PECO ENERGY COMPANY
STATEMENT NO. 8-R

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PECO ENERGY COMPANY – ELECTRIC DIVISION

DOCKET NO. R-2010-2161575

REBUTTAL TESTIMONY

WITNESS: HOWARD S. GORMAN

SUBJECTS: THE OFFICE OF CONSUMER ADVOCATE'S CRITICISMS OF, AND PROPOSED REVISIONS TO, PECO ENERGY COMPANY'S COST OF SERVICE STUDY

DATED: AUGUST 3, 2010

TABLE OF CONTENTS

REBUTTAL TESTIMONY
OF
HOWARD S. GORMAN

I. INTRODUCTION AND PURPOSE OF TESTIMONY

1. Q. Please state your name, occupation and business address.

A. My name is Howard Gorman. I am an Associate Consultant with Black & Veatch Corporation ("Black & Veatch") and President of HSG Group, Inc., a consulting firm. My business address is 45 Hillpark Avenue, Great Neck, New York 11021.

2. Q. Have you previously prepared testimony in this proceeding?

A. Yes. I previously submitted PECO Statement No. 8, as part of the Company's March 31, 2010 rate filing. I also submitted Exhibits HSG-1 through HSG-6, which comprise the Company's unbundled, fully allocated class cost of service study ("PECO COS Study").

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

A. The purpose of my rebuttal testimony is to respond to the direct testimony of Office of Consumer Advocate ("OCA") witness Mr. Clarence L. Johnson in OCA Statement 3 ("OCA-3") regarding the classification and allocation of secondary conductors and associated poles; the classification and allocation of transformers; the allocation of transmission costs; and the allocation of Other Electric Revenue. I will also address the class cost of service study prepared by Mr.

Johnson, which he proposes that the Commission rely on instead of the PECO COS Study.

4. Q. Are you presenting any exhibits with your rebuttal testimony?

A. Yes, I am presenting Exhibit HSG-7, which presents the results of a class cost of service study based on a 70% customer component for secondary distribution assets recorded in an Accounts 364-367.

5. Q. Have you made any changes to the PECO COS Study presented with your direct testimony?

A. No.

II. OCA'S APPROACH TO CLASS COST OF SERVICE ("COS") STUDIES

6. Q. Do you have any comments regarding Mr. Johnson's approach to class COS studies?

A. Yes. In his direct testimony, Mr. Johnson made several statements that indicate his approach to COS studies employs subjective, judgmental factors that typically – and properly – should be reserved for consideration in allocating a proposed revenue increase among customer classes **after** a COS study has been prepared based on objective standards and procedures. Mr. Johnson's approach to COS studies is result-oriented – not an objective assessment of costs based on the factors that cause those costs to be incurred – and, therefore, is inappropriate. Accordingly, his criticisms of the PECO COS Study

and his proposed revisions lack sound theoretical support and should be rejected.

7. Q. Can you please identify the statements in Mr. Johnson's testimony you are referring to and explain why his approach, exhibited by those statements, is not appropriate?

A. Yes. Mr. Johnson's statements that I am referring to are set forth below.

1. Mr. Johnson states, "The criterion for cost-based rates is cost causation, which implies again, that the analyst can identify the customers who cause particular costs to be incurred. Through this criterion, costs are assigned to customers in relation to the service each customer class receives from the incurrence of a particular pattern of costs" (OCA-3, p. 4 , lines 14-17). It is not correct that cost causation means, "costs are assigned to customers in relation to the service each customer class receives." Cost analysts avoid assigning costs on the basis of benefits received, which is a value-of-service – not a cost-of-service – approach to cost allocation. While there may be circumstances (e.g., if competitive services are involved) where a value-of-service approach may be warranted, there is no justification for using that approach for the electric utility services which are addressed in the PECO COS Study.

