tier I, non-solar Alternative
13 Energy System over the entire term of the AECPA. PECO will evaluate
14 these applications using a standard protocol to determine the potential
15 bidders qualified to submit bid proposals. This evaluation process will
16 be overseen by the RFP Monitor to assure that PECO's evaluation and its
17 application of the protocol is fair and objective.

18 In the second stage of the RFP, each qualified bidder may submit one or
19 more bid proposals to deliver a specified amount of AECs from an
20 Alternative Energy System for a term of five years, with a single fixed
21 price for each delivered AEC. Bids will be opened by the RFP Monitor
22 and ordered by price up to the maximum amount of AECs to be procured
23 under the RFP.

PECO STATEMENT NO. 1

1 The RFP Monitor shall prepare a confidential report for the Commission
2 on the bidder qualification, bid results and bidding process. Upon
3 Commission approval of the report (within one business day) as
4 consistent with procedures described in this Petition and approval of the
5 bid prices offered by successful bidders, PECO shall notify the
6 successful and unsuccessful bidders and enter into AECPA's with the
7 successful bidders.

8 In support of PECO's qualification requirements, bidders will be
9 required to post bidder security from \$5,000 (for bids up to 4,999 annual
10 AECs) to \$50,000 (for bids totaling over 100,000 annual AECs), which
11 will be returned immediately to bidders who are determined to be
12 unqualified or whose bids in the second stage are not selected, and to
13 successful bidders upon execution of an AECPA.

14 • **Reasonable Project Development and Performance Requirements.**

15 In light of the importance of the resulting AECPA's for PECO's future
16 AEPS compliance, the AECPA includes security provisions and specific
17 development milestones and reporting requirements for Alternative
18 Energy Systems in development and reasonable security provisions
19 corresponding to potential costs to PECO and its customers that could
20 arise from contract failure by developers and operators. A project in
21 development will be required to post a "Development Fee" in the amount
22 of \$3.75 for each AEC the bidder agreed to deliver annually to PECO
23 (corresponding to three months of contract value at an assumed AEC

1 price of \$15). The Development Fee shall be returned to the bidder upon
2 the project achieving commercial operation. Existing projects and
3 projects which achieve commercial operation under an AECPA must
4 post and maintain "Performance Security" during the term of the
5 AECPA in the amount of \$7.50 for each AEC the bidder agreed to
6 deliver annually (corresponding to six months of contract value at an
7 assumed AEC price of \$15). The Performance Security will be security
8 for the bidder's AEC delivery and other obligations under the AECPA.
9 The Performance Security will be returned to the bidder upon successful
10 completion of all obligations in the AECPA.

11 • **PJM GATS, AEC Replacement and Excess Production Rollover.**

12 The AECPA requires that certificates for all AECs to be delivered under
13 the AECPA must be transferred on a monthly basis to PECO's PJM
14 GATS account, in accordance with PJM GATS' business rules. In the
15 event that a seller is unable to deliver over a reporting year the full
16 amount of AECs required under its AECPA, the seller may provide
17 "replacement" AECs equivalent to the AECs the seller was unable to
18 provide from its facility, e.g., Tier I non-solar AECs which are usable in
19 the same compliance periods. Failure to provide such replacement AECs
20 will require the seller to make a cash payment for the amount under-
21 delivered equal to the Alternative Compliance Payment. In addition, to
22 the extent that a seller produces AECs in excess of the annual amount the
23 seller contracted to deliver to PECO over a reporting period, the seller

1 has a thirty-day option at the end of each contract year to provide notice
2 to PECO of the existence of such "excess AECs" and then "rollover"
3 some or all of those AECs to satisfy contract requirements during the
4 subsequent contract year. Collectively, these contract options give
5 winning bidders more flexibility in managing their business while
6 providing PECO with the assurance it requires that it will receive the
7 credits it will plan for under this procurement program.

8 19. Q. Why is PECO not purchasing the energy underlying the AECs created by
9 successful bidders and instead permitting bidders to sell that energy into the
10 wholesale market?

11 A. PECO is voluntarily undertaking this program in accordance with the banking
12 provisions of Act 213, and specifically seeks to obtain AECs to satisfy future
13 AEPS requirements, as allowed by Act 213. PECO does not need the energy
14 from the systems providing the AECs to fulfill PECO's default service
15 obligations during the remainder of its transition period, from 2007 to 2010.
16 PECO has a full requirements contract for energy supply to meet its default
17 service obligation until December 31, 2010.

18 20. Q. Why is PECO not seeking any energy and/ or AECs from Tier I solar
19 resources in this procurement program?

20 A. As the Commission recognized in the AEPS Rulemaking Order, the solar
21 requirement presents "unique challenges". See AEPS Rulemaking Order, at 16.
22 PECO agrees that Tier I solar requirements are unique and the company is

1 continuing to evaluate its approach to meeting its future AEPS solar obligation.
2 In light of the Commission's own on-going consideration of Act 213's solar
3 requirements, PECO believes that it is premature to propose a solar AEC
4 procurement program at this time. However, PECO will continue to evaluate
5 the development of the solar marketplace and AEPS rulemaking, and may seek
6 approval in the future for early procurement of Tier I solar AECs.

7 **21. Q. May PECO affiliates participate in the RFP process?**

8 A. Yes. The RFP Monitor will assure that each qualified bidder, including any
9 affiliate of PECO that may decide to participate in the RFP, is treated fairly and
10 consistent with a standard protocol so that the procurement process is fair,
11 transparent and competitive. As part of its determinations in this proceeding,
12 PECO requests that the Commission also find that the RFP process and form
13 AECPA satisfies the requirements of 66 Pa. C.S.A. § 2102, such that an affiliate
14 of PECO could enter into an AECPA if it is a successful bidder.

15 **22. Q. Mr. McCawley, is PECO's proposal consistent with the Commission's AEPS**
16 **Rulemaking Order?**

17 A. PECO's proposal is consistent with the Commission's AEPS Rulemaking Order.
18 As I explained, the Commission's AEPS Rulemaking Order specifically permits
19 EDCs to use a competitive process to procure alternative energy resources
20 and/or AECs for AEPS compliance. The AEPS Rulemaking Order also permits
21 the banking, future use and cost-recovery of AECs procured during an EDC's
22 Cost-Recovery Period, as I discuss. In light of the on-going rulemaking,

1 however, PECO requests that the Commission grant PECO a prospective waiver
2 to the extent that PECO's RFP approved by this Commission and the resulting
3 AECAs do not conform to the final AEPS regulations adopted by the
4 Commission.

5 **VI. USE OF ALTERNATIVE ENERGY CREDITS**

6 **23. Q. Mr. McCawley, please explain PECO's request to bank the AECs obtained**
7 **through contracts entered into pursuant to the RFP.**

8 A. As I described earlier, Act 213 permits PECO to satisfy certain future AEPS
9 requirements by acquiring and banking AECs during its Cost-Recovery Period.
10 Use of these banked AECs may be deferred until the first two full, consecutive
11 reporting years after the conclusion of PECO's Cost-Recovery Period. Because
12 of the importance of the AECs PECO will procure through the RFP, PECO
13 requests that the Commission explicitly approve the use of these AECs to satisfy
14 PECO's future AEPS requirements.

15 **24. Q. Has PECO determined when it will use the AECs obtained through the RFP?**

16 A. PECO has not determined precisely when it will use the AECs obtained through
17 the RFP, and the Act does not require any determination until after PECO's
18 Cost-Recovery Period is over. PECO will make its determination, in part, based
19 upon the developing AEPS market and other AEC procurement that may be
20 undertaken by PECO during its Cost-Recovery Period or thereafter (including
21 procurement of solar AECs), as well as final AEPS and default service rules.
22 However, at this time PECO anticipates utilizing all AECs obtained through the

1 RFP during the first two full reporting years after the conclusion of PECO's
2 Cost-Recovery Period, specifically the reporting year from June 1, 2011 through
3 May 31, 2012 and the reporting year from June 1, 2012 through May 31, 2013.
4 The PECO AEPS obligation associated with these reporting years will be
5 determined by PECO's sales to default service customers from June 1, 2011
6 through May 31, 2012; and then from June 1, 2012 through May 31, 2013. If
7 for some reason, PECO finds that it will not be in a position to use all the AECs
8 procured through the RFP during the first two full, consecutive reporting years
9 after the conclusion of PECO's Cost-Recovery Period, then it will attempt to
10 sell for fair market value all excess AECs that were procured during its Cost-
11 Recovery Period, and credit the proceeds from any such sales against the AEC
12 purchase costs in its recovery mechanism, in accordance with applicable
13 provisions of the Commission's final AEPS regulations.

14 **VII. EXPEDITED CONSIDERATION AND COMMISSION APPROVAL**

15 **25. Q. Mr. McCawley, please explain why PECO is seeking expedited consideration**
16 **of its Petition.**

17 A. PECO's Petition is the first petition filed by a Pennsylvania EDC under Act
18 213's provisions for early procurement of AECs for future compliance with
19 AEPS portfolio requirements. PECO's determination to seek Commission
20 approval at this time is based upon PECO's interest in taking early action and a
21 proactive approach to meeting its forecasted AEPS obligations. If the benefits
22 of early procurement and banking envisioned under AEPS are to be fully

1 realized, an expedited schedule is appropriate. PECO therefore proposes the
2 following schedule:

March 19, 2007	Petition Filed
April 5, 2007	Prehearing Conference
May 4, 2007	Other Parties' Direct Testimony Due
May 24, 2007	Rebuttal Testimony Due
June 4, 2007	Hearings
June 22, 2007	Main Briefs
July 6, 2007	Reply Briefs
August 9, 2007	Recommended Decision
September 13, 2007	Commission Order.

3 **26. Q. Mr. McCawley, please explain PECO's statement in its Petition that it will be**
4 **unable to proceed with the RFP absent express approval of PECO's 1307**
5 **surcharge and full future cost-recovery.**

6 A. Mr. Alan Cohn testifies separately as to the Section 1307 charge that PECO
7 seeks for costs associated with its proposed early AEPS compliance. However,
8 as the Petition explains, the issues presented by this Petition are interrelated and
9 must be considered as a whole by the Commission. Absent express approval of
10 PECO's proposed RFP procedures, the form AECPA, and the Section 1307
11 AEPS surcharge, PECO will have no assurance of the full future cost-recovery
12 (including a rate of return on deferred costs for AECs) that Act 213 explicitly
13 provides. This would likely preclude PECO from voluntarily proceeding to
14 acquire AECs under the RFP.

1 27. Q. Mr. McCawley, please also explain why PECO is reserving the right not to
2 proceed with any procurement even if the Commission approves PECO's
3 Petition.

4 A. As I have explained, PECO is voluntarily undertaking to procure AECs,
5 consistent with the provisions of the Act, to satisfy a portion of its forecasted
6 AEPS requirements. However, the alternative energy market is new and still
7 developing, and it is possible that there may be future events or circumstances
8 that would render this voluntary procurement uneconomical and make other
9 procurement methodologies more attractive and beneficial to PECO's
10 customers. For this reason, PECO must reserve the right not to proceed with
11 this voluntary procurement even if the Commission approves this Petition.

12 28. Q. Mr. McCawley, does this conclude your direct testimony?

13 A. Yes.

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

PECO Energy Company

*Request for Proposals
To Supply*

Alternative Energy Credits

In Compliance With

*Pennsylvania's Alternative Energy Portfolio
Standards Act*

_____, 2007

ARTICLE 1 INTRODUCTION

- 1.1 In this Request for Proposals ("RFP"), PECO Energy Company ("PECO" or the "Company") is voluntarily soliciting competitive proposals for supply of Alternative Energy Credits ("AECs") from Tier 1, non-solar Alternative Energy Systems under Pennsylvania's Alternative Energy Portfolio Standards Act, 73 P.S. § 1648.1 ("AEPS" or the "Act").¹ PECO intends to use these AECs to apply towards its future AEPS obligations, and seeks to enter into fixed-price, five-year agreements with successful bidders to purchase up to a total of ____,000 AECs annually (the "RFP Maximum"). This document describes the process by which bidders may qualify and submit bids in response to this RFP.
- 1.2 PECO is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania with its principal corporate office in Philadelphia, Pennsylvania. PECO is an electric distribution company under Pennsylvania law and provides electric delivery service to approximately 1.6 million retail customers in Southeastern Pennsylvania. PECO's electric delivery service territory falls entirely within the area served by PJM Interconnection, LLC ("PJM").
- 1.3 PECO is implementing this RFP in two stages. Bidders must first qualify by submitting an application (an "Application") to PECO demonstrating their qualifications, as described in detail in Section 4.2 (Bidder Qualifications). These qualifications include the ability to provide AECs to PECO from a Tier 1, non-solar Alternative Energy System in accordance with the Act commencing no later than December 31, 2008 (2009).
- 1.4 Following qualification, bidders may submit a bid proposal ("Bid Proposal") to deliver a specified amount of AECs annually from a single Alternative Energy System for a term of five years, with a single fixed price for each delivered AEC. Bid Proposals will be ranked by price, and PECO will execute an AEC purchase and sale agreement with each successful bidder in the form attached hereto as Exhibit 1 (Form Alternative Energy Credit Purchase and Sale Agreement).
- 1.5 At the present time, PECO is in its transition period under the Act, and its AEPS obligations are deferred pending PECO's final collection of all transition costs under the Electricity Electricity Generation Customer Choice and Competition Act, 66 Pa. C.S., 2801 et seq. (the "Competition Act"). AECs purchased and delivered to PECO prior to January 1, 2011, will be banked by PECO in accordance with the Act for use in satisfying PECO's AEPS obligations in 2011 and in subsequent years. PECO is not purchasing electricity or capacity through this RFP.
- 1.6 The Pennsylvania Public Utility Commission ("PA PUC") has approved the procedures described in this RFP and the terms of the form AEC purchase and sale agreement ("AEC

¹ All capitalized terms not expressly defined herein are defined in the form Alternative Energy Credit Purchase and Sale Agreement attached as Exhibit 1.

Purchase Agreement”) attached to this RFP as Exhibit 1 by order dated _____, 2007, in Pa. PUC Docket No. _____ (“PUC Order”). The RFP process will be managed by PECO, with the opening and ranking of bids monitored by [company name] (the “RFP Monitor”). **Potential bidders are strongly urged to review both the RFP and the AEC Purchase and Sale Agreement and to consult with counsel with respect to requirements and obligations under this RFP and the AEC Purchase and Sale Agreement.**

1.7 The following documents are attached to this RFP Overview and are to be considered part of the RFP:

- Exhibit 1: Form of PECO AEC Purchase and Sale Agreement
- Exhibit 2: Non-Binding Notice of Intent to Bid
- Exhibit 3: Bidder Application Submission Form
- Exhibit 4: Form of Bidder Application
- Exhibit 5: Bid Proposal Form
- Exhibit 6: Confidentiality Agreement

**ARTICLE 2
SCHEDULE AND BIDDER INFORMATION**

2.1 RFP Schedule. The following table sets forth significant dates for this RFP. The time for each deadline on the specified date is 5:00 pm Eastern Prevailing Time (EPT). *[Actual dates to be inserted upon PA PUC approval, based upon date of a final PUC approval order.]* PECO reserves the right to modify these dates at its discretion.

PUC Order	Day 0
RFP Overview Conference	Day 10
Non-binding Notice of Intent to Bid Due Date	Day 17
Bidder Inquiries Deadline	Day 24
Final Publication of Responses to Inquiries	Day 31
Bidder Applications Due Date	Day 45
Notification of Bidder Qualification	Day 55
Bid Proposal Due Date	Day 60
Notification of Selected Bidders	Day 67
Execution of AEC Purchase and Sale Agreements	Day 82

2.2 RFP Overview Conference. On _____ at ____ p.m. EPT, PECO will conduct a teleconference to outline the RFP process and the terms of the AEC Purchase and Sale Agreement. Potential bidders are urged to review this RFP, including exhibits, prior to the teleconference. PECO will answer questions raised at this teleconference to the extent possible. Any party wishing to participate in this teleconference must send an e-mail to AEPS_RFP@peco-energy.com with the subject line “AEC Bidder

Teleconference.” PECO will provide a dial-in number for the teleconference by return e-mail.

- 2.3 Non-Binding Notice of Intent To Bid. Following the bidder teleconference and no later than _____, all parties seeking to submit a bid in response to this RFP must submit a non-binding Notice of Intent to Bid in the form attached hereto as Exhibit 2 to the address specified on the Notice. PECO shall assign a bidder number to each notice and inform the bidder of its assigned number. Any party who does not submit a non-binding **Notice of Intent to Bid** may not submit an Application for this RFP.
- 2.4 Bidder Inquiries. On or before the Bidder Inquiries Deadline _____, bidders may submit questions to PECO via electronic mail (AEPS_RFP@peco-energy.com). To the extent possible, questions submitted prior to the RFP Overview Conference will be addressed by PECO at the teleconference. Additional questions submitted and answered by PECO thereafter shall be posted with answers at [*website to be established*] no later than _____. The person or company submitting the question shall not be identified. While PECO will review and attempt to answer questions in good faith, PECO reserves the right not to answer any question. The RFP Overview Conference and this bidder inquiry procedure are the exclusive methods for inquiring about this RFP and the AEC Purchase and Sale Agreement, and questions submitted to individual PECO employees, the Company, or the RFP Monitor by other means will not be answered and may result in disqualification of the bidder.
- 2.5 Informational Website and Updates. PECO has established a website – [*website to be established*] – for electronic copies of RFP materials, posting of questions and answers, and other updates on this RFP. Bidders are encouraged to review this website regularly. In its sole discretion, PECO will endeavor to provide e-mail notification of important website updates to those bidders who have filed non-binding notices of intent to bid in this RFP.

ARTICLE 3 PROJECT ELIGIBILITY AND REQUIREMENTS

- 3.1 Eligibility. Applications may be submitted by qualified entities who currently own, propose to develop, or have production rights to Tier 1 non-solar Alternative Energy Systems generating energy from one or more of the following: wind, low-impact hydropower; methane (coal mine or biologically derived); geothermal energy; biomass energy; and fuel cells. Successful bidders must commence delivery of AECs to PECO no later than December 31, 2008. Entities who seek to submit bids from multiple Alternative Energy Systems must submit a separate Application for each such system.
- 3.2 General Requirements. Successful bidders must be able to meet all requirements of the AEC Purchase and Sale Agreement. All terms described in the Purchase Agreement are considered final and non-negotiable. Bidders will be required to demonstrate in Bidder Applications that they can meet all specified terms of the AEC Purchase and Sale

Agreement and that they take no exception to the Agreement terms. Failure to do so will result in exclusion of the bidder's Applications from further consideration.

- 3.3 Contract for AECs Only. AEC Purchase and Sale Agreements executed pursuant to this RFP will be for AECs only. Successful bidders will retain title to all generated electricity and capacity associated with Alternative Energy Systems generating the AECs purchased by PECO. Successful bidders shall be responsible for undertaking all activities and paying all costs and charges associated with developing, permitting, and operating the bidder's Alternative Energy System and delivering energy associated with the purchased AECs to an interconnection point within the PJM Interconnection Regional Transmission Organization grid.
- 3.4 Delivery of AECs. All AECs shall be delivered to PECO using the PJM Generation Attribute Tracking System ("PJM GATS") and become the sole property of PECO.
- 3.5 Pricing and Term. Bidders will specify in Bid Proposals an annual contract amount of AECs to be delivered to PECO (the "Contract Amount") during a AEPS reporting period (June 1 – May 31), with a single, fixed price for each delivered AEC. Bids must be based on a five-year contract term, commencing upon the Commercial Operation Date and terminating no later than May 31, 20XX. In the event that the Commercial Operation Date does not coincide with the beginning of an AEPS reporting period (i.e. in June), the contract term may be extended an initial period of up to eleven months so that each year of the five-year term is coincident with AEPS reporting periods. (For example, if an Alternative Energy System is scheduled to achieve Commercial Operation in January, 1, 2008, an initial period from the date of Commercial Operation to May 31, 2008, would be added to the Term of the AEC Purchase and Sale Agreement and the agreement would terminate on May 31, 2013.) Delivery of AECs from an existing system will commence the month after execution of an AEC Purchase and Sale Agreement by the successful bidder.
- 3.6 Development Security and Performance Security. Successful bidders developing new facilities will be required to post Development Security (cash deposit or letter of credit) with PECO of \$3.75 per AEC of the Contract Amount at execution of an AEC Purchase and Sale Agreement. This Development Security shall be returned if the bidder achieves the Commercial Operation Date specified in the Bidder Application; if the date is not achieved, some or all of the development fee will be forfeited and retained by PECO in its sole discretion. Performance security equal to \$7.50 per AEC to be delivered annually must be posted by bidders of existing facilities upon execution of an AEC Purchase and Sale Agreement, and by developers of new facilities upon commencement of Commercial Operation. Performance Security will be returned to the bidder upon successful completion of all obligations in the AEC Purchase and Sale Agreement.
- 3.7 Replacement AECs. In the event that PECO does not annually receive the Contract Amount under the AEC Purchase and Sale Agreement, PECO must be provided with replacement Tier 1, non-solar AECs of the same vintage year as the AECs PECO should have received but did not receive. Failure to provide such replacement AECs will require

a payment equal to the alternative compliance payment required by the Act (\$45) for each AEC not delivered.

- 3.8 AEC Rollover. At Seller's discretion, upon notice to PECO no later than June 30th of each year, AECs produced in excess of the Contract Amount may be sold to PECO and credited against the next Contract Year's in a Contract Year delivery obligations. Such excess AECs must be delivered no later than July 31st of such year.

ARTICLE 4 BIDDER QUALIFICATION

- 4.1 Bidder Application. In order to submit a bid proposal in response to this RFP, a bidder must submit a printed original and three printed copies of an Application for approval by PECO using the form attached hereto as Exhibit 3 (Form of Bidder Application). All Applications shall be submitted by certified mail, registered mail, hand delivery or courier service to the submission address specified in Section 7.1. Applications which are incomplete, do not conform to the form attached hereto, or otherwise do not satisfy all requirements of this RFP shall not be considered. Submission of a Bidder Application constitutes a bidder's agreement to and acceptance of all terms and conditions of this RFP.
- 4.2 Bidder Qualifications. Time is of the essence in this solicitation, and bidders that cannot demonstrate an ability to achieve Commercial Operation on or before December 31, 2008 (2009) will be eliminated from further consideration. In order to qualify to submit a bid proposal, a bidder must demonstrate and document in the Application that it satisfies the following criteria (the "Bidder Qualifications"):
- (a) Has secured or will secure all required land rights to ensure a Commercial Operation Date on or before December 31, 2008, including any required easements and rights-of-way the proposed point of interconnection with the Grid;
 - (b) Has obtained or will obtain all required local, state and federal permits to ensure a Commercial Operation Date on or before December 31, 2008;
 - (c) Has executed, or will execute within six months of the close of the RFP, an Interconnection Agreement with PJM;
 - (d) Has executed, or will execute within six months of the close of the RFP, a Construction Service Agreement with the relevant utility;
 - (e) Has secured or will secure all necessary equipment and services required to ensure construction, testing and a Commercial Operation Date on or before December 31, 2008 (including, with respect to any wind project, a commitment letter or equivalent document from a turbine vendor showing the availability and delivery schedule for all turbines for the project);

- (f) Has or will be certified as an “Alternative Energy System” capable of delivery of AECs equal to or greater than the Contract Amount the bidder intends to bid in response to this RFP;
- (g) Has obtained or will obtain all authorizations necessary for the generation and delivery of electricity underlying the AECs to PJM;
- (h) Has sufficient management and other personnel experienced in developing and operating systems similar to the proposed Alternative Energy System;
- (i) Has satisfied or will satisfy all performance and financial security requirements as described in the Purchase Agreement;
- (j) Has or will have an operations and maintenance plan with adequate resources (including funding) to maintain the system that will be generating AECs through the term of the AEC Purchase and Sale Agreement;
- (k) For new projects, financial backing sufficient for the project to achieve a Commercial Operation Date on or before December 31, 2008, demonstrated by a letter from the project financier(s) stating the name of the financial institution, contact information for the person preparing the letter, the structure of any proposed financing (confidential information such as proposed financing costs need not be disclosed), confirmation that the financier(s) have reviewed project pro forma statements, have reviewed this RFP and the AEC Purchase and Sale Agreement, have reviewed the bidder’s anticipated offer to the Company, including project costs and pricing terms, and that based on this review, the financier(s) consider the project financeable, given project costs as currently known, at the bidder’s proposed price and that the financier(s) has a strong interest in financing the project; and
- (l) Has or will own the right to all AECs associated with their bids in their entirety and be capable of transferring undivided rights to those AECs to PECO for the duration of the AEC Purchase and Sale Agreement, without restriction.

4.3 Minimum Contract Amount. Only Applications in which the bidder intends to propose a *Contract Amount in excess of 1,000 AECs shall be considered by PECO.*

4.4 Confidentiality Agreement. All Bidder Applications shall include two copies of the Confidentiality Agreement (attached hereto as Exhibit 6) executed by the bidder. PECO will promptly execute the Agreement and return a copy to the bidder.

4.5 PECO Affiliates. Affiliates of PECO are permitted to submit Applications and to participate in this RFP to the same extent as any other entity.

- 4.6 **Multiple Bids.** Bidders will be permitted to submit up to three Bid Proposals for a single facility provided that each such Bid Proposal offers different Contract Amounts at different prices. Multiple bids must be structured in a way that, should all bids win, the facility is capable of delivering the total of Contract Amounts offered. If a bidder intends to bid more than one facility, a separate Application must be submitted for each facility.
- 4.7 **Bid Deposit.** Each Application shall be accompanied by a bid deposit (a “Bid Deposit”), in the form of a certified check, equal to the amount corresponding to the Contract Amount of AECs the applying bidder intends to bid in response to the RFP:

Contract Amount (AECs)	Bid Deposit (US\$)
1,000 to 4,999	\$5,000
5,000 to 49,999	\$10,000
50,000 to 99,999	\$25,000
Over 100,000	\$50,000

Bid Deposits submitted by a bidder whose Bid Application is rejected or who is not selected for execution of an AEC Purchase and Sale Agreement shall be refunded at the time of rejection or upon notification of successful bidders. No interest shall be paid on Bid Deposits. A qualified bidder may not submit a Bid Proposal for a Contract Amount in excess of the Contract Amount for which the bidder provides a Bid Deposit. Bid Proposals submitted for Contract Amounts that exceed that maximum Contract Amount for the Bid Deposit received will be rejected.

- 4.8 **Additional Information.** PECO may, but is not obligated to, request additional information and materials from any bidder for evaluation of a Application. Information submitted by a bidder absent a request by PECO which is not in the nature of a correction or clarification to the Application will not be considered by PECO. If any information in an Application is no longer true, Bidder shall immediately notify PECO of the changed information. Failure to provide such notification or respond to a request for additional information and materials may result in disqualification of the bidder and rejection of any Bid Proposal. PECO shall have no duty to inform any bidder of any deficiency in its Application.
- 4.9 **Application Evaluation and Notification of Applicants.** PECO, in its sole discretion, will evaluate each Application using a standard protocol for its completeness and satisfaction of the Bidder Qualifications. The RFP Monitor will oversee this evaluation. PECO will provide each bidder with notice of its satisfaction or failure to satisfy the Bidder Qualifications by the date for Notification of Bidder Qualification set forth in Section 2.3 hereof.

ARTICLE 5 BID PROPOSALS

- 5.1 Submission of Bid Proposals. Only bidders who submit an Application and receive notice of qualification as provided in Article 3 will be permitted to submit a Bid Proposal. PECO will provide Bid Proposal forms to qualified bidders substantially in the form of Exhibit 5. A bidder must submit an original and three copies of its Bid Proposal to the address specified on the Bid Proposal form provided by PECO no later than the Bid Proposal Due Date. Each Bid Proposal shall be submitted in a sealed envelope clearly marked "BID PROPOSAL" with bidder's previously assigned bid number on the outside of the sealed envelope.
- 5.2 Other Limitations. Bid Proposals that are incomplete, unsigned, or otherwise do not conform to the form of the Bid Proposal provided herein shall be rejected by PECO. No Bid Proposal may be conditioned on any other Bid Proposal. Any bid that is contingent in any way, including any proposed change in the AECPA, shall be rejected as non-conforming. PECO may reject any Bid Proposal which it determines, in its sole discretion, is submitted by a bidder in coordination or in concert with any other bidder.

ARTICLE 6 EVALUATION OF BID PROPOSALS

- 6.1 Evaluation of Bid Proposals. All Bid Proposals will be opened by the RFP Monitor, who will rank proposals by price. A Bid Proposal offering a larger Contract Amount at the same price as another Bid Proposal will be prioritized over the Bid Proposal offering the lower Contract Amount, provided that the RFP Monitor may assign a higher priority to a Bid Proposal with a lower Contract Amount where the Bid Proposal offering the larger Contract Amount will cause PECO to exceed the RFP Maximum. Where acceptance of a Bid Proposal will cause PECO to exceed the RFP Maximum but rejection would require PECO to contract with a bidder offering AECs at a higher price in order to obtain the RFP Maximum, PECO shall have the right to negotiate a lower Contract Amount with the bidder offering the lower price.
- 6.2 Selection of Successful Bidders and PA PUC Approval. Upon completion of the evaluation of Bid Proposals, the RFP Monitor shall prepare a report of the RFP results in consultation with PECO, summarizing the bidder qualification process and the Bid Proposals and identifying the successful and unsuccessful bidders, along with successful and unsuccessful Bid Proposals. The report shall then be submitted to the PA PUC for approval.
- 6.3 PA PUC Approval. The PA PUC will have one business day to review the report of the RFP Monitor and approve the report and bid prices submitted by successful bidders as consistent with the PUC Order. If the results are approved, PECO shall notify all bidders of the PA PUC's decision and the results of the RFP. If the results are not approved, PECO will not sign any AEC Purchase and Sale Agreement with winning bidders. PECO reserves the right to cancel all additional RFPs should the PA PUC fail to approve the results.

