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PUBLIC UTILITY COMMISSION

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SECRETARY'S OFFICE  
Public Utility Commission

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Pennsylvania Public Utility Commission, et al.  
versus Philadelphia Electric Company.  
Investigation into a requested \$660 million  
annual rate increase.

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:  
: Docket No.  
: R-850152  
:

Further Hearing

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Pages 4088 through 4292

Hearing Room 1  
North Office Building  
Harrisburg, Pennsylvania

Monday, March 10, 1986

Met, pursuant to adjournment, at 10:05 a.m.

BEFORE:

JOSEPH MATUSCHAK, Administrative Law Judge

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## APPEARANCES (Continued):

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C O N T E N T S

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NUMBER

FOR IDENTIFICATION IN EVIDENCE

CEPA et al. Statement

1A (Grier)

4280

4282

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P R O C E E D I N G S

1  
2 ADMINISTRATIVE LAW JUDGE JOSEPH MATUSCHAK: This is the  
3 time and place set for further hearing in the matter of the  
4 Pennsylvania Public Utility Commission versus Philadelphia  
5 Electric Company docketed at R-850152.

6 Are there any preliminary matters to bring up before  
7 we proceed?

8 MR. MacGREGOR: One matter, Your Honor. We had  
9 distributed on Friday a letter with an enclosure setting  
10 forth the proposal for the cross-examination of witnesses  
11 this week. It is still somewhat of a rough draft.

12 I would note a couple of changes. On March 11th,  
13 Mr. Chernick and Mr. Lanzalotta should be added to the  
14 schedule. They were inadvertently left off.

15 Then on the 12th, Wednesday, Dr. Wilson should also  
16 be added.

17 I would also note that there is still some moving  
18 around of witnesses on Thursday, Friday and Monday. So there  
19 may be some further changes as the week goes on. But this  
20 is at least a first cut of how we propose to take the  
21 witnesses during the course of this week.

22 JUDGE MATUSCHAK: Very well. It appears that  
23 Mr. Hanger is in the wrong place this morning. He is in  
24 Philadelphia. I understand he will be here an hour or two  
25 later.

1 MR. SELKOWITZ: Your Honor, I was advised this morning  
2 by counsel for the company that they don't intend to cross-  
3 examine Dr. Chernick tomorrow. I was going to ask the other  
4 parties if there is anyone here who is going to cross-examine  
5 Dr. Chernick. If not, we are going to consider advising him  
6 not to make the trip down here as soon as we've had a chance  
7 to review the company's sur-surrebuttal testimony which we  
8 received this morning to his testimony.

9 So I would like to find out if anyone intends to  
10 cross-examine him.

11 (No response.)

12 MR. SELKOWITZ: Seeing none --

13 JUDGE MATUSCHAK: Would counsel advise --

14 MR. MacGREGOR: Mr. Selkowitz is correct, Your Honor.  
15 The company will have no cross for Dr. Chernick.

16 MR. SELKOWITZ: We will take him off the list then.

17 MR. MacGREGOR: I had put him on there just by way  
18 of completeness for all of the witnesses who had filed  
19 testimony. There may be no cross for a number of the  
20 witnesses.

21 MR. SELKOWITZ: Thank you.

22 MR. SQUIRES: If Your Honor please, one more house-  
23 keeping matter. I had advised the parties that Mr. Figley  
24 would be available for cross-examination tomorrow on behalf  
25 of the Pennsylvania Business Utility Users Group.

1           However, after speaking to Mr. MacGregor and finding  
2 out that we are trying to cross-examine most of the witnesses  
3 today, he is available for cross-examination today. So if we  
4 could possibly get to him today and finish up that cross-  
5 examination, it will not be necessary for him to make a  
6 special trip here tomorrow.

7           JUDGE MATUSCHAK: We will see how we progress in this  
8 matter.

9           MR. MacGREGOR: Your Honor, the purpose of the hearing  
10 today is to take up and perhaps conclude the rate structure  
11 portion of the case. The proposed order is to take the  
12 company's two witnesses first, Mr. Williams and Mr. Sundermeir.  
13 I have brief oral sur-surrebuttal for each of those witnesses  
14 which I would propose to do up front prior to cross-examination  
15 and then the witnesses can stand for cross-examination on  
16 the rebuttal and sur-surrebuttal testimony. Then we would  
17 proceed to the other parties' witnesses.

18           We have not established an order, to my knowledge.  
19 We can proceed with the order listed on the schedule or we  
20 can go in some order that may be preferable to the parties.

21           JUDGE MATUSCHAK: Very well. The witnesses may  
22 appear in that order. You may proceed.

23           MR. MacGREGOR: Your Honor, I had previously  
24 distributed to Your Honor, to the court reporter and all  
25 parties copies of a document entitled, "Rebuttal Testimony

1 of Raymond C. Williams, Re: Distribution of Revenue Increase  
2 and Rate Design."

3 I would ask that that be marked for identification  
4 purposes as PECO Statement No. 17A.

5 JUDGE MATUSCHAK: So marked.

6 (Whereupon, the document was  
7 marked as PECO Statement No.  
8 17A for identification.)

9 Whereupon,

10 RAYMOND C. WILLIAMS

11 having previously been duly sworn, testified further as follows:

12 DIRECT EXAMINATION

13 BY MR. MacGREGOR:

14 Q. Mr. Williams, do you have before you a copy of the  
15 document which has been marked for identification as PECO  
16 Statement No. 17A?

17 A. Yes, I do.

18 Q. Is this document, in fact, a copy of your  
19 rebuttal testimony in this proceeding?

20 A. Yes.

21 Q. Was this document prepared either by you or under  
22 your direct supervision?

23 A. Yes, it was.

24 Q. Mr. Williams, do you have any corrections, changes  
25 or additions to make to that document at this time?

A. Yes, just two. On page 8, line 2, it reads, "based  
entirely in his proposal..." It should be "on his proposal."

Line 23 reads, "It is." It should read, "If it was

1 judged." That's all.

2 Q. Mr. Williams, with those corrections, if you were  
3 asked the same questions contained in Statement No. 17A here  
4 today, would your answers be the same as those contained  
5 therein and would they be true and correct to the best of  
6 your knowledge?

7 A. Yes.

8 MR. MacGREGOR: Your Honor, I would ask that the  
9 document that has been marked for identification purposes  
10 as PECO Statement No. 17A be admitted as evidence in this  
11 proceeding subject to any timely motions to strike or other  
12 objections.

13 JUDGE MATUSCHAK: The motion is granted.

14 (Whereupon, the document marked  
15 as PECO Statement No. 17A was  
16 received in evidence.)

17 BY MR. MacGREGOR:

18 Q. Mr. Williams, in your rebuttal testimony, you  
19 have presented an analysis of the average usage level of  
20 those customers on the company's Customer Assistance Program,  
21 or the CAP program, which indicated that their average usage  
22 was above 350 kilowatt-hours a month.

23 In their surrebuttal testimony, Mr. Oliver and  
24 Mr. Grier assert that the CAP customers are not a valid  
25 sample for use in making such a comparison.

Would you agree with this assertion?

1           A. No, I don't. I think we have in the CAP program  
2 a sample of the customers with proven inability to pay on the  
3 Philadelphia Electric system.

4           This group has been tested with interviews and  
5 indepth findings to find that indeed they do not have the  
6 ability to pay and are worthy of some help under the CAP  
7 program.

8           I think that the statistics from this sample are  
9 therefore appropriate and valid for the Philadelphia Electric  
10 Company situation. It proves in my mind that a targeted  
11 program such as CAP which seeks out those customers truly  
12 with the inability to pay is the most efficient way of  
13 addressing this problem that we are discussing.

14           Although broad statistics may indicate other factors  
15 and other groups of low income customers, there are customers  
16 that appear in these statistics with low income that have  
17 a variety of use of electricity.

18           The best correlation of household use is with the  
19 number of customers in the household, and the CAP program  
20 indeed seeks out just those households and just those  
21 customers where truly need has been demonstrated, and the  
22 help is given through the CAP program that is appropriate.

23           I believe this is a much more efficient way of  
24 addressing the problem than with a broad based rate reduction  
25 as has been proposed by other parties.

1 Q Mr. Williams, Mr. Oliver and Mr. Grier criticized  
2 your CAP figures as not representative because they include  
3 water heating and space heating customers.

4 Do you have any further comment on that point?

5 A Yes. I was addressing the situation of residential  
6 customers, and primarily the water heating for those customers  
7 is on Rate OP, a separately metered off-peak rate. That is  
8 102,000 customers on Rate OP.

9 Mr. Oliver makes the point that our statistics from  
10 saturation surveys show approximately 200,000 customers with  
11 water heating, and what he didn't address was the fact that  
12 97,000 customers are on Rate RH and by definition have  
13 electric water heating almost 100 percent.

14 So when that 97,000 is added to the 102,000 of off-  
15 peak water heating customers, we have 199,000 customers with  
16 electric water heating, close to the 200,000 found in the  
17 saturation survey.

18 By description in the Forecast and Sales Report, the  
19 saturation survey is just that; it's a survey done by  
20 telephone and may or may not be precisely accurate based on  
21 the responders' understanding of what their water heating is  
22 in their own household.

23 Q Mr. Williams, in response to interrogatories by  
24 the Consumer Advocate, have you performed any further  
25 analysis of the usage characteristics of the members of the

1 CAP program based upon their type of usage?

2 A. As a result of interrogatories from the Consumer  
3 Advocate, we did separate out those customers from the CAP  
4 program, of the 700-some customers, those that have water  
5 heating and those that have space heating.

6 Of the remaining customers without water heating and  
7 without space heating -- in other words, strictly residential  
8 rate basic needs -- that remainder shows that 62 percent of  
9 that universe are above 400 kilowatt-hours a month and,  
10 therefore, above the benefit level of the proposed basic  
11 needs rate.

12 I agree that 400 is below the break-even point that  
13 would result from Mr. Oliver's proposed basic needs rate,  
14 but I would point out that that break-even point was  
15 calculated based on the company receiving half the proposed  
16 increase.

17 If one assumes that the levels of basic needs rates  
18 are what should be maintained and the company receives more  
19 than half the increase, the break-even point, of course,  
20 decreases and goes below 532.

21 Q. Mr. Williams, in reference to the crossover  
22 analysis, both Mr. Oliver and Mr. Grier presented such an  
23 analysis in their surrebuttal testimony to show that  
24 customers with above 350 kilowatt-hours usage per month  
25 would receive some benefit under their essential plan.

1 Do you have any further comments on that point?

2 A. Yes. As I have described, that break-even point  
3 would move if the increase granted were greater than half  
4 and if the basic needs rate were kept at the level proposed  
5 by the Consumer Advocate.

6 Q. Mr. Williams, do you have any comments concerning  
7 Mr. Grier's figure of 220,000 low income customers in the  
8 company's service territory?

9 A. Yes. I would point out that of the --

10 MR. WERSAN: Your Honor, if I may interject. Since  
11 Mr. Hanger is not here, maybe Mr. Williams could do his  
12 oral rebuttal to Mr. Grier a little later in the day.

13 MR. MacGREGOR: That's my last question, actually.  
14 I've already done quite a bit on Mr. Grier.

15 MR. WERSAN: At least for my purposes, it was  
16 duplicative. This is solely going to Mr. Grier.

17 JUDGE MATUSCHAK: You may proceed. We can recall  
18 Mr. Williams on that if necessary.

19 MR. MacGREGOR: Fine. Should I hold on this question  
20 then or should I finish it?

21 JUDGE MATUSCHAK: On Mr. Grier's testimony.

22 MR. MacGREGOR: Fine. I will hold that question then.

23 That completes my sur-surrebuttal testimony, Your  
24 Honor, with the exception of that question concerning  
25 Mr. Grier's testimony. Mr. Williams is available for

1 cross-examination.

2 JUDGE MATUSCHAK: Who would like to go first?

3 MS. CHESTNUT: I have no questions, Your Honor.

4 JUDGE MATUSCHAK: Consumer Advocate?

5 MR. WERSAN: Thank you, Your Honor.

6 CROSS-EXAMINATION

7 BY MR. WERSAN:

8 Q. Mr. Williams, first with respect to your discussion  
9 of the analysis you did of the CAP program based upon  
10 interrogatories from the Office of Consumer Advocate, could  
11 you tell me what interrogatories you are referring to there?

12 A. That was our response to IR-OCA-26-2 that I was  
13 referring to.

14 Q. And your answer then that you gave is simply  
15 based upon an analysis of the information in 26-2?

16 A. Yes. Under the column labelled "Rate R" under  
17 that interrogatory response was my reference.

18 Q. Am I correct, Mr. Williams, that in response to  
19 two other interrogatories of the Office of Consumer Advocate,  
20 you indicated that you could not identify the number of  
21 customers in Rate R in your CAP program that had electric  
22 water heating or electric space heating?

23 A. Well, I did identify the customers that have it  
24 by usage classification. That's the one we just discussed.  
25 I was not able to identify it for those split by family

1 size and that demographic split which was a different make-  
2 up, not a usage classification.

3 Q. But within your Rate R grouping in your analysis  
4 of the CAP program, you don't know, am I correct, how many  
5 in that Rate R have electric water heating that are not on  
6 Rate OP?

7 A. No. I do know from this breakout that I've shown  
8 on 26-2 that none of the customers under the column headed  
9 "Rate R" have water heating.

10 Q. Whether through Rate R or through OP?

11 A. That is correct.

12 Q. How do you know that?

13 A. The records were available from interviews with  
14 the customers as to the appliance stock in the household.

15 Q. Maybe you could clarify this answer then. We  
16 asked you in IR-OCA-26-4, "Please identify the number of  
17 those customers known --" Excuse me. Maybe I should start  
18 you with your Schedule C to your testimony.

19 If you refer to Schedule C, we asked you, "Identify  
20 the number of those customers shown in each of the categories  
21 listed that have electric water heating." You say, "The  
22 data is not available without a manual review of the records  
23 of all 700 customers, which is not possible in the available  
24 time."

25 A. That's correct. That Schedule C is a customer

1 demographics based on single male, single female, couple and  
2 so forth. The split out of water heating was not available  
3 without an individual file search on this demographic basis.

4 It was available on the usage basis. It had been  
5 categorized for the usage basis.

6 Q Mr. Williams, you've stated now in your oral  
7 sur-surrebuttal that you think your sample of 700 CAP  
8 customers is a valid sample to judge usage characteristics  
9 and usage problems of the Philadelphia Electric residential  
10 class; is that correct?

11 A Yes, I think it is.

12 Q What comparisons have you done of the 700  
13 customers in the CAP program to the -- let me ask you it  
14 this way: how many residential customers do you have?

15 A We have 1,120,000.

16 Q What comparison have you done of those 700 customers  
17 in the CAP program to the million-plus customers in your  
18 residential class?

19 A I have not done any comparison between the whole  
20 class. My statement related to those customers with a  
21 proven inability to pay, which I believe is the problem we're  
22 addressing here.

23 I think we have a good valid sample of that group  
24 who have a proven inability to pay in a real life situation.

25 Q When you refer to those who have a proven

1 inability to pay, are you saying that there are only 700  
2 customers in the PECO territory who have a proven inability  
3 to pay?

4 A. No. The CAP program is very new. It has been  
5 in existence for less than a year, and we are still building  
6 as to the number of customers on the program.

7 Q. How many customers do you think there are on the  
8 PECO system that have an inability to pay?

9 A. This is a continuing study that we don't really  
10 know what that total is, but we believe that the group --  
11 we know, we feel confident that the group that is on the  
12 CAP program now is indeed a group that has the proven  
13 inability to pay. There may be more to add to this group,  
14 but I believe the group that we have on there is large  
15 enough to provide a realistic sample of those without the  
16 ability to pay.

17 Q. I would agree with you that the customers in the  
18 CAP program are not able to pay all of their bills. My  
19 question is whether or not you know what the larger population  
20 of customers is that currently have an inability to pay.

21 A. I don't know the total number, but I believe 700  
22 customers is certainly a good, large representative sample.  
23 We use a sampling of some 250 customers for load purposes  
24 for Rate R as being statistically valid.

25 Q. When you draw that sample of 250 customers, though,

1 don't you do statistical tests to pull them out?

2 A. Yes, we do; but my point is that 700 customers  
3 is indeed a large sample group of customers, if you will,  
4 from what is certainly by Mr. Grier and others' testimony  
5 estimated to be no larger than 200,000.

6 Q. Let me ask you this: how do you define inability  
7 to pay?

8 A. By an indepth interview documentation of the  
9 customer's income, customer's responsibilities for payments,  
10 and what is availble to make a reasonable payment for  
11 electricity based on that customer's minimum needs for  
12 electricity and based on normal conservation methods that  
13 have been taken by that customer to achieve that minimum  
14 needs level.

15 Q. Would you agree with me that in addition to  
16 those customers who are economically not able to pay  
17 currently all of their bills, there is a group of customers  
18 who have slightly more money but are still poor and under  
19 the poverty level or 150 percent of the poverty level as has  
20 been discussed in this case?

21 A. We've interviewed close to 3,000 customers to  
22 get this 700 group, and there are many, many reasons why  
23 people don't pay their bills. Some of them are just very  
24 poor money managers and don't really intend to do anything  
25 until the time of disconnection comes and it's at that point

1 where they re-prioritize their payments.

2 Q. That wasn't my question. My question was: would  
3 you agree that in addition to customers who have a certified  
4 inability to pay, there are many customers who are simply  
5 poor in the Philadelphia Electric service territory for whom  
6 a large rate increase of 30 percent would be a financial  
7 burden if they could somehow meet that bill?

8 A. As I say, this becomes a continuing study year by  
9 year of the conditions. First of all, as we both know, this  
10 is going to be phased in under the company's proposal.

11 Indeed, I think it has to be an individual customer  
12 needs review as is being done under the CAP program to  
13 understand what the customer's needs are and to make arrange-  
14 ments appropriate for that customer. I believe that is the  
15 most efficient way of handling a problem which I agree exists.