2. Mr. Johnson states, "...gradualism, consistency, and societal objectives are among the equity principles applied to cost of service" (OCA-3, p 5 , lines 3-4), and, "[e]quity is often cited as a justification for departing from strict application of an efficiency criterion" (OCA-3, p. 6 , lines 16-17). Contrary to Mr. Johnson's contentions, gradualism and societal objectives are **not** applied in "**cost of service studies.**" Cost of service studies must be objective, analytic and performed without regard to the end results. The concepts of gradualism and societal objectives are properly considered only **after** the class COS study has been prepared when the results of the objectively-performed class COS study allocation study are translated into a reasonable revenue allocation and rate design.

In addition, "equity" is achieved in class COS studies when cost causation is analyzed in an objective manner. Selecting the allocators used in a COS study in order to achieve a particular, preconceived result that the analyst deems "equitable" is contrary to the standards that must be followed when COS studies are performed.

3. Mr. Johnson states, "These costs often are assigned based upon indirect, and often weak, measures of causation" (OCA St. 3, p. 5 , lines 12-13). This statement appears to be simply an attempt to undermine class COS studies as a whole and the results they produce, and implies that the Commission should not rely on class COS studies, in order to open the door for subjective considerations, such

as gradualism and societal objectives, that are inappropriate in preparing a class COS study.

8. Q. Please summarize the defects in Mr. Johnson's general approach to class COS studies.

A. Mr. Johnson's statements, cited above, indicate that he believes class COS studies should be performed with a view to end results, by considering subjective factors such as gradualism and societal objectives as part of the cost allocation process itself. He recommends using subjective considerations instead of objective cost-causation criteria. He also implies that the Commission should not rely on class COS studies as the principal guide for allocating revenue responsibility, but instead should make such allocations by relying primarily on subjective measures of gradualism and societal objectives.

The Commission should reject Mr. Johnson's approach and continue to apply fact-based, objective cost allocation methods consistent with precedent and past practice. Accordingly, the Commission should accept the methodology employed in, and the results produced by, the PECO COS Study submitted in this case. In considering revenue allocation and rate design, the Commission should rely on the PECO COS Study as its principal guide, as well as other appropriate considerations, as discussed in the direct testimony of Mr. Cohn, who presented PECO's proposed revenue allocation and rate design.

III. CLASSIFICATION AND ALLOCATION OF SECONDARY VOLTAGE POLES AND ASSOCIATED CONDUCTORS

9. Q. Please summarize Mr. Johnson's objection to the classification and allocation of secondary poles and conductors in the PECO COS Study.

A. Mr. Johnson proposes that secondary voltage conductors and associated poles (hereafter "secondary conductors and poles") should be classified as 100% demand-related, and the costs of those facilities allocated among the applicable classes' secondary voltage non-coincident peaks ("NCPs"). Mr. Johnson contends that his proposed classification and allocations are appropriate because PECO sizes secondary conductors based on the estimated peak demands of the customers those conductors will serve (OCA-3, p. 9, lines 12-13).

Mr. Johnson objects to classifying any portion of secondary conductors and poles as customer-related. He contends that his position is supported by Professor Bonbright's statement that the costs of the minimum-sized system are inherently "unallocable" (OCA-3, p. 13, lines 1-2). Mr. Johnson also contends that a customer-based allocation is inappropriate because "PECO has a highly urbanized service area" (OCA-3, p. 13, line 8).

10. Q. How were the costs of secondary voltage conductors and poles classified and allocated in the PECO COS Study?

A. The costs of secondary conductors and poles recorded in Accounts 364 through 367 were classified as 100% customer-related and were allocated based on the number of customer locations served by those facilities.

11. Q. Is Mr. Johnson's proposed classification and allocation of secondary conductors and poles consistent with cost causation?