- 6.4 Execution of AEC Purchase and Sale Agreement. Upon approval of the results by the PA PUC and subject to all provisions of this RFP (including Section 7.8), PECO shall prepare two copies of an AEC Purchase and Sale Agreement with information from the successful bidder's Application and Bid Proposal inserted and transmit those copies to the applicable bidder within five (5) days of notification by PECO. Bidder shall execute and return the AEC Purchase and Sale Agreement to PECO with all Development Security or Performance Security as required under the AEC Purchase and Sale Agreement within ten (10) days.
- 6.5 Forfeiture of Bid Deposit and Disqualification. Failure of a successful bidder to execute the AEC Purchase and Sale Agreement and provide Development Security or Performance Security to PECO as provided in Section 6.4 may result in the disqualification of such bidder from this RFP and forfeit of the entire Bid Deposit of that bidder.
- 6.6 Consideration of Additional Bidders. PECO reserves the right to enter into discussions with higher cost bidders if agreements with lower cost bidders are not executed.

ARTICLE 7 GENERAL CONDITIONS

- 7.1 Address for submissions. All submissions to PECO for this RFP shall be delivered via registered mail, certified mail, overnight courier, or hand delivery to the following address:

PECO AEPS RFP
c/o [Name],
PECO Energy Company
S6-2
2301 Market Street
Philadelphia, PA 19103

Applications, Bid Proposals, and other materials received after the date specified in this RFP shall be returned unopened and without consideration. Bidder is solely responsible for the timely delivery of any submission for this RFP.

- 7.2 No Unauthorized Modifications. No interpretation or change to this RFP shall be valid unless it is signed by a duly authorized representative designated by an Officer of PECO.

- 7.3 Ownership of RFP Materials; Confidentiality. All materials submitted to PECO pursuant to this RFP shall be the property of PECO and shall be treated as confidential in accordance with the terms of the Confidentiality Agreement.
- 7.4 Presentation and Formatting. All information submitted by a bidder must be in the English language.
- 7.5 Costs. PECO shall have no responsibility whatsoever with respect to the costs of any bidder in considering or responding to this RFP, including but not limited to (i) any costs of preparing any materials submitted to PECO; (ii) any costs associated with any studies, permits, or other agreements contemplated by this RFP; (iii) any costs associated with any Alternative Energy System; (iv) any costs associated with financing, employees or consultants, or real property.
- 7.6 Publicity. Bidders are not permitted to announce or release any information regarding this RFP or PECO's evaluation process without PECO's prior written approval, which PECO may withhold approval in its sole discretion. Each bidder understands and agrees that PECO does not participate in, nor does it allow, bidders to utilize media releases of any kind to publicize bidder's business relationship with PECO. Each bidder shall not use any trade name, trademark, service mark or any other information which identifies PECO in such bidder's sales, marketing and publicity activities, including interviews with representatives of any written publication, or television or radio station or network, without PECO's express prior written consent. Successful bidders agree to cooperate with PECO in preparation of any press release announcing the results of this RFP.
- 7.7 Disclaimer. PECO makes no representations or warranties regarding the accuracy or completeness of the information contained in this RFP and its exhibits or any statements made by representatives of PECO during the RFP process. Each bidder is responsible for making its own evaluation of information and data contained in this RFP and in preparing and submitting responses to this RFP. The issuance of this RFP and the receipt of information in response to this RFP shall not, in any way, cause PECO to incur any liability (whether contractual, financial or otherwise) to any bidder participating in the RFP process, and by submitting an Application, bidder releases PECO from any and all claims, demands, actions, losses, liabilities, and expenses (including reasonable legal fees and expenses) relating to this RFP.
- 7.8 Not an Offer. This RFP is issued to elicit responses to PECO's inquiry and is not an offer. The issuance of the RFP and the submission of bidder's information do not create any obligation upon PECO to buy goods or services from a bidder, and PECO reserves the right to accept or reject any or all proposals received. PECO also reserves the right to amend, suspend, or terminate the RFP process at any time, without reason and without liability, and makes no commitments, implied or otherwise, that this process will result in a business transaction with one or more bidders. No contract or other binding obligation on PECO will be implied unless and until an agreement has been executed on terms and conditions acceptable to PECO. PECO also reserves the right to not execute agreements with any or all bidders should the Company determine, in its sole discretion, that would

not guarantee delivery, would impose unreasonably high costs on the Company's customers and/or would violate existing regulatory standards.

- 7.9 Non-conforming Applications and Bid Proposals. PECO reserves the right to reject any Application or Bid Proposal at any time on the grounds that it does not conform to the terms and conditions of this RFP or the bidder has not complied with the provisions of this RFP.
- 7.10 Interpretation. Notwithstanding any provision of this Agreement, in the event an AEC Purchase and Sale Agreement is executed between a bidder and PECO, that agreement shall control over any provision of this RFP.

EXHIBIT 1

FORM ALTERNATIVE ENERGY CREDIT PURCHASE AND SALE AGREEMENT

RECEIVED

NOV 28 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

ALTERNATIVE ENERGY CREDITS PURCHASE AND SALE AGREEMENT

By and Among

PECO ENERGY COMPANY

and

Dated [_____], 2007

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ALTERNATIVE ENERGY CREDITS PURCHASE AND SALE AGREEMENT

This Alternative Energy Credits Purchase and Sale Agreement (the "Agreement") is entered into as of _____, 200_, by and between _____, a _____ corporation with principal offices located at _____ ("Seller"), and PECO Energy Company, a Pennsylvania corporation with principal offices located at 2301 Market Street, Philadelphia, Pennsylvania 19101 ("PECO" or the "Company"). PECO and the Seller are herein referred to collectively as the "Parties", and individually as a "Party".

RECITALS

WHEREAS, PECO is an electric distribution company under the Alternative Energy Portfolio Standards Act, 73 P.S. § 1648.1 ("AEPS" or "the Act"); and

WHEREAS, Seller owns all rights to the electricity generated by [Facility Name] for sale and the alternative energy credits associated with such electricity, and Seller desires to sell the alternative energy credits to PECO; and

WHEREAS, PECO desires to purchase such alternative energy credits from Seller to satisfy PECO's obligations under the Act, subject to the requirements and conditions set forth herein;

NOW THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration, PECO and Seller agree as follows:

ARTICLE 1 DEFINITIONS

1.1 Definitions. Any capitalized or abbreviated term not elsewhere defined in this Agreement shall have the definition set forth in this Article 1. As used in this Agreement, the following terms shall have the respective meanings set forth below.

"AEC" shall be an alternative energy credit, as defined in the Act.

"AEC Procurement Order" shall mean the order of the PaPUC entered _____ in Docket No. _____ approving the procurement of AECs by PECO.

"AEPS" shall have the meaning set forth in the Recitals.

"AEPS Reporting Year" shall mean the period from June 1 through May 31 of the following year, or such period as the PaPUC may designate for AEPS compliance purposes.

"AEPS Tier I Non-Solar Resource" means a resource identified in the Act as a "Tier I alternative energy source," excluding solar photovoltaic and solar thermal energy.

"Affiliate" means any Person that directly or indirectly controls, is controlled by, or is under common control with the Person in question.

“Agreement” means this Agreement.

“Alternate Representative” has the meaning provided in Section 5.5.

“Authorized Representative” has the meaning provided in Section 5.5.

“Bankruptcy Code” means those laws of the United States of America related to bankruptcy, codified and enacted as Title 11 of the United States Code, entitled “Bankruptcy” and found at 11 U.S.C. § 101 et seq.

“Bus” means an interconnection point on the Grid.

“Business Day” means a day on which Federal Reserve member banks in Philadelphia, PA are open for business, beginning at 0800 EPT and ending at 1700 EPT.

“Certificate” means a certificate corresponding to an AEC, as defined under the Registry Rules.

“Claim” shall mean any claim, demand, audit, cause of action, litigation, lawsuit, grievance, arbitration, mediation, proceeding (including, without limitation, any bankruptcy, reorganization, dissolution, insolvency, liquidation, extension of bankruptcy or similar proceeding).

“Commercial Operation” shall occur for a Facility when (i) the Interconnection Agreement has been executed and delivered, (ii) such generating facility is able to generate Net Electricity and deliver such Net Electricity to PJM to generate AECs, (iii) such generating facility has been Commissioned, and (iv) all related facilities and rights have been completed or obtained, including such facilities and rights contemplated by the Interconnection Agreement, to allow regular operation of such generating facility.

“Commercial Operation Date” means (i) the date designated by Seller as the Commercial Operation Date Milestone, subject to adjustment pursuant to Section 6.1, or (ii) the Effective Date, for a Facility which has achieved Commercial Operation on or prior to the Effective Date.

“Commercial Operation Date Milestone” means the Commercial Operation Date Milestone specified on the Significant Milestone Schedule.

“Commercially Reasonable Efforts” means, with respect to any action required to be made, attempted or taken by a Party under this Agreement, the level of effort in light of the facts known to such Party at the time a decision is made that (i) can reasonably be expected to accomplish the desired action at a reasonable cost, and (ii) is consistent with Prudent Utility Practices.

“Commissioned,” as to any equipment, means that such equipment has been functionally tested to ensure that it meets its manufacture and design specifications and is suitable for continuous operation, and has been placed in service.

“Construction Service Agreement” means an agreement relating to the construction and installation of the Interconnection Facilities.

“Contract Amount” means the Contract Amount specified on Exhibit 3, provided that the Contract Amount shall be equal to such amount plus the Initial Period Contract Amount (if any) during the first Contract Year.

“Contract-Related Capacity” means the capacity of the Facility used to generate the Contract Amount, as set forth on Exhibit 3.

“Contract Price” means the price identified as “Contract Price” on Exhibit 3.

“Contract Year” means a twelve month period during the Term commencing on June 1 and ending on May 31 of the following year, provided that the first Contract Year under this Agreement may be extended for a period of up to eleven months from the Commercial Operation Date to the following June 1 (corresponding to the commencement of the next AEPS Reporting Year).

“Defaulting Party” has the meaning set forth in Section 9.1.

“Deliver” or “Delivery” means the transfer of AECs from Seller to PECO using the Registry in accordance with the Registry Rules.

“Development Security” shall have the meaning set forth in Section 9.1.

“Early Termination Date” means the date upon which an Early Termination becomes effective as specified in Section 2.3.

“Effective Date” means the date upon which this Agreement is executed by the Parties.

“Energy” means three-phase, 60-cycle alternating current electric energy, expressed in units of kilowatt-hours or megawatt-hours.

“Energy Delivery Point” means the point where the Net Electricity is delivered to the RTO.

“EPT” means Eastern Prevailing Time (the time then prevailing in the Eastern Time Zone of the United States).

“Event of Default” has the meaning set forth in Section 9.1.

“Facility” means the AEPS Tier I resource generation facility located at the Premises as described in Exhibit 1.

“FERC” means the Federal Energy Regulatory Commission.

“Force Majeure” means an event not anticipated as of the Effective Date, which is not within the reasonable control of the Party affected thereby or attributable to such Party’s fault or negligence, and which by the exercise of due diligence the affected Party is unable to overcome

or obtain or cause to be obtained a commercially reasonable substitute therefor. Force Majeure includes, but is not restricted to: acts of God; fire; explosion; civil disturbance; sabotage; action or restraint by court order or public or government authority, so long as the affected Party has not applied for or assisted in the application for, and has opposed where and to the extent reasonable, such government action. Force Majeure shall not include the following: (i) the Seller's ability to sell Net Electricity or AECs to a market at a more advantageous price, (ii) wind speed or the lack of wind or other resource; (iii) Seller's failure to obtain any Permit; (iv) a change in a Requirement of Law; and (v) Seller's failure to finance and/or construct the Facility. Increased cost of performance by Seller (including the reduction or elimination of Production Tax Credits or any similar subsidy associated with the production of electricity or AECs by the Facility) shall not constitute an event of Force Majeure.

"Forward Contract" has the meaning ascribed to such term in Section 101(25) of the Bankruptcy Code.

"Forward Contract Merchant" has the meaning ascribed to such term in Section 101(26) of the Bankruptcy Code.

"Generating Unit" means the electric generator in combination with its prime mover or other energy source. Examples: For a wind resource, the generating unit is the wind turbine (including its gearbox, nacelle and rotor). For a hydro resource, the generating unit is the hydro turbine and the electric generator. For a fuel cell, the generating unit would be the individual fuel cell unit.

"Governmental Authority" means any federal, state or local government, court of competent jurisdiction, administrative agency or commission or other governmental or regulatory authority or instrumentality or authorized arbitral body.

"Grid" means the interconnected electric transmission system into which the Net Electricity generated by the Facility will be delivered to PJM, including through direct interconnection with intermediate distribution facilities of PECO, or other distribution companies located in PJM's service territory, or Pennsylvania.

"Indemnified Party" shall have the meaning set forth in Section 11.2.

"Initial Period Contact Amount" shall have the meaning set forth in Exhibit 3.

"Interconnection Agreement" means that generation interconnection agreement with either or both the RTO and the entity (if different from the RTO) that owns the Grid to which the Facility is interconnected that contains the rights and obligations of those Persons with respect to the interconnection of the Facility, and prescribing the methods and procedures to be used for the safe operation and maintenance of the Facility Interconnection Facilities.

"Interconnection Facilities" means all the facilities installed for the purpose of interconnecting the Facility to the Energy Delivery Point, including all transformers and associated equipment, relay and switching equipment, and safety equipment.

“Interest Rate” means, on any date, the per annum rate of interest equal to the prime lending rate as may from time to time be published in The Wall Street Journal under “Money Rates” plus 200 basis points, provided that the Interest Rate shall never exceed the maximum rate permitted by applicable law.

“Issuer Minimum Requirements” shall have the meaning set forth in Section 6.5.2.

“Letter of Credit” has the meaning set forth in Section 6.5. The Letter of Credit must be in the form of Exhibit 5, or another substantially similar form approved by the Company.

“Lien” shall mean any mortgage, deed of trust, lien, pledge, charge, claim, security interest, easement, covenant, right of way, restriction, equity, hypothecation, usufruct or encumbrance of any nature whatsoever, including any conditional sale agreement.

“Master Netting Agreement” shall have the meaning ascribed to such term in Section 101(38A) of the Bankruptcy Code.

“Material Debt” shall have the meaning set forth in Section 9.1.1.

“Moody’s” means Moody’s Investors Service, Inc.

“Month” means a calendar month (or any partial calendar month at the outset of the Term in the event that the Term commences during a calendar month).

“Monthly AECs” shall have the meaning set forth in Section 3.2.

“MW” means megawatt.

“MWh” means megawatt hour.

“Net Electricity” means all of the Energy generated at the Facility (other than that needed for the operation of the Facility) that is delivered to the Energy Delivery Point.

“Non-Defaulting Party” means (i) if the Company is the Defaulting Party, the Seller; or (ii) if the Seller is the Defaulting Party, the Company.

“PaPUC ” means the Pennsylvania Public Utility Commission.

“PECO” means PECO Energy Company.

“Permit” shall mean any permit, license, registration, certificates of occupancy, approvals or other authorizations of any Governmental Authority.

“Person” shall mean any individual, entity, corporation, general or limited partnership, limited liability company, joint venture, estate, trust, association or other entity or Governmental Authority.

“PJM” means the regional transmission organization operated by PJM Interconnection, Inc.

“Production Tax Credits” or “PTCs” shall mean the federal production tax credit for the production of electricity from wind pursuant to 26 U.S.C. § 45 or any substantially similar successor provision.

“Premises” shall mean the location of the Facilities as set forth in Exhibit 1.

“Prudent Utility Practice” means any of the practices, methods and acts required or approved by the RTO or engaged in or approved by a significant portion of the electric utility industry in the geographic region covered by RFC during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. “Prudent Utility Practice” is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to include acceptable practices, methods or acts generally accepted in the geographic region covered by the RTO or RFC.

“Registry” shall mean the PJM GATS system or any successor AEPS alternative energy credit registry designated by the PaPUC.

“Registry Rules” shall mean the operating rules of the Registry.

“Replacement AEC” means an AEC that the Seller provides to PECO as provided for in Section 3.4 due to the failure of the Seller to meet the minimum delivery requirements in this Agreement.

“Replacement AEC Payment” shall have the meaning set forth in Section 3.4.

“Requirement of Law” means any federal, state and local law, statute, regulation, rule, code, ordinance, resolution, order, writ, judgment or decree enacted, adopted, issued or promulgated by any Governmental Authority or RTO (including those pertaining to electrical, building, zoning, environmental and occupational safety and health requirements).

“RFC” means the ReliabilityFirst Corporation or any successor thereto. If RFC ceases to exist, the successor to RFC shall be any regional reliability organization to which PECO belongs. Any regional entity to which an FERC delegates authority to enforce reliability standards upon PECO shall be deemed to be successor to RFC.

“RTO” means the entity that controls and operates the Grid to which the Facility is interconnected.

“RTO Requirements” means all the RTO agreements, all tariffs, operational manuals, rules and regulations established by the RTO, and the normal business practices, as they may be amended and modified from time to time, of the RTO.

“S&P” means Standard and Poor’s Rating Services.

“Safe Harbor Provisions of the Bankruptcy Code” means Sections 101(25), 101(26), 101(38A), 101(38B), 362(b)(6), 362 (b)(27), 546(e), 546(j), 556, 561, 562 and 767 of the

Bankruptcy Code together with other sections pertaining or referring to any of them and any future amendments to the Bankruptcy Code which provide protections, rights or remedies to non-bankrupt Forward Contract Merchants or Master Netting Participants against bankrupt counterparties under Forward Contracts or Master Netting Agreements.

“Security Instrument” has the meaning set forth in Section 6.5.

“Significant Milestone” shall mean the events identified as significant milestones on Exhibit 2.

“Significant Milestone Schedule” shall mean the dates associated with the Significant Milestones set forth on Exhibit 2.

“Site Control” shall have the meaning set forth in Section 5.3.

“Term” has the meaning set forth in Section 2.1.

“Termination Date” has the meaning set forth in Section 2.1.

“Total Facility AEC Commitment” means the annual amount of AECs which the Facility has contractually agreed to deliver to PECO and any other entities during a Contract Year, as set forth on Exhibit 3.

1.2 Interpretation. In this Agreement, unless a different intention clearly appears: (a) the singular includes the plural and vice versa; (b) the reference to any Party includes such Party’s legal and/or permitted successors and assignees, and reference to a Party in a particular capacity excludes such Party in any other capacity or individually; (c) the reference to any gender includes the other gender; (d) reference to any document other than this Agreement refers to such documents as may be amended, modified, replaced or superseded from time to time, or any successor document(s) thereto; (e) reference to any Article, Section or Exhibit means such Article, Section or Exhibit of this Agreement unless otherwise indicated; (f) “hereunder”, “hereof”, “hereto”, and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Section or other provision; (g) “including” (and with correlative meaning “include”), when following any general statement or term, is not to be construed as limiting the general statement or term to the specific items or matters set forth or to similar items or matters, but rather as permitting the general statement or term to refer to all other items or matters that could reasonably fall within its broadest possible scope; (h) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”; (i) reference to any law or regulation refers to such law or regulation as may be amended, modified, replaced or superseded from time to time, or any successor law(s) or regulation(s) thereto; and (j) reference to “termination of this Agreement,” “this Agreement is terminated,” “this Agreement may be terminated” and similar phrases used in this Agreement refer to the termination of deliveries under this Agreement and related on-going rights and obligations, and does not imply or mean a termination of rights, remedies, obligations and provisions which by their nature or as provided elsewhere in the Agreement survive termination.

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ARTICLE 2
TERM AND TERMINATION

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

2.1 Effective Date and Term. This Agreement shall be effective on the Effective Date. If the Facility has achieved Commercial Operation on or prior to the Effective Date, the Term shall commence on the Effective Date; otherwise, the Term shall commence on the Commercial Operation Date. Unless sooner terminated as provided herein, this Agreement shall end on May 31, 20__ (the "Termination Date").

2.2 Early Termination. This Agreement may be terminated prior to the Termination Date pursuant to the following:

2.2.1 At any time by the mutual written consent of the Parties;

2.2.2 By the Non-Defaulting Party if an Event of Default occurs as provided for in Article 9, with such notice as required therein;

2.2.3 By Either Party:

(a) In the event that the Seller shall have failed to enter into an Interconnection Agreement and, if necessary, a Construction Service Agreement within 180 days after the Effective Date, but only if the Party seeking to terminate this Agreement provides notice of its intent to terminate no later than 150 days after the Effective Date;

(b) In the case of a Force Majeure event, the non-terminating Party fails to substantially perform its obligations under this Agreement on account of such Force Majeure event for a period exceeding 180 days after the occurrence of such Force Majeure event, and after thirty (30) days written notice; provided that such 180 day period may be extended, by the written agreement of both Parties, for an additional 180 days if (i) such Force Majeure event is not remedied within such 180-day period with reasonable diligence, (ii) such Force Majeure event may reasonably be expected to be remedied within such 180-day period, and (iii) the Party not performing its obligations under this Agreement on account of such Force Majeure event promptly undertakes to remedy such Force Majeure event and continues with reasonable diligence to effect such remedy within the 180-day period;

2.2.4 By PECO, upon sixty (60) days written notice following PECO's determination that it cannot fully recover any portion of the cost of AECs during any portion of the Term, as set forth in Section 2.4;

2.2.5 By Seller, if PECO elects to reduce its payments to Seller following PECO's determination that it cannot fully recover the cost of AECs as set forth in Section 2.4, but only if Seller provides PECO not less than thirty (30) days written notice of such termination.

2.3 Effectiveness of Termination. Termination under this Article 2 shall be effective immediately after written notice is given, subject to any applicable notice requirements

or extensions agreed to by the Parties. If this Agreement is terminated pursuant to any of the provisions above, the effective date of such termination shall be deemed the "Early Termination Date."

2.4 Recovery of AEC Costs. PECO's obligations under this Agreement are contingent on, and limited by, PECO's ability to recover all costs incurred by it under this Agreement from its retail customers in full and on a current basis. In the event that any Requirement of Law (including any change in a Requirement of Law or repeal of all or any portion of the Act) or any action by the RTO should (i) have the effect of suspending, limiting or denying PECO's ability to recover fully such costs from its retail customers on a current basis, (ii) preclude PECO from using AECs purchased under this Agreement for compliance with the Act, (iii) require PECO to refund costs previously recovered from its retail customers for AECs, or (iv) require PECO to incur additional expense, including but not limited to purchase of the energy associated with any AECs procured under this Agreement, PECO may, in its sole discretion and without any obligation to seek relief from such Requirement of Law or action by the RTO: (x) terminate this Agreement, as set forth in Section 2.2.4; or (y) elect to continue performing under the Agreement and pay the Seller only the costs for the AECs which PECO is permitted to recover on a current basis from its retail customers.

2.5 Right of First Refusal. Upon termination of this Agreement, until the earlier of the Termination Date or three (3) years after the Early Termination Date, PECO shall have a right of first refusal to purchase any AECs that may be generated by the Facility at the Contract Price and in accordance with the terms of this Agreement.

2.6 Survival.

2.6.1 Termination of this Agreement for any reason shall not relieve PECO or Seller of any obligation accrued or accruing prior to such termination, and the following provisions of this Agreement shall survive any termination: Sections 2.6, 2.7, 3.2, 3.3, 3.4, 3.5, 3.7, 6.4, 6.6, 7.4, 7.6, 7.7, 11.2, 11.3, 12.1, and Articles 9 and 14.

2.6.2 In addition, if this Agreement is terminated pursuant to:

(a) Section 2.2.2, the Non-Defaulting Party may pursue the remedies provided in Article 9;

(b) Section 2.2.3, 2.2.4, or 2.2.5, the Parties may not pursue the remedies provided for in Article 9 and are entitled to receive only amounts due and owing as of the Early Termination Date and under Section 6.1, if any.

2.7 Preservation of Security. In the event that Seller has provided a Letter of Credit under the terms of this Agreement, Seller will preserve the Letter of Credit in place until all payments due under this Agreement for which the Letter of Credit has been provided have been made in full.

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SECRETARY'S BUREAU

ARTICLE 3
PURCHASE AND SALE OF AECs

3.1 Purchase and Sale of AECs. Subject to the terms and upon the conditions and provisions of this Agreement, Seller shall sell, and PECO shall purchase, all rights, title and interest in the AECs generated by the Facility up to the Contract Amount for each Contract Year.

3.2 Delivery of AECs by Seller. For each Month of the Term, Seller shall Deliver Certificates to PECO for all AECs created by the Facility in such Month (the "Monthly AECs") until PECO has received the Contract Amount for the current Contract Year, provided that where the Contract Amount is less than the Total Facility AEC Commitment, Seller may Deliver a proportion of the Monthly AECs equal to the product of the number of Monthly AECs multiplied by the Contract Amount and divided by the Total Facility AEC Commitment. The Delivery of the Monthly AECs shall be completed no later than the fortieth (40th) day following the end of such Month, or such other date as PECO and the Seller may agree to in writing. Seller and PECO are each responsible for their own costs associated with establishing and administering any accounts with the Registry sufficient to accomplish the Delivery of all AECs. Seller agrees to execute all other documents or instruments, at its expense, necessary to effectuate the Delivery of the AECs to PECO or as may be reasonably requested by PECO. All AECs transferred to PECO shall be free and clear of all Liens. Nothing in this Section shall reduce Seller's obligations under Section 3.4.

3.3 Ownership of and Title to AECs. PECO shall have sole, exclusive and perpetual ownership of all AECs Delivered to PECO by Seller under this Agreement, including all rights to sell, assign, transfer, apply or retire any AEC transferred to PECO by Seller, provided, however, that Delivery of an AEC shall not transfer eligibility or other rights to PTCs or similar benefits or subsidies for generation of electricity that may be available for the Facility. Title to AECs shall not transfer to PECO prior to Delivery by Seller. Any benefits derived from the AECs after Delivery to PECO shall inure solely to the benefit of PECO and not to Seller.

3.4 Contract Amount Guarantee. Seller shall transfer a total amount of AECs from the Facility equal to the Contract Amount for each Contract Year. In the event that Seller is unable to transfer an amount of AECs equal to the Contract Amount for each Contract Year for any reason other than a Force Majeure Event, Seller shall, within forty-five (45) days of the end of such Contract Year, transfer an amount of AEPS Tier 1 Non-Solar Resource AECs to PECO through the Registry which is equal to the amount of AECs Seller failed to provide from the Facility for such Contract Year (each a "Replacement AEC"). Any Replacement AEC transferred to PECO by Seller pursuant to the preceding sentence shall be available to PECO for purposes of compliance under the Act for the two AEPS Reporting Years following the last Month of the Contract Year. In the event that Seller fails to provide Replacement AECs as provided under this Section, Seller shall pay PECO within forty-five (45) days of the end of the Contract Year an amount equal to Forty-Five Dollars (US\$45) (a "Replacement AEC Payment") for each AEC which Seller fails to transfer to PECO for such Contract Year as liquidated damages.

3.5 Non-Compliant AECs. In the event that any AEC transferred to PECO is subsequently determined to be unable to be used by PECO for AEPS compliance due to Seller's

failure to comply with any obligation under this Agreement, Seller shall transfer an equivalent AEC to PECO. All AECs transferred to PECO under this Section shall be available for use by PECO for purposes of compliance under the Act as if the AEC had been created at the time the non-compliant AEC was created. Any additional costs or penalties incurred by PECO resulting from the transfer of non-compliant AECs by Seller shall be paid for by Seller.

3.6 Excess AECs. In the event that Seller shall generate from the Facility and possess AECs in excess of the Contract Amount during any Contract Year, Seller shall have the right to Deliver such AECs to PECO during the first month of the subsequent Contract Year, to be applied towards Seller's obligations to Deliver AECs in that subsequent year, provided that Seller shall provide notice to PECO of its intent to apply such excess AECs no later than June 30 following the Contract Year in which the excess AECs are created. Such excess AECs must be delivered no later than July 31 of the subsequent Contract Year. Except as provided in this Section, PECO shall have no obligation to purchase any AECs in excess of the Contract Amount generated in any Contract Year. Any other AECs created by the Facility in excess of the Contract Amount shall not be Delivered or otherwise transferred to PECO except to the extent Seller elects to Deliver such AECs for purposes of satisfying its obligations under Section 3.4.

3.7 No Sale of Electricity and Capacity. Seller shall retain all rights and title to all electricity generated by the Facility and all capacity associated with the Facility, and shall be responsible for any and all costs and charges associated with such electricity and capacity, including all costs and charges applicable to or required for the delivery of Energy to or from the Energy Delivery Point. As between PECO and Seller, Seller shall be deemed to be in exclusive control of, and responsible for, any damage or injury caused by, the Facility or electricity generated by the Facility.

3.8 Financing. PECO shall have no responsibility whatsoever for any financing or costs necessary to construct or operate the Facility or deliver AECs under this Agreement.

3.9 Priority of PECO Obligations. Seller shall not Deliver AECs generated by the Facility in any Month to any other Person prior to satisfying its obligation to deliver AECs from the Facility to PECO under this Agreement. Any agreement by Seller with respect to AECs generated by the Facility in any Month shall be expressly made subject to this obligation.

ARTICLE 4

FACILITY DEVELOPMENT [ARTICLE MAY BE MARKED RESERVED FOR EXISTING SYSTEMS]

4.1 Development of Facility. Subject to the terms and conditions of this Agreement, Seller represents, warrants and guarantees:

4.1.1 Except as expressly permitted otherwise by this Agreement, the Facility shall be developed and achieve Commercial Operation in accordance with this Agreement and the Significant Milestone Schedule set forth in Exhibit 2.

4.1.2 The Facility shall be designed in compliance with all applicable Permits, each applicable Requirement of Law and Prudent Utility Practice, and for qualification as an Alternative Energy System. The Facility will be capable of supplying AEPS Tier I Non-Solar

Resource-generated Energy to create AECs in a safe and reliable manner, consistent with the requirements of each applicable Requirement of Law, the Interconnection Agreement and Prudent Utility Practice.

4.1.3 All Permits necessary for the construction and operation of the Facility, including land use permits, environmental review and authorizations, grading and building permits, and licenses necessary to operate, deliver and sell the Net Electricity of the Facility shall be obtained and maintained, and Seller will provide PECO with evidence of all essential Permits (including copies of any Permit upon PECO's request).

4.1.4 All construction and testing of the Facility shall be in compliance with all applicable Permits, each applicable Requirement of Law, the Interconnection Agreement and Prudent Utility Practice.

4.1.5 Seller shall give prompt written notice to PECO of any modifications to the Facility after the Effective Date and a brief description of the reasons for the modifications and confirmation that such modifications shall not affect the location of the Facility or the Contract Amount, except that Seller may modify or revise the Contract Amount and Contract-Related Capacity in accordance with Section 4.5.

4.2 **Seller Reports.** Seller shall provide monthly reports to PECO on the Facility prior to the Commercial Operation Date in the form attached as Exhibit 4.