16 Q. How many customers is it your understanding that  
17 are under 150 percent of the poverty level?

18 A. Mr. Grier states that it's 200,000.

19 Q. Of the PECO programs in existence right now, there  
20 is the CAP program which is now reaching approximately 700  
21 customers, there is the Low Income Home Energy Assistance  
22 Program through the government which reaches approximately,  
23 I believe, 11,000 customers or so on the Philadelphia Electric  
24 system?

25 A. Yes.

1 Q. How many other customers on the PECO system are  
2 being assisted to help with their electric bills by  
3 Philadelphia Electric?

4 A. When you say assisted with their bill, there are  
5 numerous programs such as "Tighten Up: Low-Cost Insulation,"  
6 which help customers reduce heat loss.

7 Q. How many customers do you serve under that  
8 program?

9 A. I don't have the number available. It is in the  
10 hundreds category. There, of course, is the Individual  
11 Home Survey for Energy Use Efficiency.

12 Q. How many customers have had that audit from  
13 PECO?

14 A. Thousands of customers in our territory have had  
15 that audit.

16 Q. Do you think over 5,000?

17 A. I don't have the number available.

18 Q. And that would be for all of your customers, not  
19 just the low income?

20 A. That is another tool to identify and help to  
21 reduce customer abuse.

22 PE has a CARES program which deals with the customers  
23 that have apparently some inability to understand and  
24 comprehend the problem and try to relate them to places  
25 to get the help they need and get them organized to care

1 for their problems as best we can.

2 The point I believe that is important is that even  
3 if one accepts the 220,000 as the outside need of low income,  
4 there are 65 percent of our 1,120,000 customers that use less  
5 than 500 a month. That's 720,000 customers that use less  
6 than 500 a month. Subtracting 220 from that, that leaves  
7 500,000 customers that would be helped under a broad base  
8 rate reduction essential needs program that under everybody's  
9 assessment are not in need of help.

10 That is my problem with a non-targeted program.

11 Q Is it your opinion that the 200,000-plus customers  
12 who are under 150 percent of the poverty level are all being  
13 adequately assisted in either meeting their energy needs or  
14 in weatherizing their home?

15 A I believe there is more work to be done, but I  
16 believe we are started in the right direction, and I believe  
17 that this targeting approach is the way to efficiently handle  
18 the program. I agree that there is more work to be done.

19 Q Mr. Williams, under the programs Philadelphia  
20 Electric has, how long would it take before all 200,000  
21 customers were reached?

22 A I don't agree that there are 200,000 customers  
23 with a proven inability to pay.

24 Q I'm not talking about inability to pay. I'm  
25 talking about the customers for whom the current electric

1 bill or the proposed rate increase will impose an additional  
2 burden upon their financial resources. They may still have  
3 a dollar left at the end of the month but not much more.

4 I'm asking you how long you think it is before the  
5 audit program, to the extent it's reaching these customers  
6 that they ask for it, or the Home Energy Assistance Program,  
7 or the 700 customer CAP program, how long before that reaches  
8 these 200,000 customers?

9 A. First of all, I don't agree it is 200,000. I  
10 think we must progress on the road we're on and work to make  
11 a targeted program work, make it available to as many as  
12 truly need it.

13 Q. Within your CAP program, do you know what it costs  
14 the customer to make this needs review that you do?

15 A. No, I don't.

16 Q. Any ballpark figure?

17 A. No. It is a very new program, and we really don't  
18 have those sort of numbers available now.

19 Q. Do you have any idea how long the interviews last,  
20 how many manhours are involved?

21 A. I could get that information. I don't have it  
22 with me today. There are individual interviews, and it is  
23 a time consuming operation, I agree, but I think it is an  
24 efficient operation and it achieves its goal much more  
25 efficiently, and indeed it is a real help and a real

1 encouragement to that customer knowing that they are  
2 contributing what they can and the rest is being handled  
3 through the CAP program.

4 Q How often do you do this interview with your CAP  
5 customers?

6 A Annually. We review each customer's account on  
7 a computer review each year and, as required, make additional  
8 interviews.

9 Q In your estimation, how large could this CAP  
10 program grow before it consumes an enormous number of man-  
11 hours of company time?

12 A I think that's something that we can learn to  
13 work with more efficiently as we proceed. There are neighbor-  
14 hood energy centers that have been established in various  
15 parts of Philadelphia, and it's possible that much of the  
16 interviewing will not consume so much of the company time as  
17 we progress in the program down the road.

18 Q You are proposing to pay the neighborhood energy  
19 groups to do the interviewing for you?

20 A That may be the most efficient way to do it.

21 Q Do you know how the demographics or the character-  
22 istics of a class of customers with an inability to pay may  
23 change with a 30 percent rate increase or an 10 percent rate  
24 increase in each of the next three years?

25 A I think that assessment can only be made after

1 the fact, but I believe that the demographics as shown with  
2 the 700 customer sample are realistic. We have had some rate  
3 increases in the last two or three years, and I believe that  
4 what we are going to see in the future is well represented by  
5 the demographics shown on Schedule C.

6 Q Do you think that in the last two or three years  
7 when you've had these rate increases that the number of  
8 customers with an inability to pay has increased?

9 A There are many things that affect the inability to  
10 pay, one of the biggest being, of course, the changes in  
11 employment levels, and we noticed a big change in the  
12 inability to pay as the economy changed in the area.

13 I think it depends on many factors. Certainly, a rate  
14 increase is one of them, but there are many, many factors  
15 that affect the inability to pay.

16 For example, some of the customers interviewed have  
17 what we term a temporary inability to pay where they have lost  
18 a job but have good prospects of getting another job, and  
19 we make budgeting arrangements to carry them over that  
20 difficult period.

21 It is the individual customer circumstance again that  
22 I believe must be addressed.

23 Q Do you have any opinion on whether or not the  
24 number of customers with an inability to pay may increase if  
25 the company receives its rate request in this case?

1 A. As I said, that certainly will be a factor, but  
2 not the only factor.

3 Q. You have tied it to employment. Assume with me  
4 for a moment -- I realize the company disagrees -- assume  
5 with me for a moment that the unemployment or the effect on  
6 unemployment projected by Dr. Schinnar for the City of  
7 Philadelphia was actually to occur. Would you then agree  
8 that there would be an increased inability to pay on behalf  
9 of Philadelphia Electric customers?

10 A. I don't agree with Dr. Schinnar's projections of  
11 unemployment, and, as I say, a customer's ability to pay is  
12 reflective of many factors, certainly the biggest one being  
13 his employment. Other expenses, people in the household,  
14 all these things affect the customer's ability to pay.

15 Q. Now, you've made the statement that you believe  
16 the number of persons in the household is directly correlated  
17 with the consumption in that household; is that correct?

18 A. I said that I believe there is a much better  
19 correlation between the level of consumption, of electric  
20 consumption, with the number of persons in the household  
21 than there is with the income level of the household.

22 Q. And that is based upon your Schedule C?

23 A. No. That was based upon the survey of national  
24 analysts and based on the findings of the Commission in  
25 PRMB-7 of which that survey was a part.

1 Q. So that's not something that you presented new  
2 in your testimony in 17A?

3 A. No. In my Schedule C, I was pointing out that the  
4 majority of the households are not elderly single persons;  
5 that they are indeed single people with children, either one,  
6 two or three children.

7 Q. If I could, looking at Schedule C for a moment,  
8 you have the words "Single Female" category and then by  
9 number of children. It looks like between the customers  
10 contacted and the customers accepted, the relationship between  
11 the customers accepted and the customers contacted actually  
12 declined as the number of children in the family increased.

13 Do you know why that is?

14 A. No, I don't know why that is, but I don't know  
15 that it has any particular significance.

16 As I say, the point I was making was that there are  
17 far more people on the CAP program that are families or  
18 single persons with children than the single elderly person  
19 as was characterised by some of the testimony.

20 Q. But if you believe that as you add people to the  
21 household, usage goes up and payment problems occur, wouldn't  
22 you expect that as the number of children in the household  
23 increased, you would actually have more customers accepted  
24 in the program?

25 A. There may be other things changing, perhaps. The

1 income may be higher in those residences. One cannot get  
2 into that detail unless you look at the individual record  
3 interview, and that, unfortunately, is all manual.

4 Q Let me refer you to page 2 of your testimony.  
5 At lines 8 through 11, you discuss Mr. Oliver's proposal  
6 to reduce the proposed increase to the residential class  
7 by increasing SEPTA and Amtrak plus the off-peak loads of  
8 OP, SLP and SLS; is that correct?

9 A Yes.

10 Q Would you agree with me that, in fact, Mr. Oliver's  
11 proposal is that the increase allocated to SEPTA and Amtrak  
12 is used to reduce the rate increase for the Class GS?

13 A Well, Mr. Oliver reduces the increase to Rate R  
14 and he reduces the increase to GS as proposed by the company;  
15 I would agree.

16 Q Would you agree with me that the decrease in  
17 Rate R under Mr. Oliver's proposal is directly related to  
18 the increase in Rate OP and the same can be said for SEPTA,  
19 Amtrak and GS; there is a direct relationship there, including  
20 the streetlighting also with GS?

21 A Approximately; there is a \$7.4 million increase  
22 to OP, which is the decrease to Rate R, and the GS decrease  
23 is essentially assigned to the railroads and streetlighting.

24 Q If I could refer you to your Schedule A.

25 A Yes.

1 Q In the far right-hand column where you discuss  
2 Mr. Oliver's revenue distribution to the classes, under  
3 percentage increase for EP-S, which would be SEPTA, you have  
4 a 33.8 percent rate increase.

5 Is it your understanding that what Mr. Oliver proposed  
6 was that SEPTA and Amtrak should be moved to 100 percent of  
7 the system average rate of return under the cost of service  
8 study used?

9 A That was after Mr. Oliver adjusted the cost of  
10 service study. I don't agree with Mr. Oliver's adjustment  
11 to the cost of service study, and therefore I don't agree  
12 with the distribution increase.

13 Q I understand that. My question is: when you  
14 calculated a 33.8 percent for SEPTA under Mr. Oliver's  
15 proposal, did you base that upon the results of his cost  
16 of service study and what would be required to get to a  
17 100 percent of system average rate of return?

18 A I simply looked at the revenue change from where  
19 we are to where he would take us.

20 Q And did you prorate that evenly between SEPTA  
21 and Amtrak?

22 A I prorated it between SEPTA and Amtrak based on  
23 the revenue without fuel savings from SEPTA and Amtrak as  
24 shown on my attachment to your Interrogatory IR-OCA-26-1.

25 Q So you didn't refer to rate of return under his

1 cost of service study to come up with that revenue increase  
2 for SEPTA under your Schedule A; is that correct?

3 A. As I say, I did not adopt his cost of service  
4 study. I don't agree with it. I prorated it between the two  
5 based on revenue without fuel savings removed.

6 Q. Mr. Williams, is it your position that there are  
7 no Rate R customers that have electric water heating?

8 A. Well, when you say "have electric water heating,"  
9 do you mean separately metered or not separately metered?

10 Q. I mean not separately metered.

11 A. I am sure there are some customers that have water  
12 heating that is not separately metered, but I pointed out  
13 that there are 102,000 separately metered water heating  
14 customers on OP, 97,000 Rate RH customers, for a total of  
15 199,000 customers.

16 Q. So you believe there are only a few?

17 A. There are a few that are out there, yes.

18 Q. So to the extent that there are only a few, if  
19 there was to be some kind of a rate that took into account  
20 whether or not you heated water with electricity, identifica-  
21 tion of those customers wouldn't be very difficult since most  
22 of them are on either OP or RH?

23 A. I disagree.

24 Q. Well, you know your OP customers have water  
25 heaters.

1 A. That's true, but 102,000 plus 97,000 is 199,000  
2 customers. We have 1,120,000 residential customers. So we  
3 still have 900,000 left.

4 Q. That wasn't my question. If there was a proposal  
5 to in some way design a rate that took into account whether  
6 or not a customer used an electric water heater, identifica-  
7 tion of those customers that have electric water heating, as  
8 you've stated, is fairly accounted for since they are either  
9 under OP or RH?

10 A. Yes. But finding those few remaining among 900,000  
11 customers is not an easy proposition. And if one does as  
12 Mr. Oliver suggests to ask customers if they have it, there  
13 is a great incentive to say, "Yes, I have it," because they  
14 know they are going to get a rate benefit by so doing.

15 Q. So you think all your customers would lie, Mr.  
16 Williams?

17 A. No, I don't think so, but I don't think it is  
18 a very efficient way of getting a reliable answer.

19 Q. If I could refer you to page 7 of your testimony.  
20 You discuss starting at line 4 whether or not Rate RH is  
21 a promotional rate; is that correct?

22 A. Yes.

23 Q. I take it you would agree with me that how one  
24 views Rate RH depends on which cost of service study you  
25 believe in; that you believe it is not promotional because

1 you are relying upon your analysis under the four coincident  
2 peak methodology?

3 A. I believe that Rate RH is entirely appropriate  
4 based on our cost allocation, yes.

5 MR. WERSAN: Thank you, Your Honor. Thank you,  
6 Mr. Williams.

7 JUDGE MATUSCHAK: Is there any further cross-examination  
8 of Mr. Williams?

9 MR. KLEPPINGER: I have a few questions, Your Honor.

10 CROSS-EXAMINATION

11 BY MR. KLEPPINGER:

12 Q. Good morning, Mr. Williams.

13 A. Good morning.

14 Q. Would you turn to page 2 of your testimony, please?

15 A. Yes.

16 Q. At lines 20 through 25, you discuss Mr. Pollock's  
17 proposed distribution of the increase among customer classes  
18 which excludes fuel costs from the allocation process.

19 As I understand your testimony there, you indicate  
20 that the company did consider this approach but rejected it  
21 because of the disparity of increases among the classes; is  
22 that correct?

23 A. Yes.

24 Q. And one of the disparities you specifically  
25 mention there is that Mr. Pollock proposes an increase for

1 Rate R of 35.5 percent and for Rate HT of 23.2 percent?

2 A. Yes.

3 Q. Would you agree with me that that disparity  
4 represents an increase to the residential class of approxi-  
5 mately 1.5 times the increase to the HT class?

6 A. Yes.

7 Q. And based on your Schedule A, that increase to  
8 the residential class proposed by Mr. Pollock is approximately  
9 1.3 times the system average increase of 27.7 percent under  
10 Mr. Pollock's approach; is that correct?

11 A. Yes.

12 Q. Mr. Williams, I would like to show you a copy of  
13 Philadelphia Electric Company Exhibit TPH-3 from the  
14 proceeding at Docket R-822291, which is for a future test  
15 year ending October 31, 1984, and direct your attention to  
16 page A-5 of that exhibit.

17 First of all, Mr. Williams, can you verify for me  
18 that that is, to your recollection, a true copy of the  
19 proposed distribution of the increase at Docket R-822291 as  
20 proposed by PECO?

21 A. Yes.

22 Q. At that docket, am I correct that the proposed  
23 system increase was 11.4 percent for the total electric?

24 A. Yes.

25 Q. And that the increase to HT is 9.8 percent?

1 A. Yes.

2 Q. And the increase to R is 14.6 percent?

3 A. Yes.

4 Q. Would you accept that in that case PECO was  
5 proposing an increase to the residential class of approximately  
6 1.5 times the increase to the HT class?

7 A. Yes.

8 Q. And that PECO was proposing an increase to Rate R  
9 of approximately 1.3 times the system increase of 11.4?

10 A. Yes. However, I think one must realize that we  
11 are talking about a total increase of 11 percent here. In  
12 this case, we're talking about a total increase of 28 percent.

13 I believe that the level of the increase certainly has  
14 a bearing on the distribution of the increase.

15 Q. I understand your position. I'm trying to focus  
16 on what disparities we've seen in prior proceedings.

17 I would like to direct your attention to Exhibit TPH-2  
18 from the prior Commission proceeding at Docket R-842590.  
19 This is the last rate case which PECO had filed, and it has  
20 a future test year of December 31, 1984.

21 Once again, Mr. Williams, I would like you to focus  
22 on page A-5. Would you verify for me that that is a true and  
23 correct version of the proposed distribution of the increase  
24 at that docket by PECO?

25 A. Yes.

1 Q. Once again, can you agree with me that the  
2 system increase in that case was approximately 7.1 percent?

3 A. Yes.

4 Q. And the increase proposed for Rate HT was 4.4?

5 A. Yes.

6 Q. And the increase for Rate R was 11.8?

7 A. Yes.

8 Q. And will you agree, subject to check, that the  
9 increase being proposed for Rate R by PECO is approximately  
10 1.6 times the system average increase?

11 A. Yes.

12 Q. And the increase proposed for Rate R by PECO is  
13 approximately 2.7 times the increase proposed for Rate HT?

14 A. Yes. Again, with a total revenue increase of  
15 7.1 percent; and as a result of these increases, the disparity  
16 was brought more into line as we found when making the  
17 distribution for this increase so that we could achieve  
18 our goal of having essentially an equal increase among  
19 classes and still provide a reasonable relationship between  
20 rate of return by classes and average return.

21 MR. KLEPPINGER: Thank you, Mr. Williams. I have  
22 no further questions, Your Honor.

23 JUDGE MATUSCHAK: Mr. Ryan.  
24  
25

## CROSS-EXAMINATION

1  
2 BY MR. RYAN:

3 Q Good morning, Mr. Williams.

4 A Good morning.

5 Q Beginning on page 9 and carrying over to page 10,  
6 you have a few comments on the proposal made by Mr. Larson.

7 A Yes.

8 Q I would just like to ask a question or two about  
9 that. Do I understand correctly that one of your major  
10 objections to his proposal to expand the time of use energy  
11 adjustment to the other classes, to the PD and GS classes,  
12 is that the cost of doing so would be on the order of about  
13 \$3.1 million, the figure that appears at line 20 on page 10?

14 A Yes. That is a rough estimate.

15 Q And I understand a major component of that cost  
16 would be the cost of special metering which you assume will  
17 be \$900 per installation for a total of \$2.7 million? That's  
18 a few lines above that.

19 A Yes; that's true. As I say, that, of necessity,  
20 is a rough estimate. I have not attempted to detail in any  
21 way what would be required.