A. No. While PECO sizes secondary conductors based on the estimated peak demands of the customers those conductors will serve, conductor size is not the principal cost driver. The purposes of secondary conductors are to connect customers to the rest of the distribution system (i.e., to the primary voltage distribution system) and to meet peak demands. The principal cost driver for secondary conductors is the labor cost component of installation costs, which correlates much more closely with the length of the conductors installed and therefore to the number of customer locations that those conductors connect to the primary voltage system.

12. Q. Mr. Johnson has cited Professor Bonbright's book *Principles of Public Utility Rates* to support his position that no portion of the distribution system should be classified as customer-related. What

is your understanding of the portions of Professor Bonbright's treatise that Mr. Johnson relies upon?

A. Professor Bonbright wrote, "While, for the reason just suggested, the inclusion of the costs of the minimum-sized distribution system among the customer-related costs seems to us clearly indefensible, *its exclusion from the demand-related costs stands on much firmer ground*" (italics added) (*Principles of Public Utility Rates*, 1988 Edition, Bonbright et al, pp. 491-492).

Professor Bonbright acknowledged that a proper minimum system study can be performed and that the issues cited by Mr. Johnson[1] can be overcome; the question is, what to do with the results.

Mr. Johnson claims to rely on Professor Bonbright to support excluding the minimum system component from customer-related costs. However Mr. Johnson's classification of secondary distribution costs as 100% demand-related ignores Professor Bonbright's advice, that excluding the minimum system component from "demand-related costs" "stands on much firmer ground".

Mr. Johnson attempts to rely on the part of Professor Bonbright's statement that he believes supports his position; at the same time he ignores the balance of that statement which directly contradicts Mr. Johnson's proposed classification and allocation of these costs. Obviously, Mr. Johnson cannot

have it both ways; he cannot simultaneously rely upon and contradict the same authoritative source.

13. Q. Mr. Johnson contends that his position is justified because "PECO has a highly urbanized service area"and "secondary facilities in a dense urban area are shared by many customers served by the localized facilities" (OCA-3, p. 13, line 11). Are those contentions correct?

A. No. Approximately 37% of PECO's secondary distribution system is located within Philadelphia County, and not even all of that is 'a dense urban area'. Mr. Johnson has not properly assessed the character of PECO's service area and, therefore, his conclusion is not supported by the facts.

14. Q. On what basis did you classify PECO's secondary conductors and poles as 100% customer-related?

A. I classified PECO's secondary conductors and poles as 100% customer-related, and allocated the cost of those facilities based on the number of customer locations served, based on two factors:

- As discussed above, the principal cost driver for secondary conductors is the labor cost component of installation costs, which is related to the number of customer locations served.

[1] Mr. Johnson wrote, "The theoretical nature of the studies frequently leads to dispute. Furthermore, the process of identifying zero or minimum load components is subjective and may lead to double-counting demands" (OCA-3, p. 11, lines 10-12).

- A minimum system study would typically be performed to measure the customer-related portion of the cost of secondary conductors and poles. However, PECO usually contracts out work on the secondary distribution system, therefore detailed costs data needed for such an analysis are not available. As an alternative, I examined additional information and, on that basis, determined that it is reasonable to classify 100% of the costs of the secondary distribution system recorded in Accounts 364-367 as customer-related.

15. Q. What information did you examine to determine that a 100% customer component was a reasonable estimate of the customer component of secondary distribution system costs?

A. In 1997, PECO performed a minimum system study. The results of that study showed that the customer component (i.e., the minimum system cost) represented 80.6% of secondary distribution assets recorded in Accounts 364-367 are part of the "minimum system" and, therefore, are customer-related. A customer component of 80.6% is consistent with minimum system studies I have performed recently for other Pennsylvania electric utilities, as summarized in the table below:

Secondary System Customer Component – Pennsylvania Electric Utilities		
Utility	**Docket**	**Customer % Secondary**
Duquesne Light Company	**R-00061346**	**81%**
Citizens' Electric Company of Lewisburg, PA	**R-2010-2172665**	**73%**
Wellsboro Electric Company	**R-2010-2172662**	**68%**

In addition, I reviewed the labor component of installation costs for conductors used in the lower voltage range of PECO's primary distribution system, which are close to the voltages of secondary distribution conductors. Because the labor component excludes the cost of conductors, the labor component of installation costs measures the costs that correspond to the costs identified in a zero-intercept type of minimum system study[2]. The labor cost component of PECO's installation costs is approximately 86% for overhead conductors and 72% for underground conductors, as shown in the table below.