4.3 **Failure to Achieve Significant Milestones or Contract Amount.** Seller shall immediately notify PECO of (i) any inability of Seller to achieve a Significant Milestone in accordance with the Significant Milestone Schedule for any reason, or (ii) any determination by Seller that the Facility shall be incapable of providing the Contract Amount upon Commercial Operation. Seller acknowledges that failure to achieve a Significant Milestone in accordance with the Significant Milestone Schedule or inability to provide the Contract Amount upon Commercial Operation, unless otherwise excused under the provisions of this Agreement, shall constitute a material breach of this Agreement and permit PECO to terminate this Agreement and retain the Development Security as provided in Section 6.1.

4.4 **Extension of Significant Milestones.** Subject to the notice requirements of Section 4.3, in the event that Seller does not achieve or determines that it will not achieve a Significant Milestone in accordance with the Significant Milestone Schedule, Seller shall provide a revised Significant Milestone Schedule to PECO. PECO shall review this revised Significant Milestone Schedule and, in PECO's sole discretion and subject to Section 6.1, PECO may approve an extension of one or more Significant Milestones. Any such approval by PECO shall be in writing.

4.5 **Downsizing of Facility.** In the event that Seller determines that the Facility shall be incapable of providing the Contract Amount of AECs upon Commercial Operation, Seller may request that PECO agree to a downsizing of the Facility under which the Facility would provide a lesser amount of AECs. PECO shall review any downsizing request and, in PECO's sole discretion and subject to Section 6.1, may approve a downsizing of the Facility and a revised

Contract Amount and Contract-Related Capacity. Any such approval by PECO shall be in writing.

4.6 Other Reasons for Delay. Seller shall be excused from a failure to meet the Commercial Operation Date where Seller can establish that such a failure is attributable solely to any delay or failure by PECO in taking any action or obtaining any consents or approvals from Governmental Authorities or third parties required for PECO to perform its obligations under this Agreement, the Interconnection Agreement or any Construction Service Agreement, unless such delay or failure to act is consistent with Prudent Utility Practice or results from delays or failure to take timely action by Seller or other third party, whether or not caused by any conditions or events of Force Majeure, and in the event of such a failure, the Commercial Operation Date shall be extended for a period of time equal to the duration of the resulting delay.

ARTICLE 5 SELLER OBLIGATIONS

5.1 Generation of AECs. Subject to the terms and conditions of this Agreement, Seller shall ensure operation of the Facility to generate Net Electricity sufficient to deliver the Contract Amount of AECs during each Contract Year of the Term.

5.2 Facility Obligations. During the Term, at its sole cost and expense, Seller represents, warrants and guarantees that:

5.2.1 The Facility (including all Generating Units) shall be operated, controlled and maintained in compliance with all Requirements of Laws and Prudent Utility Practice;

5.2.2 All of the Interconnection Facilities located at the Facility shall be operated, controlled and maintained to the extent required in the Interconnection Agreement without expense to PECO (except as may be otherwise provided in the Interconnection Agreement), including any system upgrades beyond the Energy Delivery Point necessary to interconnect with the Grid for delivery of Net Electricity;

5.2.3 The Facility shall obtain, maintain and comply with all Permits and agreements (including the Interconnection Agreement and all environmental permits) that are required or desirable in order for the Facility and Seller to generate, schedule, deliver, meter and transmit electricity and generate AECs in compliance with this Agreement, except as otherwise permitted by Requirements of Law or by written agreement with PECO;

5.2.4 Seller shall take all actions necessary for the scheduling and delivery of the Net Electricity to PJM;

5.2.5 The Facility shall be maintained as an Alternative Energy System under the Act;

5.2.6 Seller shall possess sole and exclusive legal rights to an AEC prior to the transfer of such AEC to PECO under this Agreement;

5.2.7 Seller shall transfer only valid AECs to PECO which have not been previously retired, claimed or used to satisfy any renewable energy requirements, obligations or voluntary undertaking by any entity in any jurisdiction;

5.2.8 Seller and the Facility shall comply with all RTO requirements that are necessary for Seller to comply with its obligations under this Agreement, and Seller shall be responsible for all costs or charges that are required by the RTO to enable the Grid to accept Net Electricity from the Facility; and

5.2.9 Seller shall comply with all Registry requirements that are necessary for Seller to perform its obligations under this Agreement.

5.3 Site Control. At all times after the Effective Date, Seller shall ensure site control ("Site Control") of the Premises, which means that Seller shall have all rights to the Premises necessary to perform its obligations under the Agreement. Seller shall provide PECO with prompt notice of any change in the status of Seller's Site Control.

5.4 Insurance.

5.4.1 Seller shall maintain, at its sole expense, insurance of the types and in the following amounts, commencing with the Effective Date and continuing through the Term:

(a) Workers Compensation insurance with statutory limits, as required by the state in which the Facility is located, and employer's liability insurance with limits of not less than one million dollars (\$1,000,000.00) per occurrence.

(b) Commercial general liability insurance (with coverage consistent with ISO CG 0001 (10/98)) providing bodily injury, property damage, and personal injury/advertising injury with a combined single limit of not less than one million dollars (\$1,000,000.00) per occurrence and shall include blanket contractual covering Seller's obligations under this Agreement, and products/completed operations.

(c) Automobile liability insurance for owned, non-owned, and hired automobiles with a combined single limit of not less than one million dollars (\$1,000,000.00) per accident.

(d) Excess or Umbrella liability insurance with a combined single limit of not less than ten million dollars (\$10,000,000.00) per occurrence and project or per location aggregate. These limits apply in excess of each of the above mentioned policies.

(e) Property insurance covering the Facility, including personal property and business interruption, under an "All Risks of Physical Loss" policy including, without limitation, coverage for loss or damage by fire and such other hazards as may be included in the standard "All Risk of Physical Loss" policy. Such insurance shall be written in an amount equal to 100% of the full cost of replacement of the Facility.

5.4.2 Insurance coverage provided by Seller under Agreement shall not include any of the following: any claims made insurance policies; any self-insured retention or deductible amount greater than two hundred fifty thousand dollars (\$250,000.00) unless approved in writing by Seller; any endorsement limiting coverage available to PECO which is otherwise required by this Agreement; any policy or endorsement wording that negates coverage to PECO for PECO's own negligence; any policy or endorsement language which limits the duty to defend PECO under the policy; and any policy or endorsement language which provides coverage to PECO only if Seller is negligent.

5.4.3 To the extent permitted by applicable Requirements of Laws, all above-mentioned insurance policies shall provide the following:

- (a) Be primary to any other insurance carried by PECO;
- (b) Contain standard cross-liability provisions; and
- (c) Provide for a waiver of all rights of subrogation which Seller's insurance carrier might exercise against PECO.

5.4.4 All liability insurance policies shall name PECO, its officers, directors, employees, agents, representatives, Affiliates, subsidiaries, successors, and assigns, as additional insureds, shall be primary to any other insurance carried by PECO, and shall provide coverage consistent with ISO CG 2026(11/85), and shall maintain the required coverages, naming PECO as an additional insured, for a period of not less than three (3) years from the end of the Term.

5.4.5 Seller shall provide evidence of the required insurance coverage and file with PECO a certificate of insurance acceptable to PECO prior to the Effective Date or at such other date as PECO may specify in writing. The insurance and the insurance policies required by this Article shall contain a provision that coverages afforded under the policies will not be canceled, allowed to expire or the limits in any manner reduced until at least thirty (30) days prior written notice (ten (10) days in the case of nonpayment of premium) has been given to PECO. PECO may inspect any or all policies of insurance at any time.

5.4.6 Seller shall waive all rights of subrogation against PECO under those policies procured in accordance with this Agreement.

5.4.7 All insurance coverage shall be provided by insurance companies acceptable to PECO and having ratings of A-/VII or better in the Best's Key Rating Insurance Guide (latest edition in effect at the latest date stated in the certificates of insurance referred to in Section 5.4.5).

5.4.8 Failure to obtain and maintain the required insurance shall constitute a breach of the Agreement and Seller will be liable for any and all costs, liabilities, damages, and penalties (including attorneys' fees, court, and settlement expenses) resulting to PECO from such breach, unless a written waiver of the specific insurance requirement is provided to Seller by PECO.

5.4.9 Failure of Seller to provide insurance as herein required or failure of PECO to require evidence of insurance or to notify Seller of any breach by Seller of the requirements of this Article 5 shall not be deemed to be a waiver by PECO of any of the terms and conditions of this Agreement, nor shall they be deemed to be a waiver of the obligation of Seller to defend, indemnify, and hold harmless PECO as required herein. The obligation to procure and maintain any insurance required is a separate responsibility of Seller and independent of the duty to furnish a copy or certificate of such insurance policies.

5.4.10 Notwithstanding any provision of this Agreement, none of the requirements contained herein as to types, limits, or PECO's approval of insurance coverage to be maintained by Seller are intended to and shall not in any manner limit, qualify, or quantify the liabilities and obligations assumed by Seller under this Agreement, any other agreement with PECO or its Affiliates, or otherwise provided by law.

5.5 Authorized Representatives. As a means of securing effective cooperation and interchanges of information and of providing consultation on a prompt and orderly basis between the Parties in connection with various administrative, commercial and technical issues that may arise during the performance of this Agreement, each Party shall appoint an authorized representative (with respect to each Party, the "Authorized Representative") and may appoint an alternate (with respect to each Party, the "Alternate Representative") to act in its Authorized Representative's absence. The Authorized Representatives and Alternate Representatives shall be managers well experienced with regard to matters relating to the implementation of the Parties' rights and obligations under this Agreement with full authority to act for and on behalf of the Party appointing them. Upon execution of this Agreement, each Party will notify the other in writing of the name of its Authorized Representative and Alternate Representative so appointed and these appointments will remain in full force and effect until written notice of substitution is delivered by such Party to the other Party.

5.6 Access to Facility; Publicity. Upon reasonable prior notice (in light of the circumstances), Seller will provide PECO and its authorized agents, employees and inspectors with reasonable access to the Facility: (i) to provide tours of the Facility to customers and other guests of PECO, (ii) to ascertain the status of the Facility with respect to any Significant Milestone or any other obligation of Seller under this Agreement, and (iii) for other reasonable purposes at the reasonable request of PECO. PECO shall also be permitted to take photographs of the Facility for use by PECO for publicity purposes and internal communications. No party shall issue any press release or make any public announcement relating to the subject matter of this Agreement without the prior written approval of the other parties, which approval shall not be unreasonably withheld.

ARTICLE 6 CREDIT AND COLLATERAL REQUIREMENTS

6.1 Development Security. *[Section may be marked reserved for Existing Systems]*

6.1.1 If the Facility has not achieved Commercial Operation by the Effective Date, Seller shall post and thereafter maintain development security equal to \$3.75 per AEC of the Contract Amount ("Development Security") upon execution of this Agreement. The

Development Security shall be held by PECO as security for Seller meeting the Commercial Operation Date. The Development Security shall be in the form of either a cash deposit or a Letter of Credit as provided for in Section 6.5.

6.1.2 The following provisions shall govern disposition of the Development Security:

(a) In the event that the Facility achieves Commercial Operation by the original Commercial Operation Date established on the Effective Date, the entire Development Security shall be returned to Seller.

(b) In the event that the Commercial Operation Date is extended pursuant to the provisions of Section 4.4 for a period of 180 days or less and the Facility achieves Commercial Operation on such extended date, Seller shall be entitled only to a portion of the Development Security equal to (i) the Development Security, less (ii) 0.00555 multiplied by the number of calendar days that the Commercial Operation Date is delayed beyond the original Commercial Operation Date, multiplied by the Development Security. The portion of the Development Security retained by PECO shall be kept as liquidated damages, and PECO shall be entitled to retain the entire Development Security as such liquidated damages in the event that the Commercial Operation Date is extended more than 180 days.

(c) In the event that the Commercial Operation Date is not extended pursuant to the provisions of Section 4.4, but the Facility is resized pursuant to the provisions of Section 4.5, Seller shall be entitled only to a portion of the Development Security equal to (i) \$3.75 per AEC multiplied by (ii) the revised Contract Amount resulting from the resizing. The remainder of the Development Security shall be kept by PECO as liquidated damages.

(d) In the event that the Commercial Operation Date is extended pursuant to the provisions of Section 4.4 and the Seller meets such extended date but the Facility is resized pursuant to the provisions of Section 4.5, Seller shall be entitled only to a portion of the Development Security equal to (i) \$3.75 per AEC multiplied by (ii) the revised Contract Amount resulting from the resizing less (iii) 0.00555 multiplied by the number of calendar days that the Commercial Operation Date is delayed beyond the original Commercial Operation Date, multiplied by \$3.75 per AEC multiplied by the revised Contract Amount resulting from the resizing. The remainder of the Development Security shall be kept by PECO as liquidated damages.

(e) If some or all of the Development Security is to be returned to the Seller under this Section 6.1, it shall be returned within thirty (30) Business Days of the achievement of the Commercial Operation Date, with interest paid only if Seller satisfied the Development Security requirements by providing Cash to PECO. Such interest shall be calculated using the London Interbank Offered Rate (LIBOR) at the time of the Cash is returned to Seller, plus thirty (30) basis points.

(f) In the event the Seller fails to obtain the Commercial Operation Date Milestone, as may be extended pursuant to Section 4.4, PECO may terminate this Agreement pursuant to Section 9.1 and retain the entire Development Security.

6.1.3 The Parties acknowledge and agree that it is difficult or impossible to determine with precision the amount of damages that would or might be incurred by PECO as a result of the Facility failing to operate by the Commercial Operation Date Milestone. It is understood and agreed by the Parties that (a) PECO shall be damaged by failure of Seller to meet such obligations, (b) it would be impracticable or extremely difficult to fix the actual damages resulting therefrom, (c) any sums which would be creditable or payable under this Article 6 are in the nature of liquidated damages, and not a penalty, and are fair and reasonable, and (d) each payment represents a reasonable estimate of fair compensation for the losses that may reasonably be anticipated from each such failure. The liquidated damages available under this Section shall constitute PECO's sole damages for failure of the Seller to achieve the Commercial Operation Date or for any resizing of the Facility as provided in Article 4.

6.2 Credit Support. The Seller shall post security with PECO, on the Commercial Operation Date, in an amount equal to \$7.50 per AEC of the Contract Amount. In the event that a Requirement of Law shall become effective that imposes penalties in excess of \$45 per AEC on PECO (or persons acting on its behalf) for failure to purchase or otherwise procure specified levels of AECs for an AEPS Reporting Year or any other requirement, the Seller shall post additional security with PECO in proportion to which the penalties exceed \$45 per AEC.

6.3 Grant of Security Interest. To secure its obligations under this Agreement, Seller hereby grants to PECO a present and continuing security interest in, and lien on (and right of setoff against), and assignment of, all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, PECO, provided, however, that such interest may be junior to an interest granted by Seller in such collateral or proceeds for purposes of financing the development, construction or operation of the Facility. Seller agrees to take such action as reasonably required to perfect in favor of PECO such security interest in, and lien on (and right of setoff against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof.

6.4 Remedies. Upon or any time after the occurrence of an Event of Default caused by Seller, PECO may do any one or more of the following: (i) exercise any of the rights and remedies of the Company with respect to all collateral, including any such rights and remedies under law then in effect; (ii) exercise its rights of setoff against any and all property of Seller in the possession of PECO, whether held in connection with this Agreement or any other agreement(s) between PECO and Seller for the provision of Energy and AECs; (iii) draw on any outstanding Letter of Credit issued for PECO's benefit; and (iv) liquidate all collateral security held by or for the benefit of the PECO free from any claim or right of any nature whatsoever of the Seller, including any equity or right of purchase or redemption by the Seller. PECO shall apply the proceeds of the collateral security realized upon the exercise of such rights or remedies to reduce Seller's obligation under this Agreement or any other agreement(s) between PECO and Seller for the provision of Energy and AECs (the Seller remaining liable for any amounts owing

to the Company after such application), subject to PECO's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

6.5 Security Instruments. At Seller's choice, the following are deemed to be acceptable methods for posting security (each, a "Security Instrument"), if required:

6.5.1 Cash; or

6.5.2 An irrevocable transferable standby letter of credit (a "Letter of Credit") acceptable to the Company issued by a bank or other financial institution with a minimum "A" senior unsecured debt rating from S&P or Moody's (the "Issuer Minimum Requirements"). (A standard format for the Letter of Credit is provided in Exhibit 5.) In the event that senior unsecured debt ratings are unavailable from S&P, the corporate issuer rating, discounted one notch, will be used. In the event that senior unsecured debt ratings are unavailable from Moody's, the issuer rating will be used. The Company will only rely on senior unsecured debt ratings, or if unavailable, issuer or corporate issuer ratings. If the Seller does not have a senior unsecured debt rating and does not have an issuer or corporate issuer rating from a rating agency, it will be deemed by the Company not to be rated by that rating agency. The Letter of Credit shall state that it shall renew automatically for successive one-year or shorter periods unless the Company receives written notice from the issuing financial institution at least ninety (90) days, but not more than one hundred twenty (120) days, prior to the expiration date stated in the Letter of Credit that the issuing financial institution elects not to extend the Letter of Credit. If the Company receives notice from the issuing financial institution that the Letter of Credit will not be extended, the Seller will be required to provide a substitute Letter of Credit from an alternative bank or financial institution satisfying the Issuer Minimum Requirements. The receipt of the substitute Letter of Credit must be effective on or before the expiration date of the expiring Letter of Credit and delivered to the Company at least thirty (30) days before the expiration date of the original Letter of Credit. If the Seller fails to supply a substitute Letter of Credit as required herein, then the Company will have the right to draw on the expiring Letter of Credit and to hold the amount as collateral. If the credit rating of the issuer of a Letter of Credit falls below the Issuer Minimum Requirements, the Seller shall have two (2) Business Days (or such longer period as the Company in its sole discretion may permit in writing) following written notice by the Company to obtain a suitable Letter of Credit from another bank or other financial institution that meets the Issuer Minimum Requirements.

6.6 Calling on Security. The Company may call upon the Security Instrument posted by the Seller (i) if the Seller fails to pay amounts due to the Company pursuant to this Agreement or any other agreement(s) between the Company and the Seller for the provision of Energy and AECs after written notice of default is provided to the Seller and any applicable cure period ends; and (ii) with respect to the Development Security, to satisfy PECO's rights to such portions of the Development Security specified in Section 6.1. The foregoing notwithstanding, the Security Instrument posted by the Seller shall become due automatically, and may be called upon by the Company, without prior notice or right of cure in the case of any Event of Default involving the Seller arising under Section 9.1.1.

6.7 Interest on Cash Held by Company. The Company will pay simple interest (not compounded) calculated at the lower of the Interest Rate or six (6) percent per annum on any

Cash posted by the Seller as Performance Security and directly held by the Company pursuant to this Agreement.

ARTICLE 7 BILLING AND PAYMENT; RECORDS

7.1 Invoices. Beginning with the first Month after the Effective Date, Seller shall send PECO a statement each Month setting forth all amounts due either to the Seller or to PECO arising during the preceding Month. The statement shall include (i) after the commencement of the Term, the quantity of AECs that were Delivered by Seller to PECO during such Month and the total amount owed by PECO for those AECs at the Contract Price, (ii) any interest due to Seller as provided in Section 6.7, and (iii) any other amount due Seller or to PECO under this Agreement in respect of such Month (including the amount of any Replacement AEC Payment). Such statement shall be sent by Seller to PECO within the first fifteen (15) Business Days of the Month immediately following the Month for which the statement is applicable.

7.2 Payment. Subject to all conditions and provisions of this Agreement (including Section 7.7), no later than thirty (30) Business Days after the date of a statement submitted by Seller, or if such day is not a Business Day, the immediately following Business Day, the Party owing the net amount shown to be due on such statement shall remit to the other Party, by wire transfer in accordance with Section 12.1, the amount due pursuant to such statement.

7.3 Interest. Amounts not paid shall accrue interest from the due date to the date of payment at the Interest Rate.

7.4 Taxes. Seller shall be responsible for all existing and any new taxes, fees, levies, assessments, penalties, licenses, or charges imposed or levied by any federal, state or local governmental agency (collectively, "Taxes") on the electricity and capacity associated with the Facility and on all AECs prior to and including the transfer of AECs under this Agreement. PECO shall be responsible for all existing and any new Taxes imposed or levied by any federal, state or local governmental agency on AECs after transfer to PECO. If PECO is required to remit or pay Taxes that are Seller's responsibility under this Agreement, then Seller shall promptly reimburse PECO for such Taxes. If Seller is required to remit or pay Taxes that are PECO's responsibility under this Agreement, then PECO shall promptly reimburse Seller for such Taxes.

7.5 Disputed Amounts. If either Party, in good faith, disputes any amount due pursuant to a statement rendered hereunder, such Party shall notify the other Party of the specific basis for the dispute and shall pay that portion of the amount shown to be due on the statement that is undisputed, on or before the due date. If any amount disputed by such Party is determined to be due the other Party, whether by agreement of the Parties or through arbitration in accordance with Section 13.2, the amount due shall be paid within five (5) Business Days of such determination or resolution, along with interest accrued at the Interest Rate from the date due to the date paid. Notwithstanding the above, no dispute may be made with respect to any statement or payment hereunder unless a Party questions the accuracy of such payment or statement within one year after the date of such statement or payment.

7.6 Records. Each Party shall keep and maintain all records as may be necessary or useful in performing or verifying any calculations made pursuant to this Agreement, or in verifying such Party's performance hereunder. All such records shall be retained by each Party for at least three (3) calendar years following the calendar year in which such records were created.

7.7 Audit Rights. Each Party, through its authorized representatives, shall have the right, at its sole expense and during normal business hours, to examine and copy the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made hereunder or to verify the other Party's performance of its obligations hereunder. If any statement is determined by the Parties or through arbitration to be inaccurate, a corrected statement shall be issued and any amount due thereunder will be promptly paid and shall bear interest calculated at the Interest Rate from the date of the overpayment or underpayment to the date of receipt of the reconciling payment. Notwithstanding the above, no adjustment shall be made with respect to any statement or payment hereunder unless a Party questions the accuracy of such statement or payment within one year after the date of such statement or payment.

ARTICLE 8 REPRESENTATIONS AND WARRANTIES

8.1 Mutual Representations. As a material inducement to execution of this Agreement, each Party hereby represents and warrants to the other Party that:

8.1.1 It is duly organized or formed, validly existing and in good standing under the laws of the jurisdiction of its organization or formation, and is qualified to conduct its business in all jurisdictions necessary to perform its obligations hereunder;

8.1.2 The execution, delivery and performance of this Agreement are within its powers, have been duly authorized by all necessary action and do not violate any of the terms or conditions in its governing documents, any agreement to which it is a party or by which it or any of its property is bound, or any Requirement of Law applicable to it;

8.1.3 Except as set forth in and as required by this Agreement, no consent, approval, order or authorization of, or registration, declaration or filing with, any Governmental Authority is required by such Party in connection with the execution, delivery or performance of this Agreement;

8.1.4 This Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with its terms, subject to bankruptcy, insolvency, reorganization and other laws affecting creditor's rights generally, and with regard to equitable remedies, to the discretion of the court before which proceedings to obtain same may be pending;

8.1.5 No Event of Default has occurred and there are no bankruptcy, insolvency, reorganization, receivership or other arrangement proceedings pending or being contemplated by it, or to its knowledge threatened against it;

8.1.6 To such Party's knowledge, there are no actions, proceedings, judgments, rulings or orders, issued by or pending before any court or other governmental body, that would materially adversely affect its ability to perform its obligations under this Agreement;

8.1.7 It is, and will continue to be for the Term, a Forward Contract Merchant both generally and with respect to the AECs delivered and purchased under this Agreement.

8.2 Forward Contract and Master Netting Agreement. The Parties acknowledge that this Agreement is a Forward Contract and the Parties are Forward Contract Merchants, both generally and with respect to the deliveries of AECs pursuant to this Agreement, that each party is an "eligible contract participant" as set forth in the Commodities Exchange Act; and, accordingly, the Parties are entitled to the protections of the Safe Harbor Provisions of the Bankruptcy Code. The Parties further acknowledge that this Agreement constitutes a Master Netting Agreement. The Parties therefore agree that this Agreement may be terminated and the remedies hereunder exercised by either Party in accordance with Article 2 and Article 9 hereof upon the commencement of a proceeding by the other Party under any chapter of the Bankruptcy Code, and that the automatic stay of Section 362(a) of the Bankruptcy Code shall not apply to such termination.

8.3 No Representation or Warranty By PECO of Facility or Seller. Any review by PECO of any information or material pertaining to the Seller or the Facility (including its design, operation, and compliance with Requirements of Law) is solely for PECO's information only. By conducting such review, PECO makes no representation or warranty as to the Seller or to the Facility, including its reliability, capacity, economic viability, operation, performance, safety, or compliance with Requirements of Law, RTO Requirements, or Prudent Utility Practice. PECO does not endorse or in any way approve of any representation or warranty of Seller in any agreement or to any Person, and Seller shall not make any such representation that PECO has given any such approval.

ARTICLE 9 EVENTS OF DEFAULT AND REMEDIES

9.1 Events of Default. An "Event of Default" by a Party (the "Defaulting Party") shall mean:

9.1.1 With respect to Seller, unless otherwise excused or permitted under the terms of this Agreement, the following events, without notice or the opportunity to cure, if the Seller:

(a) fails to achieve the Commercial Operation Date or any other Significant Milestone in accordance with the Significant Milestone Schedule, as may be extended pursuant to the provisions of Article 4;

(b) fails to meet the ratings requirements or to comply with the collateral requirements set forth in Article 6 within the time frames set forth in this Agreement;

(c) fails to provide at least ten percent (10%) of the Contract Amount of AECs for any Contract Year from the Facility;

(d) (1) fails to make any payment when due (whether by scheduled maturity, required prepayment, acceleration, demand or otherwise) in respect of any indebtedness for borrowed money involving a principal sum in excess of \$5,000,000 ("Material Debt") and such failure continues after the applicable grace or notice period, if any, specified in the relevant document on the date of such failure, or (2) fails to perform or observe any other condition or covenant, or any other event shall occur or condition exist, under any agreement or instrument relating to any Material Debt, if, in any such event, the effect of such failure, event or condition is to cause, or permit the holder or holders thereof or beneficiary or beneficiaries thereof (or a trustee or agent on behalf of such holder or holders or beneficiary or beneficiaries) to cause (after the expiration of any applicable grace period or notice period, if any, specified in the relevant document on the date of such failure) such Material Debt to become due and payable or to be repurchased, defeased or redeemed prior to its expressed maturity;

(e) is dissolved (other than pursuant to a consolidation, amalgamation or merger);

(f) makes an assignment for the benefit of its creditors;

(g) has a secured party take possession of all or substantially all of its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all of its assets; or

(h) has a resolution passed for its winding-up, official management or liquidation (other than pursuant to a consolidation, amalgamation or merger).

9.1.2 With respect to either Party, an Event of Default shall occur if such Party:

(a) is the subject of a voluntary bankruptcy, insolvency or similar proceeding;

(b) applies for, seeks consent to, or acquiesces in the appointment of a receiver, custodian, trustee, liquidator or similar official to manage all or a substantial portion of its assets;

(c) is the subject of an involuntary bankruptcy or similar proceeding, and fails to have such proceeding dismissed within 60 days; or

(d) commits an act or makes an omission that constitutes an "Event of Default" under any other agreement(s) between PECO and the Seller for the provision of Energy or AECs.

9.1.3 Unless otherwise excused or permitted under the terms of this Agreement, a Party's failure to make, when due, any payment required pursuant to this Agreement,

regardless of whether a payment or portion thereof may be subject to a billing dispute, shall constitute an Event of Default unless a Party shall have cured the same within three (3) Business Days after receipt of written notice of such payment failure from the other Party.

9.1.4 Unless otherwise excused or permitted under the terms of this Agreement, any of the following events shall constitute an Event of Default unless a Party shall have cured the same within thirty (30) days after receipt of written notice of the occurrence of such event from the other Party:

(a) Any representation, warranty or covenant made by such Party herein is proven to be false or misleading in any material respect at the time it was made;

(b) A Party transfers or assigns or otherwise conveys any of its rights or obligations under this Agreement to another entity without the other Party's prior written consent, to the extent such consent is required under this Agreement, or if at the time of such transfer, assignment or conveyance, the resulting, surviving or transferee entity fails to assume all the obligations of such Party under this Agreement by operation of law or pursuant to an agreement reasonably satisfactory to the other Party;

(c) A Party's unexcused failure to perform any other material covenant or obligation set forth in this Agreement that is not enumerated in this Section 9.1; or

(d) with respect to Seller, Seller fails to have and maintain, during the Term, all federal, state and local Permits to permit its performance under this Agreement.

9.2 Rights Upon Default. Upon and during the continuation of an Event of Default, the Non-Defaulting Party shall be entitled to elect or pursue one or more of the following remedies:

9.2.1 terminate the Agreement by providing written notice to the Defaulting Party of an Early Termination, as provided in Section 2.2;

9.2.2 accelerate all amounts then owing by the Defaulting Party to the Non-Defaulting Party;

9.2.3 withhold any payments due to the Defaulting Party under this Agreement;

9.2.4 suspend its performance under this Agreement; and

9.2.5 pursue any other remedies available at law or in equity, except to the extent such remedies are expressly limited by this Agreement.

9.3 Reliance on Netting. The Parties are making credit, default, collateral and other decisions and changes based upon and in reliance on the effectiveness of the default, early

termination, setoff and netting provisions of this Agreement. The Parties would not enter into this Agreement and would change their position with regard to netting except for their reliance on and with the understanding that these netting terms will be effective. Notwithstanding anything else in this Agreement or in any other agreement between the Parties to the contrary, if for any reason these terms or any right of offset or netting hereunder or under another agreement in favor of the Non-Defaulting Party against a bankrupt Defaulting Party is delayed from being exercised or is not enforceable in accordance with its terms because either Party asserts or is concerned that the Safe Harbor Provisions of the Bankruptcy Code do not apply to such rights of enforcement or for any other reason, the Non-Defaulting Party may (a) exercise its rights to effect a setoff under Section 553 of the Bankruptcy Code or other applicable provisions, equity and law, and (b) withhold payments subject to a claim of offset under any obligations due the Defaulting Party in respect of any transactions or deliveries under this Agreement or any other agreement until such setoff rights are exercised and effected.