22 Q First of all, do you agree that the \$3.1 million  
23 figure is less than 1 percent of the total amount of the rate  
24 increase that you are seeking in this case?

25 A Yes.

1 Q And if you took that \$900 a meter installation  
2 cost and you collected it in an increase in customer charges  
3 to the customer classes that are affected over, say, a five-  
4 year period, wouldn't it increase the customer costs about  
5 \$18 a year?

6 A I haven't made that calculation, but I agree  
7 that it could be assigned to the customer classes and pick it  
8 up through a customer charge. That, of course, doesn't  
9 relieve the company of the necessity of making the investment  
10 today.

11 The other point that I made is that I believe that  
12 to be effective, it should be mandatory to all customers in  
13 the class and not on a selective basis.

14 Q But that's the reason why you have assumed it  
15 would be made mandatory, and therefore all members have to  
16 have these meters and that's why the cost estimate?

17 A That's exactly right.

18 Q Even allowing for a modest carrying charge on  
19 that up-front investment by the company, the cost is going  
20 to be on the order, if you take five years to recover it,  
21 it will be on the order of \$20, something like that, a month.  
22 Would you agree to that ballpark figure at least?

23 A Subject to check. You must realize, however, that  
24 there are many customers who would be subjected to that  
25 \$20 charge who would, in fact, pay higher rates as a result

1 of the time of day metering, and for those customers it  
2 would be most unsatisfactory.

3 Q But isn't the idea of the rate in any event to  
4 encourage further off-peak use; that's the goal of PECO?

5 A Yes, it is; but I believe that we have made a  
6 significant step forward in Rate GS by, in fact, decreasing  
7 the end block of Rate GS as proposed by the company. By  
8 definition, that use is over 400 hours use per month, which  
9 is certainly off-peak.

10 Q But the two are then directly related. The idea  
11 of holding steady or taking a slight reduction in the GS  
12 tail block and the idea of not extending or not accepting  
13 this proposal for extending the off-peak credit are related  
14 in your mind?

15 A I believe that by reducing the tail block, we  
16 can achieve this same sort of price signal for encouraging  
17 off-peak use at almost no cost of metering.

18 MR. RYAN: I have no further questions.

19 JUDGE MATUSCHAK: Is there anything further at this  
20 point?

21 MS. CHESTNUT: Yes, Your Honor. I have a few  
22 questions.

23 CROSS-EXAMINATION

24 BY MS. CHESTNUT:

25 Q Good morning, Mr. Williams.

1 A. Good morning.

2 Q. Mr. Williams, you mentioned the audit program in  
3 response to questions put to you by Mr. Wersan; is that  
4 correct?

5 A. Yes.

6 Q. In that program, Mr. Williams, are these audits  
7 initiated by the company or by the ratepayers?

8 A. Well, the audit program as it was initially  
9 enacted was at a customer's request for audit. However, as  
10 a part of the CAP program, it is required that an audit be  
11 made of the customer's household to find where efficiencies  
12 can be achieved.

13 Q. How about for non-CAP ratepayers?

14 A. That is still voluntary.

15 Q. Is there a charge associated with that audit for  
16 non-CAP customers?

17 A. For the non-CAP, yes.

18 Q. Mr. Williams, you said that in your opinion the  
19 most important factor on a ratepayer's ability to pay is  
20 employment, is that correct, that employment has the most  
21 impact?

22 A. Yes, I would think so.

23 Q. Is it your opinion that if the company is granted  
24 the entire rate request that it has requested here, that that  
25 will have no impact on the ability of low-income ratepayers

1 to pay?

2 A. I recognize that certainly any increase in expense  
3 to a customer with marginal ability to pay is going to have  
4 an effect.

5 My point was that the electric rate increase is one  
6 of many changes that are constantly taking place and facing  
7 all of us and all customers with all levels of ability to  
8 pay.

9 Q. Isn't it correct, Mr. Williams, that if the  
10 company proceeds to complete construction of Limerick Unit  
11 No. 2 that the ratepayers will probably be expected to pay  
12 at least a portion or all of the costs associated with that  
13 unit within the next 10 years?

14 A. When that unit comes on line, certainly there  
15 must be some recognition of cost; and as we know, that is  
16 going to be in 1991.

17 MS. CHESTNUT: Thank you, Mr. Williams. I have no  
18 further questions, Your Honor.

19 JUDGE MATUSCHAK: Any further cross-examination of  
20 this witness?

21 (No response.)

22 JUDGE MATUSCHAK: Any redirect?

23 MR. MacGREGOR: May we have a short break, Your Honor?

24 JUDGE MATUSCHAK: Yes. We will take a short recess.

25 (Recess.)

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JUDGE MATUSCHAK: Are you ready to proceed?

MR. MacGREGOR: Yes, Your Honor. I have no redirect for Mr. Williams. We are ready to proceed with Mr. Sundermeir, who has been previously sworn.

(Witness excused.)

Whereupon,

WILLIAM F. SUNDERMEIR

having previously been duly sworn, testified further as follows:

MR. MacGREGOR: Your Honor, I have distributed a document entitled, "Rebuttal Testimony of William F. Sundermeir, Class Cost Allocation, Unit Cost Study and Rate Design."

I would ask that it be marked for identification as PECO Statement No. 24A at this time.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked PECO Statement No. 24A for identification.)

DIRECT EXAMINATION

BY MR. MacGREGOR:

Q. Mr. Sundermeir, do you have before a copy of the document that has been marked for identification as PECO Statement No. 24A?

A. Yes, I do.

Q. Is this document a copy of your rebuttal testimony

1 in this proceeding?

2 A. Yes, it is.

3 Q. Was this document prepared either by you or under  
4 your direct supervision?

5 A. Yes.

6 Q. Do you have any changes, corrections or additions  
7 to make to this document at this time?

8 A. Yes. I have one correction. At the bottom of  
9 page 23, there's a reference to page 66. That should be  
10 page 63. And that's all.

11 Q. Mr. Sundermeir, with that correction, if you  
12 were asked the questions contained in Statement No. 24A  
13 again today, would your answers be the same as those  
14 contained therein and would they be true and correct to the  
15 best of your knowledge?

16 A. Yes.

17 MR. MacGREGOR: Your Honor, I would ask that PECO  
18 Statement No. 24A be admitted as evidence in this proceeding  
19 subject to any timely motion to strike or other objections.

20 JUDGE MATUSCHAK: The motion is granted.

21 (Whereupon, the document marked  
22 PECO Statement No. 24A was  
23 received in evidence.)

24 BY MR. MacGREGOR:

25 Q. Mr. Sundermeir, in your rebuttal testimony, you  
referenced rate increases that were pending by certain

1 companies included in the comparison group employed by  
2 Feldman and Wirtshafter. And at pages 6 and 7 of his  
3 testimony, Dr. Feldman says that, "None of the proposed  
4 rate increases are close in magnitude to that proposed by  
5 Philadelphia Electric Company." Do you have any comment on  
6 that statement?

7 A. Yes. I believe that this is a fundamental  
8 problem with the analysis that was done by Dr. Wirtshafter  
9 and Dr. Feldman in that they are comparing the Philadelphia  
10 Electric Company rates that will be effective in June of  
11 1988 to the existing rates of a number of other utilities.

12 And also, in so doing, they did not include known,  
13 filed rate increases by at least four of the other utilities.  
14 I would say that at least three of these utilities do have  
15 pending rate increases that are in the magnitude of that  
16 filed by Philadelphia Electric Company.

17 One is Northeast Utilities, and they have a proposed  
18 rate increase of approximately 30 percent, with a proposed  
19 three year phase-in. Of course, the increase and the  
20 proposed phase-in are both in line with Philadelphia  
21 Electric's proposed increase.

22 Public Service of New Jersey is proposing a 19  
23 percent increase with no phase-in proposed. Atlantic  
24 Electric expects to get an increase in the neighborhood of  
25 13 percent for their large commercial and industrial

1 customers.

2 And the only one that I would characterize as not  
3 having a proposed increase in the neighborhood of  
4 Philadelphia Electric is Jersey Central, which has a  
5 nominal increase in the neighborhood of two percent.

6 I might add, in addition to that, they also assume  
7 that neither any of these utilities or any of the other  
8 utilities that they have used for comparison purposes will  
9 have any rate increases, any other rate increases between  
10 now and mid-1988.

11 Q Mr. Sundermeir, with respect to the demand  
12 ratchet, Dr. Wirtshafter offers several criticisms of your  
13 assertion that six of the ten companies included in his  
14 comparison would have demand ratchets. Do you have any  
15 further comment on this issue?

16 A Yes. I believe Dr. Wirtshafter indicated that  
17 PEPCO and Penn Electric, Pennsylvania Electric do not have  
18 demand ratchets in their tariffs. I believe that this is  
19 incorrect.

20 First of all, let me indicate what a demand ratchet  
21 is. It's a billing demand that depends on a prior period  
22 demand.

23 In the case of Pennsylvania Electric, I will quote  
24 from their tariff: "The customer charge plus one-half of  
25 the active demand charge at current rate levels for the

1 highest kilowatt demand billed during the preceding 11  
2 months." That is clearly a demand ratchet.

3 As far as PEPCO is concerned, PEPCO has a separate  
4 rate for those customers that are served in Maryland to  
5 those that are served in Washington, D.C.

6 In their Maryland tariff, they do have a demand  
7 ratchet, and it is applicable to their heating customers  
8 only.

9 However, in their service to the customers in the  
10 District of Columbia, they also have demand ratchets. And  
11 I will quote from the PEPCO tariff that's applicable in D.C.

12 It says, "The billing demand shall be the maximum  
13 30 minute demand recorded during the billing month, but  
14 shall not be less than the highest such demand established  
15 during the preceding 11 months."

16 As I indicated earlier, in service to their Maryland  
17 customers, they do employ a ratchet in their rates, but the  
18 ratchet in that case is only applied to their space heating  
19 service.

20 I might add that this is also applicable in their  
21 District of Columbia service territory. It says, "For  
22 non-heating months, the maximum demand recorded will be the  
23 billing demand. The average of the two highest such demands  
24 during the preceding group of non-heating months or 10  
25 kilowatts, whichever is greater, will be the control demand

1 for the succeeding group of heating months, except that  
2 the control demand shall not be less than 50 percent of  
3 the highest demand established during the preceding seven  
4 winter months, nor less than 90 percent of the control  
5 demand established during the five summer months of the  
6 preceding year."

7 Dr. Wirtshafter also indicated that the ratchets of  
8 PEPCO and Duquesne would not be applicable to any of their  
9 clients. I also disagree with that.

10 As I read the ratchet for PEPCO, that ratchet in the  
11 D.C. tariff would clearly be applicable to their clients.  
12 As far as Duquesne is concerned, Duquesne has a ratchet  
13 that is 70 percent of their maximum contract demand, but the  
14 contract demand is tied in to their maximum demand.

15 And this would also clearly be applicable, at least  
16 in some of the months, to some of Dr. Wirtshafter and  
17 Dr. Feldman's clients.

18 Q. Mr. Sundermeir, on page 12 of his surrebuttal  
19 testimony, Dr. Wirtshafter criticizes the company's proposed  
20 decrease to the HT tail block. Do you have any further  
21 comment on that issue?

22 A. Yes. In effect, as I indicated in my rebuttal  
23 testimony, the tail block, the fixed costs that are recovered  
24 in the tail block of Rate HT increased approximately 60  
25 percent.

1           The net effect on the tail block was virtually to  
2 not change the tail block at all. It went from 3.76 cents  
3 to 3.75 cents.

4           And this is the net effect of the increase in the  
5 fixed costs that are recovered in the tail block less the  
6 energy savings as a result of the operation of Limerick.

7           Q. Mr. Sundermeir, on page 17 of his surrebuttal  
8 testimony, Dr. Wirtshafter provides a comparison of 15-  
9 minute and 30-minute measured demands, and concludes that  
10 a customer in PECO's service territory would have no reason  
11 to control his demands on the 15-minute basis because the  
12 company bills the customer on the basis of 30-minute demands.  
13 Do you agree with this statement?

14           A. No, not at all. First of all, you have to  
15 realize that a 15-minute demand by definition will be equal  
16 to or higher than a 30-minute demand, and it would only be  
17 in very rare cases that it would be equal to a 30-minute  
18 demand.

19           These demands are not instantaneous. They are  
20 averages over a period of time. So, by reducing a 15-minute  
21 demand, the customer would also reduce the 30-minute demand.

22           For example, if a customer had a 200 kilowatt demand  
23 in the first 15 minutes and a 100 kilowatt demand in the  
24 next 15 minutes, his 30-minute demand would be 150 kilowatts.

25           And by reducing the 200 kilowatt demand in a

1 15-minute period, he would also reduce his 30-minute demand.

2 Q Finally, Mr. Sundermeir, at page 17, Dr. Wirtshaf-  
3 ter asserts that the University of Pennsylvania has  
4 undertaken a large reduction in demand over the last few  
5 years. Do you agree with that statement?

6 A No, not at all. I have looked at the University  
7 of Pennsylvania's demand starting with January of 1983, and  
8 I have found that actually the two highest demands that they  
9 have recorded since that time occurred just this past  
10 September and October.

11 MR. MacGREGOR: Thank you, Mr. Sundermeir.

12 Your Honor, Mr. Sundermeir is available for cross-  
13 examination.

14 MS. CHESTNUT: No questions, Your Honor.

15 JUDGE MATUSCHAK: Consumer Advocate?

16 MR. WERSAN: Thank you, Your Honor.

17 CROSS-EXAMINATION

18 BY MR. WERSAN:

19 Q Good morning, Mr. Sundermeir.

20 A Good morning.

21 Q If I could refer you to the bottom of page 4 and  
22 the top of page 5 of your testimony, starting on line 27 on  
23 page 4, you state, "It is the increase in summer peak loads  
24 that results in the necessity to construct additional high  
25 cost production and transmission facilities," is that

1 correct?

2 A. Yes.

3 Q. Can you explain to me the tie between an increase  
4 in the summer peak load and why the company would build a  
5 high-cost production plant rather than a medium- or a low-  
6 cost production plant?

7 A. Perhaps we should characterize it by saying that  
8 any increase in summer demand would eventually result in the  
9 need for additional capacity of some cost, whether it be a  
10 high cost in the sense of fixed cost and low energy costs,  
11 or vice versa.

12 But it would still result in the need for additional  
13 production and transmission facilities.

14 Q. So, the increase in the summer peaks doesn't  
15 necessarily result in the need to construct a major base  
16 load station; it really depends on other characteristics in  
17 addition?

18 A. Well, it's the tradeoff. I think you're right,  
19 sometimes the peak could be met by lower cost peaking units,  
20 but then that's a tradeoff for higher cost fuel, energy costs

21 Q. Along that line, if I could refer you to your  
22 answer to Interrogatory OCA-26-11, which we received last  
23 Thursday, the question was asked to you to provide any and  
24 all PECO system planning documents or system planning data  
25 and analyses that support your assertion at page 1, lines 21

1 to 23 of your testimony that production plant is only  
2 installed to satisfy peak demand requirements.

3 And am I correct that there is a three paragraph  
4 answer, and the first two paragraphs -- I can show it to  
5 you -- the first two paragraphs basically discuss PJM and  
6 peak requirement conditions, of why you might be adding  
7 new capacity?

8 A. Yes.

9 Q. In the last paragraph, you state, "The first  
10 and foremost criteria for planning new generation is to  
11 meet the peak load capacity requirements. All PECO units in  
12 the post-World War II period have been authorized to meet  
13 peak load capacity requirements."

14 But then you state, "The type of this capacity may  
15 be determined by economics, but the amount has always been  
16 chosen to meet peak load capacity requirements," is that  
17 correct?

18 A. Yes, it is.

19 Q. You would agree with me that there are two  
20 considerations as you have stated it there, the type and the  
21 amount of capacity?

22 A. That is correct. I think the trigger is that  
23 we need new capacity, and then the next step is to to  
24 determine how that capacity can be supplied in the most  
25 economical means.

1 Q Yes, I understand that.

2 Moving to your discussion of Rate OP and the impact  
3 of Mr. Oliver's proposed revenue allocation, am I correct  
4 that you criticize Mr. Oliver's proposal to give Rate OP a  
5 system average rate increase?

6 A That is correct.

7 Q And you assert that that might give the wrong  
8 price signal to Rate OP customers as to whether or not that  
9 is a service that would be beneficial and will help the  
10 company utilize more off-peak service.

11 A Well, obviously, the more we increase any off-  
12 peak pricing, the more of a price signal that the customer  
13 is going to get to not use energy off-peak.

14 Q What is the current Rate OP, Mr. Sundermeir?  
15 Would you agree it's 5.51 cents per kilowatt-hour?

16 A Yes.

17 Q And assume with me for a moment that Rate OP  
18 actually got a 30 percent rate increase. What would that  
19 increase the rate to for that class per kilowatt-hour?

20 A 7.16 cents a kilowatt-hour.

21 Q Now, what's the kilowatt-hour charge for Rate R  
22 for the first 500 kilowatt-hours? That's probably the  
23 easiest one to start with.

24 A You said Rate R?

25 Q Yes.

1 A. For the first 500 kilowatt-hours, it's 10.35  
2 cents per kilowatt-hour.

3 Q. Now, assume with me for a moment that Rate R for  
4 the first 500 kilowatt-hours was only increased by 4 percent,  
5 the rate of inflation. What would that raise that rate to?

6 A. 10.76 cents.

7 Q. Would you agree with me that even if Rate OP got  
8 a 30 percent rate increase, and Rate R got a 4 percent  
9 increase for the first 500 kwh, there would still be a  
10 difference between those two rates per kwh of approximately  
11 3.5 cents?

12 A. That's correct, but the difference under the  
13 existing rates is now in the neighborhood of 5 cents, so  
14 obviously you're making a significant decrease in the  
15 incentive for the customer to use energy off-peak.

16 Q. But even though -- I would agree with you -- the  
17 difference is decreasing, for a customer to go from OP to  
18 Rate R usage, they would still be incurring an increase  
19 over the OP rate of about 50 percent, going from the 7.2  
20 cents to the 10.7 cents, is that correct, per kilowatt-hour?

