

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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

DOCKET NO. M-2009-2093215

SUPPLEMENTAL TESTIMONY

WITNESS: ALAN B. COHN

**SUBJECT: PECO ENERGY COMPANY'S UPDATED
AVOIDED COST PROJECTIONS**

DATED: JULY 31, 2009

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**SUPPLEMENTAL TESTIMONY
OF
ALAN B. COHN**

I. INTRODUCTION AND PURPOSE OF TESTIMONY

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

A. My name is Alan B. Cohn. My business address is PECO Energy Company, 2301 Market Street, 15th Floor, Philadelphia, Pennsylvania 19103.

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

A. I am employed by PECO Energy Company (“PECO” or the “Company”) as Manager of Revenue Analysis in the Regulatory group.

3. Q. Please describe your educational background.

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

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

A. Upon graduation from college in 1980, I was hired by PECO as a Rate Analyst in the Cost and Load Analysis Section of the Rate Division. In 1987, I was appointed Supervisor of the Economic Analysis Section in PECO’s Rates and Regulatory Affairs Division. Since that time, I have held various management positions in

1 PECO's Rates and Regulatory Affairs Department and Strategic Planning
2 Department, where I had responsibility for managing base rate case filings, cost of
3 service studies and financial and economic analyses.

4 **5. Q. Have you testified previously before this Commission or other regulatory**
5 **bodies?**

6 A. Yes. I have testified in regulatory proceedings before the Pennsylvania Public Utility
7 Commission (the "Commission"), the Federal Energy Regulatory Commission and
8 the Maryland Public Service Commission. A list of the cases in which I have
9 submitted testimony is attached hereto as Exhibit ABC-1-S.

10 **6. Q. What is the purpose of your supplemental testimony?**

11 A. The purpose of my testimony is to describe how PECO developed the updated
12 avoided cost projections for use in its Energy Efficiency and Conservation Plan (the
13 "Plan") filed with the Commission and to update Section 8.1.2 of the Plan ("Avoided
14 Costs").

15 **7. Q. Are you sponsoring any exhibits?**

16 A. Yes, I am sponsoring the following exhibits:

17 Exhibit ABC-1-S (List of Prior Testimony)

18 Exhibit ABC-2-S (Comparison of Avoided Costs)

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1 **II. ENERGY EFFICIENCY PLAN -- UPDATED AVOIDED COST PROJECTIONS**

2 **8. Q. Why is the Company updating its avoided cost projections from those used in its**
3 **initial filing?**

4 A. On June 18, 2009, the Commission adopted an Order describing the methodology that
5 electric distribution companies should use to develop the “avoided cost” of supplying
6 energy, which is an input to the cost/benefit analysis of elements of their energy
7 efficiency plans. *See Implementation of Act 129 of 2008 – Total Resource Cost*
8 *(TRC) Test*, Docket No. M-2009-2108601 (order entered June 23, 2009) (“TRC
9 Order”). Given the timing of the TRC Order, the Company was unable to use the
10 Commission’s methodology in its initial filing. Rather, the Company used the
11 methodology it had recommended in the comments it filed on the Commission’s TRC
12 test proposal. Consistent with the Commission’s directive to file amendments
13 resulting from the TRC Order prior to August 1, 2009, I am submitting supplemental
14 testimony on PECO’s updated avoided cost projections. In addition, Mr. Gregory A.
15 Wikler is submitting separate testimony on PECO’s updated avoided energy cost
16 analysis.