PECO Labor Component of Primary System Installation Costs			
Primary Conductor	**OH / UG**	**Voltage / Phase**	**Labor % of Installation**
4/0 AAC, 1/2 mile	**OH**	**13kV- 1Ph**	**90%**
4/0 AAC, 1/2 mile	**OH**	**13kV- 3Ph**	**81%**
Overhead, average, 13kV			**86%**
Cable 3-1X2 Conc 15Kv Cpr Jacket, 800', Philadelphia	**UG**	**4kV-13kV- 1Ph**	**84%**
Cable 3-1X750 Epr 15 Kv Cpr Compressed, 800'	**UG**	**4kV-13kV- 1Ph**	**70%**
Cable 3-1X2 Conc 15Kv Cpr Jacket, 800', Philadelphia		**4kV-13kV- 3Ph**	**77%**
Cable 3-1X750 Epr 15 Kv Cpr Compressed, 800'	**UG**	**4kV-13kV- 3Ph**	**58%**
Underground, average, 4kV-13kV			**72%**

I also examined the results that the PECO COS Study would produce if the customer component of the secondary distributions system were 70%, which I

[2] The labor component of installation costs reflects the cost of a system with no load-carrying capacity; which is the basis of a zero-intercept study. Using the labor component does not require the subjective judgments that are required in a typical zero-intercept study. The zero-intercept study does not double-count capacity, as Mr. Johnson alleged (OCA-3, p. 11, line 12), because the zero-intercept system has no load carrying capacity.

believe is the smallest number that could reasonably be supported. That examination showed that the difference in the amounts allocated to each rate class would be small as compared to the 100% customer-related classification actually used in the PECO COS Study. Based on this information, I determined that a 100% customer component is a reasonable estimate of the customer component of secondary conductors and poles.

16. Q. Did you prepare an exhibit to show the effect of classifying 70% of the secondary distribution system as customer-related?

A. Yes, I prepared Exhibit HSG-7, which uses a customer component of 70% for secondary distribution assets recorded in Accounts 364-367. Line 13 shows the returns at present rates based on this classification; and line 12 shows the returns from the PECO COS Study (Exhibit HSG-1) (which classified 100% of these costs as customer-related). Line 32 shows the increase or decrease in revenue required for each class to produce the system average rate of return requested by PECO; and line 31 shows the increases and decreases from the PECO COS Study.

The differences between the two sets of results are perceptible but small. For example the PECO COS Study shows an increase of $158 million (equal to 28.5% of distribution revenue) is required for Rate R (to produce a return of 8.95%). Using a 70% customer component for secondary distribution assets indicates that an increase of $148 million (equal to 26.7% of distribution

revenue) would required. The difference in revenue requirement is $10 million, or 1.8% of distribution revenue.

17. Q. Please summarize your conclusions regarding the classification and allocation of secondary conductors and poles employed in the PECO COS Study.

A. The primary cost driver for the costs of secondary conductors and poles recorded in Accounts 364-367 is the labor cost component of installation costs, which is related to the number of customer locations served. Based on the information available, which employs several different types of analyses, it is reasonable to classify these assets as 100% customer-related.

Classifying secondary distribution assets as **100% demand-related**, as Mr. Johnson proposes, is clearly incorrect, and there is no theoretical or factual basis for doing so. The purpose of a class COS study is not to allocate kW or capacity, but to allocate **costs**, and the cost of secondary conductors and poles is much more closely related to the number of customers served by those facilities than to the demands those customers impose.