21 A. It would be higher. But you've got to keep in  
22 mind, now, that the customer is making certain sacrifices  
23 when he accepts Rate OP in exchange for a lower bill.

24 And the sacrifice is that 6.5 hours out of every day,  
25 he has no electrical service to that appliance. And it

1 could get to some point where the difference in rates is so  
2 small that he will no longer be willing to make that  
3 sacrifice.

4 Q. Do you know what differential is required for a  
5 Rate OP customer to switch from one class to the other?

6 A. No. I think each customer would have to make  
7 that judgment on his own as to how much he is willing to pay  
8 to have uncontrolled water heating service, which would be  
9 available to him all the time, versus the sacrifice in  
10 service that he has to make for a savings.

11 And I think if that difference gets too small, I know  
12 that I would not accept controlled service without some  
13 significant financial incentive.

14 Q. Let me ask you this: would you agree with me  
15 that the over 5 cent difference that would be evident between  
16 Rate OP and Rate R is the largest difference between those  
17 two rates in the history of those rates?

18 A. It could very well be, at least from an absolute  
19 standpoint, that that's the largest difference. I am not  
20 sure in a percentage viewpoint.

21 Q. Let's use your proposal for the Rate R rate  
22 increase. What would the first 500 kilowatt-hours be billed  
23 at?

24 A. 13.62 cents.

25 Q. And what would the differential be between Rate R

1 and Rate OP under your proposal?

2 A. 8.11 cents.

3 Q. Would you agree with me that that also would be  
4 the largest difference between Rate OP and Rate R in the  
5 history of those tariffs?

6 A. It may be.

7 Q. And in your opinion, you need an 8 cent  
8 differential for those OP customers to stay on Rate OP?

9 A. No. My opinion and our cost analysis shows that  
10 there is no justification for a rate increase for Rate OP,  
11 that it provides an adequate return with its present price,  
12 so there is no reason to increase that price.

13 Q. Yes, I understand that. You would agree with me  
14 that Rate OP, as for all customers who use energy off-peak,  
15 will benefit, to the extent Limerick works, from increased  
16 energy savings from that plant?

17 A. That is correct, and the lower fuel costs that  
18 are resulting from operating Limerick are reflected in the  
19 allocation of energy cost to Rate OP.

20 Q. But you are not charging Rate OP for the cost of  
21 Limerick, is that correct?

22 A. Well, what we did is increase the pricing of  
23 Rate OP, and have that increase offset by the savings in  
24 fuel costs.

25 Q. So, for a net of zero?

1 A. For a net increase of zero, yes.

2 Q. Now, on page 4 of your testimony, you discuss  
3 the effect of different parties' cost of service study on  
4 Rate HT and the different charges that would be required  
5 through the different usage blocks in the demand charge,  
6 is that correct?

7 A. Yes.

8 Q. Would you agree with me that when you are  
9 stating what you think the different usage prices would be  
10 for Rate HT, you are switching now from the question of  
11 revenue allocation to the question of rate design?

12 A. It's a combination of both.

13 Q. And you had to make judgments as to how you would  
14 spread the revenue increase to Rate HT among the different  
15 charges, either the demand charge or the different blocks of  
16 usage?

17 A. Well, in the case of the figures that I show on  
18 that page for UP/UUC and PBUUG, those prices were provided  
19 in the testimony.

20 In the case of the OCA figures, we re-ran the cost  
21 allocation using Mr. Oliver's proposed method of allocating  
22 cost. So, in two cases, the prices were provided to us and  
23 we did nothing other than copy it out of their testimony.

24 Q. Would you agree with me that in past cases when  
25 the company has discussed revenue allocation and rate design,

1 they have discussed principles of gradualism in changing  
2 rates?

3 A. That has been discussed frequently, yes.

4 Q. Would you agree with me that if hypothetically --  
5 and I realize you would disagree with it -- but if  
6 hypothetically the Commission adopted a different cost of  
7 service study than the one you are putting forth, that you  
8 would not necessarily implement in the rate design area that  
9 cost of service study penny for penny, but rather you would  
10 move gradually, if it required some major changes in the  
11 different blocks?

12 A. Our normal procedure is, after getting the  
13 Commission Order, we re-run the cost allocation, making all  
14 of the changes ordered by the Commission, and then re-set  
15 the pricing in accordance with all those changes.

16 Q. But if you saw what you perceive to be a  
17 significant change in any usage block, wouldn't you  
18 anticipate that you might recommend that there be a  
19 gradual change in the way the rates were designed?

20 A. I don't see any reason at all why we would change  
21 the method that we are using to design the rates for Rate HT  
22 and PD. For one thing, the method that we are using has  
23 been ordered by the Commission.

24 Q. You would agree with me, though, that changes  
25 that might be necessitated by a change in the cost of service

1 study could be implemented gradually, it would not have to  
2 be implemented in one shot?

3 A. If you are asking me if that is possible, yes,  
4 it's possible.

5 MR. WERSAN: Okay, that's all.

6 Thank you, Your Honor. That's all I have.

7 JUDGE MATUSCHAK: Any further cross-examination?

8 MR. KLEPPINGER: Yes, Your Honor.

9 CROSS-EXAMINATION

10 BY MR. KLEPPINGER:

11 Q. Good morning, Mr. Sundermeir.

12 A. Good morning.

13 Q. Let's begin if you will with page 24 of your  
14 testimony. The question and answer beginning on line 13  
15 discusses your criticisms of Dr. Bloom's adjustment to the  
16 cost study, is that correct?

17 A. Yes.

18 Q. You make a statement at lines 21 through 23 that  
19 what you use in the cost study is 1984 demand and 1984 sales,  
20 and you use that ratio to create your 1986 demands, is that  
21 correct?

22 A. That is correct.

23 Q. That ratio is essentially a load factor  
24 calculation, is it not?

25 A. Yes.

1 Q. And what in your mind are typical load factors  
2 for the Rate R and GS classes, historically?

3 A. Just going by memory, if I recollect correctly,  
4 the Rate R load factors run in the neighborhood of 35, 40  
5 percent.

6 Q. Mr. Sundermeir, perhaps, to move this along, am  
7 I correct that in Dr. Bloom's original testimony, he  
8 provided historical load factors for the years 1980 through  
9 1984, roughly, for those classes, and reached a conclusion  
10 that on an average basis the Rate R load factor was running  
11 at about 35 percent and the Rate GS at about 50 percent? Do  
12 you recall that?

13 A. Well, I think it fluctuates somewhat, and it can  
14 fluctuate for a couple of reasons, and one of the reasons is,  
15 it depends on not only the demands of the customers, but the  
16 energy use of the customers.

17 That's my precise point in my testimony on the lines  
18 that you referred to, that if you are going to try and make  
19 any adjustments to those, you have to adjust both the  
20 numerator and the denominator of the ratio.

21 Q. I understand that. What I would like to try to  
22 do is get some feel for what the historical load factors are  
23 for these two classes compared to what they were in 1984.

24 And I take it that from your testimony here, you are  
25 not in disagreement with the load factor calculations that

1 were contained in Dr. Bloom's testimony at Exhibit MPB-2,  
 2 Schedule 4, is that correct?

3 A. I am afraid to say that I agree with what he  
 4 did. I would probably have to review his calculations,  
 5 which I can't say that I have done.

6 Q. Do you know if those load factors were just  
 7 extracted from Exhibit WFS-1, submitted -- or Exhibit RCW-1,  
 8 exhibit in the prior rates for 1980, 1981, 1982 and 1984?

9 A. I hate to say this, but you would probably know  
 10 that better than I do, offhand.

11 Q. Would you accept that subject to check?

12 A. I'll accept it subject to check.

13 Q. And in 1984 -- and this is extracted really from  
 14 your own WFS-1, Rate R saw a load factor on an annual basis  
 15 of about 44 percent, did it not?

16 A. That is correct.

17 Q. And Rate GS was 56 percent?

18 A. Yes.

19 Q. Now, one of the effects of Dr. Bloom's adjustment  
 20 to the demands in his cost study was to increase the demands  
 21 of those classes, is that correct?

22 A. Yes.

23 Q. And as a result of that increasing the demand and  
 24 not adjusting the sales, it had the effect, did it not, of  
 25 lowering the load factors for those two classes, Rate R and

1 GS?

2 A. Well, by increasing the demand, he increased the  
3 ratio of demand to energy use. In other words, he increased  
4 the ratio that we use to determine the demands that we used  
5 in 1986.

6 Q. And the effect of that, if I understand, was, you  
7 end up with a load factor for those two classes which was  
8 lower than the load factors used in your WFS-1; it produced  
9 load factors for those classes less than the 44 percent or  
10 the 56 percent which you have on WFS-1, page 63?

11 A. I am having trouble with your use of the word  
12 "load factor." Load factor is the ratio of average demand  
13 to maximum demand.

14 Now, what we really use in our cost study, particular-  
15 ly for the A-1 schedule, is the relationship between the  
16 contributions to the four peaks, which is really not the  
17 maximum demand, to the energy sales.

18 Q. I understand that, but I thought we had agreed  
19 earlier that when we take the ratio of the 1984 demand to  
20 the 1984 sales, that's essentially a load factor calculation.

21 A. It's essentially a load factor calculation, but  
22 it is not explicitly the definition of load factor.

23 Q. I understand. Now, what I am trying to do is see  
24 what the effect of your rebuttal testimony in terms of  
25 adjusting sales would be on that load factor calculation.

1           Now, if we continue to take this ratio of demand to  
2 sales and we change the demand component as Dr. Bloom has  
3 done, doesn't that have the effect of lowering that ratio  
4 for Rates R and GS?

5           A. No, it increases the ratio.

6           Q. Increases the ratio and decreases the load  
7 factor?

8           A. Well, the thing that we use as the ratio -- and  
9 again I am having trouble with your term "load factor" --  
10 it increases the ratio that we apply to the 1986 sales.  
11 That is really what we are talking about here.

12           Q. Now, if we were to adjust, as you have suggested,  
13 the sales level for 1984, what effect would that have on the  
14 ratio?

15           A. That would decrease the ratio.

16           Q. And would it not make that ratio essentially  
17 identical to the ratio that you began with or very close to  
18 the ratio that you began with, with the 1984 demand and the  
19 1984 sales?

20           A. It probably would come somewhere close, but not  
21 necessarily. It doesn't have to.

22           Q. You haven't examined whether it would or would not?

23           A. See, this is the problem I have with Dr. Bloom's  
24 adjustment of only the numerator of the ratio and not the  
25 denominator of the ratio, because if you are going to

1 weather normalize the numerator, you should also be consis-  
2 tent and weather normalize the denominator.

3 Now, you could conceivably have relatively cool peak  
4 days but a hot summer, or you could have relatively hot days  
5 and a cool summer.

6 As it turned out, in 1984, the year that we used, we  
7 had relatively cool peak days, but we also had relatively --  
8 not relatively, but a significantly cooler summer, which  
9 could have a significant impact on the sales.

10 And therefore, I believe that if you were going to  
11 make the type of adjustment that Dr. Bloom recommended, that  
12 you also have to adjust the sales.

13 Q Under what you are suggesting for 1984, when you  
14 would make the weather adjustment to the sales, wouldn't the  
15 effect be to increase the sales to Rates R and GS?

16 A In that particular year, yes, because it was a  
17 cooler summer. So what I am saying is, Dr. Bloom recommended  
18 increasing the numerator. I think he should have also  
19 increased the denominator to be consistent with the approach  
20 that he took, and I am really not sure that you really gain  
21 anything by that, when you look at the overall ratio that  
22 you are going to use to apply to your 1986 sales.

23 Q And if you don't gain anything in the ratio,  
24 would I be correct that you also don't gain anything in the  
25 effect on the load factor of those two classes of making

1 those adjustments?

2 A. Again, I am having trouble with your  
3 characterization of "load factor," because we are not really  
4 talking about load factor here. We're talking about the  
5 ratio -- and this is all we're doing, is talking about the  
6 ratio between the contribution to the four peaks, the demands,  
7 to the annual energy sales. Now, that, by definition, is  
8 really not load factor.

9 Q. From that ratio, you can develop a load factor  
10 for those classes, and you have sufficient information, do  
11 you not, to develop a load factor for the classes?

12 A. If I want to develop a load factor for that  
13 class, I would have to make an adjustment to not the  
14 contribution to the four peaks, but the contributions to the  
15 class peak, which would not necessarily occur at any of  
16 those four times.

17 In fact, it would not occur at any of those four  
18 times. And I would also have to adjust the annual energy  
19 sales, to reflect the abnormally cool summer.

20 Q. But you haven't made those adjustments yourself  
21 yet to identify whether or not those adjustments would  
22 produce load factors for the R and GS class comparable to  
23 those contained in WFS-1?

24 A. No, I have not. We have not proposed a weather  
25 adjustment in this case, nor have we in any of the cases

1 since we have been using the four peak method, which I think  
2 dates back to 1975. We have never made that type of an  
3 adjustment in any of the cases since that time, and the  
4 cost studies have been accepted without that adjustment.

5 Q And if we assume that the 1984 summer was so  
6 abnormally cool that it has produced load factors for the  
7 Rate R and GS classes which are considerably above the  
8 historic level -- let's take that for an assumption -- and  
9 if we attempt to make a weather adjustment to the cost of  
10 service study which in the end has the effect of not  
11 modifying those abnormally high load factors, essentially  
12 we have produced the same results in a cost study as what  
13 is already contained in WFS-1, is that correct?

14 A Well, if that is the result of it. I really  
15 don't know what the result of it is.

16 Q You had mentioned in earlier testimony, I believe,  
17 under cross-examination that you had done a preliminary cut,  
18 at least, at a weather adjusted cost study, but it wasn't in  
19 final form, is that correct? I think you mentioned that in  
20 cross-examination in Philadelphia. Do you recall that?

21 A I think, if memory serves me right -- and this  
22 would go back quite a few months, now -- we did make a  
23 preliminary cut. And as I recall, we used a normal effective  
24 degree hours of 213 effective degree hours, just to see what  
25 that would do.

1 But that would really have been an extreme case,  
2 when you had a hot spell at each of the four times of the  
3 peak. I think we did, as I recall, make a cut on something  
4 like that.

5 Q. What classes did you perform that --

6 A. Incidentally, before we go on to that, when we  
7 made that cut, we didn't adjust the energy to reflect the  
8 normal energy use that would have occurred during a normal  
9 summer.

10 Q. And did you adjust or weather normalize the  
11 demands for Rate R and GS in that preliminary cut?

12 A. As I recall, we did, but again I would look at  
13 that as being an extreme situation where we didn't weather  
14 normalize the denominator of the ratio, and also we took  
15 rather extreme weather conditions where a hot spell would  
16 have occurred at each of the four peaks.

17 Q. Did you adjust the HT and PD demands in that  
18 weather adjustment?

19 A. No, we did not. I think as I recall at that time,  
20 we were just trying to see how much of an impact it would  
21 have on HT and GS.

22 Q. Dr. Bloom's recommendation did not use an EDH of  
23 213, is that correct? He used 1985 EDH as --

24 A. As I recall, they did an analysis using 1985 and  
25 213, and the average of '81, '82 and '83, I believe.

1 Q. And the actual recommendation for the cost of  
2 service study to be used in this case, according to PAIEUG,  
3 is the use of the 1985 EDH, is that your understanding?

4 A. That is correct.

5 Q. Next, Mr. Sundermeir, would you turn to page 27  
6 of your testimony?

7 A. Yes.

8 Q. Focusing on lines 9 through 13, you mention that  
9 for use of the Bary curve, it is only essential that the  
10 unit costs in the cost curve are calculated by dividing the  
11 total demand related revenue requirement by the non-  
12 coincident class peak, is that correct?

13 A. Yes.

14 Q. When you use the terminology "total demand  
15 related revenue requirement," that revenue requirement under  
16 the company's study is produced using a 4CP method, is that  
17 correct?

18 A. A good portion of it is, but not all of it. The  
19 production and transmission costs are determined based on  
20 the 4CP method. The distribution costs are allocated based  
21 on the non-coincident peak method.

22 Q. And as I understand the use of the Bary curve,  
23 would you agree with me that the use of the Bary curve is  
24 primarily related to developing cost collection mechanisms  
25 in terms of rate design, and not in the development of actual

1 class revenue requirements?

2 A. That is correct. The Bary curve is not used in  
3 the cost allocation, nor is it used in the development of  
4 the unit cost. It's only really used in the rate design.

5 Q. And the purpose of a revenue requirement cost of  
6 service study is an attempt to identify, is it not, how  
7 each class causes certain costs to be incurred? Is that a  
8 fair characterization?

9 A. Well, we determine the revenue requirement for  
10 each class of service by cost component, of which there are  
11 two demand related cost components, one energy related and  
12 one customer related cost component.

13 What I am referring to in my testimony is the total  
14 demand related revenue requirement.

15 Q. Is there a direct relationship or correlation  
16 between the cost causation implicit in a cost of service  
17 study and the cost collection mechanism selected for rate  
18 design?

19 A. There is a link, yes.

20 Q. What would that link be?

21 A. Well, as indicated earlier, we determine, in  
22 this case focusing in on demand costs, we first determine  
23 the total demand related revenue requirement.

24 And by using the Bary curve, we can then develop a  
25 cost curve, the demand related portion of that cost curve.

1 Adding that to the energy and customer related  
2 portions of the cost curve, we can get a total cost curve,  
3 and that curve is used to determine the energy prices in the  
4 three energy blocks of Rates HT and PD.

5 Q. I understand that that is what you did. But  
6 what relationship does that create between cost causation  
7 as you understand it and cost collection? They are really  
8 two separate approaches, are they not?

9 A. Taking them a step at a time, the development of  
10 the revenue requirement is a function of cost causation,  
11 again focusing on the demand revenue requirement.

12 The total number of dollars related to production and  
13 transmission are determined in my cost study by the contri-  
14 butions to system peak, the distribution part based on the  
15 non-coincident peaks.

16 To me, that is what caused the costs and that is what  
17 ultimately results into a demand revenue requirement. The  
18 next step is to turn that into a rate design, and that is  
19 where the Bary curve comes in.