9.4 Setoff of Payment Obligations of the Non-Defaulting Party. Any payment obligations of the Non-Defaulting Party to the Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the Seller for the provision of Energy or AECs shall be set off: (i) first, to satisfy any payment obligations of the Defaulting Party to the Non-Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the Seller for the provision of Energy or AECs that are unsecured; (ii) second, to satisfy any payment obligations of the Defaulting Party to the Non-Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the Seller for the provision of Energy or AECs that are unsecured, but which are subject to a guaranty; and (iii) third, to satisfy any remaining payment obligations of the Defaulting Party to the Non-Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the Seller for the provision of Energy or AECs. Any setoff shall not be subject to the automatic stay by virtue of Section 362(b)(6) of the Bankruptcy Code.

9.5 Preservation of Rights of the Non-Defaulting Party. The rights of the Non-Defaulting Party under this Agreement, including Sections 9.3 and 9.4 shall be supplemental to, and not in lieu of, any right of recoupment, lien, or set-off afforded by applicable Requirements of Law, and all such rights are expressly preserved for the benefit of the Non-Defaulting Party.

9.6 Integrated Transaction. To the extent that Section 365 of the Bankruptcy Code applies to this Agreement, the Parties agree that all transactions under this Agreement constitute one integrated transaction that can only be assumed or rejected in its entirety.

ARTICLE 10 ASSIGNMENT

10.1 Assignment. Neither Party shall assign this Agreement or any of its rights or obligations hereunder (including by lease, subcontract, or otherwise) without the prior written consent of the other Party. Notwithstanding the foregoing, either Party may, without the need for consent from the other Party, transfer or assign this Agreement to an Affiliate of such Party, providing that the assigning Party shall provide notice to the other Party and shall remain responsible for its obligations under the Agreement. In all such transfers and assignments, the succeeding Party must agree to comply with all the provisions, terms and conditions of this

Agreement, including the credit and collateral security requirements set out in Article 6. Except as specifically provided in this Article 10, any assignment or transfer of this Agreement or any rights, duties or interests hereunder by any Party without the written consent of the other Party shall be void and of no force or effect.

10.2 Collateral Assignment by Seller. Without the consent of PECO, Seller may, in its discretion, make a collateral assignment of this Agreement to any and all lenders or grant any or all lenders a lien or security interest in any right, title or interest in part or all of the Facility or any or all of Seller's rights under this Agreement for the purpose of the financing or refinancing of the Facility; provided, however, that Seller shall provide notice of each such assignment (including the identity of the assignee) prior to assignment and such assignment shall recognize PECO's rights under this Agreement. In order to facilitate the obtaining of financing or refinancing of the Facility, PECO shall cooperate with Seller and execute consents, agreements or similar documents with respect to a collateral assignment hereof to any lender as such lender may reasonably request in connection with the financing or refinancing of the Facility, including an agreement to give notice to such lenders of any default by Seller under this Agreement and to allow such lenders to cure any such default during periods which are equal to and consistent with the cure periods Seller has under this Agreement, provided that PECO shall be reasonably satisfied that any such consents, agreements or similar documents do not in any manner adversely affect its rights under this Agreement or impose material obligations on PECO except with respect to providing any additional notice of default and opportunity to cure consistent with this Agreement.

ARTICLE 11 FORCE MAJEURE; INDEMNITY; LIMITATION OF LIABILITY

11.1 Force Majeure. If either Party is rendered unable by a Force Majeure event to carry out, in whole or in part, its obligations under this Agreement, then, during the pendency of such event of Force Majeure, but for no longer period, the obligations of the affected Party (other than the obligation to make payments hereunder when due) shall be suspended to the extent required. The affected Party shall (i) give the other Party written notice within 48 hours of the commencement of the Force Majeure event, with details to be supplied within three (3) Business Days after the commencement of the Force Majeure event further describing the particulars of the occurrence of the Force Majeure event, and (ii) take all reasonable steps to remedy the cause of the Force Majeure event with all reasonable dispatch. Whenever either Party is required to commence or complete any action within a specified period, such period shall be extended by an amount equal to the duration of any event of Force Majeure occurring or continuing during such period; provided, however, that in no event will any Force Majeure event extend this Agreement beyond its Term. A determination of force majeure by the PaPUC under the Act shall not constitute an event of Force Majeure under this Agreement.

11.2 Indemnification.

11.2.1 Each Party shall indemnify and hold harmless the other Party and its officers, directors, agents and employees (each an "Indemnified Party") from and against any and all claims, demands, actions, losses, liabilities, expenses (including reasonable legal fees and expenses), suits and proceedings of any nature whatsoever for personal injury, death or property

damage to third parties (collectively "Liabilities") that arise out of or are in any manner connected with the performance of this Agreement.

11.2.2 Without limiting the foregoing, Seller shall indemnify, defend and hold harmless PECO (and any PECO Indemnified Party) from any Liabilities arising from the Net Electricity that occur when title of the Net Electricity is vested in Seller and for any Claims arising from the design, construction, and operation of the Facility.

11.2.3 Any fines, penalties or other costs incurred by a Party or its agents, employees or subcontractors for non-compliance by such Party, its agents, employees or subcontractors with any Requirement of Law will not be reimbursed by the other Party but will be the sole responsibility of such non-complying Party.

11.2.4 A Party seeking indemnification under this Section 11.2 shall give written notice to the indemnifying Party as soon as reasonably practicable after the Indemnified Party becomes aware of any fact, condition or event which may give rise to Liabilities for which indemnification may be sought under this Section 11.2.

11.3 Limitations of Remedies, Liability and Damages. The Parties agree that the remedies and measures of damages provided in this Agreement satisfy the essential purposes hereof. If no measure of damages or other remedy is expressly provided herein, the obligor's liability shall be limited to direct actual damages only, which direct actual damages shall be the sole and exclusive remedy and all other remedies or damages at law or in equity are waived. Unless otherwise provided herein, neither Party shall be liable for consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages, (other than consequential, incidental, punitive, exemplary or indirect damages, lost profits or other business interruption damages recovered by an unaffiliated third party against a Party subject to indemnification hereunder), whether such damages are allowed or provided by statute, in tort, under any indemnity provision or otherwise.

ARTICLE 12 NOTICES AND ADDRESS FOR PAYMENT

12.1 Notices.

12.1.1 Except as set forth in Section 12.1.2, all notices, requests, statements or payments, if by check, shall be made to the addresses set out below. Notices required to be in writing shall be delivered by letter, facsimile or other documentary form. Notice by facsimile or hand delivery shall be deemed to have been received by the close of the Business Day during which the notice is received or hand delivered. Notice by mail or overnight courier shall be deemed to have been received upon delivery as evidenced by the delivery receipt.

To PECO:

with a copy to: PECO Energy Acquisition
S6-2
2301 Market Street
Philadelphia, PA 19103

Attn: Director, PECO Energy Acquisition

to Seller:

12.1.2 All notices, demands or requests regarding credit requirements and credit related security or deposit transfers shall be in writing and shall be personally delivered or sent by overnight express mail, courier service or facsimile transmission (with the original transmitted by any of the other aforementioned delivery methods) to the addresses specified below:

To PECO:

with a copy to: PECO Energy Acquisition
S6-2
2301 Market Street
Philadelphia, PA 19103

to Seller:

12.1.3 All amounts due Seller under this Agreement that are paid by check must be sent via United States mail to the address specified below:

12.1.4 All amounts due PECO under this Agreement that are paid by check must be sent via United States mail to the address specified below:

PECO Energy Acquisition
S6-2
2301 Market Street
Philadelphia, PA 19103

12.1.5 A Party's address or addressee to which notices or invoices shall be sent may be changed from time to time by such Party by notice served as hereinabove provided.

12.2 Notice After Close of Business. Notice received after the close of the Business Day shall be deemed received on the next Business Day; provided, however, that notice by facsimile transmission shall be deemed to have been received by the recipient if the recipient confirms receipt telephonically or in writing.

ARTICLE 13 DISPUTE RESOLUTION

13.1 Negotiations. The Parties shall attempt in good faith to resolve all disputes arising out of or related to or in connection with this Agreement promptly by negotiation, as provided in this Section. Any Party may give the other Party written notice of any dispute not

resolved in the normal course of business. Executives of both Parties at levels one level above the personnel who have previously been involved in the dispute shall meet at a mutually acceptable time and place within ten (10) Business Days after delivery of such notice, and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute. If the matter has not been resolved within thirty (30) Business Days from the referral of the dispute to senior executives, or if no meeting of senior executives has taken place within fifteen (15) Business Days after such referral, either Party may initiate arbitration as provided in Section 13.2. All negotiations pursuant to this clause are confidential, shall be considered to be in the nature of settlement discussions and shall be subject to Section 13.3.

13.2 Arbitration.

13.2.1 If the negotiation process provided for in Section 13.1 has not resolved the dispute, the dispute shall be decided by binding arbitration at Philadelphia, Pennsylvania in accordance with the Commercial Arbitration Rules of the American Arbitration Association (except as expressly provided otherwise herein). The arbitration shall be governed by the United States Arbitration Act (9 U.S.C. § 1 *et seq.*), and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. This agreement to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith will be specifically enforceable under the prevailing arbitration law of any court having jurisdiction. Any arbitration may be consolidated with any other arbitration proceedings between the Parties commenced under this Section 13.2. The award of the arbitrator shall be specifically enforceable in a court of competent jurisdiction.

13.2.2 Either Party may commence the arbitration by giving to the other Party written notice in sufficient detail of the existence and nature of any dispute proposed to be arbitrated. The demand must be made within a reasonable time after the dispute has arisen. In no event may the demand for arbitration be made if the institution of legal or equitable proceedings based on such dispute is barred by the applicable statute of limitations. The Parties shall attempt to agree on a person to serve as arbitrator with respect to the matter at issue. If the Parties cannot agree on an arbitrator within ten (10) Business Days of such notice, each shall then appoint one individual to serve as an arbitrator within thirty (30) Business Days of such notice and the two (2) individuals thus appointed shall select a third arbitrator to serve as chairman of the panel of arbitrators. Such three (3) arbitrators shall determine all matters by majority vote; provided however, if the two (2) arbitrators appointed by the Parties are unable to agree upon the appointment of the third arbitrator within ten (10) Business Days after their appointment, both shall give written notice of such failure to agree to the Parties, and, if the Parties fail to agree upon the selection of such third arbitrator within five (5) Business Days of such notice, then either of the Parties upon written notice to the other may require such appointment from, and pursuant to the rules of, the Philadelphia office of the American Arbitration Association for commercial arbitration. Any arbitrator appointed shall be a present or former executive of an electric utility, or private power producer, or an attorney, in each case with substantial experience in electric power purchase agreements. Prior to appointment, each arbitrator shall agree to conduct such arbitration in accordance with the terms of this Agreement.

13.2.3 The Parties shall have sixty (60) calendar days after appointment of all arbitrators to perform discovery and present evidence and argument to the arbitrators. During that period, the arbitrators shall be available to receive and consider all such evidence as is relevant and, within reasonable limits due to the restricted time period, to hear as much argument as is feasible, giving a fair allocation of time to each Party to the arbitration. The arbitrators shall use all reasonable means to expedite discovery and to sanction noncompliance with reasonable discovery requests or any discovery order. The arbitrators shall not consider any evidence or argument not presented during such period and shall not extend such period except by the written consent of both parties. At the conclusion of such period, the arbitrators shall have forty-five (45) calendar days to reach a determination.

13.2.4 The arbitrators shall have the right only to interpret and apply the terms and conditions of this Agreement and to order any remedy allowed by this Agreement, and may not change any term or condition of this Agreement, deprive either Party of any right or remedy expressly provided hereunder, or provide any right or remedy that has been excluded hereunder.

13.2.5 The arbitrators shall give a written decision to the Parties stating their findings of fact, conclusions of law and order, and shall furnish to each Party a copy thereof signed by them within five (5) calendar days from the date of their determination. Each party shall pay the cost of the arbitrator or arbitrators, with respect to those issues as to which they do not prevail, as determined by the arbitrator or arbitrators.

13.3 Settlement Discussions. The Parties agree that no statements of position or offers of settlement made in the course of the dispute process described in Section 13.1 above will be offered into evidence for any purpose in any litigation or arbitration between the Parties, nor will any such statements or offers of settlement be used in any manner against either Party in any such litigation or arbitration. Further, no such statements or offers of settlement shall constitute an admission or waiver of rights by either Party in connection with any such litigation or arbitration. At the request of either Party, any such statements and offers of settlement, and all copies thereof, shall be promptly returned to the Party providing the same.

13.4 Preliminary Injunctive Relief. Nothing in this Article 13 shall preclude, or be construed to preclude, the resort by either party to a court of competent jurisdiction solely for the purposes of securing a temporary or preliminary injunction to preserve the status quo or avoid irreparable harm pending arbitration pursuant to this Article 13.

ARTICLE 14 MISCELLANEOUS

14.1 Entire Agreement. This Agreement constitutes the entire agreement between the Parties with respect to the subject matter hereof, and it supersedes all prior oral or written agreements, commitments, negotiations or understandings with respect to the matters provided for herein.

14.2 Schedules and Exhibits. The Schedules and the Exhibits attached hereto are hereby incorporated into this Agreement and are hereby made a part hereof as if set out in full herein.

14.3 Amendment. Unless expressly provided otherwise in another provision of this Agreement, this Agreement shall not be amended, altered or modified except by an instrument in writing duly executed by both Parties. It is agreed that no use of trade or other regular practice or method of dealing between the Parties hereto shall be used to modify, interpret, supplement, or alter in any manner the terms of this Agreement.

14.4 Waiver. Any agreement on the part of a Party to any extension or waiver of any provision hereof shall be valid only if set forth in an instrument in writing signed on behalf of such Party. A waiver by a Party of the performance of any covenant, agreement, obligation, condition, representation or warranty shall not be construed as a waiver of any other covenant, agreement, obligation, condition, representation or warranty. A waiver by a Party of the performance of any act shall not constitute a waiver of the performance of any other act or an identical act required to be performed at a later time.

14.5 Remedies Cumulative. No right or remedy herein conferred upon or reserved to either Party is intended to be exclusive of any other right or remedy, and each and every right and remedy shall be cumulative and in addition to any other right or remedy under this Agreement, or under applicable law, whether now or hereafter existing.

14.6 Binding Effect; Limitation of Benefits. This Agreement shall be binding upon and shall insure to the benefit of the Parties hereto and, subject to the provisions of Article 10 hereof, their successors and permitted assigns. Nothing in this Agreement is intended to confer benefits, rights or remedies unto any Person other than the Parties and their permitted successors and assigns, and no third party shall have the right to enforce the provisions of this Agreement.

14.7 Compliance with Laws. Except as otherwise provided in this Agreement, each Party to this Agreement shall comply, at its own expense, with all applicable laws, statutes, regulations, rules, ordinances, orders, injunctions, writs, decrees or awards of any government or political subdivision thereof, or any agency, authority, bureau, commission, department or instrumentality thereof, or any court, tribunal, or arbitrator, in all applicable, material respects in connection with all activities and all performance under or in connection with this Agreement.

14.8 Governing Law. The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the Commonwealth of Pennsylvania, without giving effect to any choice of conflict of law provision or rule (whether of the Commonwealth of Pennsylvania or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the Commonwealth of Pennsylvania.

14.9 No Partnership or Joint Venture. This Agreement is not intended to create nor shall it be construed to create any partnership or joint venture relationship between PECO and Seller, and neither Party hereto shall have the power to bind or obligate the other Party. Neither Party hereto shall be liable for the payment or performance of any debts, obligations, or liabilities of the other Party, unless expressly assumed in writing herein or otherwise. Each Party retains full control over the employment, direction, compensation and discharge of its employees, and will be solely responsible for all compensation of such employees, including social security, withholding and worker's compensation responsibilities.

14.10 Headings. The titles, headings and table of contents contained in this Agreement are inserted for convenience of reference only, shall not be deemed to be a part of this Agreement for any purpose, and shall not in any way define or affect the meaning, construction or scope of any of the provisions hereof.

14.11 Number of Days. In computing the number of days for purposes of this Agreement, all days shall be counted, including Saturdays, Sundays, and holidays; provided, however, that if the final day of any time period falls on a Saturday, Sunday, or holiday, then the final day shall be deemed to be the next day which is not a Saturday, Sunday, or holiday.

14.12 E-mail in Place of Writing. Where the parties agree, any written notification required by this Agreement may be transmitted via e-mail.

14.13 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under the domestic laws of the Commonwealth of Pennsylvania as provided herein, but if any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future Laws effective during the term hereof, then (a) in lieu of such illegal, invalid or unenforceable provision, the Parties shall promptly endeavor, in good faith negotiations, to agree on a provision as may be possible and be legal, valid and enforceable, provided that no Party shall be required to agree to any provision that would materially alter any of its rights or obligations under this Agreement, and (b) the legality, validity and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby. To the extent permitted by Law, each Party hereby waives any provision of Law that renders any such provision prohibited or unenforceable in any respect.

14.14 Counterparts. This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which taken together shall constitute one single agreement between the Parties.

[Signatures Appear on the Following Page]

IN WITNESS WHEREOF, this Agreement has been executed and delivered by the duly authorized representatives of PECO and Seller as of the date first written above.

PECO ENERGY COMPANY,
a Pennsylvania Corporation

By: _____

Name: _____

Title: _____

[SELLER]

a _____

By: _____

Name: _____

Title: _____

**EXHIBIT 1
FACILITY DESCRIPTION**

Facility Name:

Facility Address:

Energy Delivery Point:

Description of Facility Generating Units and related facilities (including number, manufacturer and model of Facility Generating Units, and layout):

Description of Interconnection Facilities:

Nameplate Capacity Rating:

Estimated Capacity Factor:

The attached site map indicates the location and layout of the Facility equipment and other site details.

The attached diagram shows the Energy Delivery Point, metering devices and other equipment installed at the Facility substation.

RECEIVED

NOV 28 2010

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

**EXHIBIT 2
SIGNIFICANT MILESTONE SCHEDULE**

Major Permits Milestone date:

Major Permits [list here]:

- 1.
- 2.
- 3.

Financing Milestone date:

Notice to Proceed Date to Major Generation Equipment Supplier(s):

Notice to Proceed Date to Balance of Plant Contractor:

Construction Milestone Dates:

Commercial Operation Date Milestone (On or before December 31, 200_):

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NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

**EXHIBIT 3
CONTRACT TERMS**

Contract Amount (AECs / Contract Year):

Initial Period Contract Amount (AECs to be delivered to PECO during a partial AEPS Reporting Period after Commercial Operation):

Contract-Related Capacity (MW):

Total Facility AEC Commitment (Total AECs/Contract Year):

Contract Price (\$/AEC):

RECEIVED

NOV 28 2010

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

EXHIBIT 4

MILESTONE PROGRESS REPORTING FORM

Each Milestone Progress Report shall include the following items:

1. Cover Page
2. Brief Facility description.
3. Description of any planned changes to the Facility and the Site description in Exhibit I.
4. Bar chart schedule showing progress on achieving Seller's Significant Milestone Schedule, together with a written explanation of such progress.
5. PERT or GANT chart showing critical path schedule of major items and activities.
6. Summary of activities during the Month covered by the report.
7. Forecast of activities scheduled for the current Month.
8. List of issues that could potentially impact achievement of Seller's Significant Milestone Schedule.
9. Enumeration and schedule of any support or actions requested of PECO.
10. Progress and schedule of all agreements, contracts, permits, approvals, technical studies, financing agreements and major equipment purchase orders showing the start dates, completion dates, and completion percentages.
11. A status report of start-up activities, including a forecast of activities ongoing and after start-up, a report on Facility performance including performance projections for the next twelve (12) Months.

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1968 U.S. 10

COMMUNICATIONS SECTION
LABORATORY BUREAU

EXHIBIT 5

SAMPLE LETTER OF CREDIT

[On Issuing Bank's Letterhead]

IRREVOCABLE TRANSFERABLE STANDBY LETTER OF CREDIT

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

_____ (Date)

Letter of Credit No. _____

To: PECO Energy Company

[address]

Attention: _____

1. We hereby establish this Irrevocable Transferable Standby Letter of Credit (this "Letter of Credit") in your favor in the amount of USD \$ _____, effective immediately and available to you at sight upon demand at our counters at _____ [designate Issuing Bank's location for presentments] and expiring at 5:00 PM [New York, NY time¹] on _____, 200_, [one year after date of issuance] (the "Initial Expiration Date"), unless terminated earlier in accordance with the provisions of Paragraph 11 hereof or extended one or more times in accordance with the provisions of Paragraph 10 hereof (the "Extended Expiration Date"; the latest of the Initial Expiration Date and any Extended Expiration Date being referred to herein as the "Expiration Date").
2. This Letter of Credit is issued at the request and for the account of _____ (including its successors and assigns, the "Applicant"), to secure its obligations under one or more Alternative Energy Purchase and Sale Agreements between you and the Applicant or its affiliates.
3. We hereby irrevocably authorize you to draw on us, in accordance with the terms and conditions hereof, up to the amount available under this Letter of Credit from time to time, subject to reduction as provided in Paragraph 8. A partial or full drawing hereunder may be presented by you on any Business Day on or prior to the Expiration Date by delivering or transmitting to _____ (identify Issuing Bank), _____ (U.S. address), (a) a notice executed by you substantially in the form of Annex 1 hereto, appropriately completed and duly signed by your Authorized Officer and (b) your draft substantially in the form of Annex 2 hereto, appropriately completed and duly

¹ If the issuer of the Letter of Credit is located in an area that is not in the Eastern time zone, this time and all other times in this Letter of Credit, and the definition of a Business Day should be adjusted accordingly

signed by your Authorized Officer.

4. Drafts, document(s) and other communications hereunder may be presented or delivered to us by facsimile transmission. Presentation of documents to effect a draw by facsimile must be made to the following facsimile number: _____, and confirmed by telephone to us at the following number: _____. In the event of a presentation via facsimile transmission, no mail confirmation is necessary and the facsimile transmission will constitute the operative drawing documents.
5. We will honor a drawing hereunder made in compliance with the terms and provisions of this Letter of Credit by transferring in immediately available funds the amount specified in your draft (or so much thereof as is available hereunder) delivered or transmitted to us in connection with such drawing to the account designated as provided below, by 3:00 PM [New York, NY time] on the date of such drawing, if delivery or transmission of the requisite documents pursuant to Paragraph 3 hereof is made prior to 11:00 AM [New York, NY time] on a Business Day, but at the opening of business on the first Business Day next succeeding the date of such drawing if delivery or transmission of the requisite documents pursuant to Paragraph 3 hereof is made on or after 11:00 AM [New York, NY time] on any Business Day.
6. If a demand for payment made by you hereunder does not, in any instance, conform to the terms and conditions of this Letter of Credit, we shall give you notice not later than the time provided in Paragraph 5 above for honor of a drawing presented to us, that the demand for payment was not effected in accordance with the terms and conditions of this Letter of Credit, stating the reasons therefor and that we will upon your instructions hold any documents at your disposal or return the same to you. Upon being notified that the demand for payment was not effected in conformity with this Letter of Credit, you may attempt to correct any such non-conforming demand for payment to the extent that you are entitled to do so, provided, however, in such event a conforming demand for payment must be timely made in accordance with the terms of this Letter of Credit.
7. Unless otherwise hereafter designated in writing to us by your Authorized Officer, all payments made by us under this Letter of Credit shall be transmitted by wire transfer to you pursuant to the following instructions:

PECO Energy Company

Account No.: _____

Bank: _____

Bank's Address: _____

ABA Routing No.: _____

Contact: _____

Telephone No.: _____

8. Partial drawings are permitted hereunder and multiple drawings are permitted hereunder. The amount available for drawing by you under this Letter of Credit shall be automatically

reduced to the extent of the amount of any drawings referencing this Letter of Credit paid by us. Presentation of demands for drawings in amounts that exceed the amount available to be drawn hereunder shall not be deemed a failure to comply with the requirements of Paragraph 3 hereof, provided that the amounts payable on any such demand shall not exceed the amount then available to be drawn under this Letter of Credit.

9. We may, but shall not be obligated to, accept any request by you to amend this Letter of Credit to increase or decrease the amount available hereunder. Such request may be made pursuant to a "New Availability Request" in the form of Annex 3 hereto appropriately completed and executed by your Authorized Officer delivered to us requesting us to amend this Letter of Credit to change the amount available hereunder to the amount set forth in such New Availability Request. Upon acceptance by us of your New Availability Request to change the amount of this Letter of Credit, we will issue to you an amendment of this Letter of Credit in the amount set forth in the New Availability Request. The amount available under this Letter of Credit from the date of such amendment shall be the full amount stated therein regardless of our honor and payment of draws under this Letter of Credit prior to such amendment. If we fail to issue an amendment complying with your New Availability Request within two (2) Business Days after we receive it, any such amendment issued thereafter decreasing the amount of this Letter of Credit, even if in accordance with your New Availability Request, shall require your express acceptance before it is effective.
10. It is a condition of this Letter of Credit that its Expiration Date shall be automatically extended from its Initial Expiration Date, or any Extended Expiration Date, for successive one year periods unless you receive written notice from us at least ninety (90) but not more than one hundred twenty (120) days prior to the then current Expiration Date, sent by Federal Express or other nationally recognized next business day courier or delivery service to you at your address stated above (or such other address an Authorized Officer of your notifies us of in writing) that we elect not to extend this Letter of Credit for such additional one year period.
11. This Letter of Credit shall terminate on the earliest of the date (a) you have made drawings which exhaust the amounts available to be drawn under this Letter of Credit, (b) we receive from you a Certificate of Cancellation in the form of Annex 4 hereto together with the original of this Letter of Credit returned for cancellation, or (c) unless extended, 5:00 PM [New York, NY time] on the Expiration Date.
12. Rule 3.14(a) of the ISP as it applies to this Letter of Credit is hereby modified to provide as follows:

If on the last Business Day for presentation the place for presentation stated in this Letter of Credit is for any reason closed, then the last day for presentation is automatically extended to the day occurring thirty calendar days after the place for presentation re-opens for business.

Rule 3.14(b) of the ISP is hereby modified by providing that any alternate place for presentation we may designate pursuant to this rule must be in the United States.

13. As used herein:

“Authorized Officer” shall mean President, Treasurer, any Vice President or any Assistant Treasurer.

“Business Day” shall mean any day on which commercial banks are not authorized or required to close in [New York, New York] and any day on which payments can be effected on the Fedwire system.

“New Availability Request” shall mean a request form substantially in the form of Annex 3 hereto, appropriately completed and duly signed by your Authorized Officer.

14. This Letter of Credit is transferable pursuant to a notice of transfer in the form of Annex 5 hereto, to an entity you identify to us in such instrument as your transferee, and we hereby consent to such transfer. Any and all transfer fees, expenses and costs shall be borne by the Applicant. Any payments made under this Letter of Credit after its transfer shall be made to the account of the transferee as designated to you by an Authorized Officer of the transferee.
15. This Letter of Credit is subject to and shall be governed by the International Standby Practices 1998 (International Chamber of Commerce Publication No. 590), or any successor publication thereto (the “ISP”), except to the extent that the terms hereof are inconsistent with the provisions of the ISP, in which case the terms of this Letter of Credit shall govern. This Letter of Credit shall, as to matters not governed by the ISP or matters inconsistent with the ISP, be governed and construed in accordance with the laws of the State of [New York], without regard to principles of conflicts of law.
16. This Letter of Credit sets forth in full our undertaking, and such undertaking shall not in any way be modified, amended, changed, amplified or limited by reference to any document, instrument or agreement referred to herein, except for Annexes 1 through 5 hereto and the notices referred to herein; and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except as set forth above. Except as otherwise expressly stated herein, this Letter of Credit may not be amended or modified by us without the consent of an Authorized Officer of the beneficiary.
17. We certify that as of the date of issuance of this Letter of Credit our senior unsecured debt is rated “A” or better by Standard & Poor’s Rating Service.
18. This original Letter of Credit has been delivered to you as beneficiary in accordance with the Applicant’s instructions. Any demands or communications in the form of the attached

Annexes or other communications directed to us under this Letter of Credit must be signed by your Authorized Officer.

Very truly yours,
(Issuing Bank)

By: _____

ARTICLE 1: Annex 1 to Letter of Credit

DRAWING UNDER LETTER OF CREDIT NO. _____

_____, 20__

To: (Issuing
(Address)

Attention: Standby Letter of Credit Unit

Ladies and Gentlemen:

The undersigned is making a drawing under Your Letter of Credit No. _____ (the Letter of Credit) in the amount specified below and hereby certifies to you as follows:

1. Capitalized terms used herein that are not defined herein shall have the meanings ascribed thereto in the Letter of Credit.
2. The undersigned is making a drawing under the Letter of Credit in the amount of USD \$ _____ (the "Draw Amount").
3. [Check applicable drawing condition]:
 - An Event of Default has occurred under an Alternative Energy Credits Purchase and Sale Agreement between the Applicant and the undersigned, which entitles the undersigned to draw on the Letter of Credit for the Draw Amount.
 - The Commercial Operation Date for the Facility that is subject to an Alternative Energy Credits Purchase and Sale Agreement between the Applicant and the undersigned has been delayed, which entitles the undersigned to draw on the Letter of Credit for the Draw Amount.
 - The Facility that is subject to an Alternative Energy Credits Purchase and Sale Agreement between the Applicant and the undersigned has been downsized, which entitles the undersigned to draw on the Letter of Credit for the Draw Amount.
 - The Letter of Credit is scheduled to expire within the next thirty (30) days and the Applicant has failed to deliver a replacement letter of credit as required by the terms of the Alternative Energy Credits Purchase and Sale Agreement between the Applicant and the undersigned, which entitles the undersigned to draw on the Letter of Credit for the Draw Amount.

4. The undersigned acknowledges that, upon your honoring the drawing herein requested, the amount of the Letter of Credit available for drawing shall be automatically decreased by the amount of this drawing honored by you.

Very truly yours,

PECO Energy Company

By _____

Name:

Title:

Date:

cc: _____ [Applicant]

ARTICLE 2: Annex 2 to Letter of Credit

SIGHT DRAFT

Amount: \$ _____

Date: _____, 20__

At sight, pay to the order of PECO Energy Company, the sum of _____ U.S. Dollars.

Drawn under Irrevocable Letter of Credit No. _____ of _____ [identify Issuing Bank] dated _____, 200__.

To: _____ [Issuing Bank]
_____ [Address]

PECO Energy Company

By _____
Name:
Title:

ARTICLE 3: Annex 3 to Letter of Credit

NEW AVAILABILITY REQUEST

_____, 20____
To: (Issuing Bank)
(Address)

Attn: Standby Letter of Credit Dept.