17 **9. Q. Please describe how the Company developed its updated avoided cost**
18 **projections.**

19 A. Consistent with the TRC Order, the Company developed the avoided cost projections
20 in three segments. The first segment, which covers the years 2010 through 2014, is
21 based upon PJM Western Hub energy futures prices as quoted by NYMEX on May
22 28, 2009. NYMEX provides prices for on-peak and off-peak periods. In order to

1 convert the NYMEX quoted prices to an “around-the-clock” price, the Company
2 assumed that the on and off-peak prices would apply for the same number of hours in
3 each period. The resulting around-the-clock price had to be further adjusted to reflect
4 PECO’s cost because NYMEX quotes prices at the PJM Western Hub. However,
5 prices at the PECO Zone tend to be higher. In order to adjust for this difference,
6 PECO compared the hourly Locational Marginal Prices (“LMPs”) for the PECO Zone
7 to the hourly PJM Western Hub prices for 2007 and 2008 using PJM’s 2008 *State of*
8 *the Market Report*. The Western Hub around-the-clock price was multiplied by the
9 average ratio of LMPs at the PECO Zone to the LMPs at the Western Hub to derive
10 the around-the-clock energy price at the PECO Zone.

11 For the second segment, which covers the years 2015 through 2019, energy prices
12 were derived from NYMEX natural gas futures converted to energy prices using a
13 “spark spread” calculation. In order to calculate the spark spread, the Company
14 started with Henry Hub futures prices quoted by NYMEX as of May 28, 2009. In
15 order to reflect delivered prices at the PECO Zone, the Transco Zone 6 Basis Swap
16 futures prices reported by NYMEX at May 28, 2009 were added to the Henry Hub
17 futures prices. The spark spread was calculated using a heat rate of 10,450 Btu per
18 kWh, as the Commission directed in the TRC Order. Because gas prices are quoted
19 in MMBtu, the heat rate was converted to MMBtu by dividing by 1,000. The heat
20 rate was multiplied by the natural gas prices, calculated in the manner described
21 above, and the product was subtracted from the electricity prices at the PECO Zone
22 for 2014 to obtain the spark spread. The electricity prices for 2015 through 2019
23 were calculated by multiplying the natural gas price for each year in that period by

1 the heat rate of 10,450 Btu/kWh (converted to MMBtu by dividing by 1,000) and
2 adjusting by the spark spread.

3 Electricity prices for the final segment, which covers the years 2020-2024, were
4 calculated using the same method employed for the second segment except that the
5 natural gas prices for those years were based upon the “Middle Atlantic” natural gas
6 prices applicable to “Electric Power” reported in the Energy Information Agency’s
7 Annual Energy Outlook for 2009.

8 **10. Q. How has the Company estimated the cost of capacity?**

9 A. Capacity prices through May 2013 are based upon the results of PJM’s Reliability
10 Pricing Model (“RPM”) base residual auctions. Since there are no auction results for
11 periods after May 2013, the capacity prices for subsequent years were obtained by
12 escalating the June 2012-May 2013 RPM price at an annual rate derived from data for
13 the Producer Price Index – Electric Power Generation, as reported by the U.S. Bureau
14 of Labor Statistics.

15 **11. Q. Have you provided a comparison of the forecast of avoided energy cost in the**
16 **Company’s initial filing to the forecast based on the methodology in the TRC**
17 **Order?**

18 A. Yes. Exhibit ABC-2-S shows a comparison of the forecasts. As shown in that
19 exhibit, the updated forecasts of energy and capacity are higher in some years and
20 lower in other years than the initial forecasts. Consequently, as discussed by Mr.

1 Winkler in his supplemental testimony, the impact of the updated forecast on the TRC
2 test is small.

3 **12. Q. Were there any other differences between the cost methodology PECO utilized**
4 **in its original filing and the methodology set forth in the TRC Order?**

5 A. Yes. On page 17 of the TRC Order the Commission directed that energy efficiency
6 programs should use device-specific end-use profiles rather than general overall rate
7 class profiles, "if available." Device-specific end-use profiles were not available and,
8 thus, our Plan continues to use rate-class profiles.