20 Q. But the cost causation step is not driving the  
21 methodology as selected by a utility--and it doesn't have  
22 to be PECO--for the cost collection scheme in the rate  
23 design phase of that process.

24 A. It's driving the dollars per kilowatt of demand  
25 related cost, and in this case it is necessary to develop

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the dollars per kilowatt of non-coincident peak so that we can use the Bary curve to develop the cost curve, and ultimately the pricing of the rate.

Q Do you know if other utilities develop a Bary curve analysis using coincident peak data instead of non-coincident peak data as PECO uses?

A. No, I am not aware that anybody does that. I am aware that there are a number of utilities that develop Bary curves in the same way that Philadelphia Electric does it. As a matter of fact, the Bary curve as developed is a composite of I believe seven or eight utilities.

Q Mr. Sundermeir, at page 29 of your testimony, lines 8 through 10, you indicate that the company hasn't claimed that the high voltage discount is based on costs that the company avoids.

You don't disagree, do you, with the concept that the company does avoid certain costs by delivering service at high voltage levels, which are not accounted for currently in the high voltage discount?

A. As I said, the whole philosophy of the high voltage discount, you might say, is to make the customer even, because he is receiving voltage at a higher level than some of the other customers on the high tension rate.

So, the high voltage discount is based on the differential in cost that the customer incurs, not that the

1 company incurs.

2 Q So that the failure of the high voltage discount  
3 to account for demand and energy losses is a cost item which  
4 is not currently reflected in the high voltage discount, is  
5 that true?

6 A I would only have to repeat my last answer. The  
7 high voltage discount is in no way a function of Philadel-  
8 phia Electric Company costs. It's based on an estimate of  
9 the cost differential that the customer would see, so that  
10 it's putting all the customers on the same cost basis as if  
11 we had served them all at 13.2 kV instead of some of the  
12 higher voltages.

13 Q Could you look for a moment at Attachment WFS-1?

14 A Yes.

15 Q I would like to try to understand a little bit  
16 better the development of the revenue curve. First of all,  
17 am I correct that the cost curve on this attachment is  
18 identical to the cost curve previously submitted in WFS-1  
19 for a 100 kW customer?

20 A Yes.

21 Q Now, in the development of the revenue curve,  
22 I take it, you have now identified a customer that doesn't  
23 have a 100 kW demand in each of the 12 months, and only has  
24 a 100 kW demand in four months and 80 kW in the other eight  
25 months?

1 A. That is correct.

2 Q. Now, what other assumptions are you making for  
3 this type of customer in terms of the load factor at which  
4 it operates or its utilization of riders to the HT tariff,  
5 if any?

6 A. The X-axis of the curve is load factor, so the  
7 curve itself is over an entire range of load factors. And  
8 all we are merely trying to show here -- Dr. Bloom made a  
9 point in his testimony that the revenue curve was always  
10 higher than the cost curve.

11 And my point is that yes, that's true, in the special  
12 case that if a customer has the same billing demand twelve  
13 months out of the year.

14 However, there are probably almost an infinite number  
15 of combinations of monthly demand. So, just to illustrate  
16 that, we took one other case which showed a shift in the  
17 revenue curve, when you take a customer and merely decrease  
18 his eight winter demand by 20 kilowatts.

19 Q. And you held that demand level constant for eight  
20 months?

21 A. That is correct. As I say, you could develop an  
22 infinite number of combinations of billing demands, I am  
23 sure. The point is that the pricing of Rate HT is designed  
24 in accordance with the cost curve and in accordance with the  
25 Commission Order in R.I.D. 438, and that that pricing

1 recovers the total revenue requirement of HT, no more, no  
2 less.

3 Q. Now, for this 100 kW customer, was there any  
4 assumption that he was or was not on the HT night service  
5 rider, for example?

6 A. No. This is just a 100 kW -- that's the billing  
7 demand of the customer, is 100 kilowatts.

8 Q. And that Y-axis is intended to represent dollars  
9 per billing demand, kW?

10 A. Yes.

11 Q. And the revenue curve utilizes, does it not,  
12 100 kW as the billing demand for this customer, or is it a  
13 combination of the 100 kW and the 80 kW?

14 A. No. The curve is really a function, primarily a  
15 function of the relationship between load factor and  
16 coincidence factor.

17 In other words, the curve is really a function of the  
18 customer's load at the times of the peaks or at the time of  
19 the class peak and/or the system peaks.

20 Q. In the development of the cost curve on this  
21 chart, that cost curve, if it's identical to the one in  
22 WFS-1, utilized a billing demand of 100 kW to develop the  
23 cost part of the curve?

24 A. That is correct.

25 Q. But then for the revenue curve, as I understand

1 it, it may be a combination of the 100 kW for the four  
2 months and the 80 kW for the eight months?

3 A. That's correct, but the cost determinants of  
4 the customers are identical, the contributions to summer  
5 peaks.

6 Q. And if we look down now on the X-axis where we  
7 have hours of use, would I be correct that for this customer,  
8 during the months when he's got 100 kW, at 730 hours of use,  
9 he'd be using 73,000 kilowatt-hours? Can I read that from  
10 this graph?

11 A. At 700 hours' use?

12 Q. 730 hours' use.

13 A. Yes.

14 Q. So, for the X-axis, could re relabel that as a  
15 kilowatt-hour access as well?

16 A. For a given size customer, yes.

17 Q. And the size of that customer, for purposes of  
18 this graph's creation, was 100 kW?

19 A. That's correct. In my original testimony, we  
20 showed exhibits for I think four different size Rate HT  
21 customers.

22 Q. So, if I were to try and label kilowatt-hours on  
23 the X-axis here, we'd be talking, like the 100 hours' use  
24 would be 10,000 kWh?

25 A. That's right. Just add two zeroes to any of the

1 numbers.

2 Q. To any of the numbers?

3 A. Yes.

4 Q. Earlier today, Mr. Sundermeir, you presented us  
5 with a work paper related to this attachment, is that  
6 correct?

7 A. Yes.

8 Q. I would like to show you that at this time, and  
9 perhaps we can understand a little better what this graph  
10 represents.

11 On the work paper, essentially what you are telling  
12 us is that the first column is representing the dollar per  
13 kW cost for the 100 kW customer?

14 A. Yes.

15 Q. And what rate of return was utilized to develop  
16 those costs, system average return?

17 A. No, I'm sorry, these aren't PE company costs.  
18 This is the cost to the customer. This is a customer's bill.  
19 This was used to develop the revenue curve, not the cost  
20 curve.

21 Q. So, the first column that says dollar per kW cost,  
22 it's dollar per kW revenue?

23 A. Yes, or cost to the customer, if you will. As you  
24 pointed out earlier in your question, there is no change to  
25 the revenue curve.

1 Q No change to the cost curve.

2 A Correct, there's no change to the cost curve.

3 All this is is attempting to show that if you take some  
4 weighting and do not assume that the customer has the same  
5 number of billing units 12 months out of the year, you are  
6 going to get a different revenue curve.

7 And I am sure that if we wanted to, we could  
8 develop thousands of these.

9 Q And you could also develop, could you not,  
10 numerous examples where the revenue curve would remain  
11 above the cost curve?

12 A Yes, but on the average, the rates recover --  
13 not on the average -- the rates are designed to cover the  
14 total revenue requirement.

15 Q The last column on this work paper is labeled,  
16 "Per Month, 100 kW" -- and I can't read the other letters  
17 there. What does that column intend to represent on the  
18 work paper?

19 A That's the weighted average cost per kilowatt  
20 for this customer -- I should say revenue per kilowatt  
21 for this customer -- with a 100 kW demand in the four  
22 summer months and 80 kW in the eight winter months.

23 Q By weighting the customer in that last column,  
24 you have taken -- correct me if I am wrong -- the dollar  
25 per kW revenue from column 1 and adjusted that for the months

1 in which this customer was 80 kW, is that correct?

2 A. Actually, what was done is, the calculation of  
3 the customer's bill at 100 kW in the four summer months and  
4 at 80 kW in the eight winter months, and then weighted four  
5 summer months and eight winter months to get the value  
6 shown in the last column.

7 Q. So, you didn't use the first column in developing  
8 the other columns on this work sheet?

9 A. No. If one were to take our proposed rate and  
10 calculate on Rate HT at the various load factors for a 100  
11 kilowatt customer, and weight that by four, and then make  
12 the same calculation for an 80 kilowatt customer over the  
13 entire range of load factors, and then weight those results,  
14 four summer, eight winter, and express that in terms of  
15 dollars per kilowatt, you would get the last column, and  
16 that is what is plotted on that curve on Attachment WFS-1.

17 Q. Now, in the months when this customer is using  
18 80 kW, am I correct that he could not end up utilizing  
19 73,000 kilowatt-hours by definition?

20 A. He couldn't use 73,000 kilowatt-hours, but he  
21 could conceivably have a 100 percent load factor.

22 Q. And how many kilowatt-hours would that be for  
23 such a customer? Would you agree, subject to check, that  
24 it is 58,400?

25 A. 58,400 kilowatt-hours, yes.

1 MR. KLEPPINGER: Thank you.

2 I have no further questions, Your Honor.

3 CROSS-EXAMINATION

4 BY MR. SELKOWITZ:

5 Q. Mr. Sundermeir, a few questions. One of your  
6 criticisms of Dr. Feldman's comparison was that you felt he  
7 should take into account any pending rate increases by some  
8 of his comparison utilities, is that correct? Is that what  
9 you said this morning?

10 A. That is one of the criticisms, yes.

11 Q. I didn't say "all of them," I just said "one of  
12 the criticisms."

13 A. Okay.

14 Q. But to the extent that you want to draw such  
15 comparisons, one should look at those other pending rate  
16 increases and draw conclusions from that; that would be a  
17 fairer way of doing that?

18 A. Well, not only that, but --

19 Q. Excuse me. Could you answer my question first,  
20 and then I will let you expound if it is necessary. Would  
21 you agree with me that it would be, by your own testimony  
22 this morning, a fairer way of doing it to look at the  
23 comparison utilities but with their pending rate increases  
24 in?

25 A. It would be fairer, but not fair enough, only

1 because, if I can elaborate a little bit on that now --

2 Q. Yes, now you agreed, so go ahead.

3 A. Okay -- in the fact that even looking at the  
4 four utilities with known rate increases pending, there is  
5 no reason to believe that any of the other utilities or  
6 maybe even including those four might not have other rate  
7 increases between now and a period well over two years from  
8 now.

9 Q. You also believe that Penelec has a demand  
10 ratchet; you testified to that this morning, is that correct?

11 A. Yes.

12 Q. Am I correct that the Penelec billing provision  
13 says that your bill will be a minimum bill equal to 50  
14 percent of some target bill?

15 A. Their minimum monthly charge -- and I think I  
16 quoted from their tariff this morning -- it's the customer  
17 charge plus one-half of the active demand charge at current  
18 rate levels for the highest kilowatt demand billed during  
19 the preceding 11 months.

20 So, their billing demand, even though it is a monthly  
21 charge, is tied in with not only their previous summer  
22 months, it's tied in with their previous 11 months.

23 Q. And indeed, isn't it also true that what you're  
24 saying in the overall review of the tariff is that the  
25 customer's bill has to equal the product of that calculation?

1 A. It can't be less than that, but that is a  
2 ratchet.

3 Q. And a customer's bill could vary not only by the  
4 demands that he uses, but also kilowatt-hour consumption?

5 A. Sure.

6 Q. So that, that provision doesn't re-set the  
7 demand and then recalculate the bill as the PECO one does,  
8 is that correct?

9 A. It doesn't work quite the way the PECO one does,  
10 but it is a floor billing demand based on the demand in the  
11 preceding 11 months.

12 Q. Mr. Sundermeir, isn't what actually happens with  
13 the Penelec tariff is that by that calculation which involves  
14 a demand charge, it sets what the minimum bill is going to  
15 be for a customer and it doesn't set what the minimum kW  
16 charge is going to be?

17 A. It sets a floor on the minimum charge for the  
18 customers on Penelec, that's correct.

19 Q. The charge for the overall bill.

20 A. But it is a ratchet.

21 Q. That may be a conclusion. I don't want to argue  
22 with you. I just want an answer to my question, which is  
23 it sets a minimum bill?

24 A. That's correct.

25 Q. Now, let's turn to Duquesne. I think you testified

1 that your review of what would happen if the University of  
2 Pennsylvania was charged under the Duquesne tariff was that  
3 the ratchet in Duquesne would impact on the university's  
4 bill. Do I understand you correctly?

5 A. That's correct.

6 Q. Is my understanding also correct that they have  
7 a 70 percent ratchet?

8 A. That is correct.

9 Q. Does that mean that I should look at the  
10 university's highest actual demand in the summer period and  
11 see if the rest of their demands in the off-summer periods  
12 are less than 70 percent of that summer period peak demand?

13 A. The 70 percent in the Duquesne tariff is based  
14 on 70 percent of their contract demand. And the customer  
15 is limited to a contract demand that's 105 percent higher  
16 than his maximum demand.

17 So, there's a tie-in between his contract demand and  
18 his actual demand. And in looking at the billing  
19 characteristics of the University of Pennsylvania, we  
20 determined that even based on the highest demand, excluding  
21 the September, 1985 demand which was their absolute highest  
22 demand, that that 70 percent ratchet would have affected  
23 their bills in several months.

24 Q. Do you have the data with you that you used to  
25 do this comparison?

1           A. I have a few calculations here, if you are  
2 interested in the fact that we looked at the October, 1983  
3 demand, which was 37,584 kilowatts, and we increased that  
4 by 5 percent.

5           But this same thing would hold true if you didn't  
6 increase it by 5 percent. And we found out that the  
7 ratcheted demand would be 27,624.

8           And based on that ratchet, it would have applied in  
9 January, February and March of 1985. And if my memory  
10 serves me correctly, even if we didn't increase the demand  
11 by 5 percent, the ratchet would have still been applicable  
12 in those three months.

13          Q. For the charge associated with about 100  
14 kilowatts, is that what you are talking about?

15          A. I don't know offhand, but the ratchet would apply.  
16 That's the main point, here. There has been a claim that  
17 the ratchet under some of these utilities -- first of all,  
18 it's been claimed originally that only two of the utilities  
19 that Dr. Wirtshafter analyzed had ratchets.

20          We have now determined at least six of them have  
21 ratchets. And Dr. Wirtshafter claimed that only two of  
22 them --

23          Q. Mr. Sundermeir, excuse me. I don't recall asking  
24 you the question which you are now answering --

25          A. Well, you're talking about the ratchet.

1 Q. So, unless your counsel thinks that I did, I  
2 think I would ask the Judge to direct you to stop speaking  
3 at this moment.

4 Now, you also talked about the university and whether  
5 it did or did not reduce its demands. Do you know what the  
6 university's contract demand figure actually is?

7 A. If my memory serves me correctly, it's 52,000  
8 kilowatts.

9 Q. And you said you have looked at the highest  
10 recent demands, and it was in the range of 37,000, 38,000,  
11 is that correct?

12 A. No. I said, that's the one that we based our  
13 figures on. However, I just -- the highest recent demand  
14 by the University of Pennsylvania was last September. It  
15 was 40,176 kilowatts.

16 Q. 10,000 or so below the contract amount, is that  
17 right?

18 A. Yes, but my conclusion as far as the Duquesne  
19 ratchet is concerned has absolutely nothing to do with the  
20 52,000 kilowatt contract. It is related to their actual  
21 demand and not their contract demand.

22 Q. We're not really talking about that. We have  
23 moved on to your feelings that the university hasn't  
24 reduced its demands. I am just wondering what the magnitude  
25 of the difference between their contract demand, which you

1 told me is 52,000, and their experienced demand, which is  
2 down around 40,000 in their highest month, is.

3 Do we agree that that is a significant difference  
4 between the two?

5 A. The basis for that statement is an analysis of  
6 the actual demands recorded by the University of Pennsylvania.  
7 It is not related to any contract demand.

8 And looking back from January, 1983 to the present,  
9 it is clear that there has been no reduction in the  
10 University of Pennsylvania demands, and in fact there has  
11 been an increase in their demands, where the two highest  
12 demands that they have ever recorded occur in this last  
13 September and October -- I shouldn't say "ever recorded" --  
14 since January, 1983.

15 Q. Now, talking about the difference between 30-  
16 minute and 15-minute demands, I think you said that if you  
17 had someone with 200 kW in the first 15 minutes and 100 kW  
18 in the second, they'd have a demand charge of 150 kW, is  
19 that right?

20 A. That would be their 30-minute demand.

21 Q. Would you also agree with me that if we had a  
22 customer who had a 250 kW demand in the first 15 minutes  
23 and a 50 kW demand in the second, he would also have a  
24 150 kW demand for his 30-minute demand?

25 A. That is correct.

1 Q And similarly, if you had someone with 150 in  
2 the first 15 and 150 in the second 15, he too would have a  
3 150 kW demand?

4 A That is correct, and in every case he would have  
5 a very significant amount of incentive to control the demand  
6 for a half-hour and/or for 15 minutes, because the 15 minutes  
7 will have a direct impact on his half-hour demand.

8 Q But the 15 minutes certainly doesn't control it;  
9 you have to look at the total picture for the whole half-  
10 hour, is that correct?

11 A For the whole half-hour, it's the average of the  
12 demands for the half hour. And the point of this whole  
13 comment is that a number of utilities that Dr. Wirtshafter  
14 analyzed bill on the basis of 15-minute demands. And 15-  
15 minute demands are always equal to or higher than 30-minute  
16 demands.

17 And I might add, they can be significantly higher  
18 than 30-minute demands.

19 Q Mr. Sundermeir, did you collect data for the  
20 1985 demands for the University in order to do your  
21 analysis, other than the one you read me?

22 A I know the registered and billed demands for  
23 1985 for the University of Pennsylvania, yes.

24 Q I hate to labor the record with this, but if  
25 you could just read me very quickly the 1985 actual demands,

1 starting with January of 1985, I might be able to eliminate  
2 a lot of cross-examination. You do have it in your notes?