[Applicant]
[Address]
Attn:

Re: _____ [Issuing Bank] Letter of Credit No.
_____ (the "Letter of Credit")

Ladies and Gentlemen:

Pursuant to Paragraph 9 of the above-referenced Letter of Credit, the undersigned hereby requests that _____ [Issuing Bank] issue and deliver to us as beneficiary of the above-referenced Letter of Credit, an amendment to it to provide that the amount available for drawing thereunder from the date of the amendment will be in the amount of \$ _____ (the "New Amount"), but otherwise the terms of the above-referenced Letter of Credit shall remain unchanged.

Please acknowledge your agreement to amend the Letter of Credit to the New Amount by issuing and forwarding the requested amendment of the Letter of Credit in the New Amount to the attention of the undersigned at the address listed below within two Business Days after the first Business Day on which you receive this Request.

Very truly yours,

PECO Energy Company

By _____
Name:
Title:
Date:

_____ [Address]

ARTICLE 4: Annex 4 to Letter of Credit

CERTIFICATE OF CANCELLATION

_____, 20__

To: (Issuing Bank)
(Address)

Attention: Standby Letter of Credit Unit/Your Letter of Credit No. _____

Ladies and Gentlemen:

The undersigned hereby certifies to you that the above-referenced Letter of Credit may be cancelled without further payment. Attached hereto is the original Letter of Credit, marked cancelled.

PECO Energy Company

By _____
Name:
Title:
Date:

cc: _____ [Applicant Name]

ARTICLE 5: Annex 5 to Letter of Credit

NOTICE OF TRANSFER

_____, 20____
To: _____ [Issuing Bank]
_____ [Address]

To Whom It May Concern:
Re: Your Letter of Credit No. _____

For value received, the undersigned beneficiary hereby irrevocably transfers to:

(Name of Transferee)

(Address)

all rights of the undersigned beneficiary to draw and receive payments under the above-referenced Letter of Credit in its entirety.

By this transfer, all rights of the undersigned beneficiary in such Letter of Credit are transferred to the transferee, and the transferee shall have the sole rights as beneficiary thereof, including sole rights relating to any amendments, whether increases or extensions or other amendments and whether now existing or hereafter made. All amendments are to be advised directly to the transferee without necessity of any consent of or notice to the undersigned beneficiary.

The original Letter of Credit is returned herewith, and we ask you to endorse the transfer thereon and forward it directly to the transferee at the address indicated above with your customary notice of transfer or issue a new Letter of Credit in the form of the Letter of Credit naming the transferee as the beneficiary thereof.

From and after the transfer of the Letter of Credit, payments under the Letter of Credit shall be made to an account of the transferee in accordance with written instructions you receive from an authorized officer of the transferee.

Pursuant to the Letter of Credit and your agreement with the Applicant, your transfer commission and any other expenses that may be incurred by you in conjunction with this transfer are payable by the Applicant.

Very truly yours,

Beneficiary:

PECO Energy Company

By: _____

Name: _____

Title: _____

The within signature with title as stated conforms to that on file with us and is authorized for the execution of said instruments.

[Name of authenticating bank]

(Authorized signature of authenticating party)

Name:

Title:

EXHIBIT 2

NON-BINDING NOTICE OF INTENT TO BID

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

RECEIVED

NOV 28 1964

SECRETARY'S BUREAU
PUBLIC UTILITY COMMISSION

NON-BINDING NOTICE OF INTENT TO BID

All entities intending to bid in response to this PECO RFP must submit a Notice of Intent to Bid by _____. Neither this requirement nor bidder's submission of this Notice shall constitute an offer. Submission of this Notice does not impose any requirement or obligation to submit an Application or Bid Proposal.

Name of Facility:

Legal Name of Bidder:

Brief Description of Facility, including type of generation, nameplate capacity, location (including interconnection point), and development or operational status:

Contact Information for Authorized Representative:

Name:

Title:

Address:

E-Mail:

I hereby certify that I am an officer or other authorized representative of the Bidder named above and submit this Notice of Intent to Bid on behalf of the Bidder.

By: _____

Name: _____

Title: _____

Date:

EXHIBIT 3

RFP BIDDER APPLICATION CHECKLIST

RECEIVED

NOV 23 2010

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

RFP BIDDER APPLICATION CHECKLIST

Facility Name:		Bidder No.:									
Name of Bidder:											
Contact:		Title:									
E-mail:		Phone:									
Address:	City:	State:	Zip Code:								
<p><u>INSTRUCTIONS</u></p> <p>A signed original of this checklist must be attached to the Bidder's original Application, with a copy attached to each of the three required additional Application copies.</p>											
<p><input type="checkbox"/> RFP Bidder Application Checklist (this document)</p> <p><input type="checkbox"/> Bidder Application</p> <p><input type="checkbox"/> Executed Confidentiality Agreement</p> <p><input type="checkbox"/> Bid Deposit (certified check only to: PECO Energy Company)</p> <p>Contract Amount (total) of Bids for Facility (Annual AECs) Bid Deposit:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;"><input type="checkbox"/> 1,000 to 4,999</td> <td style="padding-left: 100px;">\$ 5,000</td> </tr> <tr> <td style="padding-left: 20px;"><input type="checkbox"/> 5,000 to 49,999</td> <td style="padding-left: 100px;">\$10,000</td> </tr> <tr> <td style="padding-left: 20px;"><input type="checkbox"/> 50,000 to 99,999</td> <td style="padding-left: 100px;">\$25,000</td> </tr> <tr> <td style="padding-left: 20px;"><input type="checkbox"/> Over 100,000</td> <td style="padding-left: 100px;">\$50,000</td> </tr> </table> <p style="text-align: center;"><u>SIGNATURE OF AUTHORIZED REPRESENTATIVE</u></p>				<input type="checkbox"/> 1,000 to 4,999	\$ 5,000	<input type="checkbox"/> 5,000 to 49,999	\$10,000	<input type="checkbox"/> 50,000 to 99,999	\$25,000	<input type="checkbox"/> Over 100,000	\$50,000
<input type="checkbox"/> 1,000 to 4,999	\$ 5,000										
<input type="checkbox"/> 5,000 to 49,999	\$10,000										
<input type="checkbox"/> 50,000 to 99,999	\$25,000										
<input type="checkbox"/> Over 100,000	\$50,000										
<p>I am an officer or other authorized representative of the Bidder and certify that all of the information, statements, data and representations in the attached Application are true to the best of my knowledge and belief. I hereby submit this Application on behalf of the Bidder and acknowledge that this submission constitutes acceptance and agreement to all terms of PECO's Alternative Energy Credits Requests for Proposal (issued [date]).</p>											
Signature:		Date:									
Name:		Title:									

EXHIBIT 4

FORM OF BIDDER APPLICATION

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

FORM OF BIDDER APPLICATION

All Bidder Applications shall be printed and bound, with Bidder information organized in sections (separated by numbered tabs) in the following order. All capitalized terms shall have the meaning set forth in the form Alternative Energy Credit and Purchase Agreement.

Section 1. Facility Information.

Bidder shall provide a written description of the Facility of no more than 20 pages, which details the following:

- Address of the Facility and legal description of the Facility site
- Basis for certification of Facility as an Alternative Energy System, including description of the electric generation process at the Facility
- Nameplate capacity and anticipated annual energy output of the Facility
- Major equipment (e.g., types of turbines), with specifications
- Fuel supply
- Impact Assessment studies (e.g., wind reports, environmental reports)
- Interconnection Status
- Plans for sale of generation from the Facility
- Anticipated useful life of the Facility

Bidder shall also include a site layout plan and one-line diagrams showing electric generation, collection and transmission to the delivery point for PJM.

Section 2. Project Schedule.

For a Facility in development, Bidder shall provide a project milestone schedule. The schedule should include milestone dates for site control, facility construction, equipment supply and delivery, permitting, interconnection, financing, commissioning, and commercial operation.

Section 3. Property Rights.

Bidder shall describe bidder's level of Site Control (including easements and rights-of-way) and provide documentation of Bidder's rights to the property on which the Facility is (or will be) located, including and conditions or limitations upon use affecting those rights, including all rights necessary to interconnect with the Grid.

Section 4. Permits and Government Approvals.

Bidder shall list all federal, state and local permits or approvals required for the Facility, including (i) permit or approval status; (ii) date of issue or expected date of issue; and (iii) expected expiration date. Bidder shall provide copies of all permits and approvals, applications, and relevant associated correspondence.

Section 5. Contracts.

Bidder shall describe all contracts or agreements necessary for development and commercial operation of the Facility and the status of such contracts or agreements, including:

- Contracts for sale of generation or AECs from the Facility.
- Equipment supply agreements
- Equipment warranty agreements
- Any Construction Service Agreement
- Any EPC Agreement
- Any Operations and Maintenance Agreements

Section 6. Interconnection.

Bidder shall describe in detail the status of the interconnection of the Facility to PJM, including: (i) the interconnection point; (ii) the status of any interconnection agreement or request for interconnection agreement and anticipated date for execution; (iii) the status of any interconnection studies (e.g., Feasibility, System Impact). Bidder shall attach correspondence documenting the interconnection status of the Facility or the method by which electricity from the Facility will be delivered to PJM for purposes of PJM GATS.

Section 7. Bidder Information.

Bidder shall provide the following information:

- Bidder organizational structure (Corporation, LLC, Partnership) and description of principle business
- Description of all ownership interests holding more than 5% of equity in the Facility (including partners, joint venturers), including ultimate corporate parent of each interest
- Description of Bidder management, consultants, and advisors, and their experience in developing, financing, owning and/or operating generating facilities
- Description of Bidder's operational plans and maintenance capabilities
- Description of Bidder's long-term plans for the Facility
- Documentation of Bidder's ability to satisfy AEC Purchase and Sale Agreement terms, including Development and Performance Security requirements
- For public companies with an ownership interest in the Facility, copies of the most recent 10-K and 10-Q for each company
- For non-public companies, copies of the most recent audited financial statements and unaudited financial statements (income and balance sheet) for the most recent quarter

Section 8. Facility Financing.

For new projects, Bidder shall describe, in detail, the financing structure for the Facility and attach any necessary documentation, including a letter(s) from the institution(s) that will finance the project. A separate letter should be provided for each entity providing financing

except in the case in which there is a lead financier authorized to act on behalf of other interests. The letter should include the following:

- The name of the financial institution.
- The contact information for the person preparing the letter.
- The structure of any proposed financing (confidential information such as proposed financing costs need not be disclosed).
- A statement to the effect that the financier(s) have reviewed project pro forma statements.
- A statement to the effect that the financier(s) have reviewed the form Alternative Energy Credit Purchase and Sale Agreement.
- A statement to the effect that the financier(s) have reviewed the bidder's offer to the Company, including pricing terms.
- A statement to the effect that the financier(s) has a strong interest in financing the project.
- A statement confirming that financing will be finalized within sixty (60) days of executing the AEC Purchase and Sale Agreement.

The letter(s) shall not be interpreted to constitute an irrevocable commitment to finance, unless otherwise stated in the letter(s). Rather, the letter (s) will be used by PECO to assess the likelihood that the project can be completed on the schedule and as the price proposed by the bidder. PECO may, at its discretion, contact the person and institution listed in the letter to verify the information presented. By submitting a bid, bidder acknowledges PECO's right to contact the listed institution and person. PECO reserves the right to reject any bid for which it is unable to confirm information presented in the letter(s).

Section 9. Other Bidder Information.

Bidder shall address each of the following specific questions and provide detail with any affirmative answer:

- Has Bidder ever defaulted on a contract?
- Has Bidder ever not met a contractual delivery date?
- Has Bidder ever requested to renegotiate contract pricing in an executed agreement?
- Is there any pending litigation relating to Bidder or the Facility?
- As Bidder or any Affiliate of Bidder ever filed for bankruptcy?

Bidder shall set forth any additional information Bidder believes should be considered by PECO in evaluating its Application.

EXHIBIT 5
BID PROPOSAL FORM

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

BID PROPOSAL

(not to be submitted with Bidder Application)

Facility:

Legal Name of Bidder:

Bidder #:

Contract Amount of Alternative Energy Credits (AECs) to be delivered annually to PECO for each AEPS reporting period during the Term:

_____ AECs

Amount of Alternative Energy Credits (AECs) to be delivered to PECO during the first AEPS reporting period if such period is less than twelve months in length:

_____ AECs

Price per AEC (in whole dollars/cents) delivered annually to PECO during the Term:

\$ _____ / AEC

Multiple bids have been submitted for this Facility (Check box if applicable; multiple bids may not exceed 100% of Facility production capability).

I hereby certify that I am an officer or other authorized representative of the Bidder named above and submit this Bid Proposal on behalf of the Bidder. By submitting this Bid Proposal, Bidder acknowledges and accepts all terms of PECO's Request for Proposal dated _____ and offers to enter into an Alternative Energy Credit Purchase and Sale Agreement for the Contract Amount of AECs at the price specified above.

By: _____

Name: _____

Title: _____

Date:

EXHIBIT 6

CONFIDENTIALITY AGREEMENT

RECEIVED

NOV 23 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

CONFIDENTIALITY AGREEMENT

This Confidentiality Agreement ("Agreement") is made on _____, 2007 by and between PECO Energy Company, a Pennsylvania company ("PECO"), and [Bidder], a _____ company ("Bidder"), each a "Party" and collectively the "Parties."

Background

- A. Bidder has determined to submit an application (the "Application") in response to PECO's Request for Proposals ("RFP") for Alternative Energy Credits ("AECs"), as defined by the Alternative Energy Portfolio Standards Act, 73 P.S. § 1648.1 *et seq.*; and provide certain non-public, confidential information to PECO as part of its Application;
- B. If Bidder is selected as a successful bidder and Bidder enters into an Alternative Energy Credit and Purchase Agreement (the "AECPA") with PECO, the Parties anticipate the exchange of additional non-public, confidential information with respect to the AECPA;
- C. The Parties desire to formally set forth their understanding and agreement with respect to the treatment to be accorded to the non-public, confidential information and have done so in the provisions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound hereby, agree as follows:

- 1. For purposes of this Agreement, the term "Confidential Information" is defined to mean any knowledge, data, business plans, records, operational methods, policies and/or other information disclosed by or on behalf of a Party (the "Disclosing Party"), its officers, employees, contractors, agents, consultants, or representatives (including, without limitation, financial advisors, attorneys and accountants) or those of its affiliates (collectively, the "Representatives" of a Party) to the other Party (the "Receiving Party") or its Representatives, which is not otherwise available to the public or to the Disclosing Party's competitors. Prior to disclosure, the Disclosing Party or its Representatives shall mark or otherwise identify all Confidential Information as "Confidential" or "Proprietary" or with terms or markings of similar import.
- 2. The term "Confidential Information" does not include information which (i) is or becomes generally available to the public other than as a result of disclosure by a Receiving Party, (ii) was within a Receiving Party's possession prior to being furnished to the Receiving Party on a non-confidential basis, (iii) becomes available to a Receiving Party on a non-confidential basis from a source other than the other Disclosing Party, or (iv) is developed by or for the Receiving Party independently of Confidential Information.
- 3. The Parties acknowledge that Confidential Information is proprietary to, and a valuable asset of, the Disclosing Party and that any disclosure or unauthorized use thereof in violation of this Agreement may cause irreparable harm and loss to the Disclosing Party.
- 4. The Receiving Party and its Representatives shall retain the Disclosing Party's Confidential Information in confidence and shall not use, disclose or permit the use or disclosure of the Disclosing Party's Confidential Information, except to persons directly involved in the

Application evaluation process or in the execution and implementation of the AECPA, and then only to the extent necessary in connection with the RFP or AECPA (as applicable), or as otherwise required by law.

5. Each Receiving Party covenants and agrees that it shall not, either directly or indirectly, publish or disclose any of the Disclosing Party's Confidential Information subject to this Agreement or use such Confidential Information for the benefit of itself, another party or any third parties without the prior written consent of the Disclosing Party, except as expressly permitted by this Agreement.
6. The Receiving Party shall continue to treat the Disclosing Party's Confidential Information as confidential in accordance with the terms of this Agreement until three (3) years after the last of (i) the termination of this Agreement, (ii) the completion of the RFP process, (iii) the termination of the AECPA, and (iv) the last disclosure of Confidential Information received by a Receiving Party (the "Confidentiality Period"). After the conclusion of such Confidentiality Period, the Receiving Party shall be under no further duty to treat or protect the Disclosing Party's Confidential Information as confidential under this Agreement.
7. The Parties acknowledge that breach of the terms, covenants or conditions contained in this Agreement by either of them may cause irreparable damage to the other for which a remedy at law would not be adequate. In the event of such breach or threatened breach, the non-breaching Party shall be entitled to seek appropriate injunctive relief in any court of competent jurisdiction, restraining the breaching Party from any such threatened or actual violation of the provision of this Agreement. This provision does not limit a non-breaching Party's right to seek monetary damages in addition to the injunctive relief mentioned above. EXCEPT IN CASES OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY SPECIAL, EXEMPLARY, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LOST REVENUE OR LOST PROFITS, IN CONNECTION WITH THIS CONFIDENTIALITY AGREEMENT.
8. In the event that a Receiving Party is required to disclose any of a Disclosing Party's Confidential Information by court order or regulation, the Receiving Party shall provide the Disclosing Party with prompt written notice of any such requirement (unless forbidden to do so by court order or regulation) in order to provide the Disclosing Party with an opportunity to seek a protective order or other appropriate remedy. The Parties agree to cooperate with each other in any Party's efforts to prevent disclosure of its Confidential Information. Notwithstanding any provision of this Agreement, PECO shall be free to provide any information received from Bidder to the Pennsylvania Public Utility Commission (the "Commission") or its representatives and to any third party monitor participating in the RFP.
9. Nothing in this Agreement shall authorize or empower the Receiving Party to assume or create any obligation or responsibility whatsoever, expressed or implied, on behalf of or in the name of the Disclosing Party, or to bind the Disclosing Party in any manner, or to make any representation, warranty or commitment on behalf of the Disclosing Party.
10. This Agreement shall terminate without further action by either Party (i) in the event that Bidder is not selected as a successful bidder in the RFP, or (ii) Bidder is disqualified by PECO as provided in the RFP, or (iii) Bidder withdraws its Application, or (iv) if Bidder is selected as a successful bidder, upon Bidder's failure to execute the AECPA after written request by PECO or

upon termination of the AECPA. Notwithstanding any such termination, all rights and obligations hereunder shall survive with respect to Confidential Information disclosed prior to such termination.

11. The laws, but not the rules relating to the choice of law, of the Commonwealth of Pennsylvania, shall govern this Agreement. Any action or dispute may only be brought in the Court of Common Pleas in Philadelphia, Pennsylvania, or in the United States District Court for the Eastern District of Pennsylvania.
12. This Agreement and all of its terms and provisions shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns as may be permitted by law.
13. The invalidity or non-enforceability of any term or provision contained in this Agreement shall not void or impair the Agreement's remaining provisions, which shall remain in full force and effect as if no such invalid or unenforceable provision existed.
14. Confidential Information is provided on an "As-Is" basis, with no warranty of any nature whether oral or written, statutory, express or implied.
15. Nothing contained in this Agreement shall be construed as granting or conferring any rights by license or otherwise in any Confidential Information disclosed to the Receiving Party or in any intellectual property rights related thereto. Except as provided in the RFP and AECPA, this Agreement is the complete and exclusive agreement regarding the Parties' disclosures of information.
16. This Agreement may be executed in counterparts, each of which shall be deemed an original.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the date first written above.

PECO ENERGY COMPANY

[Bidder]

By: _____
Title: _____

By: _____
Title: _____

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PETITION OF PECO ENERGY :
COMPANY FOR APPROVAL OF (1) A :
PROCESS TO PROCURE :
ALTERNATIVE ENERGY CREDITS : DOCKET NO. P-
DURING THE AEPS BANKING PERIOD :
AND (2) A SECTION 1307 SURCHARGE :
AND TARIFF TO RECOVER AEPS :
COSTS :
:

DIRECT TESTIMONY OF
ALAN B. COHN

ON BEHALF OF
PECO ENERGY COMPANY

MARCH 19, 2007

RECEIVED
NOV 23 2010
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

I. INTRODUCTION

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

A. Alan B. Cohn. My business address is 2301 Market Street, Philadelphia, PA, 19103.

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

A. I am Manager, Revenue Analysis, Retail Rates, for PECO Energy Company (“PECO” or the “Company”).

3. Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support PECO’s request, as set forth in the *Petition of PECO Energy Company for Approval of (1) A Process to Procure Alternative Energy Credits During the AEPS Banking Period and (2) A Section 1307 Surcharge and Tariff to Recover AEPS Costs*, that the Pennsylvania Public Utility Commission (the “Commission” or “PUC”) approve a Section 1307 rate surcharge to fully recover PECO’s costs of compliance with Pennsylvania’s Alternative Energy Portfolio Standards Act of 2004, 73 Pa. C.S. § 1648.1 *et seq.* (“AEPS” or “Act 213”), including the costs of alternative energy credits (“AECs”) procured by PECO in accordance with the voluntary Requests for Proposal (“RFP”) described in PECO’s Petition.

1 4. Q. What exhibits are attached to and incorporated in your direct testimony?

2 A. PECO Ex. 2.1 is PECO's proposed addition to its tariff, entitled "Provision for
3 the Recovery of Alternative Energy Portfolio Standards Costs." I will refer to this
4 exhibit as the AEPS Cost-Recovery Provision. PECO Ex. 2.2 is a hypothetical
5 example of how the AEPS Cost-Recovery Provision will operate, with sample
6 customer charges. PECO Ex. 2.3 is a form of the notice that PECO intends to
7 send to its customers to provide them information concerning this filing. PECO
8 Ex. 2.4 includes PECO's Responses to 52 Pa. Code Section Questions 53.52(a).

9 II. BACKGROUND AND QUALIFICATIONS

10 5. Q. Mr. Cohn, what are your current duties and responsibilities as Manager,
11 Rate Analysis, Division of Rates?

12 A. I manage studies related to revenue-requirement issues for the Company, which
13 includes preparation for base rate cases as well as the revenue impact of new
14 legislation and regulations. Additionally, I work on issues relating to the impact
15 of the activities of the Federal Energy Regulatory Commission ("FERC") and
16 PJM on the Company's regulated business, including development of the
17 Company's strategies with respect to these activities.

18 6. Q. Please summarize your prior professional experience.

19 A. Upon graduation from college in 1980, I was hired by PECO as a Rate Analyst in
20 the Cost and Load Analysis Section of the Rate Division. In 1987, I was
21 appointed Supervisor of the Economic Analysis Section in PECO's Rates and

1 Regulatory Affairs Division. Since that time, I have held various management
2 positions in PECO's Rate and Regulatory Affairs Department and Strategic
3 Planning Department where I had responsibility for managing base rate case
4 filings, cost of service studies and financial and economic analyses.

5 **7. Q. What is your educational background?**

6 A. I received a Bachelor of Science Degree in Commerce and Engineering from
7 Drexel University in 1980. In 1985, I received a Masters Degree in Business
8 Administration from Drexel. In addition, I have completed the American Gas
9 Association ("AGA") Gas Rate Fundamentals Course at the University of
10 Wisconsin and the AGA Advanced Gas Rate Course at the University of
11 Maryland.

12 **8. Q. Have you previously testified in any regulatory proceedings?**

13 A. Yes. I have testified on several occasions before the Pennsylvania PUC, the
14 Maryland Public Service Commission and the FERC.

15 **III. SUMMARY OF TESTIMONY**

16 **9. Q. Mr. Cohn, please summarize your testimony.**

17 A. My testimony is divided into three parts. First, I describe PECO's proposed
18 AEPS Cost-Recovery Provision, and explain how it will operate to recover the
19 costs of (1) AECs banked prior to the conclusion of PECO's stranded cost
20 recovery period, and (2) PECO's ongoing AEPS compliance costs after its
21 stranded cost recovery period has ended. Second, because Act 213 provides that

1 an electric distribution company (“EDC”) is entitled to earn a return on the
2 unamortized balance of deferred AEC costs, I explain the rate of return which
3 PECO proposes to apply to those AEC costs. Third, I present the form of notice
4 of the AEPS surcharge that PECO intends to use to communicate information
5 about this filing to its customers.

6 **IV. AEPS COST RECOVERY**

7 **10. Q. Mr. Cohn, please provide an overview of the cost recovery provisions of Act**
8 **213.**

9 A. Act 213 provides that all costs for the purchase of electricity from alternative
10 energy sources and payments for AECs are fully recoverable by EDCs as a cost of
11 generation supply pursuant to an automatic energy adjustment clause under
12 Section 1307 of the Public Utility Code. For an EDC like PECO, which is in a
13 “Cost-Recovery Period,” i.e., continuing to collect transition charges in
14 accordance with the Competition Act, AEPS-related costs incurred during
15 PECO’s Cost-Recovery Period are to be deferred as a regulatory asset and fully
16 recovered, with a return on the unamortized balance of those costs, during the first
17 year after the expiration of PECO’s Cost-Recovery Period. Any direct and
18 indirect costs for alternative energy and/or AECs incurred after the Cost-Recovery
19 Period, i.e. in PECO’s case, after December 31, 2010, are to be recovered on a
20 “full and current basis” through the Section 1307 surcharge. Thus, during the first
21 year after PECO’s Cost-Recovery Period ends, costs for both early AEPS

1 procurement during PECO's Cost-Recovery Period and AEPS compliance costs
2 incurred during that first year must be recovered.

3 11. Q. **Please describe the cost recovery mechanism PECO is proposing to**
4 **implement.**

5 A. In order to achieve recovery of AEPS costs on a "full and current basis" using a
6 Section 1307 surcharge, the costs to be incurred must be estimated and then
7 adjusted through reconciliation. If only historic costs (i.e., after the fact costs)
8 were utilized, recovery would not be "full and current."

9 The AEPS Cost-Recovery Provision PECO is proposing will become effective on
10 January 1, 2011, and, during the ensuing twelve-month period, would recover
11 both the costs deferred during PECO's Cost-Recovery Period and all additional
12 AEPS compliance costs to be incurred by PECO during calendar year 2011. The
13 provision will remain in effect thereafter to recover costs under the contracts
14 entered into pursuant to the RFP and other on-going AEPS costs, including
15 payments to third party administrators, costs levied by PJM to ensure that
16 alternative energy sources are reliable, and costs for alternative energy and/or
17 AECs that may be incurred through other procurements approved by the
18 Commission for the post-Cost-Recovery Period. The AEPS surcharge established
19 under this provision will be applied to the bill of each of PECO's default service
20 customers on a per kilowatt-hour basis, with the surcharge recalculated on April 1
21 of each year to become effective on June 1.

22

1

2

The surcharge can be expressed by the following formula:

3

AEPS Surcharge = [(Projected Costs -- Over/Under Recovery) /

4

Sales + Deferred Costs / Sales] / (1-Tax)

5

In the above formula, "Projected Costs" represent PECO's projected costs for

6

AEPS compliance for a twelve-month period commencing June 1 of each year.

7

"Over/under recovery" is the amount of the over/under recovery of PECO's

8

AEPS costs for the prior surcharge year and will be reconciled annually. "Sales"

9

equals PECO's projected default service electric sales (in kWh), and "Tax" is the

10

current gross receipts tax rate. During the first year after the end of PECO's Cost-

11

Recovery Period, the AEPS surcharge would also include the "Deferred Costs"

12

value, which is equal to the AEPS costs incurred by PECO but deferred during the

13

Cost-Recovery Period, plus a return on the unamortized balance of those costs.

14

Since PECO's Cost-Recovery Period ends on December 31, 2010, the first AEPS

15

surcharge will be for a five-month period beginning January 1, 2011 and ending

16

May 31, 2011. PECO will file the proposed initial surcharge for this period by

17

November 1, 2010, to become effective January 1, 2011. Thereafter, filings

18

setting forth proposed AEPS compliance surcharges under Section 1307 will be

19

made on April 1 of each subsequent year, to become effective June 1.

1 12. Q. What costs are included in the costs of AEPS compliance under this formula?

2 A. As Mr. McCawley explains in his testimony, PECO is seeking to procure only
3 AECs during its Cost-Recovery Period and will not be purchasing the alternative
4 energy or capacity underlying those AECs. Therefore, for the first year after
5 PECO's Cost-Recovery Period (January 1, 2011 – December 31, 2011), PECO's
6 AEPS surcharge will recover, from PECO's default service customers, the
7 deferred costs of banked AECs (with a return on the unamortized balance) as well
8 as the projected costs of AECs to be purchased during that first year. Following
9 the first year, and subject to reconciliation and adjustment for over/under
10 collection, the 1307 AEPS surcharge will recover the costs for AECs procured
11 during the remaining term of the AECAs and other ongoing AEPS compliance
12 costs, including payments to the AEC program administrator for its costs of
13 administering an AEC program, payments to PJM GATS for operating the AEC
14 registry, any charge levied by PJM to ensure that alternative energy sources are
15 reliable, the cost of AEPS compliance payments that are deemed recoverable by
16 the Commission, and any other direct or indirect cost of acquiring Alternative
17 Energy and/or AECs and complying with the AEPS statute (including the costs of
18 administering other procurements, the expense of an RFP Monitor, etc.). I note
19 that all these costs are consistent with the costs identified for recovery by the
20 Commission in its proposed AEPS rules. *See Proposed Rulemaking Order,*
21 *Implementation of the Alternative Energy Portfolio Standards Act of 2004,*
22 *Docket No. L-00060180 (July 25, 2006) ("AEPS Rulemaking Order"), § 75.39.*

PECO STATEMENT NO. 2

1 The specific costs to be recovered through this charge are dependent, in part, upon
2 the Commission's final default service regulations and AEPS regulations, and this
3 component of the AEPS Cost-Recovery Provision may need to be revised
4 following the issuance of final rules.

5 **13. Q. How does PECO's AEPS Cost-Recovery Provision address over/under**
6 **recovery of AEPS costs?**

7 A. The AEPS Cost-Recovery Provision requires PECO to file on April 1st of each
8 year, for the 12-month period ending on January 31, the total revenues received
9 pursuant to the current AEPS charge, the amount of AEPS expenses, the
10 difference between those values, and PECO's proposed adjustment for over/under
11 recovery to be included in a recalculated AEPS Charge effective June 1 of that
12 year.