Professor Bonbright's statement on the subject of classifying secondary distribution system costs, which Mr. Johnson cited in part, does not support Mr. Johnson's proposal to classify 100% of such costs as demand-related. In fact, Professor Bonbright expressly rejected such a demand-based classification.

18. Q. What do you recommend the Commission should do regarding the classification and allocation of secondary conductors and poles?

A. The Commission should accept the classification and allocation reflected in the PECO COS Study, and use the results of that study as the basis for evaluating revenue allocation and rate design. The results of the PECO COS Study are theoretically sound, factually supported and accurately present the cost of service of each customer class.

However, if the Commission decides to classify less than 100% of the secondary distribution system costs recorded in Accounts 364 through 367 as customer-related, it should not classify less than 70% of such costs as customer-related because 70% is the clear bottom of the range of acceptable customer-classification percentages, for the reasons I previously discussed. Accordingly, the customer cost allocations should not be less than that shown in Exhibit HSG-7, which, as I previously explained, presents the results of the PECO COS study as revised to reflect a 70% customer component for secondary distribution assets recorded in Accounts 364-367.

IV. CLASSIFICATION AND ALLOCATION OF THE COST OF TRANSFORMERS

19. Q. Why does Mr. Johnson object to the way the cost of transformers were classified and allocated in the PECO COS Study?

A. In the PECO COS Study, the cost of transformers (which is recorded in Account 368) was classified as 100% demand–related and allocated based on class NCPs. Mr. Johnson recommends classifying a portion

of the cost of transformers equal to the system load factor (i.e., for PECO, 47% of total transformers cost) as energy-related, and allocating that portion of transformer costs on an energy-basis (i.e., in proportion to usage rather than demand) (OCA-3, p. 17, lines 25-26).

20. Q. What does Mr. Johnson offer as the alleged support for his position?

A. In summary, Mr. Johnson contends that utilities' efforts to reduce energy costs were, and continue be, a factor in choosing the transformers they install and that such considerations have become even more prominent because of recent legislative changes: "[E]nergy costs historically have been evaluated in the process of selecting and planning transformer investment. Furthermore, prospectively, the enactment of DOE standards has prompted changes in the procurement of transformers which likely will result in the incurrence of a higher initial investment cost in order to reduce energy commodity costs" (OCA-3, p. 17, lines 18-22). Mr. Johnson also asserts that recent higher energy prices are causing utilities such as PECO to purchase more expensive transformers in order to reduce line losses.

21. Q. Please comment on the alternative method of classifying and allocating transformers that Mr. Johnson proposes.

A. Mr. Johnson's proposal is not correct because it fails to reflect cost causation, for several reasons.

First, energy usage does not *cause* transformer line losses, the transformation of electricity from higher voltages to lower voltages causes transformer line losses. As Mr. Johnson acknowledges, "Transformer energy losses are categorized as either (Core) losses, which occur 8,760 hours per year, as long as the transformer is connected to the system; or load losses (sometimes called winding losses), which vary with the amount of power flowing through the transformer" (OCA-3, p. 14, lines 17-20). And, "No load [i.e., Core] losses… are constant regardless of the transformer load" [3] and in the Department of Energy efficiency formula[4], No Load Losses have *four times* the weight of Load Loses. No cost causation has been established between energy usage and transformer cost, and allocating transformer cost based on energy usage is incorrect.