3 A. Yes.

4 Q. Go ahead.

5 A. Starting with January of 1985, 25,776; 25,992;  
6 26,064; 28,944; 33,696; 33,912; 35,280; 36,432; 40,176;  
7 39,672; 34,488; 31,176.

8 Q. I'm sorry, I didn't get the last two.

9 A. 34,488; 31,176.

10 MR. SELKOWITZ: Thank you, Mr. Sundermeir.

11 No further questions.

12 MR. RYAN: No cross-examination.

13 JUDGE MATUSCHAK: Is there further cross-examination  
14 of this witness?

15 MR. SQUIRES: If I may.

16 CROSS-EXAMINATION

17 BY MR. SQUIRES:

18 Q. If I may, Mr. Sundermeir, I would ask you a few  
19 questions. If you will refer to the bottom of page 5 of  
20 your testimony and the beginning of page 6, you quantify  
21 the decrease in incentive to reduce demand over the 4CP  
22 period, and I believe you said that it's \$22.67 per kW for  
23 an HT customer?

24 A. Yes.

25 Q. And you then go on to say that the incentive to

1 reduce the load for an HT customer is greater under your  
2 rate proposal than under the proposals of the U of P, OCA  
3 and PBUUG, is that right?

4 A. Yes.

5 Q. Now, Mr. Pollock in his testimony describes the  
6 \$22.67 per kW incentive as the equivalent capacity charge  
7 of the hours used rate blocking format of the HT rate,  
8 as shown in his Exhibit JP-2, Schedule 14. Do you agree  
9 with that description?

10 A. Well, I can't speak for Mr. Pollock's terminology,  
11 but as used in my testimony, the \$22.67 refers to the saving  
12 to a customer if he reduces his billing demand by one  
13 kilowatt.

14 Q. My question to you was whether or not you agree  
15 with Mr. Pollock's description when he uses the \$22.67  
16 per kW incentive as an equivalent of the capacity charge for  
17 the hours used rate blocking format. Are you familiar with  
18 what I am referring to?

19 A. I guess I am not totally clear on what Mr.  
20 Pollock means by that. If he means that the \$22.67  
21 represents the full recovery of demand related cost, I  
22 don't believe that's true.

23 But again, I am not quite sure what he meant by that.  
24 I can only explain how I used it in my testimony.

25 Q. Sir, isn't it true that the larger incentive

1 furnished by your HT proposal is directly related to the  
2 higher demand charge versus the lower demand charge proposed  
3 by the other intervenors?

4 A. Actually, it is a combination of not only demand  
5 charge but the energy charges.

6 Q. How is that so?

7 A. Well, by the very nature of how this \$22.67 is  
8 calculated. The bottom line of this is that you are  
9 shifting kilowatt-hours from the end block price of the  
10 rate into the first and second energy price blocks of the  
11 rate. So, it also is a function of the energy price block.

12 Q. And you are referring in your testimony to the  
13 incentive reduction to the kilowatt demand?

14 A. Again, if you are referring to the figures on  
15 the top of page 6 of my rebuttal testimony --

16 Q. Yes.

17 A. -- that is what I am referring to. But that  
18 figure is a result of not only the demand charge, but also  
19 of the energy charges in the three price blocks. And --  
20 well, I'll stop there.

21 Q. Can you tell me the annual savings to an HT  
22 customer attributable from a reduction of 1 kW of demand?

23 A. For each kW that he could reduce his billing  
24 demand in a month, he will save \$22.67.

25 Q. And what would be the annual savings?

1 A. Assuming he did it all 12 months, it would be  
2 12 times that, for each kilowatt.

3 Q. Would you not apply the ratio that you testified  
4 to? I'm talking about an HT customer now.

5 A. Yes.

6 Q. Would you apply the ratio of 1.37 to the \$22.67  
7 and then multiply by 12?

8 A. No. The savings to the customer of reducing his  
9 demand by 1 kilowatt are these figures that I have shown on  
10 the top of page 6. That is his incentive to reduce his  
11 demand in any fashion that he can do it.

12 And I am saying that at a savings of \$22.67 a kilo-  
13 watt, he has more incentive to do that than if the incentive  
14 is significantly less, as it would be under the rates pro-  
15 posed by some of the other parties in this case.

16 Q. Mr. Sundermeir, would you agree that the rate  
17 incentives such as high demand charges relative to the energy  
18 charges can get out of hand, with the possible result being  
19 that there would be too much load reduction, which would then  
20 have an adverse impact on the utility recovering sufficient  
21 revenues to cover fixed costs?

22 A. I would be more concerned on that issue if I had  
23 the recovery of my fixed costs in the end block energy price  
24 of the rate.

25 Q. Would you agree that what I said might be true?

1 A. Would you mind repeating the question?

2 Q. I asked you whether or not you would agree that  
3 the rate incentive such as the high demand charges relative  
4 to the energy charges could get out of hand, with the result  
5 being that there would be too much load reduction, and might  
6 have an adverse impact on the utility recovering sufficient  
7 revenues to cover fixed costs.

8 A. I would not agree with that as long as the prices  
9 are based on cost. Then I would never characterize that as  
10 being out of hand.

11 Q. You would never characterize what as being out of  
12 hand?

13 A. As long as the pricing is based on cost, then I  
14 don't believe I could use your characterization that the  
15 prices are getting out of hand.

16 If you are making a hypothetical assumption that we  
17 are going to have a demand charge that's ten times what we  
18 propose, then I could see a problem.

19 Q. Did you develop a demand charge equivalent for the  
20 proposed HT rate design that was sponsored by Mr. Pollock?

21 A. No.

22 Q. Would you accept, subject to check, that it would  
23 be \$32.14 per 1 kW of demand, and by your definition of a  
24 1 to 1.37 ratio, it would to go \$44.03 per kW?

25 A. Subject to check. I don't know what it is.

1 Q Sir, I believe you responded in a prior question  
2 by Mr. Kleppinger that the Bary curve approach is for rate  
3 design and is not used in any way for cost allocation, is  
4 that right?

5 A. That is correct.

6 Q. And notwithstanding your disagreement with other  
7 intervenor methods of allocating costs to customer classes,  
8 isn't it true that if the intervenors followed the Bary  
9 curve approach to rate design, they would in fact be  
10 proposing rates with the same cost tracking attributes that  
11 you attribute to your HT rate structure?

12 A. If they used the Bary curve, yes, that's true.  
13 The problem is that they would be shifting more costs into  
14 energy related costs and fewer costs in demand related costs,  
15 and that's precisely the reason why they wind up with a much  
16 higher end block than what the company proposed.

17 Q. Would you answer my question now?

18 A. I'm sorry, I thought I did.

19 Q. The question I asked you is that if the inter-  
20 venors were in fact using the Bary curve approach to rate  
21 design, wouldn't they be proposing rates with the same  
22 cost tracking attributes as you are designing in your HT  
23 rate structure?

24 A. Well, not only would they have to design a cost  
25 curve using the Bary curve, but then they would have to use

1 the same method used by the company to determine the  
2 pricing once the cost curve is developed. Assuming they  
3 did all that, yes.

4 Q. Can you tell me whether the HT and the PD rate  
5 design proposed by Mr. Figley adhered to or departed from  
6 the Bary curve approach used by PECO in designing the rates?

7 A. I don't know. He may have used the Bary curve  
8 approach. I don't know.

9 Q. Did you read his testimony?

10 A. If he said he did, I can accept that. See, you  
11 can follow the same approach, but if you shift costs from  
12 one cost element to another, you are going to get a  
13 significantly different result, and that is what Mr. Figley  
14 did.

15 So, whether he used the Bary curve or not, I see the  
16 result.

17 Q. Do you know whether in fact Mr. Figley adhered to  
18 the Bary curve?

19 A. He may have. And if he says he did, I will accept  
20 that.

21 Q. If you assume that Mr. Figley's proposed HT and  
22 PD rate design did follow the Bary curve, can I assume that  
23 your testimony which begins on page 12 at line 2 and carries  
24 through to page 13 on line 18, where you indicate some  
25 negative reaction to the intervenor's rate design, would not

1 apply to Mr. Figley?

2 A. Oh, no. It would apply to Mr. Figley. I would  
3 find no fault with the procedure that he used to design the  
4 rate, but I would have significant problem with his  
5 development of unit cost that he used to develop the cost  
6 curve.

7 MR. SQUIRES: Thank you.

8 I have no further questions.

9 JUDGE MATUSCHAK: Is there further cross-examination  
10 of this witness?

11 (No response.)

12 JUDGE MATUSCHAK: Is there redirect?

13 MR. MacGREGOR: May I have two minutes, Your Honor?

14 JUDGE MATUSCHAK: Yes.

15 (Recess.)

16 MR. MacGREGOR: I just have one question, Your Honor.

17 REDIRECT EXAMINATION

18 BY MR. MacGREGOR:

19 Q. Mr. Sundermeir, in response to some cross-  
20 examination by Mr. Kleppinger, you referred to a rough cut  
21 or rough draft that you performed at one point to weather  
22 adjust the demands in your cost of service study.

23 And you indicated that in that draft, you did not  
24 adjust the 1984 sales figures and you did not adjust the  
25 HT and PD demands. Could you explain for the record why you

1 did not do that?

2 A. As characterized by Mr. Kleppinger, it was  
3 clearly a rough cut, just to get some idea what that type  
4 of an allocation would have on the results.

5 However, if we were going to offer such a cost  
6 allocation, we would have to make the adjustments to HT and  
7 PD, and we would also have to make the adjustments to the  
8 sales to reflect the cooler summer.

9 MR. MacGREGOR: Thank you, Mr. Sundermeir.

10 That's all I have, Your Honor.

11 JUDGE MATUSCHAK: Anything further?

12 (No response.)

13 JUDGE MATUSCHAK: The witness is excused.

14 (Witness excused.)

15 JUDGE MATUSCHAK: This will be an appropriate time  
16 to recess for lunch for one hour.

17 (Whereupon, at 12:35 p.m., the hearing was adjourned,  
18 to be reconvened at 1:35 p.m., this same day.)  
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AFTERNOON SESSION

(1:38 p.m.)

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2  
3 JUDGE MATUSCHAK: Mr. MacGregor, do you want to put  
4 Mr. Williams back on?

5 MR. MacGREGOR: Yes. Mr. Williams is available to  
6 be put back on the stand if Mr. Hanger would like to ask  
7 any questions.

8 Whereupon,

9 RAYMOND C. WILLIAMS

10 having previously been duly sworn, testified further as  
11 follows:

CROSS-EXAMINATION

12  
13 BY MR. HANGER:

14 Q. Good afternoon, Mr. Williams.

15 A. Good afternoon.

16 Q. My name is John Hanger, and I represent --

17 JUDGE MATUSCHAK: Before you proceed.

18 You had one question, Mr. MacGregor, in regard to  
19 -- do you want to ask him that question?

20 MR. MacGREGOR: Actually, I don't really need to,  
21 Your Honor. I would be happy to summarize it. It came  
22 out during the questioning by Mr. Wersan, the other ques-  
23 tion I was going to ask Mr. Williams.

24 I would be happy to summarize it, if necessary, but  
25 I don't need to ask the question otherwise.

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JUDGE MATUSCHAK: Very well.

BY MR. HANGER:

Q My name is John Hanger, and I represent the Consumers Education and Protective Association, Action Alliance of Senior Citizens, Philadelphia Citizens for Action, and Association of Community Organizations for Reform Now in this faction of the proceeding.

I have a few questions concerning your rebuttal testimony in Statement 17A.

Mr. Williams, you state on page 4 of that testimony that it has not been PECO's experience that most low income households are "small, contain few children and are usually elderly;" is that correct?

A. (No response.)

Q At the top of page 4 you answered the question negatively?

A I am describing our experience with the CAP program, and what we have found with the membership of that program is shown on Schedule C.

Q Does PECO have any experience with low income ratepayers beyond the CAP program?

A I'm troubled by the question of "any experience." We have experience every day with all kinds of ratepayers.

Q Let me rephrase it for you to make it more

1 precise.

2 A. But I am using the CAP program as being repre-  
3 sentative of what we believe is the best example possible  
4 of ratepayers in the Philadelphia Electric territory that  
5 have a truly measured inability to pay.

6 Q. So for those persons, you believe that few of  
7 those households are small, contain few children and are  
8 usually elderly?

9 A. I am replying to statements that Mr. Grier made  
10 that such households with the inability to pay, truly un-  
11 able to pay, are made up primarily of single, elderly  
12 people, was my understanding of his statement; and I am  
13 citing --

14 Q. Could you show me that?

15 A. -- our example with the CAP program; that that  
16 was not our finding.

17 Q. Before we go any further with your experience,  
18 could you show me in Mr. Grier's testimony where it says  
19 that low income ratepayers are usually elderly?

20 A. It was in his original testimony, as I recollect.  
21 On page 27, line 9, of Mr. Grier's direct: "Most low in-  
22 come households are small, containing only one or two  
23 persons. The most common size is one person.

24 "By the same token, these small households contain  
25 few or no children."

1 Q. Do you disagree with those statements?

2 A. I'm saying that our statistics from the CAP  
3 program, which is indeed Philadelphia Electric Company cus-  
4 tomers with the inability to pay, does not support that  
5 statement.

6 Q. Let's take the statements one step at a time.  
7 He is talking about one or two-person households, correct?  
8 "Most low income households are small, containing only one  
9 or two persons," page 27, line 10.

10 A. Yes.

11 Q. Let's focus on one-person households. Pre-  
12 sumably, that household doesn't have children; isn't that  
13 correct?

14 A. Yes.

15 Q. That's almost axiomatic. So the next state-  
16 ment, "By the same token, these small households contain  
17 few or no children," do you quarrel with that statement,  
18 Mr. Williams?

19 A. I don't quarrel with the statement. I am  
20 stating that our experience does not support that statement.

21 Q. Let's look at your experience. I believe you  
22 have summarized your experience in the CAP program in  
23 Schedule C of your rebuttal testimony; is that right?

24 A. That's correct.

25 Q. Now, looking at that schedule, Schedule C, it

1 shows that 366 out of 704 CAP households, or 52 percent  
2 of CAP households, were comprised of either one or two per-  
3 sons; isn't that right?

4 A. If you will repeat that, please?

5 Q. Looking at Schedule C, you reflect 704 CAP  
6 households.

7 A. That's correct.

8 Q. Of that 704 total, isn't it correct that your  
9 own schedule shows that 366 are sized one person or two  
10 persons?

11 A. (No response.)

12 Q. Maybe I can help you --

13 A. Perhaps you can tell me where you got the  
14 number "366."

15 Q. Okay. Let's do it step-by-step. Single male  
16 senior, you have 11; correct?

17 A. That's right.

18 Q. Single male, 31.

19 A. Right.

20 Q. Single male, one child, you have five; correct?

21 A. That's correct.

22 Q. Single female senior, you have 38.

23 A. Yes.

24 Q. Single female, you have 114.

25 A. Yes.

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- 1 Q. Single female, one child, you have 135.
- 2 A. I thought you were totaling one-person households.
- 3 Q. One or two-person households.
- 4 A. Oh; one or two. Yes.
- 5 Q. You have 12 senior couples.
- 6 A. Yes.
- 7 Q. And you have 20 couples.
- 8 A. Yes.
- 9 Q. What is your total, Mr. Williams?
- 10 A. 366. I was --
- 11 Q. Would you accept also that 366 of 704 is 52
- 12 percent?
- 13 A. I'm not quarreling with that.
- 14 Q. So would it be accurate to say, Mr. Williams,
- 15 that the majority of your own CAP households are small,
- 16 i.e., one or two persons?
- 17 A. By that count, yes. They certainly do not fit
- 18 the other category --
- 19 Q. Well, can --
- 20 A. -- of predominantly retired elderly people,
- 21 however.
- 22 MR. MacGREGOR: Your Honor, I would ask that the
- 23 witness be permitted to answer the question.
- 24 MR. HANGER: Your Honor, I have a simple question
- 25 on the table. I'm sure Mr. MacGregor can ask the question

1 on redirect.

2 MR. MacGREGOR: That is not the standard that has  
3 been applied with Mr. Hanger's witness, Your Honor. I  
4 don't think it should be applied to Mr. Williams.

5 JUDGE MATUSCHAK: Let's proceed.

6 BY MR. HANGER:

7 Q Mr. Williams, do you know, in Mr. Grier's  
8 testimony, what percentage of low income PECO ratepayers  
9 he concluded were either one or two persons?

10 A Are you asking me to find a statement in  
11 Mr. Grier's testimony?

12 Q Do you know? Would it surprise you that he  
13 concluded 60 percent of PECO ratepayers were one or two-  
14 person households -- low income ratepayers, one or two-  
15 person households?

16 MR. MacGREGOR: Do you have a reference, Mr. Hanger?

17 MR. HANGER: Certainly.

18 BY MR. HANGER:

19 Q If you would like to turn to Exhibit GG-5 of  
20 Mr. Grier's direct testimony.

21 (Witness perusing document.)

22 A I presume you are counting the percentage of  
23 one and two persons out of 100 in that?

24 Q That is correct.

25 A I agree that that is the total of the one or

1 two-person households. It does not substantiate the fact  
2 that Mr. Grier stated that they were predominantly elderly  
3 retired persons.

4 Q. So your CAP experience is that 52 percent of  
5 PECO households, low income ratepayer households, I pre-  
6 sume, are sized one or two, and Mr. Grier's Census data  
7 indicates that it is 60 percent; isn't that correct?

8 A. Yes.

9 Q. Mr. Williams, wouldn't you also agree that your  
10 CAP data, your own data, indicates that low income rate-  
11 payer households with four or more persons are a distinct  
12 minority?

13 A. I wasn't addressing that at all with my data.

14 Q. You challenged Mr. Grier --

15 A. I did, and one of the things I challenged was  
16 the statement that these low consumption ratepayers are  
17 predominantly retired elderly persons and people in low  
18 pay jobs; they are small households and few have children.  
19 My data does not substantiate that.

20 Q. You do challenge the notion that few have  
21 children. Would you agree that 155 out of 704 CAP house-  
22 holds have four or more persons?