13 **14. Q. Why does PECO's proposed AEPS tariff provision use a 12 month period**
14 **ending January 31 for PECO's reconciliation year when the Commission's**
15 **proposed AEPS regulations use a 12-month reporting period beginning on**
16 **June 1 for measuring AEPS compliance by PECO and other EDCs?**

17 A. PECO believes that an EDC's AEPS surcharge should parallel an EDC's AEPS
18 compliance reporting period. However, for PECO's AEPS surcharge to parallel
19 its AEPS compliance year, the data to support the surcharge must be filed no later
20 than April 1 of each year. Because the most recent 12 months of data available on
21 April 1 would be for the 12-month period ending January 31, PECO proposes to

1 use that data to establish the over/under adjustment to the AEPS surcharge for the
2 immediately following AEPS compliance year beginning on June 1.

3 Because PECO's Cost-Recovery Period ends in the middle of an AEPS
4 compliance year (i.e. on January 1, 2011), PECO will file a proposed surcharge
5 no later than November 1, 2010. As I explained previously, this surcharge will
6 last for a five-month period (i.e., January 1, 2011 to May 31, 2011), when it will
7 be replaced by a surcharge established through a filing on April 1, 2011, as
8 described above. Given this abbreviated period for the first surcharge, I am
9 proposing that the first reconciliation cover the period from inception of the
10 surcharge to January 31, 2012. In the event the Commission's final AEPS
11 regulations propose different timing for establishing AEPS surcharges, these dates
12 shall be adjusted to be consistent with the Commission's final regulations.

13 **V. RATE OF RETURN**

14 **15. Q. Mr. Cohn, please explain why PECO is proposing to recover a rate of return**
15 **on early procurement costs.**

16 A. I understand that Act 213 expressly provides that EDCs that voluntarily undertake
17 to procure alternative energy or AECs during their Cost-Recovery Period are
18 entitled to a return on the unamortized balance of those costs.

19 **16. Q. What rate of return does PECO propose to use?**

20 A. In light of the unique, one-time nature of the Act's banking provisions, and in
21 order to expedite this non-precedential proceeding and facilitate as early a

1 procurement of AECs as possible, PECO proposes to use, for this procurement
2 only, a carrying charge of six percent (6%), corresponding to the statutory rate of
3 interest under Pennsylvania law. See 41 P.S. § 202.

4 **17. Q. Mr. Cohn, have you included an example of how PECO's AEPS Cost-**
5 **Recovery Provision will operate?**

6 A. Yes. A hypothetical example of how this provision is proposed to operate, with
7 sample customer charges, is attached as Exhibit 2.2 to my testimony. More
8 specifically, Exhibit 2.2 provides an example of how the deferral of cost during
9 PECO's Cost-Recovery Period and the recovery of AEPS costs after the end of
10 the Cost-Recovery Period will operate.

11 The exhibit makes several basic assumptions, which are consistent with the RFP
12 described by Mr. McCawley. First, I assume that PECO will add AECs from
13 alternative energy resources commencing in 2008, increasing each year to a
14 annual level of 450,000 AECs in 2010. Second, I assume that the net cost of the
15 AECs procured by PECO will be \$15 per AEC. Finally, I make certain
16 assumption regarding PECO's AEPS requirements (i.e., how many AECs PECO
17 will require to satisfy its AEPS obligations). Both the projected AEC price and
18 PECO's AEPS requirements are for purposes of this example only and are not
19 intended to suggest either the prices PECO expects to receive or the actual
20 amount of the Company's AEPS obligation at the end of the Cost-Recovery
21 Period.

22

1 In the example, the costs are deferred each month based upon the number of AECs
2 delivered to PECO and the associated cost of those AECs. Additionally, a return is
3 calculated on the total deferred cost each month. This cost is then added to the total
4 deferred balance. After 2010, the AEPS surcharge includes the recovery of the deferred
5 cost, the cost of ongoing AEPS purchases and starting June 1, 2012 any reconciliation of
6 the over/under recovery of AEPS costs. These costs are shown in Columns 13, 16, and
7 17 in Exhibit 2.2.

8 **18. Q. What assumptions did you make regarding PECO's use of AECs procured**
9 **during PECO's Cost-Recovery Period?**

10 A. According to the Commission's proposed rulemaking, the AECs banked during
11 the Cost-Recovery Period are to be used in two consecutive AEPS reporting
12 periods within the first three AEPS reporting periods after the end of an EDC's
13 Cost-Recovery Period. For purposes of this example only, I assumed that PECO
14 will use AECs procured in its Cost-Recovery Period during the first two full
15 reporting periods after December 31, 2010 (June 1, 2011 – May 31, 2012 and
16 June 1, 2012 – May 31, 2013). In addition, I assumed that the AECs PECO
17 required for compliance purposes in each annual reporting period will be applied
18 on a monthly basis. The monthly amount is calculated as the difference in the
19 AECs required and the AECs purchased which are represented by Columns 2 and
20 6 in my Exhibit 2.2. For AEPS reporting year June 1, 2010 – May 31, 2011, in
21 which PECO's AEPS obligations commence on January 1, 2011 (at the end of its
22 Cost-Recovery Period), I assumed that PECO will satisfy its AEPS obligations
23 using AECs generated from October 1, 2010 to May 31, 2011.

1 19. Q. When does PECO propose to recover the costs of the AECs procured during
2 PECO's Cost-Recovery Period?

3 A. Act 213 provides that the costs for AECs procured during an EDC's Cost-
4 Recovery Period should be recovered in the first year after the end of an EDC's
5 Cost-Recovery Period. See 73 Pa. C.S. § 1648.3(a)(3). For PECO, that would be
6 the calendar year beginning January 1, 2011. My example shows the recovery of
7 all costs for AECs procured during PECO's Cost-Recovery Period during the
8 twelve months ending December 31, 2011, with the unamortized balance of such
9 costs gradually reduced each month over that period. Columns 10-12 of my
10 Exhibit 2.2 reflect the year 2011. Assuming a cost of \$15 per AEC for purposes
11 of example only, PECO anticipates that the cost of the AEC surcharge to
12 customers, beginning January 1, 2011, will approximate \$0.0011 per kWh.

13 I note that the Commission's proposed AEPS regulations provide that an EDC
14 should recover costs for AECs procured during its Cost-Recovery Period during
15 the first full reporting year (not the calendar year) after the end of its Cost-
16 Recovery Period. See AEPS Rulemaking Order, § 75.39(d)(1). Because PECO's
17 proposed recovery period is consistent with Act 213 and the Commission's
18 regulations remain under development, PECO proposes that its requested waiver
19 relating to pending regulations include the recovery of AEC costs commencing on
20 January 1, 2011, at the end of PECO's Cost-Recovery Period, instead of June 1,
21 2011. PECO anticipates that this will result in a lower overall cost to PECO's
22 customers due to a more rapid reduction of the unamortized balance of AEC
23 costs.

VI. CUSTOMER NOTICE

1

2 20. Q. Mr. Cohn, has PECO prepared a form of customer notice of the AEPS Cost-
3 Recovery Provision?

4 A. Yes. PECO's form of customer notice is attached to my testimony as Exhibit 2.3
5 and will be included in customer bills over a thirty day period commencing
6 approximately April 1, 2007. A copy of this filing is also posted at
7 www.peco.com.

8 21. Q. Mr. Cohn, does this conclude your direct testimony?

9 A. Yes.

PECO Energy Company

Electric Service Tariff

COMPANY OFFICE LOCATION

2301 Market Street
Philadelphia, Pennsylvania 19101

For List of Communities Served, See Page 4.

Issued March 19, 2007

Effective: January 1, 2011

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

NOTICE.

Supplement No. 72 to
Tariff Electric Pa. P.U.C. No. 3
Fifty Ninth Revised Page No. 1A

PECO Energy Company Superseding Fifty Eighth Revised Page No. 1A

LIST OF CHANGES MADE BY THIS SUPPLEMENT

Provision for Surcharge Recovery of Alternative Energy Portfolio Standard Costs Original Page No. xxA, xxB

New Rate Added.

PECO Energy Company

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PECO Energy Company

Provision for Surcharge Recovery of Alternative Energy Portfolio Standard Costs

The energy charge for electric service for all rate schedules shall include \$x.xxxx per kWh for recovery of the costs associated with compliance with the Alternative Energy Portfolio Standards Act ("AEPS" or the "Act"). The rate associated with the recovery of these costs shall change once per year on June 1 with the exception of the first charge, which shall go into effect on January 1, 2011. The rate shall be calculated in the manner described below.

Calculation of the AEPS Charge

The AEPS charge per kWh shall be computed to the nearest one hundredth of a cent in accordance with the formula below:

$$\text{AEPS Charge} = [(C-E)/S + \text{RCC}/S]/(1-T)$$

In calculating the AEPS Charge above, the following definitions shall apply:

AEC – Alternative Energy Credit, as such credit is defined by the Act.

AEPS – Alternative Energy Portfolio Standard.

AEPS Charge – The charge determined to the nearest one hundredth of a cent that will recover the cost of complying with the Act.

Alternative Compliance Payment (ACP) – Amount paid by the Company to meet its AEPS compliance target when there are not sufficient altern resources available, which shall be \$45 per megawatt hour.

Alternative Energy – Energy generated by Alternative Energy Sources, as defined by the Act.

C – The projected total cost of complying with the Act for the calculation period. Costs include the amount paid for Alternative Energy and/or AECs purchased for compliance with the Act (including the cost of banked AECs to be used by PECO during a compliance period), the cost of administering and conducting any procurement of Alternative Energy and/or AECs, payments to the AEC program administrator for its costs of administering an alternative energy credits program, payments to a third party for its costs in operating an AEC registry, any charge levied by PECO's regional transmission operator to ensure that alternative energy sources are reliable, a credit for the sale of any AECs sold during the calculation period, and the cost of Alternative Compliance Payments that are deemed recoverable by the Commission, plus any other direct or indirect cost of acquiring Alternative Energy and/or AECs and complying with the AEPS statute.

E – The under/(over) collection of AEPS costs in the reconciliation period. Interest on any over/(under) recovery shall be at the statutory rate of 6%.

Calculation/Application Period – A projected 12-month period commencing on June 1 of the filing year and ending on May 31 of the following year.

Filing date – The AEPS charge shall be filed each year on April 1 with the exception of the first AEPS charge filing which shall be made on November 1, 2010.

Application Year – The year in which the monthly AEPS charge is billed to customers.

Reconciliation Period – The 12-month period ending January 31 of the filing year with the exception of the first reconciliation period which shall be for the 13 months ending January 31, 2012.

TDC – Rate cap costs or cost deferred in accordance with the AEPS Statute during the Cost Recovery Period.

PECO Energy Company

Provision for Surcharge Recovery of Alternative Energy Portfolio Standard Costs (continued)

Cost-Recovery Period – The period during which a utility is operating under a generation rate cap as provided in the Act (for PECO, the period through December 31, 2010).

S – Estimated retail electric sales provided by PECO in its role as default service provider during the Application Year.

T – The Pennsylvania gross receipts tax rate in effect at the time the surcharge is calculated.

Determination of Costs Recovered Under the RCC charge

In accordance with Section 1648.3(a)(3) of the Act, the Company is permitted to bank alternative energy credits acquired during the Cost-Recovery Period and use them in two consecutive annual reporting periods of the first three annual reporting periods after the expiration of the Company's Cost-Recovery Period. Additionally, all costs associated with the acquisition and tracking of these credits are to be deferred and recovered with a return on the unamortized balance in the first year after the "Cost-Recovery Period." As described below, the Company will defer these costs and amortize them with a return on the unamortized balance.

Calculation of the RCC

The RCC shall be recovered from customers during the period January 1, 2011 through December 31, 2011.

RCC – TDC plus the Rate of Return on the unamortized deferred cost.

Rate of Return – The rate used shall be the Pennsylvania statutory rate of interest of 6% per year.

Application of the Rate of Return – The Rate of Return shall be applied to the cumulative deferred cost balance, including deferred return, on a monthly basis.

PECO Energy Company
 Illustration of the Operation of the Proposed Cost Recovery Tariff
 (\$1000)

	Sales (1) = MWH	AECs Required (2)	AEC Cost (3)	Transaction and Other Expenses (4)	Total AEC Cost (5)=(3)+(4)	AECs Acquired (6)	AECs Banked (7)=(6)-(2)	Market AECs (8)=(2)-(6)- (7)	Cumulative Banked AECs (9)=(9P)+ (7)	Cost of Banked AECs (10)=(5)	Return on Deferred AEC Cost (11)=((12P)+ +.5*(10))*0.08/12	Cumulative Banked AEC cost (12)=(10)+(11)
2008												
January	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		12153 \$	186.0 \$	0.5 \$	186.5
February	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		24306 \$	186.0 \$	1.4 \$	373.9
March	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		36459 \$	186.0 \$	2.3 \$	562.2
April	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		48612 \$	186.0 \$	3.3 \$	751.5
May	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		60765 \$	186.0 \$	4.2 \$	941.7
June	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		72918 \$	186.0 \$	5.2 \$	1,132.9
July	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		85071 \$	186.0 \$	6.1 \$	1,325.0
August	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		97224 \$	186.0 \$	7.1 \$	1,518.1
September	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		109377 \$	186.0 \$	8.1 \$	1,712.1
October	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		121530 \$	186.0 \$	9.0 \$	1,907.2
November	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		133683 \$	186.0 \$	10.0 \$	2,103.2
December	3200000	0 \$	181.0 \$	5.0 \$	186.0 \$	12153	12153		145836 \$	186.0 \$	11.0 \$	2,300.2
2009												
January	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		176392 \$	463.3 \$	12.7 \$	2,776.1
February	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		206948 \$	463.3 \$	15.0 \$	3,254.5
March	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		237504 \$	463.3 \$	17.4 \$	3,735.3
April	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		268060 \$	463.3 \$	19.8 \$	4,218.5
May	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		298616 \$	463.3 \$	22.3 \$	4,704.1
June	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		329172 \$	463.3 \$	24.7 \$	5,192.1
July	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		359728 \$	463.3 \$	27.1 \$	5,682.5
August	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		390284 \$	463.3 \$	29.6 \$	6,175.5
September	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		420840 \$	463.3 \$	32.0 \$	6,670.8
October	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		451396 \$	463.3 \$	34.5 \$	7,168.7
November	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		481952 \$	463.3 \$	37.0 \$	7,669.0
December	3230000	0 \$	458.3 \$	5.0 \$	463.3 \$	30556	30556		512508 \$	463.3 \$	39.5 \$	8,171.9
2010												
January	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		550008 \$	567.5 \$	42.3 \$	8,781.6
February	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		587508 \$	567.5 \$	45.3 \$	9,394.5
March	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		625008 \$	567.5 \$	48.4 \$	10,010.4
April	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		662508 \$	567.5 \$	51.5 \$	10,629.3
May	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		700008 \$	567.5 \$	54.6 \$	11,251.4
June	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		737508 \$	567.5 \$	57.7 \$	11,876.6
July	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		775008 \$	567.5 \$	60.8 \$	12,504.9
August	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		812508 \$	567.5 \$	63.9 \$	13,136.3
September	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	37500		850008 \$	567.5 \$	67.1 \$	13,770.9
October	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500	3900		853908 \$	59.0 \$	69.0 \$	13,898.9
November	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500			853908 \$		69.5 \$	13,968.4
December	3260000	0 \$	562.5 \$	5.0 \$	567.5 \$	37500			853908 \$		69.8 \$	14,038.3

Note: A "P" in the column heading denotes prior month.

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PECO Energy Company
 Illustration of the Operation of the Proposed Cost Recovery Tariff
 (\$1000)

Total AEC Cost (13)=(5)-(10)	AEPS Revenue (14)=(2)* AEPS Charge	O/(U) Recovery (15)=(14)-(13)	Cumulative O/(U) (16)=(15)+(16)P+(17) +(17P)	Interest on O/(U) (17)= (16)*6%/12
------------------------------------	---	-------------------------------------	---	--

\$ 508.5	\$ -	\$ (508.5)	\$ (508.5)	\$ (1.3)
\$ 567.5	\$ -	\$ (567.5)	\$ (1,077.3)	\$ (4.0)
\$ 567.5	\$ -	\$ (567.5)	\$ (1,648.7)	\$ (6.8)

Note: A "P" in the column heading denotes prior month.

PECO Energy Company
Illustration of the Operation of the Proposed Cost Recovery Tariff
(\$1000)

	Sales (1) = MWH	AECs Required (2)	AEC Cost (3)	Transaction and Other Expenses (4)	Total AEC Cost (5)=(3)+(4)	AECs Acquired (6)	AECs Banked (7)=(6)-(2)	Market AECs (8)=(2)-(6)- (7)	Cumulative Banked AECs (9)=(9P)+ (7)	Cost of Banked AECs (10)=(5)	Return on Deferred AEC Cost (11)=((12P) +.5*(10))* .06/12	Cumulative Banked AEC cost (12)=(10)+(11)
2011									853908			\$ 14,038.3
January	3290000	59220	\$ 562.5	\$ 5.0	\$ 567.5	37500			853908	(1,205.2)	67.2	\$ 12,900.2
February	3290000	59220	\$ 562.5	\$ 5.0	\$ 567.5	37500			853908	(1,205.2)	61.6	\$ 11,756.6
March	3290000	59220	\$ 562.5	\$ 5.0	\$ 567.5	37500			853908	(1,205.2)	55.8	\$ 10,607.1
April	3290000	59220	\$ 562.5	\$ 5.0	\$ 567.5	37500			853908	(1,205.2)	50.0	\$ 9,451.9
May	3290000	59220	\$ 562.5	\$ 5.0	\$ 567.5	37500			853908	(1,205.2)	44.2	\$ 8,290.9
June	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		822318	(1,205.2)	38.4	\$ 7,124.1
July	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		790728	(1,205.2)	32.6	\$ 5,951.5
August	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		759138	(1,205.2)	26.7	\$ 4,773.1
September	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		727548	(1,205.2)	20.9	\$ 3,588.7
October	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		695958	(1,205.2)	14.9	\$ 2,398.4
November	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		664368	(1,205.2)	9.0	\$ 1,202.2
December	3290000	69090	\$ 562.5	\$ 5.0	\$ 567.5	37500	-31590		632778	(1,205.2)	3.0	\$ (0.0)
2012												
January	3320000	69720	\$ 562.5	\$ 5.0	\$ 567.5	37500	-32220		600558	-	-	\$ -
February	3320000	69720	\$ 562.5	\$ 5.0	\$ 567.5	37500	-32220		568338	-	-	\$ -
March	3320000	69720	\$ 562.5	\$ 5.0	\$ 567.5	37500	-32220		536118	-	-	\$ -
April	3320000	69720	\$ 562.5	\$ 5.0	\$ 567.5	37500	-32220		503898	-	-	\$ -
May	3320000	69720	\$ 562.5	\$ 5.0	\$ 567.5	37500	-32220		471678	-	-	\$ -
June	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		429498	-	-	\$ -
July	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		387318	-	-	\$ -
August	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		345138	-	-	\$ -
September	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		302958	-	-	\$ -
October	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		260778	-	-	\$ -
November	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		218598	-	-	\$ -
December	3320000	79680	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42180		176418	-	-	\$ -
2013									0			
January	3353000	80472	\$ 562.5	\$ 5.0	\$ 567.5	37500	-42972		133446	-	-	\$ -
February	3353000	80472	\$ 562.5	\$ 6.0	\$ 568.5	37500	-42972		90474	-	-	\$ -
March	3353000	80472	\$ 562.5	\$ 7.0	\$ 569.5	37500	-42972		47502	-	-	\$ -
April	3353000	80472	\$ 562.5	\$ 8.0	\$ 570.5	37500	-42972		4530	-	-	\$ -
May	3353000	80472	\$ 562.5	\$ 9.0	\$ 571.5	37500	-4530	38442	0	-	-	\$ -

	Rate w/o GRT	Rate w/GRT	
AEPS Charge 1/1/2011 - 5/31/2011 =	\$ 0.0011	\$ 0.0011	= (Col.13,Oct'10-May'11)/(Col.1 Jan'11-May'11)
AEPS Charge 6/1/2011 - 12/31/2011 =	\$ 0.0009	\$ 0.0010	The rate for the year 6/11-5/12 will be filed in two parts: a rate effective through 12/31/2011 and a rate effective 1/1/2012-5/31/2012 using the formula above
AEPS Charge 1/1/2012 - 5/31/2012 =	\$ 0.0003	\$ 0.0003	Decrease is due to the end of the deferred cost recovery
AEPS Charge 6/1/2012 - 5/31/2013 =	\$ 0.0003	\$ 0.0003	= ((Col.13,Jun'12-May'13)+Sum Col.17 through Jan'12)/(Col.1 Jun'12-May'13)
Return on Deferred		6.00%	

Note: A "P" in the column heading denotes prior month.

PECO Energy Company
Illustration of the Operation of the Proposed Cost Recovery Tariff
(\$1000)

Total AEC Cost (13)=(5)-(10)	AEPS Revenue (14)=(2)* AEPS Charge	O/(U) Recovery (15)=(14)-(13)	Cumulative O/(U) (16)=(15)+(16)P+(17) +(17P)	Interest on O/(U) (17)=(16)*6%/12
\$ 1,772.7	\$ 2,101.4	\$ 328.7	\$ (1,326.8)	\$ (7.4)
\$ 1,772.7	\$ 2,101.4	\$ 328.7	\$ (1,005.6)	\$ (5.8)
\$ 1,772.7	\$ 2,101.4	\$ 328.7	\$ (682.7)	\$ (4.2)
\$ 1,772.7	\$ 2,101.4	\$ 328.7	\$ (358.2)	\$ (2.6)
\$ 1,772.7	\$ 2,101.4	\$ 328.7	\$ (32.1)	\$ (1.0)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (33.1)	\$ (0.2)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (33.3)	\$ (0.2)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (33.4)	\$ (0.2)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (33.6)	\$ (0.2)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (33.8)	\$ (0.2)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (34.0)	\$ (0.2)
\$ 1,772.7	\$ 1,772.7	\$ -	\$ (34.1)	\$ (0.2)
\$ 567.5	\$ 567.5	\$ -	\$ (34.3)	\$ (0.1)
\$ 567.5	\$ 567.5	\$ -	\$ (34.4)	\$ (0.2)
\$ 567.5	\$ 567.5	\$ -	\$ (34.5)	\$ (0.2)
\$ 567.5	\$ 567.5	\$ -	\$ (34.7)	\$ (0.2)
\$ 567.5	\$ 567.5	\$ -	\$ (34.9)	\$ (0.2)
\$ 567.5	\$ 616.7	\$ 49.2	\$ 14.1	\$ (0.1)
\$ 567.5	\$ 616.7	\$ 49.2	\$ 63.3	\$ 0.2
\$ 567.5	\$ 616.7	\$ 49.2	\$ 112.6	\$ 0.4
\$ 567.5	\$ 616.7	\$ 49.2	\$ 162.3	\$ 0.7
\$ 567.5	\$ 616.7	\$ 49.2	\$ 212.1	\$ 0.9
\$ 567.5	\$ 616.7	\$ 49.2	\$ 262.3	\$ 1.2
\$ 567.5	\$ 616.7	\$ 49.2	\$ 312.6	\$ 1.4
\$ 567.5	\$ 622.8	\$ 55.3	\$ 368.0	\$ 1.8
\$ 568.5	\$ 622.8	\$ 54.3	\$ 422.3	\$ 2.1
\$ 569.5	\$ 622.8	\$ 53.3	\$ 475.6	\$ 2.4
\$ 570.5	\$ 622.8	\$ 52.3	\$ 527.9	\$ 2.6
\$ 1,148.1	\$ 622.8	\$ (525.3)	\$ 2.6	\$ 0.0

Note: A "P" in the column heading denotes prior month.

Column Definitions

Column 1	Monthly sales in MWHs
Column 2	Required AECs
Column 3	Cost of AECs only
Column 4	Other costs - eg. PJM GATS transaction charge
Column 5	Total AEC cost
Column 6	AECs acquired
Column 7	AECs added/(removed) from the bank
Column 8	AECs purchased in the spot market or from other procurement
Column 9	Available banked AECs
Column 10	Value of banked AECs
Column 11	Return on the AECs banked for future use
Column 12	Total value of banked AECs - includes deferred return on unamortized amount.
Column 13	Total AEC cost for the period equals total purchases less amount banked
Column 14	AEPS Charge Revenue
Column 15	Over/(under) recovery
Column 16	Cumulative over/(under) recovery
Column 17	Interest on over/(under) recovery at 6%

Key Assumptions for Example

Price per AEC	\$15
Annual Purchases of Tier 1 Resources	
2008	- 145836 AECs
2009	- 366672 AECs
2010	- 450000 AECs
Over/(under) interest	6%
Return on deferral	6%
First reconciliation would be for the period January 1, 2011 - January 31, 2012	

**PECO Seeks PUC Approval
To Purchase Alternative Energy Credits**

On March 19, 2007, PECO filed a petition with the Pennsylvania Public Utility Commission (PaPUC) to begin to acquire alternative energy credits in preparation to meet the future requirements of the Alternative Energy Portfolio Standards Act of 2005. Under the Act, an increasing percentage of electricity sold to retail customers in Pennsylvania by electric distribution companies, including PECO, must be derived from alternative energy sources -- such as wind, solar and hydro generation. This percentage is measured in "alternative energy credits." An alternative energy credit is equal to one megawatt hour of qualified alternative energy generation.

Although PECO's alternative energy credit requirements will not begin until January 2011, PECO is seeking permission to begin to secure alternative energy credits now for use in meeting these future requirements. This will help the company reduce the potential effect on customers by managing possible increases in the price of alternative energy during the next several years. If approved, PECO will "bank" credits now and recover their related costs in 2011 through a surcharge to be added to customers' bills.

For more information on the Alternative Energy Portfolio Standards Act call 1-800-XXX-XXXX. Customers interested in commenting on PECO's petition can contact with PaPUC at 1-800-782-1110 or P.O. Box 3265, Harrisburg, Pennsylvania 17105-3265.

[PECO Energy Logo]

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Responses to the Questions in 52 Pa. Code Section 53.52(a)

53.52

(a) Whenever a public utility, other than a canal, turnpike, tunnel, bridge or wharf company files a tariff, revision or supplement effecting changes in the terms or conditions of service rendered or to be rendered, it shall submit to the Commission, with the tariff, revision or supplement, statements showing all of the following:

- (1). The specific reasons for each change.

The change in PECO's electric tariff is being proposed to implement the cost recovery provisions of the Alternative Energy Portfolio Standards Act in anticipation of the procurement and "banking" of certain alternative energy credits.

- (2). The total number of customers served by the utility.

PECO had approximately 1,550,965 electric customers as of December 31, 2006.

- (3). A calculation of the number of customers, by tariff subdivision, whose bill will be affected by the change.

All customers taking default service from PECO upon the expiration of its generation rate cap will pay the surcharge calculated under the proposed tariff. Currently, approximately 97% of PECO's customers receive their generation supply from PECO.

- (4). The effect of the change on the utility's customers.

The proposed tariff change will not have any immediate effect on customers. It is presently estimated that the surcharge, when activated on January 1, 2011, will increase customers' total bills by less than 1.0%. The actual increase will depend upon the results of PECO's procurement process. PECO will make a separate filing specifying the initial surcharge amount, and notifying customers of the requested increase, at least 60 days prior to that date.

- (5). The direct or indirect effect of the proposed change on the utility's revenue and expenses.

PECO expects that the overall impact of complying with the AEPS Act will be an increase in both revenue and expense in like amounts. As noted previously, PECO presently expects the initial increase in total revenues and expenses to be less than 1.0%.

- (6). The effect of the change on the service rendered by the utility.

PECO does not expect that the proposed tariff change will have any effect on the service rendered customers.

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- (7). A list of factors considered by the utility in its determination to make the change. The list shall include a comprehensive statement about 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. C.S. § 1308 (relating to voluntary changes in rates).

The primary factor considered was the AEPS Act itself, which provides for full and current cost recovery using a section 1307 mechanism – precisely what the Company has proposed through this filing.

- (8). Studies undertaken by the utility in order to draft its proposed change. This subsection does not apply to a portion of a tariff change seeking a general rate increase as defined in 66 Pa. C.S. § 1308 (relating to voluntary changes in rates).

No specific studies were undertaken.

- (9). Customer polls taken and other documents which indicate customer acceptance and desire for the proposed change. If the poll or other documents reveal discernible public opposition, an explanation of why the change is in the public interest shall be provided.

No customer polls were taken. As noted above, the tariff change being proposed was triggered by the terms of the AEPS Act.

- (10). Plans the utility has for introducing or implementing the changes with respect to its ratepayers.

Beginning on April 1, 2007, PECO will notify its customers of this filing by bill insert. A copy of the filing will also be posted at www.peco.com. In addition, and as noted previously, PECO will notify customers of the specific increase to be implemented in advance of the surcharge becoming effective on January 1, 2011.

- (11). FCC, FERC, or Commission orders or ruling applicable to the filing.

See the Commission's Proposed Rulemaking order at Docket L-00060180, "Implementation of the Alternative Energy Portfolio Standards Act of 2004."

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PETITION OF PECO ENERGY :
COMPANY FOR APPROVAL OF (1) A :
PROCESS TO PROCURE :
ALTERNATIVE ENERGY CREDITS : DOCKET NO. P-
DURING THE AEPS BANKING :
PERIOD AND (2) A SECTION 1307 :
SURCHARGE AND TARIFF TO :
RECOVER AEPS COSTS :

DIRECT TESTIMONY OF
SUSAN F. TIERNEY, PH.D.

ON BEHALF OF
PECO ENERGY COMPANY

MARCH 19, 2007

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

I. INTRODUCTION

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1. Q. Please state your name, position, employer, and business address.

A. My name is Susan F. Tierney. I am Managing Principal at Analysis Group, Inc.,
111 Huntington Avenue, Boston, Massachusetts, 02199.

2. Q. On whose behalf are you submitting this testimony?

A. I am submitting this direct testimony on behalf of PECO Energy Company
("PECO" or the "Company").

3. Q. What is the purpose of your testimony in this proceeding?

A. I was asked by PECO to testify on the reasonableness of PECO's proposed
approach towards compliance with the Pennsylvania Alternative Energy
Portfolio Standards Act of 2004 ("AEPS Act" or the "Act"). Specifically, as a
former state utility regulator, as a consultant with experience in monitoring
utilities' competitive procurements of resources (including renewables) and as
an observer of renewable resource projects and markets, I was requested to
address the reasonableness of PECO's voluntary proposal to solicit, procure and
bank Alternative Energy Credits ("AECs") in advance of the period in which it
needs to comply with the AEPS Act. Other PECO witnesses – Mr. Alan B.
Cohn and Mr. John J. McCawley – discuss the mechanics of PECO's proposal.