9 **III. CONCLUSION**

10 **13. Q. Does this conclude your testimony?**

11 A. Yes, it does.

Exhibit ABC-1-S

Listing of Prior Case Testimony

Maryland

Conowingo Power Company Case No. 7982 - Revenue, expense, rate base, and taxes
Conowingo Power Company Case No. 8352 - Revenue, expense, rate base, and taxes

Federal Energy Regulatory Commission

Docket Number ER91-478 - Revenue, expense, rate base, and taxes, cost of service, and rate design

Pennsylvania

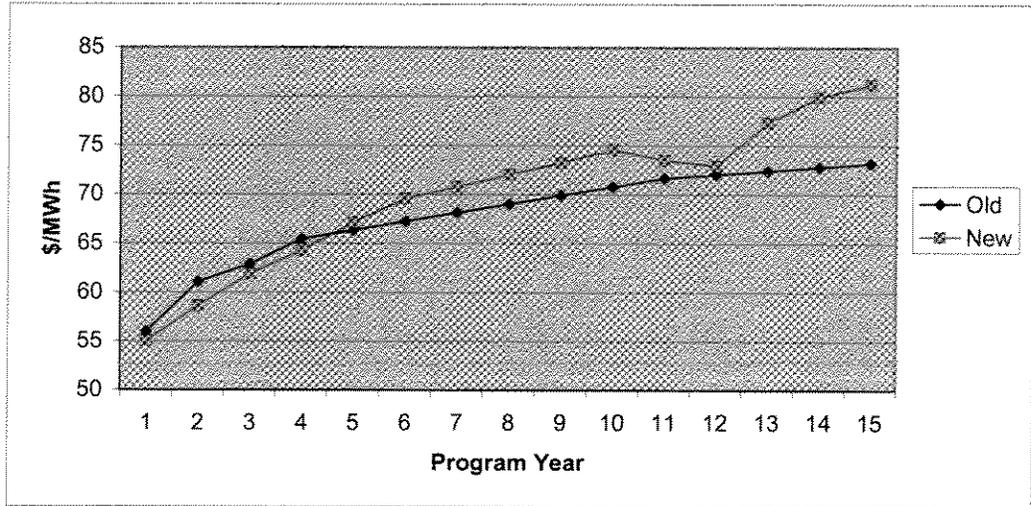
Docket Number R-891364 - Revenue, expense, rate base, and depreciation
Docket Number 1-900005 - Impact of demand side management on off-system sales
Docket Number R-922479 - Appropriate ratemaking treatment of SFAS 106
Docket Number R-973877 - Quantification of assets, jurisdictional allocation, revenue requirement, and allocation of revenue requirement
Docket Number R-973953 - Quantification of assets, jurisdictional allocation, revenue requirement, and allocation of revenue requirement
Docket Number C-2001661O - Appropriate discount rate for use in determining a CTC buyout
Docket Number P-072260 - Appropriate cost recovery mechanism for providing full and current recovery of the cost of complying with the Alternative Energy Portfolio Standards
Docket Number P-2008-2062739 - Default Service Tariff Changes
Docket Number P-2008-2062741 - Market Rate Transition Phase-In Rider, Cost Recovery

Exhibit ABC-2-S

Comparison of Avoided Costs (Filing Version vs. Updated Version)

Exhibit ABC-2-S

Avoided Energy		
	Old	New
PY2009	55.91752	54.99768
PY2010	61.03118	58.58156
PY2011	62.82281	61.84518
PY2012	65.39779	64.23849
PY2013	66.31605	67.10912
PY2014	67.2195	69.55018
PY2015	68.11925	70.76505
PY2016	68.99678	72.01994
PY2017	69.89282	73.28312
PY2018	70.76294	74.54751
PY2019	71.62196	73.49648
PY2020	71.99963	72.94979
PY2021	72.37929	77.33211
PY2022	72.76096	79.93494
PY2023	73.14463	81.23804



Avoided Capacity		
	Old	New
PY2009	66.20583	69.8318
PY2010	49.93595	63.61585
PY2011	46.50526	40.1646
PY2012	55.17918	51.0343
PY2013	62.28469	55.39834
PY2014	69.39019	60.13556
PY2015	76.4957	65.27787
PY2016	83.60121	70.85991
PY2017	90.70671	76.91928
PY2018	97.81222	83.4968
PY2019	100.7729	90.63678
PY2020	100.7729	98.38731
PY2021	100.7729	106.8006
PY2022	100.7729	115.9333
PY2023	100.7729	125.847