23 A. Have four or more persons.

24 Q. Four or more persons; in other words, only 22  
25 percent are size four or more.

1 A. If you can tell me which categories you added  
2 to get that total, perhaps we can agree.

3 Q. Single female, three or more children, 80;  
4 couple with two children; couple with three or more  
5 children; three adults with children.

6 A. Is that it? That's 150.

7 Q. I probably added in three adults, three or more  
8 adults.

9 A. That's five more; 155.

10 Q. So only 22 percent of CAP households have house-  
11 hold sizes of four or more persons; is that correct?

12 A. I don't know that I made a statement that they  
13 didn't. I'm not quarreling with you in numbers.

14 My point was that most of them have children.

15 Q. Mr. Williams, one more question on your own  
16 data. Would you agree that of the 347 single females with  
17 children who are participating in your CAP program, only  
18 80 have more than two children?

19 A. Yes.

20 Q. And that represents approximately 23 percent of  
21 the households with children?

22 A. I don't know how you calculated 23 percent.  
23 Perhaps I could agree if you showed me.

24 Q. 80 over 347.

25 A. 347 being the summary of the --

1 Q. -- single females with children, Mr. Williams.

2 A. I didn't hear you say single females with  
3 children. There are children in other households as well.

4 Q. Do you have any -- you may have four according  
5 to this, of the single male with more than two children;  
6 that is not clear, single male, two or more children. If  
7 you want to add that in --

8 A. There are couples with children, three adults  
9 with children; there are several other categories.

10 Q. Mr. Williams, I assume CAP is one of the PECO  
11 programs that you and the company are relying upon to meet  
12 the ability to pay needs or ability to pay difficulties of  
13 low income ratepayers?

14 A. You assume that it is one of the programs we  
15 are relying on?

16 Q. Right.

17 A. That is correct.

18 Q. What are those other programs in addition to  
19 CAP that you are relying on?

20 A. UESF, LIHEAP, PE-CARES, TLC, as a means of pro-  
21 moting conservation to reduce the customers' bills.

22 Q. Is that the full list?

23 A. That's all that comes to mind at the moment.

24 Q. Would you agree, Mr. Williams, that if we look  
25 at LIHEAP, which is a state program, not a PECO program in

1 particular, UESF, Project Heat, which I believe is a pro-  
2 gram that PECO has established to serve residents of Bucks  
3 County, Chester County Cares Utility Fund, the same sort of  
4 program in Chester County, CAP, and Tighten Up - Low Cost  
5 Conservation Program that you mentioned, that only seven  
6 percent of all low income customers are served in any  
7 given year?

8 A. What are you using as the total for low income  
9 customers?

10 Q. I'm using 226,000 low income ratepayers in the  
11 PECO service area. Assume that figure for the moment;  
12 assume the accuracy of the 226,000 low income ratepayers,  
13 i.e., ratepayers below 150 percent of poverty.

14 A. Mr. Grier has summarized the customers involved  
15 in each of the programs on pages 32, 33, 34 and 35 of his  
16 testimony. Are you summarizing those; is that what you're  
17 asking?

18 Q. Do you disagree with those?

19 A. No, I don't.

20 Q. Do you believe it is an adequate response by  
21 the company to effectively serve only seven percent of the  
22 low income ratepayers?

23 A. First of all, I don't agree that we can firmly  
24 establish that there are 220,000 low income ratepayers  
25 with proven inability to pay their electric bills. But I

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1 do believe that the programs that the company is embark-  
2 ing on that I have just enumerated are an excellent start  
3 in the right direction to target the programs to the  
4 customers who really need the help.

5 I don't disagree at all with the fact that these  
6 programs must proceed and advance and be expanded.

7 Q I would think quite considerably, if you want  
8 to have any chance of reaching even a modest proportion  
9 of the total low income customers; wouldn't you agree?

10 A You're making a quantum leap that there are  
11 220,000 customers and that all of them do not have the  
12 ability to pay. I don't agree with that conclusion.

13 Q Let's talk about that. I am really fascinated  
14 with your assertion -- apparently, you are unwilling to  
15 accept the total of 226,000 low income customers in the  
16 PECO service territory.

17 A I did not say that, sir. I'm saying I don't  
18 believe there are 226,000 customers in our territory  
19 with proven inability to pay.

20 Q So you would accept that there are 226,000 cus-  
21 tomers, low income ratepayer customers, in the territory?

22 A No. I recognize that is Mr. Grier's finding,  
23 and I am using that as a basis of discussion.

24 Q And you realize that that is based on Census  
25 data?

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A. I understand that is the source of this data;  
yes.

Q. Do you have any basis to quarrel with that Census  
data?

A. No.

Q. You have no other independent information?

A. Except the fact that that Census data is very  
broad-based; it doesn't center on PE territory per se.

Q. Mr. Williams, would you turn to Exhibit GG-4  
in Mr. Grier's direct testimony?

A. Yes.

Q. This table is a table of average income by  
household size for ratepayers under 150 percent of poverty.

A. Yes.

Q. And the average annual income for a low income  
ratepayer in Philadelphia County with three persons in the  
household is \$8,019; is that correct?

A. Yes.

Q. It is my understanding that once the rate in-  
crease that the company has proposed in this proceeding  
is implemented, the average residential customer's bill  
for 500 kwh will be \$910. Would you accept that figure?

A. That is the third step, I believe.

Q. Once the increase has been implemented, it would  
be \$910?

1 A. You're looking three years out under the com-  
2 pany's proposed phase-in plan.

3 Q. So if a low income ratepayer with three per-  
4 sons in the household and an average income was paying an  
5 average PECO bill three years from now, they will be paying  
6 more than ten percent of their income to Philadelphia  
7 Electric Company; isn't that correct?

8 A. I don't believe these statistics are for three  
9 years out. I believe they are for 1985, sir, and I would  
10 presume they may change by 1988.

11 Q. We can go back and look at the inflation rates  
12 for percentage change in these statistics; but assuming  
13 right now that figure of \$910 for an average residential  
14 customer bill and the data that we have today for low  
15 income household size three, which is \$8,019, that house-  
16 hold will be paying ten or more percent of their income;  
17 isn't that right?

18 A. You are collapsing in time what we are asking  
19 for three years hence with data gathered for the year past.  
20 I don't think that is an adequate comparison.

21 Q. What will be the 500 kwh bill for a customer  
22 assuming the first stage of the increase is implemented?

23 A. Approximately, \$770.

24 Q. Would you accept, Mr. Williams, that \$770 over  
25 \$8,019 is 9.6 percent?

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1 A. Yes, I will.

2 Q. So it is fair to say then that an average rate-  
3 payer with an average bill, with three people in the house-  
4 hold, will be paying, with their low income, 9.6 percent of  
5 their income to Philadelphia Electric Company?

6 A. Using 1985 income data and 1986 rate increase,  
7 and assuming that such customer uses 500 kilowatt-hours a  
8 month, I would agree.

9 Q. We are asking average figures here, average  
10 usage and average low income.

11 A. Yes.

12 Q. So the average ratepayer is going to be paying  
13 9.6 percent --

14 A. No; I didn't say that the average ratepayer is.  
15 I described what I agreed to.

16 Q. Mr. Williams, do you and Philadelphia Electric  
17 Company have a figure for the proportion of income that  
18 a household should reasonably expend on electricity?

19 A. We believe that assessment has to be made on an  
20 individual basis, and that is part of the CAP program;  
21 that an individual analysis with each customer is appropriate.

22 Q. You don't believe that once you get up to ten  
23 percent, in some cases even more according to Mr. Grier's  
24 testimony, that you almost by definition are stating an  
25 ability to pay problem?

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1           A. I believe that the customer's individual cir-  
2 cumstances have to be reviewed. I don't believe that a  
3 broad-based program such as you are suggesting with a rate  
4 implementation is appropriate because it reaches many,  
5 many customers who are not low income, inability to pay  
6 customers.

7           Q. I didn't ask you anything about our program. I  
8 was asking you, almost by definition, once a household is  
9 spending ten percent of income, and in some cases far  
10 more as Mr. Grier has demonstrated, that they have an  
11 inability to pay problem.

12          A. I believe I responded: I think it is appro-  
13 priate to view each customer's individual circumstances,  
14 and that's what we're trying to do, sir.

15          Q. Fine. Now, Mr. Williams, you believe the CAP  
16 program is representative of low income ratepayers for  
17 PECO.

18          A. I believe the CAP program is representative of  
19 those customers who truly have the inability to pay in the  
20 Philadelphia Electric Company service territory.

21          Q. Mr. Williams, do you know whether there is an  
22 income requirement to be a CAP participant?

23          A. The customer's income and his responsibility  
24 for expenses are analyzed on an individual basis. That is  
25 the heart of the CAP program.

1 Q But there is no income cut-off beyond which  
 2 somebody cannot participate; is that right? If their  
 3 expenses and their income, after you analyze them, indicated  
 4 that the person had an inability to pay problem, they could  
 5 participate in CAP; is that right?

6 A I don't think that is a fair characterization.  
 7 There are many, many criteria in the CAP program, and I am  
 8 not prepared to recite them all; but, obviously, the cus-  
 9 tomer's expenses have to be reasonable expenses.

10 Q Certainly. But my question is a simple one:  
 11 do you have, as one of those many criteria, a maximum in-  
 12 come level above which customers cannot participate regard-  
 13 less of their expenses?

14 A I am not positive.

15 Q You're not positive.

16 A No, I'm not.

17 Q Would you accept, subject to check, that you do  
 18 not?

19 MR. MacGREGOR: Objection, Your Honor. The witness  
 20 has indicated that he does not know.

21 BY MR. HANGER:

22 Q Mr. Williams, do you know that one of the re-  
 23 quirements for participating in the CAP program is that  
 24 the household sign a lien on their house if they are a  
 25 homeowner?

1           A. My understanding is that as a participant in  
 2 the CAP program, one must agree, at the time of sale of the  
 3 property, if the CAP customer is a property owner, that  
 4 there will be a lien for the outstanding balance; yes.

5           Q. So the answer is: yes, they have to agree to a  
 6 lien?

7           A. Under very definite circumstances; I believe  
 8 that is true.

9           Q. Do you think that might explain why you have  
 10 less elderly in this program?

11          A. Not at all.

12          Q. Not at all.

13          Mr. Williams, could you tell me whether or not  
 14 scientific sampling techniques were used in selecting  
 15 these customers to participate in the CAP program?

16          A. The CAP program participants are not obtained  
 17 from a sample. They are obtained from the real life con-  
 18 ditions of a customer's inability to pay their bills, and  
 19 I think that that is far better than any sample could be.

20          Q. So the 704 customers were not selected by a  
 21 random sample, for example?

22          A. No, they were not.

23          Q. Mr. Williams, do you have with you Interrogatory  
 24 OCA-26-2, answered by yourself?

25          A. Yes, I do.

1 Q Would you agree that this is an interrogatory  
2 that breaks down CAP participants by average monthly con-  
3 sumption and also by Rate R, Rate RH and water heating?

4 A That is correct.

5 Q Would you also agree that this interrogatory  
6 shows that 51 CAP customers are space heating, in other  
7 words, they are in Rate RH?

8 A Yes.

9 Q And that 34 customers are water heating?

10 A Yes.

11 Q I assume that those are Rate OP, or is that  
12 perhaps Rate R water heating?

13 A Rate OP.

14 Q So that 12 --

15 A There may be some R in there. It is anybody  
16 who has water heating, so it is OP plus any R if there is  
17 any R.

18 Q So 12 percent of your CAP sample are either  
19 space heating or water heating customers; isn't that right?

20 A They have space heating or water heating, 12  
21 percent do; yes.

22 Q Did you take that into account, Mr. Williams,  
23 when you concluded that 67 percent of the CAP customers  
24 were above 400 kwh and, therefore, would be hurt by  
25 Mr. Oliver's 350 kwh block?

1           A. My original data included the water heating  
 2 and space heating customers, to quote that statistic; how-  
 3 ever, this interrogatory response shows that 62 percent  
 4 are basic needs customers above 400 kilowatt-hours per  
 5 month.

6           Q. What percentage of the CAP customers are above  
 7 500 kwh? In your testimony you said it was 48 percent.

8           A. There are 42 percent of basic needs customers  
 9 under Rate R above 500 kilowatt-hours per month.

10          Q. Mr. Williams, do you know how many customers  
 11 PECO terminated in 1984?

12          A. I believe that is cited in Mr. Oliver's  
 13 testimony, the increase or the change. 32,000 is my  
 14 recollection.

15          Q. That has been about a 25 or 26 percent increase  
 16 in the number of terminations between '84 and 1985?

17          A. I guess it is in Mr. Grier's testimony.

18          Q. It is in his surrebuttal.

19          A. That is correct. And, of course, those termina-  
 20 tions may or may not be customers who are low income with  
 21 inability to pay. Some customers just don't heed any warn-  
 22 ings until they are terminated, whether they have the  
 23 ability to pay or not.

24          Q. So, nonetheless, this company has experienced  
 25 in one year, before your proposed rate increase,

1 approximately a 25 percent increase in the number of  
2 terminations; isn't that correct?

3 A. I agree that that is the number of terminations,  
4 and I agree it was that increase; but I don't agree it was  
5 entirely related to rate level changes.

6 Q. Would you also agree, Mr. Williams, that the  
7 company is cutting off or terminating roughly 66 or 2/3rds  
8 of all of the terminations in the entire state for all  
9 electric utilities?

10 A. That may be true. I don't know that specific  
11 statistic. But I also know that we have more customers  
12 than any other utility in the state.

13 Q. Do you have 2/3rds of all of the electric cus-  
14 tomers?

15 A. No; I didn't say that.

16 Q. You have 2/3rds of the terminations, Mr. Williams.  
17 Don't you think that that indicates a particularly unique  
18 inability to pay problem in the Philadelphia Electric  
19 service territory?

20 A. Mr. Hanger, I am not arguing the fact that we  
21 have some inability to pay problems, and I am not agreeing  
22 to the fact that all terminations represent inability to  
23 pay problems. I don't think that is a good measurement.

24 MR. HANGER: I have no other questions for this  
25 witness.

1 MR. MacGREGOR: I have no redirect, Your Honor.

2 JUDGE MATUSCHAK: Does that conclude the witness'  
3 testimony for today?

4 MR. MacGREGOR: Yes, Your Honor.

5 JUDGE MATUSCHAK: Very well. Thank you.

6 (Witness excused.)

7 JUDGE MATUSCHAK: Who wants to proceed?

8 MR. KLEPPINGER: Your Honor, PAIEUG would like to  
9 call Mr. Pollock.

10 MR. MacGREGOR: Your Honor, while Mr. Pollock is  
11 taking the stand, I would note one further change on the  
12 schedule I handed out this morning.

13 It is my understanding that Dr. Perl is to appear  
14 tomorrow rather than the 13th. I don't know whether that  
15 was previously agreed to or whether that is a change.  
16 Perhaps I can clarify that at a break.

17 MR. FORT: I would like to make sure that Mr. Rudden  
18 gets on today. I was assured that he was coming right  
19 after Mr. Oliver, but apparently not, now.

20 MR. MacGREGOR: That list that I handed out was not  
21 intended to be an order of the witnesses. There has been  
22 no order established. Mr. Rudden, as far as I am concerned,  
23 can appear at any time.

24 MR. FORT: Can he be next?

25 MR. HANGER: I would like Mr. Grier, also, to

1 testify today. I talked with at least Mr. MacGregor on  
2 Friday. Mr. Grier is not available tomorrow based upon  
3 representations made on Friday.

4 JUDGE MATUSCHAK: Let's proceed and see where we  
5 get.

6 Whereupon,

7 JEFFRY POLLOCK

8 having previously been duly sworn, testified further as  
9 follows:

10 DIRECT EXAMINATION

11 BY MR. KLEPPINGER:

12 Q. Mr. Pollock, have you previously testified in  
13 this proceeding?

14 A. Yes, I have.

15 Q. Do you have before you at this time a document  
16 entitled "Rebuttal Testimony and Exhibit of Jeffry Pollock"?

17 A. Yes.

18 MR. KLEPPINGER: Your Honor, I would like to have  
19 marked for identification purposes as PAIEUG Statement 3A  
20 the rebuttal testimony and exhibit of Jeffry Pollock.

21 JUDGE MATUSCHAK: Very well.

22 (Whereupon, the document was marked  
23 as PAIEUG Statement No. 3A for  
identification.)

24 BY MR. KLEPPINGER:

25 Q. Mr. Pollock, was this prepared by you or under

1 your supervision?

2 A. Yes.

3 Q. If I were to ask you the questions contained  
4 herein, would your answers be the same?

5 A. Essentially, yes.

6 Q. Are there any additions or corrections to your  
7 testimony as written that you would like to make at this  
8 time?

9 A. Yes. I have one correction and one clarifica-  
10 tion. The correction is on page 11 at line 20. The break-  
11 even point listed there is "1,303 hours;" that should read  
12 "1,328 hours."

13 The one clarification is on Schedule 9. If we refer  
14 to the footnotes, the first asterisk refers to the calcula-  
15 tion shown in column (4); it says "Average demand times  
16 60%." That is a rounded figure. The actual number should  
17 be 60.26 percent. Likewise, that will change the  
18 corresponding percentages in the second footnote to 60.26  
19 percent and 39.74 percent.

20 Q. Does that conclude the corrections and additions  
21 to your written rebuttal testimony?

22 A. Yes.

23 MR. KLEPPINGER: Your Honor, at this time I would  
24 like to move for the admission of PAIEUG Statement 3A  
25 pending any timely motions at a later time.

JUDGE MATUSCHAK: The motion is granted.

(Whereupon, the document marked as PAIEUG Statement No. 3A was received in evidence.)

BY MR. KLEPPINGER:

Q. Mr. Pollock, in response to the surrebuttal testimony of Mr. Oliver, do you agree with Mr. Oliver's characterization that your least cost analysis and utilization of the EPRI TAG report examines costs for only a single year?

A. No, I do not. The analysis which was used to derive the break-even points in the lowest cost system analysis was based upon a life cycle analysis of both capital and variable costs.