4. Q. Please describe your background, especially as it relates to the matters before
the Pennsylvania Public Utility Commission ("Commission") in this
proceeding.

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

1 A. I have been involved in issues related to electric power markets and utility
2 regulation and policy for 25 years as a utility regulator, an environmental and
3 energy policymaker, an educator, a consultant, and a member of various
4 organizations involved in development of alternative energy resources. Over
5 this period, I have been directly involved in issues relevant to this proceeding,
6 including: electric utility regulation, regional power markets, competitive
7 resource procurements, alternative energy development, and renewable energy
8 policy.

9 For the past dozen years, I have been a consultant to private companies and
10 governmental and other organizations on a variety of economic and policy
11 issues affecting the electric and natural gas industries. Prior to joining Analysis
12 Group in July 2003, I was employed as a consultant at Lexecon, Inc., and its
13 predecessor company, the Economics Resource Group, Inc, starting in 1995.
14 Since 2000, I have served on multiple occasions as the independent monitor and
15 evaluator of competitive power procurement processes carried out by electric
16 companies, including a solicitation of renewable resources by the Southern
17 California Edison Company ("SCE"). Additionally, I was previously an advisor
18 to the state energy office in Massachusetts as it was beginning design of the
19 state market for tradable renewable energy credits ("RECs").

20 Before becoming an energy consultant, I served in senior state and federal
21 policy and regulatory positions for 13 years. Most recently, I was the Assistant
22 Secretary for Policy at the U.S. Department of Energy from early 1993 through
23 summer 1995, having been nominated by President Bill Clinton and confirmed

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STATE OF CALIFORNIA
PUBLIC UTILITIES COMMISSION

1 by the Senate. Before that, I held senior positions in the Massachusetts state
2 government as Secretary of Environmental Affairs (appointed by and serving
3 under Governor William Weld, from early 1991 through early 1993);
4 Commissioner of the Department of Public Utilities (appointed by and serving
5 under Governor Michael Dukakis, from late 1988 through early 1991);
6 Executive Director of the Energy Facilities Siting Council; and Senior
7 Economist for the Executive Office of Energy Resources.

8 I currently sit on several corporate and non-profit boards and commissions that
9 are relevant to this proceeding, including the National Commission on Energy
10 Policy; the Environmental Advisory Council of the New York Independent
11 System Operator (“NYISO”); the American Council on Renewable Energy
12 (“ACORE”); the Advisory Board of the National Renewable Energy Laboratory
13 (“NREL”); and the Advisory Council of the Massachusetts Renewables Trust.
14 Previously, I served on several industry boards and committees, including as a
15 chairman of the Board of the Electricity Innovations Institute; a director of the
16 Electric Power Research Institute (“EPRI”); a member of the Advisory Council
17 of the Independent System Operator – New England (“ISO-NE”); as a
18 representative to committees of the North American Electric Reliability Council
19 (“NERC”); and as a member of the U.S. Secretary of Energy’s Electric
20 Reliability Task Force. I have just completed service as co-chair of the
21 Energy/Environment working group of the transition team for the new Governor
22 of Massachusetts, Deval Patrick.

23 Prior to my work in state and federal government, I was an Assistant Professor

1 at the University of California (Irvine). I hold a Ph.D. in regional planning from
2 Cornell University (1980) and a Master's degree in Regional Planning, also
3 from Cornell University (1976). My complete vita is attached hereto.

4 **5. Q. Please describe your prior experience in testifying on electric industry issues.**

5 A. I have extensive experience testifying before state and federal regulatory
6 commissions, courts, and legislatures on matters involving electric industry
7 economics and regulation. These are also listed in my vita attached hereto.

8 **6. Q. Please summarize your testimony and conclusions.**

9 A. There are several important elements of PECO's proposed plan that make it a
10 reasonable "bridge" strategy for complying with Pennsylvania's AEPS policy.
11 First, the plan takes appropriate advantage of the opportunity provided in the
12 Act for an electric distribution company to proceed on a timely and voluntary
13 basis to procure and bank AECs prior to using them as part of subsequent
14 mandatory AEPS compliance requirements for that company. Second, approval
15 of PECO's plan by the Commission and implementation of it by the Company
16 will enable it to go to the marketplace in an early way to acquire AECs, with the
17 expectation of obtaining them at relatively attractive prices. Third, from my
18 experience, the design of PECO's solicitation process has many features,
19 including the two-phased process to procure AECs, which are likely to evoke a
20 meaningful response from the alternative-energy marketplace and in turn
21 provide value to PECO's customers in the long run. Finally, while this is not
22 the only viable design of such a procurement, it is a reasonable "bridge" strategy

1 for PECO prior to implementation of the Act's mandatory AEPS compliance
2 requirements on the Company. Therefore, I urge the Commission to approve
3 PECO's AECs voluntary procurement plan and its cost recovery proposal as
4 described in the testimony of Messrs. Cohn and McCawley.

5 **II. REASONABLENESS OF PECO'S PROPOSED VOLUNTARY PLAN TO**
6 **PROCURE AND BANK AECS PRIOR TO THE EXPIRATION OF THE**
7 **COMPANY'S COST-RECOVERY PERIOD**

8 **7. Q. What is the starting point for your analysis of the reasonableness of PECO's**
9 **proposed approach to complying with Pennsylvania's AEPS Act?**

10 A. My experience in utility regulation, in non-profit and other organizations
11 involved in renewables and other alternative energy resource development, and
12 in consulting on economic and regulatory issues in the electric industry, has
13 given me a number of perspectives and insights into the economic, regulatory
14 and other policy issues before the Commission.
15 Specifically relevant to the current proceeding, I have been involved in the
16 design of various instruments and processes for competitive resource
17 procurement by electric distribution companies. I have served as independent
18 monitor or independent evaluator of various competitive processes by electric
19 utilities to procure resources to meet their obligation to serve their customers'
20 electricity requirements. I have monitored several resource procurements by the
21 Entergy System's five regulated utility companies and several by SCE,
22 including one that involved procurement of renewable resources to satisfy state
23 policy requirements. These monitoring projects included my detailed review

1 and oversight of the design and implementation of the competitive solicitation
2 process. These engagements also included review of the character of the
3 products being solicited, the tools used to evaluate price and non-price
4 components of offers, and the terms and conditions of contracts.

5 These and other consulting and regulatory experiences have made me aware of
6 the various factors (including regulatory standards, technical issues, market
7 conditions, legal requirements, cost-recovery and financial considerations) that
8 affect the development and implementation of reasonable strategies for serving
9 customer requirements.

10 **8. Q. Given that experience, please comment on PECO's voluntary plan to solicit,**
11 **procure and bank AECs during PECO's "Cost-Recovery Period."**

12 A. In creating a statutory framework to ensure greater use by Pennsylvania
13 consumers of electric energy generated from renewable and environmentally
14 beneficial sources, the AEPS Act recognizes a number of features. On the one
15 hand, the Act recognizes that many Pennsylvania electric distribution companies
16 currently operate under transitional rate mechanisms (defined as the "Cost-
17 Recovery Period" in the Act) and defers imposing the requirements of the AEPS
18 on those companies until after the end of each company's Cost-Recovery
19 Period. At the same time, the Act anticipates that alternative energy sources
20 may be benefited by timely acquisition of electricity and/or AECs on a
21 voluntary basis by such electric distribution companies.

22 PECO's proposal is a reasonable response to this statutory and regulatory
23 platform. PECO's plan – to proceed in the near future (i.e., during its Cost-

1 Recovery Period) to procure AECs through a set of multi-year, fixed price
2 contracts with AEC suppliers and then to bank them for later use – is a
3 reasonable response to the Act. PECO’s proposal is also reasonable in light of
4 the Act’s provisions allowing for the deferral, as a regulatory asset, and
5 subsequent recovery of costs the distribution company incurs to acquire AECs
6 on a voluntary basis during its Cost-Recovery Period.

7 **9. Q. What makes you conclude that PECO’s overall plan is reasonable?**

8 A. Several macro and more technical features of PECO’s plan support its overall
9 reasonableness. First, by proceeding to solicit AECs from the alternative energy
10 market on a voluntary basis in the near future, PECO will be taking advantage
11 of the economic opportunities that exist in the current market for alternative
12 energy resources. This will give PECO, on behalf of its customers, the
13 opportunity to mine the market for economical sources of renewable energy
14 credits and then hold them for later use. This timing also aligns well with other
15 parallel features of the marketplace for alternative energy resources, including
16 the production tax credit opportunities provided by the federal Energy Policy
17 Act of 2005, which extended such credits for various renewable power
18 production technologies and projects through December 31, 2008. Second,
19 there are many technical features of PECO’s proposed procurement process that
20 contribute to my opinion that PECO’s overall plan is reasonable at this time. As
21 I describe further in the section below, these features include the overall
22 structure and design of the solicitation process (including its two phases), the
23 procurement of AECs alone (rather than AECs bundled with electricity from

1 alternative energy sources), the amount of AECs being solicited, and various
2 terms and conditions in PECO's form contract for AEC procurement (including
3 the length of the contract, the various credit and security requirements, and
4 provisions for *force majeure* and regulatory change). Additionally, the plan
5 aligns well with various economic and regulatory conditions in the markets
6 serving PECO and its customers. Taken together, in my view, these factors
7 support a finding that PECO's plan is reasonable.

8 **III. IMPORTANT ATTRIBUTES OF PECO'S VOLUNTARY PLAN TO PROCURE**
9 **AND BANK AECS**

10 **10. Q. You have just identified a number of key technical considerations in**
11 **weighing the reasonableness of PECO's proposed plan. Please comment on**
12 **the first – the overall structure and design of the solicitation process**
13 **(including the two steps of the process).**

14 A. From a technical point of view, several features of the overall design of PECO's
15 proposed approach make it a solid plan that will provide both (a) a reasonable
16 opportunity to elicit a competitive response from alternative energy suppliers,
17 and (b) value for PECO's customers.

18 As described by Mr. McCawley, the proposed procurement is a two-part
19 solicitation – with a first phase focused on identifying a set of qualified bidders,
20 and a second phase focused on identifying the set of suppliers who would have
21 the opportunity to sign contracts to supply AECs to PECO. The first phase will
22 involve qualitative assessments of prospective bidders, and the second will
23 involve bids from qualified suppliers with the bids differing only in terms of

1 amount offered and the price required by the AEC seller over the term of the
2 Alternative Energy Credits Purchase and Sale Agreement (“AECPA”).

3 11. Q. **Is a two-part approach used in resource procurements elsewhere?**

4 A. Yes. This two-part process is a reasonable means to solicit resources from a
5 wide variety of potential suppliers – including both unaffiliated and affiliated
6 parties – thus increasing the likelihood of a large and competitive response. It
7 allows for a pre-qualification of a set of prospective bidders from which PECO
8 can identify those capable of selling AECs according to comparable terms and
9 conditions, so that the bids may be objectively evaluated. It will also allow
10 potential alternative energy project developers time to demonstrate their
11 qualifications so that when price offers are submitted to PECO from eligible
12 bidders, the review process will move forward in an efficient and verifiable
13 manner. All bidders will have had to take into account the same exact terms and
14 conditions of the AECPA when formulating their price offers, so that the
15 products offered are comparable and the prices reflect the bidders’ requirements
16 for satisfying comparable contract terms. As such, the price and quantity offers
17 will permit PECO to obtain a supply of AECs at a cost-minimizing, competitive
18 price. The participation of a third-party, independent RFP Monitor (the “RFP
19 Monitor”) in both phases will further support this competitive outcome. The
20 RFP Monitor will oversee PECO’s review of applicants’ qualifications in Phase
21 1, and manage the bid opening and ordering process in Phase 2.
22 This two-part competitive resource procurement process is fairly common and
23 well-tested in the industry, in particular for the acquisition of resources under

1 development. In my experience in observing electric companies' competitive
2 resource procurement processes, there is sometimes a first phase in which
3 suppliers submit significant, detailed non-price information (such as that
4 requested by PECO in its planned RFPs), along with "indicative" or non-
5 binding price offers. In other procurement designs, the initial phase includes no
6 initial price offer, but only information that allows for pre-qualification of
7 bidders (along the lines proposed by PECO); this phase is then followed by final
8 offers (including pricing proposals) by eligible bidders. It is common in bidding
9 situations, where there are genuine eligibility parameters that must be met in
10 order to qualify to provide a service, to have a step where the qualifications are
11 reviewed before the final proposals (and accompanying price terms) are
12 submitted by the bidder.

13 As proposed, the design elements of PECO's process are reasonable and an
14 appropriate means to pursue compliance with the goals of the Act. In my view,
15 PECO's proposal balances the still-evolving state of the market for alternative
16 energy resources with the goal of comparing price offers for similar products.
17 While there are other procurement designs, PECO's proposal is a reasonable
18 approach.

19 **12. Q. Please comment on PECO's proposed use of a third-party RFP Monitor to**
20 **oversee both phases of the solicitation process.**

21 **A.** PECO's decision to involve an independent RFP Monitor contributes positively
22 to my opinion that the design of PECO's procurement is reasonable. In my
23 experience, having an independent monitor both oversee the processes through

1 which PECO evaluates the qualifications of prospective bidders and supervise
2 the bid-opening and review process supports a fair and objective competitive
3 procurement process. This feature of the process – in conjunction with PECO’s
4 plan to use a standard protocol to determine which potential bidders are
5 qualified to submit final offers, and its invitation to the PUC to attend both
6 stages of the bidding process – is sound from a number of perspectives. It helps
7 to instill prospective bidders’ confidence that their proposals will be evaluated
8 fairly; this will likely enhance the prospective bidders’ willingness to participate
9 in this solicitation process. Importantly, the involvement of a third-party RFP
10 Monitor also supports consumers’ interests in assuring that the AEC prices
11 resulting from the process will be efficient, reflecting the benefits of market
12 forces in driving prices as low as needed by suppliers to commit to sell their
13 AECs to PECO on a contractual basis.

14 **13. Q. Does PECO’s proposed procurement of AECs alone (rather than a bundled**
15 **product comprising energy and capacity as well as AECs) fit with the**
16 **conditions in the energy markets in Pennsylvania?**

17 A. Yes. PECO’s proposal is appropriate for the current circumstances. It offers a
18 balanced means of helping to assure appropriate payment levels for and
19 compensation to suppliers of AECs (to help support the timely development of
20 the alternative energy market available to Pennsylvania electricity consumers),
21 and to mitigate the risk of changes in future price and other terms of supplying
22 the non-AEPS attributes of electricity supply to its customers in future years. It
23 allows the purchase of an unbundled product – AECs alone – at a time when

1 PECO already has sufficient resources to supply the projected electricity needs
2 of its default service customers. And, it allows the Company to exercise its
3 rights under the Act to procure and bank AECs in advance of needing to use
4 them to comply with the Act's mandatory requirements in subsequent years.

5 **14. Q. Please comment on the first of these issues – how the procurement of AECs**
6 **facilitates the market for alternative energy resources.**

7 A. From the perspective of the development of the market for alternative energy
8 supplies, the ability to offer the AECs for sale on a stand-alone basis will allow
9 prospective sellers the opportunity to monetize the value of this attribute. This
10 *monetization will help facilitate the development of new (or continued operation*
11 *of existing) alternative electric generating resources that will (or do now)*
12 *operate in PJM's markets. Monetization of the AEC value over a multi-year*
13 *contract term will help further support investment in and maintenance of*
14 *alternative energy resources.*

15 Experience has shown in other states (notably New York, Massachusetts, and
16 Texas) that procurement of the unbundled attribute (e.g., RECs in states with
17 Renewable Portfolio Standards) as a stand-alone product, separate from the
18 purchase of electric energy and capacity, is a workable approach for buyers and
19 sellers. These other states share a number of common features with
20 Pennsylvania: an electric industry structure that allows for retail choice;
21 workably competitive wholesale electric markets administered by an RTO with
22 separate products markets (e.g., for electric energy and/or capacity and/or

1 ancillary services); and the ability to transact for energy and capacity through
2 either bilateral or centrally-administered markets.

3 **15. Q. Please comment on the second issue you mentioned – how the proposed**
4 **procurement of AECs fits well with PECO’s changing default service**
5 **responsibilities before and after the end of 2010.**

6 A. From the perspective of the buyer of alternative energy supplies (e.g., PECO in
7 this case), having the ability to purchase AECs alone also enables the electric
8 distribution company to dovetail its compliance strategy for the AEPS Act now
9 and in the future. PECO will be purchasing AECs in 2008 and 2009 to bank
10 them for future use (after 2010). During the first few years of the five-year
11 contracts to buy AECs, PECO does not need to purchase additional wholesale
12 supply of electric energy and capacity, since it already has a full-requirements
13 contract for its default service customers. Purchasing AECs alone now will
14 allow PECO the flexibility to adapt its AEPS compliance strategy to regulatory
15 policies, market conditions and statutory requirements as they unfold in the
16 future. PECO’s proposed approach allows for the purchase and banking of
17 AECs in ways that may coexist and be used in conjunction with different supply
18 procurement strategies for PECO’s future default service obligations.

19 In my view, PECO’s proposed procurement plan is sound in light of unfolding
20 regulatory developments. In two separate procurement rounds in 2007 and
21 2008, PECO would solicit and buy up to 450,000 AECs annually under fixed
22 price, five-year term contracts. PECO would bank the AECs for future use
23 during a latter, post-Cost-Recovery Period when PECO is no longer exempt

1 from section 1648.3 of the Act. This would provide PECO with additional
2 resources and appropriate flexibility to respond to changes in customer loads, its
3 own supply obligations, and then-prevailing market prices for energy and
4 capacity (and AECs) for supplying its retail customers at different time periods
5 in the future.

6 PECO's procurement of AECs alone with this plan is reasonable for other
7 reasons. The market for alternative energy supplies is in flux, with significant
8 and evolving policy support (such as the Pennsylvania AEPS Act and other
9 similar statutes in neighboring states, and various provisions of the federal
10 Energy Policy Act of 2005) and other heightened market interest (e.g., the
11 significant interest among private equity investors, and other financial
12 institutions in supporting alternative energy developments). In short, the
13 potential for change in the market for alternative energy supplies provides both
14 opportunity and challenges for companies seeking to plan for compliance with
15 the AEPS Act in future years. A reasonable strategy should have a good "fit"
16 with the realities of these circumstances, given the existence of so many
17 unknowns and so many important factors that are still in flux. I think that
18 PECO's plan fits these circumstances in a reasonable way.

19 **16. Q. What is your view of the appropriateness of the amount of AECs PECO is**
20 **proposing to procure?**

21 A. As Mr. McCawley explains in his testimony, PECO has based its procurement
22 target on several factors: PECO has determined that purchasing up to 450,000
23 AECs would satisfy approximately 60% of PECO's projected AEPS

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1 requirements. The Company anticipates that procuring up to a total of 450,000
2 AECs annually through two rounds of procurements will permit more
3 alternative energy system developers to participate, facilitating increased price
4 competition and permitting PECO to obtain AECs at different prices over time
5 as the alternative energy market develops.

6 I agree that PECO's procurement of up to 450,000 AECs via two procurements
7 is reasonable for a number of reasons. As I mentioned above, the amount aligns
8 well with the uncertainties in the regulatory environment affecting the provision
9 of default service after 2010. PECO's proposed approaches provides the
10 opportunity for AEC offers from a variety of projects that are existing or already
11 well along in their project development process, as well as opportunities for
12 others less far along in a second solicitation round. To illustrate this point,
13 PECO's two-phase procurement of up to 450,000 AECs annually could support
14 credits from the following bundle of projects: twelve wind projects (three at 5
15 MW each, five at 10 MW each, and four at 14 MW each – assuming a 25
16 percent capacity factor for each facility) plus four landfill gas projects (three at
17 5 MW each, and one at 10 MW – assuming at 85 percent capacity factor for
18 each facility). Two solicitation rounds provide sufficient opportunity to induce
19 offers from a variety of projects. The targeted amount of 450,000 AECs a year
20 for a five-year period thus will provide the alternative energy market with early
21 support via multiple procurement rounds.

22 Recognizing this, along with the fact that the two initial procurements will be
23 the first for a utility in the AEC market, PECO's target to contract for up to

1 450,000 AECs annually is a reasonable basis for planning and AEC
2 procurement at this time.

3 17. **Q. What are some of the key elements of PECO's form contract for the**
4 **purchase of AECs (i.e., the AECPA)?**

5 A. PECO has prepared a form contract with the proposed terms and conditions for
6 the purchase and sale of AECs resulting from transactions with successful
7 qualified bidders in its AEC solicitation process. (See "Alternative Energy
8 Credits Purchase and Sale Agreement By and Among PECO Energy Company
9 and [counterparty]" which is part of Exhibit 1.1 to Mr. McCawley's testimony.)
10 There are several important elements of this contract that provide appropriate
11 *balance between the commercial interests of the sellers of AECs, and the*
12 interests of PECO and its customers in assuring that they get the value of the
13 AECs purchased through the planned procurement. Critical among these issues
14 are contract term length, security/credit provisions, *force majeure*, and
15 provisions addressing regulatory changes.

16 18. **Q. Please comment on the appropriateness of the proposed term length in the**
17 **AECPA.**

18 A. The five-year term length for the contract provides an appropriate balance
19 between the shorter length that might be desired by PECO to mitigate market
20 risks for PECO and its customers, and the much longer length that might be
21 desired by some suppliers of AECs. Experience in the development of the
22 renewables markets indicates, for example, that the one- and two-year lengths of

1 typical federal production tax credits is disruptively short for certain renewable
2 project investors who seek contracts having a term of at least 10 years so as to
3 obtain project financing for their projects. Other states, such as New York and
4 Massachusetts, allow for and/or arrange for contracts with suppliers of
5 renewable resources and/or RECs for terms ranging from three to ten years in
6 length.

7 A five-year term (such as that proposed by PECO) has the advantage of
8 allowing the solicitation and procurement of a body of AECs over several years
9 without committing the utility to over-procure in a market that many observers
10 expect to change over the next decade as regulations (including the AEPS
11 regulations in Pennsylvania) are finalized and implemented.

12 19. Q. **What are your views about the appropriateness of the credit and security**
13 **provisions of the AECPA?**

14 A. Security and other credit requirements are important to help to ensure
15 performance by the supplier and buyer of AECs. These are designed to ensure
16 that a contracted-for set of AECs is delivered to the buyer in a time frame and at
17 costs that are relatively known, measurable and manageable, with penalties and
18 other contractual provisions designed to keep both parties to their bargain. The
19 fact that all prospective sellers will know – in advance of preparing and
20 committing to their bid price(s) – the full set of contract terms (including
21 various security deposits, and credit, development and performance
22 requirements) to which the winners must adhere will help them to offer prices in
23 a fair and efficient fashion.

1 Furthermore, the specific security requirements in PECO's procurement process
2 and purchase agreement – including bidder security and security during
3 development and performance – are consistent with security requirements
4 generally accepted as useful and necessary in helping to avoid “contract
5 failure,” e.g., situations where projects are begun but never completed due to
6 inadequate financial resources or other difficulties. From my observations of
7 the electric industry and my direct experience in monitoring electric utilities'
8 resource procurements during the post-2000 period, the set of
9 security/credit/performance requirements included in PECO's proposed model
10 contract are reasonable and customary, as discussed below:

11 (a) First, as an inducement for timely delivery of output from
12 the project, there is a requirement that a seller provide some form of deposit or
13 development security payment for projects under development with a projected
14 in-service date. The deposit or security payment is provided by the seller, held
15 by the buyer during development periods, returned to the seller upon timely
16 achievement of the agreed-upon commercial operation date of the project, and
17 retained by the buyer in the event of delays in or ultimate failure to meet a final
18 in-service date;

19 (b) Second, as an inducement to perform under the contract,
20 there is a requirement for the provision of some form of post-delivery date
21 credit and/or security requirement (e.g., letters of credit, collateral, cash, liens
22 on the property).

23 (c) Third, as compensation for and/or mitigation of potential

1 economic harm that might occur as a result of failure to perform under the
2 contract during its term, the contract provides for liquidated damages. This may
3 be triggered upon failure of the seller to provide the contracted-for amount of
4 resources (or the failure to provide the allowed forms of replacement resources).
5 The liquidated damages are often designed to cover the costs the buyer may/will
6 incur in obtaining a replacement set of resources in the marketplace at a latter
7 date if/when the seller fails to supply them.

8 The overall purpose of such credit/security/performance requirements is to help
9 maintain appropriate capital cost and creditworthiness of the regulated electric
10 utility, which may face financial risks of its own tied to its supply contracts and
11 associated financial obligations.

12 20. Q. Please comment on the “*force majeure*” provisions of the proposed AECPA.

13 A. PECO’s proposed AECPA includes various provisions concerning the
14 obligations of the parties under “*force majeure*” conditions. (Note, I am
15 referring here to the *force majeure* provisions of the AECPA, not the so-called
16 *force majeure* provisions of the AEPS Act itself.) In my opinion, the definition
17 of and provisions relating to *force majeure* events in the AECPA are reasonable.
18 My opinion is based on my experience reviewing *force majeure* provisions in a
19 variety of actual and standard-form contracts. Indeed, what I have found is that
20 often there is no exact common definition of what constitutes a *force majeure*
21 condition or event, nor is there a precise set of obligations of counterparties that
22 is invoked during and/or after a *force majeure* event. In contrast, PECO’s
23 proposal is designed both to define specifically a “*force majeure*” event, and to

1 identify clearly those conditions under which a *force majeure* event excuses a
2 party's failure to perform under the contract or leads to other outcomes. For
3 example, the AECPA provides for early termination after certain extended
4 periods during which the *force majeure* event continues in spite of reasonable
5 diligence to remedy it (see, e.g., Section 2.2.3). Given the five-year length of
6 the contract period, this provision for early termination is a reasonable balance
7 between the risk to the party experiencing the *force majeure* event and the risk
8 to the party not obtaining the contracted-for resources during an extended period
9 of time (e.g., 180 days plus the possibility of another 180 days). In any event,
10 all bidders in this solicitation will have to assume the same *force majeure* clause
11 as they formulate the price at which they are willing to offer AECs.

12 **21. Q. How does PECO's AECPA address the possibility of a change in the AEPS**
13 **regulations that would preclude PECO from recovering costs of the AECs**
14 **under contract?**

15 **A.** Section 2.4 of PECO's proposed AECPA contract includes what is sometimes
16 called a "regulatory out" clause – that is, a provision allowing for early
17 termination or some other specific action (e.g., reduction in the buyer's
18 payments to the seller) in the event that the Company determines that it cannot
19 fully recover the cost of the AECs. In my experience, multi-year contracts for a
20 regulated utility's purchase of resources are commonly contingent upon the
21 receipt of regulatory approval for recovery of costs incurred pursuant to the
22 contracts. I observed such provisions in various model contracts I oversaw as
23 part of my monitoring of electric utility resource procurements (e.g., Entergy,

1 SCE), and as a utility regulator reviewing utilities' contracts with Qualifying
2 Facilities under the Public Utilities Regulatory Policies Act (as well as other
3 wholesale power supply contracts).

4 **22. Q. Please summarize your position regarding PECO's treatment of the technical**
5 **issues raised by its proposal.**

6 A. In my view, PECO's proposal appropriately balances the interests of the
7 Company and its customers in pursuing the timely and competitive procurement
8 of alternative energy resources with the Act's goal of assuring that electric
9 companies supply a portion of their future electricity requirements from
10 alternative energy sources.

11 **IV. CONCLUSIONS**

12 **23. Q. In conclusion, what is your view regarding the reasonableness of PECO's**
13 **proposed strategy for complying with the AEPS Act, as set forth in its**
14 **Petition?**

15 A. In my opinion, PECO's approach strikes a reasonable balance in light of
16 opportunities and uncertainties currently existing in the Company's regulatory
17 and market environment.
18 *First, PECO proposes to move out on a voluntary basis to buy AECs for a*
19 *significant portion, but not all, of the first two years of its expected post-Cost-*
20 *Recovery Period alternative energy requirements. This seems like a reasonable*
21 *target in light of the uncertainty surrounding PECO's retail load-serving*
22 *requirements in that period.*

1 Second, moving into the market in the early years of development with the
2 purchase of a large amount of AECs will help support the availability in the
3 regional market that will provide Pennsylvania with alternative energy
4 resources. Early movers (like PECO) may be able to acquire AECs at relatively
5 low prices. Again, the amount of AECs that PECO proposes to purchase
6 through its Petition balances the near-term opportunities against the longer-term
7 opportunities and risks associated with developing markets and evolving
8 regulatory requirements.

9 Third, the continued evolution of power-production resources in PJM's
10 wholesale markets in future years is likely to provide a new array of
11 opportunities for PECO to supply its customers' requirements at market prices –
12 and therefore at efficient cost to consumers. Given the unknown characteristics
13 of such markets, PECO's proposal to procure AECs only in the current
14 competitive solicitation, to rely on its current contract to provide wholesale
15 electricity supply for the needs of its default service customers, and to rely on
16 traditional wholesale markets to supply energy and capacity elements of power
17 supplies in the future seems a prudent strategy. In short, PECO's proposal is
18 appropriate for assuring reasonably priced electricity supplies for consumers in
19 the long run.

20 Fourth, the design of the solicitation process and the commercial terms in
21 PECO's proposed AECPA are reasonable from a technical point of view. They
22 protect the interests of customers in getting the value of the alternative energy
23 resources they will be paying for.

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1 In my view, PECO's proposal appropriately balances the needs to comply with
2 this particular statutory requirement and other similarly important regulatory
3 requirements in a reasonable way.

4 24. Q. **Does that conclude your testimony?**

5 A. Yes.

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Dr. Tierney, a Managing Principal at Analysis Group, is an expert on regulated industries, including energy policy and economics, and the electric and gas industries. She has consulted to business, industry, government, non-profit and other organizations on energy markets, economic and environmental regulation and strategy, and energy facility projects. Her expert witness, business consulting and arbitration services have involved industry restructuring, market analyses, wholesale and retail market design, contract disputes, resource planning and analysis, asset valuations, regional transmission organizations, the siting of generation and transmission and natural gas pipeline projects, natural gas markets, electric system reliability, and environmental policy and regulation. She has participated as an expert and advisor in civil litigation cases, regulatory proceedings before state and federal agencies, arbitrations, negotiations, mediations, and business consulting engagements. Additionally, she is experienced in telecommunications industry issues, including infrastructure development and competition issues.