Second, no correlation has been established between the system load factor used by Mr. Johnson for the demand/energy split, and the higher cost of higher efficiency transformers. Nor is it reasonable to think that there is any correlation[5]. In Mr. Johnson's analysis, the demand/energy split should consider the *incremental cost*; the load factor does not do so. For example, if future improvements in transformers achieve greater efficiency at higher cost,

---

[3] http://tdworld.com/overhead_distribution/transformer-efficiency-moves-to-forefront-20090701/

[4] Efficiency = (kVA X Load) / [kVA X Load + (No-Load-Loss +Load-Loss-at-100% X Load ^{2}) X 1000], where Load = 50%

[5] Mr. Johnson's claim that the 47% load factor he used is reasonable because it is lower than the U.S. Department of Energy's 50% example is also misleading (OCA St. 3, p.18, lines 1-2). As explained above, load factor is irrelevant and has no correlation to the alleged higher cost of more efficient transformers. And if load factor were relevant, it would be appropriate to use PECO's actual load factor; not a hypothetical DOE number.

Mr. Johnson's use of the load factor would compute the same demand / energy split, which does not make sense.

Finally, Mr. Johnson ignores an important facet of his own argument. One element of a program to reduce line losses would be to place transformers closer to customers, because line losses are lower at higher voltages, and this would allow the utility to transmit energy at higher voltages for greater distances. However, to achieve that goal, a utility would need to install more transformers, and, the increased number of transformers would be a function of the number of customer locations served. Using Mr. Johnson's logic, the incremental cost of a greater number of transformers should properly be classified as customer-related, and allocated on a customer basis, not an energy basis.

22. Q. What do you recommend the Commission should do regarding the classification and allocation of transformers?

A. The Commission should accept the classification and allocation reflected in the PECO COS Study, and use the results of that study as the basis for evaluating revenue allocation and rate design.

Mr. Johnson's proposal to allocate a portion of transformer costs based on energy usage does not reflect cost causation, and even in his analysis, use of the system load factor to determine the demand / energy-split does not make sense. Therefore the Commission should reject Mr. Johnson's proposed classification and allocation of transformer costs.

V. ALLOCATION OF TRANSMISSION EXPENSE

23. Q. Why does Mr. Johnson object to the way transmission expense is allocated in the PECO COS Study?

A. Mr. Johnson disagrees with allocating transmission expense among the rate classes based on each class' contribution to PECO's annual peak. He recommends, instead, that transmission costs should be allocated based on the twelve coincident peak or "12CP" method, which employs the average of each class' contributions to each of PECO's 12 monthly peaks (OCA-3, p. 18, lines 10-11).

24. Q. What reasons did Mr. Johnson offer for his recommendation?

A. Mr. Johnson offered three alleged bases for his recommendation. I will identify each and explain why they do not support Mr. Johnson's position:

- Mr. Johnson states, "[PECO's transmission] costs are prorated into daily and monthly demand rates. Therefore, the transmission customers' monthly demand determines the transmission payments that are incurred each month" (OCA-3, p. 19, lines 12-14). Mr. Johnson is incorrect in contending that 'monthly demand determines the transmission payments that are incurred each month', because that is not how PECO incurs transmission costs.

  PJM Interconnection LLC (the regional transmission organization that provides transmission service to PECO) allocates transmission costs

to PECO based on PECO's share of the PJM *annual peak* for the prior year. That total transmission cost is then assigned to PECO's customers based on their shares of that *annual peak* for the prior year. The annual rates are converted to daily and monthly rates to facilitate billing in cases where customers change energy suppliers (because transmission charges are billed by energy suppliers); however the rates are multiplied by *annual peaks* for the prior year. Monthly peaks do not enter into the computation.

- Mr. Johnson also states, "The transmission system must be available to meet demand in an integrated manner on a year-round basis; Transmission loading relief curtailments can occur at any time of the year" (OCA-3, p. 19, line 21- p. 20, line 1). These arguments relate to benefits received, not to the cost incurred. The transmission cost that PECO incurs is based upon the maximum demand the system must handle, not the need to be available year-round.
- Mr. Johnson also states, "12-CP historically has been recognized by FERC as a reasonable basis for jurisdictional allocation of transmission and for determining transmission load ratio shares" (OCA-3, p. 20, lines 2-4). There is no indication that the FERC would approve the 12 CP allocation where, as here, the costs incurred by the utility are the direct result of an allocation by a Regional Transmission Organization; approval of 12 CP by FERC was based on factually dissimilar circumstances.

In summary, Mr. Johnson has provided no valid reason for allocating transmission expense based on the 12 CP method, or on any basis other than the single coincident peak (i.e., 1CP) basis used in the PECO COS Study.

25. Q. What do you recommend the Commission should do regarding the allocation of Transmission expense?

A. The Commission should accept the allocation of Transmission costs in the PECO COS Study on the 1 CP basis, which is in accordance with precedence and theory. This method properly reflects cost causation, as Mr. Johnson acknowledges, "The previous year's peak hour demand is used to determine annual transmission costs" (OCA-3, p. 19, lines 11-12).

VI. ALLOCATION OF OTHER ELECTRIC REVENUE

26. Q. Please summarize Mr. Johnson's discussion of the allocation of Other Electric Revenue in the PECO COS Study.

A. Mr. Johnson notes that in PECO's response to OCA Interrogatory I-21, I stated that it would be more appropriate to allocate Other Electric Revenue in proportion to the O&M dollars included in the revenue requirement (OCA-3, p. 20, lines 17-18).

27. Q. What do you recommend the Commission should do regarding the allocation of Other Electric Revenue?

A. I agree with the change Mr. Johnson has proposed. However the effect would be insignificant. For example, the effect on Residential customers would be to decrease the revenue requirement by approximately $300,000 (approximately 0.05%). I believe the Commission can reasonably evaluate the PECO COS Study and revenue allocation proposals without making this change.

VII. CLASS COST OF SERVICE STUDY PROPOSED BY MR. JOHNSON

28. Q. Did Mr. Johnson propose an alternative to the PECO COS Study?

A. Yes, Mr. Johnson proposed that the Commission rely on the class COS study presented in OCA Schedule CJ-4 as the basis for evaluating the revenue allocation and rate design in this case (OCA-3, p. 21, lines 6-12, footnote 21). Mr. Johnson's proposed alternative COS study incorporates his proposed changes in the classification and/or allocation of secondary conductors and poles, transformers, and transmission costs.

29. Q. Do you agree with Mr. Johnson's alternative COS study?

A. No. The changes incorporated in Mr. Johnson's alternative COS study to the classification and / or allocation of secondary conductors and poles, transformers and transmission costs are not correct for the

reasons I discussed previously, and, in the case of the Other Electric Revenue, have no material impact. Consequently, Mr. Johnson's alternative COS study should be disregarded.

30. Q. Does this conclude your rebuttal testimony?

A. Yes.

PECO Energy Company (Electric)
Future Test Year 2010
Class Cost of Service Study ($000s) MinSys 70% Customer
SUMMARY OF RESULTS