Prior to joining Analysis Group, she was Senior Vice President at Lexecon. She has also served as the Assistant Secretary for Policy at the U.S. Department of Energy, appointed by President Bill Clinton and confirmed by the U.S. Senate. She was also Secretary for Environmental Affairs in Massachusetts under Governor William Weld, and Commissioner at the Massachusetts Department of Public Utilities, to which she was appointed by Governor Michael Dukakis. She served as Chairman of the Board of the Massachusetts Water Resources Authority. Previously, she also was executive director of the Massachusetts Energy Facilities Siting Council. She recently served as chair of the Massachusetts Ocean Management Task Force, appointed by Governor Romney. And most recently, she co-chaired the Energy/Environment Working Group for the transition of Governor Deval Patrick.

Dr. Tierney has authored numerous articles and speaks frequently at industry conferences. She serves on a number of boards of directors and advisory committees, including the National Commission on Energy Policy. She is chairman of the board of the Energy Foundation and the board of Clean Air - Cool Planet; a director of Catalytica Energy Systems Inc.; a director of ACORE (American Council on Renewable Energy); a director of the Northeast States Clean Air Foundation, and the Climate Policy Center; and a member of the Advisory Council of the National Renewable Energy Laboratory (NREL), Harvard Electric Policy Group, the Massachusetts Renewable Energy Trust Advisory Council, the Environmental Advisory Council of the New York Independent System Operator, and the China Sustainable Energy Program's Policy Advisory Council. She was previously chair of the Electricity Innovations Institute, a director of the Electric Power Research Institute and as a member of the Advisory Council of the New England Independent System Operator. She has taught at the University of California at Irvine, and she earned her Ph.D. and M.A. degrees in regional planning at Cornell University and her B.A. at Scripps College.

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EDUCATION

- 1980 Ph.D. in Regional Planning, Public Policy, Cornell University, Ithaca, NY
Dissertation: *Congressional policy making on energy policy issues*
- 1976 M.A., in Regional Planning, Public Policy, Cornell University, Ithaca, NY
- 1973 B.A. in Art History, Scripps College, Claremont, CA
- 1971-72 Studied political science, L'Institut d'Etudes Politiques, Paris, France

PROFESSIONAL EXPERIENCE

- 2003-present Analysis Group, Inc., Boston, MA
Managing Principal
- 1999-2003 Lexecon, Inc., Cambridge, MA (formerly The Economics Resource Group, Inc.)
Senior Vice President
- 1995-1999 Economics Resource Group, Inc., Cambridge, MA
Principal and Managing Consultant
- 1993-1995 U.S. Department of Energy, Washington, DC
Assistant Secretary for Policy
- 1991-1993 Commonwealth of Massachusetts, Executive Office of Environmental Affairs, Boston, MA
Secretary of Environmental Affairs,
Chairman of the Board of Directors of the Massachusetts Water Resources Authority
- 1988-1991 Commonwealth of Massachusetts, Department of Public Utilities, Boston, MA
Commissioner
- 1984-1988 Commonwealth of Massachusetts, Energy Facilities Siting Council, Boston, MA
Executive Director
- 1983-1984 Commonwealth of Massachusetts, Executive Office of Energy Resources, Boston, MA
Senior Economist
- 1982-1983 Commonwealth of Massachusetts, Energy Facilities Siting Council, Boston, MA
Policy Analyst
- 1982 National Academy of Sciences, Washington, DC
Researcher
- 1978-1982 University of California at Irvine, Irvine, CA
Assistant Professor

TESTIMONY ON BEHALF OF CLIENTS

- **Several confidential expert reports, testimonies, declarations, affidavits, and depositions in confidential arbitrations and mediations.**
- **Masspower**
Before the Superior Court Department of Suffolk County, Massachusetts, *Massachusetts Municipal Wholesale Electric Company v. Masspower, et al.*, Civil No. 05-02710 (BLS1), on the changes in conditions in the electric industry in New England as they relate to Masspower's performance under its power supply agreement with MMWEC; Expert Report, September 11, 2006; oral testimony under cross examination at trial, October 16-17, 2006.
- **Commonwealth Edison Company**
Before the *Illinois Commerce Commission*, Proposed general increase in electric rates, general restructuring of rates, price unbundling of bundled service rates, and revision of other terms and conditions of service, Docket No. 05-0597, Rebuttal Testimony, January 30, 2006; Surrebuttal Testimony, March 14, 2006; oral testimony under cross-examination, March 23, 2006. Testimony on rehearing, September 20, 2006.
- **Commonwealth Edison Company**
Before the *Illinois House of Representatives, Electric Utility Oversight Committee*, on the Pay-as-Bid versus Uniform Price Auction Approach To Procurement of Wholesale Power for ComEd's Full-Requirements Customers, January 18, 2006, Springfield, Illinois.
- **Louisville Gas & Electric Company and Kentucky Utilities Company**
Before the *Kentucky Public Service Commission*, Application of LG&E and KU to transfer functional control of their transmission assets, Case No. 2005-xxxx, Direct Testimony, November 19, 2005.
- **Western Massachusetts Electric Company**
Before the Superior Court Department of Norfolk County, Massachusetts, *Alternative Power Source, Inc., v. Western Massachusetts Electric Company*, Civil Action No. 00-1967, on the allocation of costs related to transmission congestion in wholesale power contract for standard offer service. Expert Report, September 19, 2001; deposition, October 15, 2001; testimony at trial, July 15, 2005.
- **Entergy Louisiana, Inc. and Entergy Gulf States Inc.**
Before the *Louisiana Public Service Commission*, Application of Entergy Louisiana, Inc. for Approval of the Purchase of Electric Generating Facilities and Entergy Gulf States, Inc. for Authority to Participate in Contract for the Purchase of Capacity and Electric Power, Docket No. U27836, January 21, 2005.
- **Louisville Gas & Electric Company and Kentucky Utilities Company**
Before the *Kentucky Public Service Commission*, Investigation Into The Membership of Louisville Gas and Electric Company and Kentucky Utilities Company In The Midwest Independent Transmission System Operator, Inc., Case No. 2003-00266, September 29, 2004; Supplemental Rebuttal Testimony, January 10, 2005; testimony at hearing, June 2005.
- **Entergy Services Inc.**
Before the *Federal Energy Regulatory Commission*, Entergy Services Inc., et al., in support of the application for approval of market-based power purchase agreements under Section 205 of the Federal Power Act. Affidavit, February 28, 2003; Affidavit, March 31, 2003; Testimony, September

2003; Testimony at deposition, November 20, 2003; Rebuttal Testimony, May 11, 2004; Deposition, May 27, 2004, and June 10-11, 2004; Testimony under cross-examination, July 19-23, 26-27, 2004.

▪ **Pacific Gas & Electric Company**

Before the *California Public Utilities Commission*, In Re: Order Instituting Investigation into the ratemaking implications for Pacific Gas and Electric Company (PG&E) pursuant to the Commission's Alternative Plan of Reorganization under Chapter 11 of the Bankruptcy Code for PG&E, in the United States Bankruptcy Court, Northern District of California, San Francisco Division, In re Pacific Gas and Electric Company, Investigation 02-04-026, Pre-Filed Testimony, July 23, 2003, Testimony under cross-examination, September 12, 2003.

▪ **Entergy Louisiana, Inc.**

Before the *Louisiana Public Service Commission*, *Entergy Service*, In Re: Application of Entergy Louisiana, Inc., for Authorization to Enter into Certain Contracts for the Purchase of Capacity and Energy, Docket No. U-27136, Rebuttal Testimony, April 25, 2003.

▪ **Pacific Gas and Electric Company/PG&E Corporation**

Before the *Federal United States Bankruptcy Court, Northern District of California, San Francisco Division*, In Re: Pacific Gas and Electric Company, Debtor, Federal I.D. No. 94-0742640, on the public policy concerns raised by the proposed reorganization plan of PG&E Corporation. Expert report, November 8, 2002; rebuttal report, November 26, 2002.

▪ **PP&L Global**

Before the *New York Public Service Commission, Article X Siting Board*, on the economic and environmental benefits of the Kings Park Energy power plant. Prefiled direct testimony (with James Potter, Stephen T. Marron, David J. Kettler, and Thomas Conoscenti), January 2002; rebuttal testimony (with James Potter, Stephen T. Marron, William C. Miller, Jr., N. Dennis Eryou, and Robert W. Brown), October 23, 2002.

▪ **Connecticut Light & Power Company**

Before the *Federal United States District Court, District of Connecticut, Connecticut Light & Power Company v. NRG Power Marketing Inc.*, on their standard offer service wholesale sales agreement. Expert report, August 30, 2002; deposition, September 27, 2002.

▪ **Pacific Gas and Electric Company/PG&E Corporation**

Before the *Federal Energy Regulatory Commission, in the Matter of Pacific Gas and Electric Company, PG&E Corporation, on behalf of its Subsidiaries Electric Generation LLC, ETrans LLC, and GTrans LLC*, on the public benefits of the application seeking approval under Section 203 of the Federal Power Act and Section 12 of the Natural Gas Act for various actions relating to restructuring of the company to emerge from bankruptcy, November 30, 2001.

▪ **Cross-Sound Cable Company LLC**

Before the *Connecticut Siting Council*, on the public benefits of the proposed Cross Sound Cable Project's *Application for a Certificate of Environmental Compatibility and Public Need*, Docket No. 208. Prepared direct testimony, July 23, 2001; oral testimony under cross-examination, October 24-26, 29-30, 2001.

▪ **Sithe New England (Sithe Edgar LLC, Sithe New Boston LLC, Sithe Framingham LLC, Sithe West Medway LLC, Sithe Mystic LLC)**

Before the *Federal Energy Regulatory Commission, in the Matter of NSTAR Electric & Gas Corp., v. Sithe Edgar LLC, Sithe New Boston LLC, Sithe Framingham LLC, Sithe West Medway LLC, Sithe Mystic LLC, and PG&E Energy Trading*, Docket No. EL01-79-000. Affidavit comparing historical cost recovery by Boston Edison for its portfolio of fossil generation units (pre-divestiture) under rate

regulation, versus Sithe's revenue recovery for these same units (post-divestiture) under market prices, June 5, 2001.

- **NRG Energy Inc. and Dynegy Holdings Inc.**

Before the *Public Utilities Commission of Nevada*, In Re: petition of the Attorney General's Bureau of Consumer Protection to issue an Order staying further proceedings regarding divestiture of Nevada's electric generation assets and to open a docket to consider whether to issue a moratorium on divestiture in Nevada. Supplemental prepared direct testimony on behalf of Valmy Power LLC, April 6, 2001; testimony under cross-examination..

Before the *Public Utilities Commission of Nevada*, In Re: petition of the Attorney General's Bureau of Consumer Protection to issue an Order staying further proceedings regarding divestiture of Nevada's electric generation assets and to open a docket to consider whether to issue a moratorium on divestiture in Nevada, prepared direct testimony on behalf of Reid Gardner Power LLC and Clark Power LLC, April 3, 2001; testimony under cross-examination.

- **Sithe New England, LLC**

Before the *Federal Energy Regulatory Commission, In the Matter of Maine Public Utilities Commission and The United Illuminating Company v. ISO New England, Inc.*, affidavit on the role of price "spikes" in compensating generators for the services that they provide in the region, September 7, 2000.

- **Arkansas Electric Distribution Cooperatives**

Before the *Arkansas Public Service Commission, In the Matter of a Generic Proceeding to Establish Uniform Policies and Guidelines for a Standard Service Package*. Prepared joint reply testimony (with Janet Gail Besser), July 21, 2000; prepared joint surreply testimony (with Janet Gail Besser), August 3, 2000.

- **TransÉnergie U.S.**

Before the *Connecticut Siting Council*, on the public benefits of the proposed Cross Sound Cable Project. Expert report, July, 2000; prepared direct testimony, September 20, 2000; oral testimony, September 27, 2000; supplemental written testimony, December 7, 2000; oral testimony under cross-examination, December 14, 2000; oral testimony January 9-11, 2001.

- **SCS Energy Corp.**

Before the *New York State Public Service Commission*, on the economic and environmental impact of a new combined cycle power plant in Queens, NY, June 19, 2000.

- **Reading Municipal Light Department**

Before the *Massachusetts Energy Facilities Siting Board, Docket No. EFSB 97-4*, on the economics and need for a new natural gas pipeline, June 19, 2000; testimony under cross-examination September 19, 2000, September 21-22, 2000, October 5, 2000, and October 17, 2000.

- **Fitchburg Gas and Electric Light Company**

Before the *Massachusetts Department of Telecommunications and Energy, Docket D.T.E. 99-66*, on gas and electric company rate design policy, testimony under cross-examination, January 14, 2000.

- **FirstEnergy Corp.**

Before the *Public Utilities Commission of Ohio*, In the Matter of the Application of FirstEnergy Corp. on behalf of Ohio Edison Company, the Toledo Edison Company, and The Cleveland Electric Illuminating Company: for Approval of an Electric Transition Plan and for Authorization to Recover Transition Revenues (Case No. 99-1212-EL-ETP); for Approval of New Tariffs (Case No. 99-1213-EL-ATA); for Certain Accounting Authority (Case No. 99-1214-EL-AAM), on recovery of transition costs and calculation of the market value of generation assets. Joint testimony (with Dr. Scott T.

Jones), December 22, 1999; supplemental testimony (with Dr. Scott T. Jones), April 4, 2000; deposition, April 7, 2000.

- **Sithe New England, LLC**

Before the *Massachusetts Energy Facilities Siting Board, Docket EFSB 98-10*, in support of an application to construct a 540 MW gas-fired single cycle peaking power plant in Medway, Massachusetts. Prepared direct testimony, April 1999; oral testimony under cross-examination, July 27, 1999.

- **Village of Bergen, et al.**

Before the *Supreme Court of the State of New York, Index No. 081556*, Affidavit in Response to Defendant's Submission of February 25, 1999, in *Village of Bergen, et al., Plaintiffs, v. Power Authority of the State of New York, Defendant*, March 3, 1999.

Before the *Supreme Court of the State of New York, Index No. 081556*, Affidavit in Support of Petition to Correct Rates, in *Village of Bergen, et al., Plaintiffs, v. Power Authority of the State of New York, Defendant*, October 17, 1996.

- **Sithe New England, LLC**

Before the *Massachusetts Energy Facilities Siting Board, Docket EFSB 98-7*, in support of an application to construct a 750 MW gas-fired combined cycle power plant at the Fore River Station in Weymouth, Massachusetts (Edgar). Prepared direct testimony, February 10, 1999; oral testimony under cross-examination, July 26, 1999.

- **Sithe New England, LLC**

Before the *Massachusetts Energy Facilities Siting Board, Docket EFSB 98-8*, in support of an application to construct a 1500 MW gas-fired combined cycle power plant at the Mystic Station in Everett, Massachusetts. Prepared direct testimony, February 10, 1999; oral testimony under cross-examination, May 25, June 2, 1999.

- **U.S. Generating Company**

Before the *Connecticut Siting Board, Docket No. 189*, on an application to construct a new Lake Road Generating Project, September 1998. Oral testimony under cross-examination.

- **Central Hudson Gas & Electric Corporation**

Before the *Supreme Court of New York, Index No. 255/1998, CHGE v. West Delaware Hydro Associates*, on issues relating to ratemaking treatment of costs relating to power contracts, April 13, 1998.

- **Sithe New England Holdings, LLC**

Before the *Massachusetts Department of Telecommunications and Energy and the Massachusetts Energy Facilities Siting Board, Docket Nos. DTE98-84 and EFSB98-5*, on issues pertinent to forecast and supply planning by electric companies, September 14, 1998.

- **Sithe Energies, Inc.**

Before the *Massachusetts Energy Facilities Siting Board, Docket No. EFSB98-3*, on issues related to the agency's rulemaking establishing a Technology Performance Standard, June 8, 1998.

Before the *Massachusetts Energy Facilities Siting Board, Docket No. EFSB98-1*, on issues related to the agency's review of project viability as part of its review of power plant applications, March 16, 1998.

- **Pennsylvania Power & Light**

Rebuttal testimony on codes of conduct governing affiliate relations. *Pennsylvania Public Utility Commission, Docket Nos. A-122050F0003, A-120650F0006*, testimony under cross-examination, February 17, 1998.

Rebuttal testimony on rate unbundling and rate design issues, on consumer protection issues. *Pennsylvania Public Utility Commission, Docket No. R-00973954*, testimony under cross-examination, August 5, 1997.

Before the *Pennsylvania Public Utility Commission, Docket No. R-00973954*, on rate design, April 1, 1997.

- **Nextel Communications**
Before the *Massachusetts Department of Public Utilities, Docket 95-59-B*, on telecommunications facility matters, testimony under cross-examination, January 1997.
- **Arizona Public Service Company**
Before the *Arizona Corporation Commission, Docket No. U-0000-95-506*, on integrated resource planning and competition, October 1996.
- **U.S. Generating Company**
Before the *Massachusetts Energy Facilities Siting Board, Docket 96-4*, on an application to construct a new Millennium power generating facility, testimony under cross-examination, October 1996.
- **MCI Communications, Inc.**
Before the *Massachusetts Department of Public Utilities*, in the NYNEX interconnection docket. Opening up the Local Exchange Market to Competition: Common Themes with Retail Competition in Electricity and Natural Gas Industries, August 30, 1996.
- **Intercontinental Energy Corporation**
Before the *New Jersey Board of Public Utilities, No. EX94120585Y*, on the Energy Master Plan Phase I Proceeding to Investigate the Future Structure of the Electric Power Industry, July 1996.

Before the *Massachusetts Department of Public Utilities, DPU 96-100*, on the Investigation Commencing a Notice of Inquiry/Rulemaking for Electric Industry Restructuring Proceedings, July 1996.

PUBLICATIONS, REPORTS, ARTICLES

Tierney, Susan, Recollections of a State Regulator, NRRI 30th Anniversary, *Journal of Applied Regulation*, Volume 4, December 2006.

Barmack, Matthew, Edward Kahn, Susan Tierney, and Charles Goldman, "A Regional Approach to Market Monitoring in the West," Prepared the Western Interstate Energy Board Committee on Regional Electric Power Cooperation and Office of Electricity Delivery and Energy Reliability, Department of Energy, LBNL-61313, October 2006.

"Electric Reliability," letter to the Editor, *Issues in Science and Technology*, Fall 2006, Forum.

"A Cost-Benefit Assessment of Wholesale Electricity Restructuring and Competition in New England," co-authored with Dr. Matthew Barmack and Dr. Edward Kahn, May 2006; forthcoming, *Journal of Regulatory Economics*.

Report to the Massachusetts Special Commission Relative to Liquefied Natural Gas Facility Siting and Use, June 2006.

"Energy Policy Act Section 1813 Comments: Report of the Ute Indian Tribe of the Uintah and Ouray Reservation for Submission to the U.S. Departments of Energy and Interior," co-authored with Paul J. Hibbard, In Cooperation With The Ute Indian Tribe of the Uintah and Ouray Reservation, May 15, 2006

"In support of a Sound plan," Op Ed co-authored with John DeVillars, *Boston Globe*, April 23, 2006

"Let's Talk About the Weather: Interview with Susan Tierney on climate change risks that corporate boards of directors should know about and address," *Corporate Board Member Magazine*, January/February 2006.

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"New energy bill doesn't do enough." Op Ed, *Boston Globe*, July 29, 2005.

"The Benefits of New LNG Infrastructure in Massachusetts and New England: The Northeast Gateway Project," Prepared for Northeast Gateway Energy Bridge, L.L.C., and Algonquin Gas Transmission, LLC, White Paper co-authored with Paul. J. Hibbard, June 2005.

"Principles for Market Monitoring and Mitigation in PJM: A Review of Economic Principles, Legal and Regulatory Structures, and Practices of Other Regions, with Recommendations," White Paper prepared for PJM Interconnection, January 3, 2005.

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Signatory to "Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges, Summary of Recommendations," Washington, DC: National Commission on Energy Policy, December 2004.

"Comments of Susan F. Tierney and Paul. J. Hibbard on their own behalf," before the *Federal Energy Regulatory Commission, in the Matters of Solicitation Processes for Public Utilities (Docket No. PL04-6-000) and Acquisition and Disposition of Merchant Generation Assets by Public Utilities (Docket No. PL04-9-000)*, on the role of independent monitors and independent evaluators in public utility resource solicitations, July 1, 2004.

"Energy and Environmental Policy in the United States: Synergies and Challenges in the Electric Industry" (with Paul J. Hibbard), prepared for Le Centre Français sur les Etats-Unis (The French Center on the United States), July 2003; presentation in Paris, October, 2003.

"Supplemental Report on the Benefits of New Gas Infrastructure in New England: The Everett Extension Project" (with Charles Augustine), prepared for Algonquin Gas Transmission Company, February 5, 2003.

"The Political Economy of Long-Term Generation Adequacy: Why an ICAP Mechanism Is Needed as Part of Standard Market Design" (with Janet Gail Besser and John Farr), *The Electricity Journal*, August/September 2002.

"Siting Power Plants in the New Electric Industry Structure: Lessons California and Best Practices for Other States" (with Paul J. Hibbard), *The Electricity Journal*, June 2002.

"Maritimes Phase III and Algonquin Hubline: 'Coastal Dependency' " *CZM Consistency Review*, May 2002.

"Siting Power Plants: Recent Experience in California and Best Practices in Other States" (with Paul J. Hibbard), prepared for The Hewlett Foundation and The Energy Foundation, February 2002.

"Economic and Environmental Benefits of the Kings Park Energy Project: System Production Modeling Report" (with Joseph Cavicchi), prepared for PPL Global, January 25, 2002.

"The Benefits of New Gas Infrastructure in New England: The Maritimes & Northeast Phase IV Pipeline Project" (with Charles Augustine), prepared for Maritimes & Northeast Pipeline, LLC, January 2002.

"Activating Ontario's Capacity Market: Design and Implementation Issues" (with Janet Gail Besser and John Farr), prepared for Sithe Energies, Inc., October 24, 2001.

White paper on "Ensuring Sufficient Capacity Reserves in Today's Energy Markets" (with Janet Gail Besser and John Farr), prepared for submission as part of comments filed by Sithe Power Marketing LLC, Sithe New England Holdings, and FPL Energy LLC, in FERC Docket No. EX01-1-000, October 17, 2001.

"The Rationale and Need for Capacity Obligations and a Capacity Market in a Restructured Ontario Electricity Industry" (with Janet Gail Besser and John Farr), prepared for Sithe Energies, Inc., September 27, 2001.

"Economic and Environmental Benefits of the Wawayanda Energy Center: System Production Modeling Report" (with Joseph Cavicchi), prepared for Wawayanda Energy Center, LLC, August 24, 2001.

"A Better CO₂ Rule," op-ed, *The New York Times*, May 16, 2001.

"Air Pollution Reductions Resulting from the Kings Park Energy Project" (with Joseph Cavicchi), prepared for PPL Global, January 24, 2001.

"Report on "Economic Benefits of Wireless Telecommunications," prepared on behalf of the New Hampshire Coalition of Wireless Carriers for the New Hampshire HB 733 Study Committee, November 13, 2000.

Expert Report: "Public Benefits of the Proposed Cross Sound Cable Project Prepared for TransEnergie U.S. Ltd.," July 2000.

"The Benefits of New Gas Infrastructure in Massachusetts and New England: The Maritimes & Northeast Phase III Pipeline and the Algonquin Gas Transmission Company HubLine Projects" (with Wayne Oliver of Navigant Consulting), prepared for Maritimes & Northeast Pipeline, LLC and Algonquin Gas Transmission Company, October 2000.

"Production Modeling for the Astoria Project: Report on Results" (with John G. Farr), report for SCS Energy Corp., June 14, 2000.

"Observations from Across the Border: Implications for Canadian Reliability of Recent Changes in U.S. Electricity Markets and Policy," white paper for Natural Resources Canada, 1999.

"Research Support for the Power Industry" (with M. Granger Morgan), *Issues in Science and Technology*, Fall 1998.

"Maintaining Reliability in a Competitive U.S. Electricity Industry," Final Report of the Task Force on Electric System Reliability, U.S. Department of Energy, September 29, 1998.

"Regional Issues in Restructuring the Electric Industry," *The Electricity Industry Briefing Papers*, The National Council on Competition and the Electric Industry, April 1998.

"Fueling the Future: America's Automotive Alternatives" (with Philip Sharp), The American Assembly, Columbia University, Arden House, NY, September, 1995.

"Needed: Broad Perspective, Fresh Ideas," guest editorial, *The Electricity Journal*, November 1994.

Foreword in J. Raab, *Using Consensus Building to Improve Utility Regulation*, American Council for an Energy-Efficient Economy, Washington, DC, 1994

"Massachusetts' Pre-Approval Approach to Prudence in Massachusetts," *The Electricity Journal*, December 1990.

"Using Existing Tools to Pry Open Transmission—A New England Proposal," *The Electricity Journal*, April 1990.

"Sustainable Energy Strategy: Clean and Secure Energy for a Competitive Economy" (directed), National Energy Policy Plan, July 1995.

"The Domestic Natural Gas and Oil Initiative: First Annual Progress Report" (directed), U.S. Department of Energy, February 1995.

General Guidelines for Voluntary Reporting of Greenhouse Gases under Section 1605(b) of the Energy Policy Act of 1992 (directed), U.S. Department of Energy, October 1994.

"Fueling a Competitive Economy: Strategic Plan for the U.S. Department of Energy" (directed), April 1994.

"The Domestic Natural Gas and Oil Initiative: Energy Leadership in the World Economy" (directed), U.S. Department of Energy, December 1993.

"Siting Needs: Issues and Options," U.S. Department of Energy, June 1993.

"The Nuclear Waste Controversy," in D. Nelkin, *Controversy: The Politics of Technical Decisions*, Sage, 1977; 1984 (second edition).

DATAWARS: Computer Models in the Federal Government (with Kenneth L. Kraemer, Siegfried Dickhoven, and John Leslie King), Columbia University Press, 1987.

"The Evolution of the Nuclear Debate: The Role of Public Participation," *Annual Review of Energy*, 1978.

OTHER PROFESSIONAL ACTIVITIES

Member, Board of Directors, ACORE (American Council on Renewable Energy), 2006

Member, Advisory Council, National Renewables Energy Laboratory (NREL), 2006.

Presenter, Economic Issues, National LNG Forums, U.S. Department of Energy, Boston Massachusetts; Astoria, Oregon (2006)

Chair of the Technical Review Panel, Critical Infrastructure Protection Decision Support Systems (CIP-DSS), Argonne, Los Alamos and Sandia National Laboratories, 2006.

Member, National Academy of Sciences Committee on Enhancing the Robustness and Resilience of Electrical Transmission and Distribution in the United States to Terrorist Attack, 2005-present

Advisory Council member, New England Energy Alliance, 2005-present

Member, Board of Directors, Electric Power Research Institute, 1998 to 2003, 2005-2006

Chair of the Laboratory Direction's Division Review Panel for the Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory, 2005.

Member, New York Independent System Operator, Environmental Advisory Council, 2004-present.

Chair, Ocean Management Task Force to the Massachusetts Secretary of Environmental Affairs, 2003-2004.

Member, National Commission on Energy Policy, 2002 to present. Final Report: *Ending the Energy Stalemate – A Bipartisan Strategy to Meet America's Energy Challenges*, December 8, 2004.

Member, Board of Directors, Catalytica Energy Systems Inc., 2001 to present

Co-Chair, RTO Futures: Regional Power Working Group, 2001-2002

Member, Advisory Committee, Carnegie Mellon Electricity Industry Center, 2001 to present

Member, Board of Directors, Climate Policy Center (formerly, Americans for Equitable Climate Solutions (SkyTrust)), 2001 to present

Chair, Board of Directors, Electricity Innovations Institute, 2002 to November 2004; Director, 2001 to 2002.

Member, Florida Energy 2020 Study Commission, Environmental Technical Advisory Committee, 2001

Chair of the Board of Directors, The Energy Foundation, 2000 to present; Vice-Chair, 1999-2000; Director, 1997 to present

Chair of the Board of Directors, Clean Air-Cool Planet: A Northeast Alliance, 2004 to present; director, 1999-2004; Chairman of the Board, 2004 to present.

Member, Policy Advisory Committee, China Sustainable Energy Project-A Joint Project of The Packard Foundation and The Energy Foundation, 1999 to present

Advisory Council member, Clean Air Task Force, 2002 to present

Director, NorthEast States Center for a Clean Air Future (formerly, Northeast States Clean Air Foundation), 1998 to present

Technical Advisor, Mid-Atlantic Area Council/PJM, *Dispute Resolution Procedure*, 1998 to 2000

Member, "ISO-New England" (Independent System Operator) Advisory Committee, 1998 to 2003

Director, The Randers Group (subsidiary of Thermo TERRATEK), 1997 - 2000

Director, MHI, Inc. (electric utility aggregator for non-profit organizations in Massachusetts), 1997 - 1999

Director, Thermo ECOTEK Corporation, 1996 - 1999

Member, United States Department of Energy, Electricity Reliability Task Force, 1996-1998

Member, Harvard Electricity Policy Group, 1993 to present

HONORS AND AWARDS

Distinguished Alumna Award, Scripps College, Claremont, CA, 1998

Award for Individual Leadership in Public Service, *The Energy Daily*, 1995

Special Recognition Award for Outstanding Contribution to the Industry, Cogeneration and Competitive Power Institute, Association of Energy Engineers, 1994

Leadership Award, *National Association of State Energy Officials*, 1994

Commencement Speaker and Honorary Doctorate of Laws, Regis College, Weston, MA, 1992.

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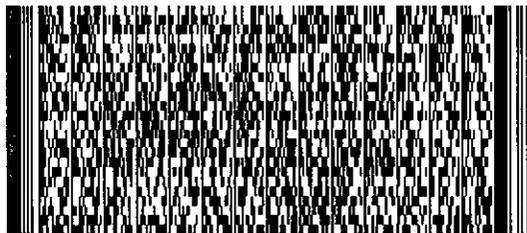


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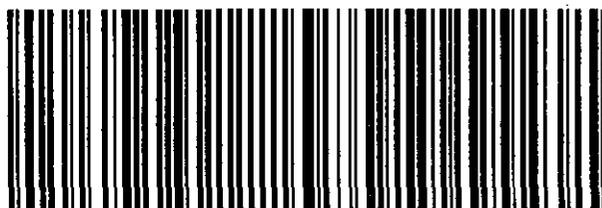


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