		Total	Residential Rate R	Residential Heating Rate RH	Off Peak Rate OP	General Service Rate GS	Primary Distribution Rate PD	High Tension Rate HT	Electric Propulsion Rate EP	Lighting Rates L
	Revenue at Present Rates									
1	Distribution charge revenue	915,062	485,048	90,659	15,198	158,969	12,100	121,796	9,705	21,587
2	Transmission revenue	177,000	55,243	10,770	145	49,087	3,072	55,073	3,162	448
3	Purchased Power revenue	3,447,162	991,692	258,720	28,547	802,514	54,397	1,231,583	63,371	16,338
4	Other revenue	16,431	15,357	4,541	331	271	(68)	(4,914)	(111)	1,026
5	**Total Revenue**	4,555,655	1,547,339	364,691	44,221	1,010,841	69,500	1,403,537	76,127	39,398
6	**Operating Expenses**	4,420,752	1,483,191	354,573	42,504	1,011,151	63,091	1,362,957	71,088	32,196
7	Income Before Tax	134,903	64,149	10,117	1,717	(310)	6,409	40,581	5,038	7,202
8	Income Tax Expense	17,049	8,107	1,279	217	(39)	810	5,129	637	910
9	**Net Operating Income**	117,854	56,042	8,839	1,500	(271)	5,599	35,452	4,402	6,292
10										
11	Rate Base	3,236,437	1,491,173	354,699	35,783	775,394	32,528	437,149	30,968	78,743
12	*Rate of Return at Current Rates- PECO COS Study*	*3.6415%*	*3.42%*	*2.89%*	*4.84%*	*0.71%*	*17.21%*	*8.11%*	*14.21%*	*3.57%*
13	Rate of Return at Current Rates	3.6415%	3.76%	2.49%	4.19%	(0.03%)	17.21%	8.11%	14.21%	7.99%
14	Relative Rate of Return	1.00	1.03	0.68	1.15	(0.01)	4.73	2.23	3.90	2.19
15	Effective tax rate	12.64%	12.64%	12.64%	12.64%	12.64%	12.64%	12.64%	12.64%	12.64%
16	**Distribution Revenue Requirement**									
17	Distribution charge revenue	1,203,427	614,315	129,206	18,515	263,744	10,041	132,997	9,202	25,406
18	Transmission revenue	203,681	74,277	10,360	1,011	51,428	2,823	61,179	2,603	0
19	Purchased Power revenue	3,447,162	991,692	258,720	28,547	802,514	54,397	1,231,583	63,371	16,338
20	Forfeited discounts	20,237	14,761	3,346	364	1,760	0	6	0	0
21	Other revenue	(2,493)	1,554	1,412	(10)	(1,375)	(69)	(4,920)	(111)	1,026
22		4,872,014	1,696,599	403,044	48,427	1,118,071	67,193	1,420,846	75,064	42,769
23										
24	Operating Expenses	4,088,539	1,346,072	322,771	38,753	946,005	58,952	1,279,519	66,563	29,903
25	Uncollectibles expense	71,321	54,973	9,950	2,138	4,258	0	1	0	0
26	Gross receipts tax	283,596	98,098	23,355	2,797	65,134	3,933	83,439	4,401	2,439
27	Income Before Tax	428,558	197,456	46,968	4,738	102,675	4,307	57,886	4,101	10,427
28	Income Tax Expense	138,897	63,996	15,222	1,536	33,277	1,396	18,761	1,329	3,379
29	**Net Operating Income**	289,661	133,460	31,746	3,203	69,398	2,911	39,125	2,772	7,048
30	Rate of Return	8.950%	8.950%	8.950%	8.950%	8.950%	8.950%	8.950%	8.950%	8.950%
31	*Increase (Decrease) Required $- PECO COS Study*	*316,359*	*158,110*	*35,770*	*3,825*	*95,235*	*(2,308)*	*17,309*	*(1,062)*	*9,480*
32	Increase (Decrease) Required $	316,359	149,260	38,354	4,206	107,230	(2,308)	17,308	(1,062)	3,371
33	Distribution charges $	288,365	129,267	38,546	3,317	104,775	(2,058)	11,202	(504)	3,819
34	Distribution charges %	31.5%	26.7%	42.5%	21.8%	65.9%	(17.0%)	9.2%	(5.2%)	17.7%
35	Transmission charges $	26,681	19,035	(410)	866	2,341	(250)	6,106	(559)	(448)
36	Transmission charges %	15.1%	34.5%	(3.8%)	595.6%	4.8%	(8.1%)	11.1%	(17.7%)	(100.0%)
37	Total Revenue	4,555,655	1,547,340	364,691	44,227	1,010,841	69,500	1,403,537	76,127	39,397
38	Total Bill Increase (Decrease) %	6.9%	9.6%	10.5%	9.5%	10.6%	(3.3%)	1.2%	(1.4%)	8.6%