Q. Finally, Mr. Pollock, do you agree with the characterization made by Mr. Oliver at page 11 of his surrebuttal testimony which states that you mistakenly used the same levelized carrying charge for base load and oil-fired peakers?

A. No, I don't. Again, the reason for using the same carrying charges in both examples was the assumption that both types of units would have the same useful life, so that we are comparing equal alternatives.

MR. KLEPPINGER: Thank you, Mr. Pollock.

Your Honor, Mr. Pollock is now available for cross-examination.

1 JUDGE MATUSCHAK: Does the company have any cross-  
2 examination?

3 MR. MacGREGOR: No, Your Honor.

4 JUDGE MATUSCHAK: Staff?

5 MS. CHESTNUT: No, Your Honor.

6 JUDGE MATUSCHAK: Consumer Advocate?

7 MR. WERSAN: Yes.

8 CROSS-EXAMINATION

9 BY MR. WERSAN:

10 Q. Mr. Pollock, am I correct that in your direct  
11 testimony in this case you testified on the issues of  
12 revenue allocation and rate design, and that Dr. Bloom  
13 testified on cost of service?

14 A. I testified primarily on revenue allocation and  
15 rate design. I believe I also concurred with Dr. Bloom's  
16 recommendation on allocation method.

17 Q. But you would agree with me that it is Dr. Bloom  
18 that put forth PAIEUG's cost of service study and the  
19 rationale for use of that cost of service study?

20 A. Dr. Bloom sponsored the cost of service study.

21 Q. I take it, however, in the rebuttal phase of the  
22 case, you have decided that you would put on testimony  
23 addressing cost of service issues?

24 A. Yes, sir.

25 Q. So I take it you feel you are qualified in that

1 area?

2 A. Yes.

3 Q. And that you are familiar with how Philadelphia  
4 Electric does its system planning?

5 A. I am familiar with general system planning  
6 concepts, which is the basis upon which the testimony is  
7 written.

8 Q. Are you familiar with how Philadelphia Electric  
9 does its system planning?

10 A. I have reviewed some of the economic analyses  
11 which Philadelphia Electric has undertaken over time.

12 Q. Were you involved in the Limerick 1 investiga-  
13 tion, Mr. Pollock?

14 A. No.

15 Q. Were you involved in the Limerick 2 investiga-  
16 tion, Mr. Pollock?

17 A. No.

18 Q. Are you familiar with the issues that were liti-  
19 gated in those cases?

20 A. I have read the decisions. I have not become  
21 intimately familiar with the specific issues raised by  
22 specific witnesses.

23 Q. Are you familiar with the presentations made by  
24 Philadelphia Electric Company with respect to the need for  
25 and economics of the Limerick Unit 1 in the original

1 investigation?

2 A. Again, to the extent that I have reviewed the  
3 economic analyses and reviewed the decision in the Limerick  
4 1 case, to that extent I am familiar with it.

5 Q. What economic analyses did you review with  
6 respect to Limerick Unit 1?

7 A. The analyses were provided in response, I think,  
8 to PAIEUG Data Request 2-59, which I think Dr. Bloom re-  
9 ferred to on cross-examination.

10 Q. What analyses were those?

11 A. A series of cost analyses comparing Limerick,  
12 the total cost of Limerick, vis-a-vis other types of genera-  
13 tion, primarily coal and oil-fired base load generation.

14 Q. How did Philadelphia Electric perform those  
15 analyses?

16 A. I couldn't say, since I didn't go through the  
17 exact redevelopment of the derivation of those analyses,  
18 but essentially they started with certain assumptions about  
19 capital costs, fuel costs and inflation rates, and developed  
20 the analysis from that as to which alternative would pro-  
21 vide the lowest revenue requirement over time.

22 Q. You referred, on your oral surrebuttal, to the  
23 EPRI TAG study and to analysis of the cost of combustion  
24 turbines versus a base load nuclear plant; is that correct?

25 A. Yes.

1 Q. And you assumed in your analysis that both a  
2 combustion turbine and a nuclear plant had the same life,  
3 period of years in which they would both be available?

4 A. I made that assumption in order to evaluate  
5 thoroughly over the life of the nuclear plant the costs  
6 involved with both types of generation.

7 Obviously, I am aware that combustion turbines do  
8 not typically last as long as nuclear units; and, there-  
9 fore, had I taken that into account, I would have had to  
10 install an additional combustion turbine capacity at the  
11 time, approximately at the time that the old capacity  
12 would have been worn out.

13 The point is, you need to look at a complete life  
14 cycle analysis, and that is what I attempted to do.

15 Q. Would you agree with me that a combustion tur-  
16 bine normally has a life of approximately 20 years, as the  
17 EPRI TAG study views it?

18 A. That may be correct. I think in large part it  
19 depends upon how the turbines are operated and maintained  
20 over time.

21 Q. Would you agree with me that most utilities  
22 project 30 to 40-year lives for their nuclear plants?

23 A. Yes, I would agree.

24 Q. Would you agree with me that using different  
25 lives would affect the depreciation rates that would be

1 used in an analysis of the life cycle cost of a plant?

2 A. Yes, it could.

3 Q. And to the extent that you use equal lives for  
4 those stations, you would be changing the economic values  
5 placed upon those plants in each year of the life cycle  
6 analysis?

7 A. No, I wouldn't agree quite with that, because,  
8 as I explained before, to the extent that the combustion  
9 turbine unit only lasts for 20 years, if we're doing a  
10 life cycle analysis on a nuclear plant that may last for  
11 40 years, then at the 20th year you would have to install  
12 additional combustion turbine capacity. I did not take  
13 that additional capacity or the related capital costs into  
14 account in the analysis. So I chose, in order to simplify  
15 the analysis, to let the two units have equal lives.

16 Q. What if that combustion turbine had been fully  
17 depreciated by year 20?

18 A. Yes. Assuming that the company or the utility  
19 had not made capital additions to keep it in service beyond  
20 year 20, that is correct.

21 Q. But you made alternative assumptions in order to  
22 do what you considered a fair analysis.

23 A. Yes.

24 MR. WERSAN: That's all I have, Your Honor. Thank  
25 you.

j31

1 JUDGE MATUSCHAK: Is there any further cross-  
2 examination of this witness?

3 Mr. Squires.

4 CROSS-EXAMINATION

5 BY MR. SQUIRES:

6 Q Mr. Pollock, under the company's 4-CP approach  
7 variable energy costs are not allocated to classes based  
8 upon a time of use relationship; isn't that right?

9 A No; they are allocated on the basis of annual  
10 average energy requirement, which is kilowatt-hour sales  
11 adjusted for losses.

12 Q With certain exceptions, do you subscribe to  
13 that method that the company has used?

14 A Yes. I generally subscribe to the method  
15 which -- and I think the company's method has followed  
16 these assumptions -- which assigns all customer classes  
17 the same mix of generation, including capacity costs as  
18 well as variable costs.

19 Q Does the cost of service study that was pre-  
20 pared by Dr. Bloom allocate the variable energy costs based  
21 upon time of use distinctions?

22 A No. There are no specific time of use distinc-  
23 tions being made in any of the allocations.

24 Q If you would please turn to your Exhibit JP-2,  
25 Schedule 13, for a moment.

1 A. Yes.

2 Q. Mr. Pollock, this schedule shows the base rate  
3 percent increases and non-fuel percent increases for PAIEUG  
4 and the total HT class based upon the company's proposed  
5 rate increase and the increase proposed by UP/UUC.

6 A. Yes.

7 Q. Could we add a couple of more lines to the  
8 schedule with your supplying the percentage increases to  
9 the classifications resulting from your proposed HT rates?

10 A. Certainly.

11 Q. For example, what is the base rate percentage  
12 increase recommended by PAIEUG for the total HT class?

13 A. I believe it comes out to 23.3 percent.

14 Q. 23.3?

15 A. Yes.

16 Q. Can you tell me what the percentage increase  
17 for the HT class would be without the inclusion of PAIEUG,  
18 which I assume is included in the answer for the total HT  
19 class?

20 A. Not right away.

21 Q. What do you mean by "not right away"?

22 A. I do not have the figures available that would  
23 enable me to sit here and make the calculations that you  
24 are requesting.

25 Q. Could you make the calculation, though?

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A. Certainly, given some time.

MR. SQUIRES: Could you supply that to me?

MR. KLEPPINGER: The record on rate structure is due to close today. I don't know how useful it is to provide that information after today. It wouldn't be available to be made an exhibit by Mr. Pollock.

JUDGE MATUSCHAK: Could we agree that he could submit the exhibit without further notification?

MR. SQUIRES: Yes, Your Honor.

MR. KLEPPINGER: What you're asking is under the PAIEUG rate design and allocation proposal, the increase to the high tension class excluding PAIEUG members?

MR. SQUIRES: Yes.

JUDGE MATUSCHAK: Do you understand the request, Mr. Pollock?

THE WITNESS: Yes, with one clarification, if I could. You just want that based upon our rate design recommendation, the PAIEUG recommendation, --

BY MR. SQUIRES:

Q. Yes.

A. --or do you want a third column that compares it under all of the scenarios?

Q. That's right.

A. You want the latter, the third column that looks at PECO's proposed and UP/UUC recommendation and the PAIEUG

1 recommendation?

2 Q Excluding --

3 A Excluding the -- yes; I understand it now.

4 JUDGE MATUSCHAK: Very well.

5 BY MR. SQUIRES:

6 Q In Schedule 14 of your Exhibit JP-2, have you  
7 calculated the equivalent capacity and energy rates based  
8 upon your HT rate schedule proposal?

9 A Yes, I have.

10 Q What are they? Could you give them to me by --

11 A Yes. Why don't I start with line 1 and just go  
12 down the page?

13 Q Fine.

14 A The capacity charge up to 149 hours' use would  
15 be \$10.19, which is a 90 percent increase.

16 The non-fuel energy charge would be .07315. That is  
17 a 62 percent increase.

18 Between 150 and 299 hours' use, the capacity charge  
19 would be \$14.525. That is a 79 percent increase.

20 The non-fuel energy charge would be .04425.

21 Q .04425?

22 A Yes. That is a 65 percent increase.

23 For 300 hours' use and above, the capacity charge  
24 would be \$24.635. That is an 82 percent increase.

25 The non-fuel energy charge would be .0318.

j35

1 Q. .0318?

2 A. I'm sorry; excuse me. .01055. That is a 19  
3 percent increase.

4 Q. What was the last figure?

5 A. .01 --

6 Q. What percent increase?

7 A. Nineteen.

8 MR. SQUIRES: Thank you, sir.

9 I have no further questions, Your Honor.

10 JUDGE MATUSCHAK: Is there anything further for  
11 this witness?

12 MR. KLEPPINGER: I do have two quick questions on  
13 redirect.

14 JUDGE MATUSCHAK: Very well.

15 REDIRECT EXAMINATION

16 BY MR. KLEPPINGER:

17 Q. Mr. Pollock, am I correct that in your life  
18 cycle analysis, assuming the first CT went out of service  
19 in the 20th year, you would be adding another CT with its  
20 new capital cost which would not yet have been experiencing  
21 any depreciation?

22 A. That's correct.

23 Q. Finally, Mr. Pollock, how many cases involving  
24 Philadelphia Electric Company have you testified on behalf  
25 of cost of service issues in the past eight years?

j36

1 A. I would say probably five.

2 Q. Were those all of the PECO base rate increase  
3 cases during those years?

4 A. Yes.

5 MR. KLEPPINGER: I have nothing further, Your Honor.

6 MR. WERSAN: Your Honor, could I ask one question?

7 RE-CROSS-EXAMINATION

8 BY MR. WERSAN:

9 Q. Isn't it true, Mr. Pollock, that in those five  
10 cases you were not the sole PAIEUG witness in every case?

11 A. Yes; that's true.

12 Q. There were other cases in which Mr. Brubaker  
13 also testified on cost of service on behalf of the indus-  
14 trial users?

15 A. Yes; he would have testified on some of the  
16 cost of service, but particularly the rate spread and rate  
17 design issues.

18 I was the principal sponsor of the cost of service  
19 analysis throughout that entire time.

20 Q. One question on the EPRI TAG study. Isn't it  
21 true that in your life cycle cost analysis, that you did  
22 not present value the revenue requirements in that analysis?

23 A. No; I did take present value.

24 Q. How did you do that?

25 A. I calculated the cost, inflated by the effective

j37

1 rate of inflation, and discounted it back.

2 Q. On what discount rate?

3 A. I used a 10.5 percent discount rate, which was  
4 approximately, I think, the after-tax discount rate which  
5 Philadelphia Electric was using in some of its economic  
6 analyses.

7 MR. WERSAN: That's all I have. Thank you.

8 JUDGE MATUSCHAK: Is there anything further for  
9 this witness?

10 (No response.)

11 JUDGE MATUSCHAK: You are excused.

12 (Witness excused.)

13 MR. RAINEY: Your Honor, could we go off the record  
14 for just a moment?

15 JUDGE MATUSCHAK: Yes.

16 (Discussion off the record.)  
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1 MR. WERSAN: Your Honor, can I assume that we are going  
2 to go until we finish rate structure today?

3 JUDGE MATUSCHAK: Yes, we are going to go.  
4 Whereupon,

5 RICHARD J. RUDDEN  
6 having previously been duly sworn, testified further as  
7 follows:

8 DIRECT EXAMINATION

9 BY MR. FORT:

10 Q. Please state your name.

11 A. Richard J. Rudden.

12 Q. On behalf of whom are you testifying in this  
13 proceeding?

14 A. On behalf of SEPTA and Amtrak.

15 (Whereupon, the documents were  
16 marked as SEPTA/Amtrak State-  
17 ments Nos. 1A and 1B for  
18 identification.)

19 BY MR. FORT:

20 Q. I show you what has been marked as SEPTA/Amtrak  
21 Statement No. 1A entitled "Rebuttal Testimony of Richard J.  
22 Rudden," and SEPTA/Amtrak Statement No. 1B entitled,  
23 "Surrebuttal Testimony of Richard J. Rudden."

24 Were these statements prepared under your supervision?

25 A. Yes, they were.

Q. Do you presently have any corrections that you

1 would like to make?

2 A. I have one small correction to Statement 1A. That  
3 appears on page 13. The second question on that page, the  
4 last line of the question, two words appear which are "to  
5 applied." The word "be" should be inserted between the  
6 words "to" and "applied."

7 Q. If I asked you the questions in these statements,  
8 would you give the answers stated therein?

9 A. Yes, I would.

10 MR. FORT: I would offer into evidence, Your Honor,  
11 SEPTA/Amtrak Statements 1A and 1B.

12 JUDGE MATUSCHAK: The motion is granted.

13 (Whereupon, the documents marked  
14 as SEPTA/Amtrak Statements Nos.  
15 1A and 1B were received in  
16 evidence.)

17 MR. FORT: I have no questions for the witness.

18 Does anyone care to cross-examine?

19 MR. MacGREGOR: I have no questions, Your Honor.

20 MS. CHESTNUT: I have no questions, Your Honor.

21 JUDGE MATUSCHAK: Consumer Advocate?

22 MR. WERSAN: Thank you, Your Honor.

23 CROSS-EXAMINATION

24 BY MR. WERSAN:

25 Q. Good afternoon, Mr. Rudden. My name is David  
Wersan. I am with the Office of Consumer Advocate.

A. Good afternoon.

1 Q. I take it you are familiar with the way SEPTA and  
2 Amtrak take power at Thorndale and Perryville?

3 A. Yes, sir.

4 Q. Now, you discuss the demands that SEPTA and  
5 Amtrak take at those two locations. As I understand, your  
6 testimony suggests that the amount of those demands should  
7 in some way be subtracted from the overall cost of service  
8 study for application to SEPTA and Amtrak?

9 A. They should be subtracted from the allocation  
10 factor used in the cost of service study, yes.

11 Q. Do you know if the demands at Thorndale and  
12 Perryville are included when Philadelphia Electric measures  
13 its system peak demands?

14 A. They would be recorded, to the best of my knowledge,  
15 both as a receipt of power under PJM and as an element of  
16 demand.

17 Q. So just for use of round numbers, if we assume  
18 that Philadelphia Electric had a peak system demand of  
19 6,000 megawatts and at Thorndale and Perryville there was  
20 a demand measured of 25 megawatts, under your analysis  
21 Philadelphia Electric is not, in fact, experiencing 6,000  
22 megawatts of demand; they are experiencing 5,975 megawatts  
23 of demand?

24 A. No, that's not my testimony. What I am saying is  
25 that the demands registered at Thorndale and Perryville do

1 not have to be satisfied by power generated by PECO; that,  
2 in fact, the power is available from Baltimore Gas and  
3 Electric and Pennsylvania Power and Light through Amtrak's  
4 own real power.

5 Q. But are those demands a subset of the total  
6 demands measured on the Philadelphia Electric system?

7 A. As an accounting matter, yes, they are registered  
8 by PECO as a PJM transaction.

9 Q. Now, if, in fact, those are not satisfied by  
10 Philadelphia Electric capacity, then would you think that  
11 if you reran the cost of service study to account for the  
12 power coming in at Thorndale and Perryville, the total system  
13 demands should be reduced by that amount of power when it  
14 comes time to allocate costs to the classes?

15 A. I'm sorry; that was a multi-part question. Could  
16 I have that back, please?

17 MR. WERSAN: May we have that read back?

18 (Whereupon, the reporter read from the record, as  
19 requested.)

20 THE WITNESS: The coincident peak would remain the  
21 same. Now, the reason I say that is because we are not  
22 dealing with whether those demands exist but rather the  
23 probability that PECO will have to satisfy those demands.

24 BY MR. WERSAN:

25 Q. So you are suggesting that out of some portion

1 of PECO's peak demand, there is a share that PECO, in fact,  
2 doesn't have to meet?

3 A. There is a portion of PECO's capacity requirement  
4 to Amtrak that can be satisfied by a multitude of sources.  
5 What I am saying is that there is not a probability that  
6 all the demand at Thorndale and Perryville have to be  
7 supplied by PECO.

8 Q. Do you know whether or not Philadelphia Electric  
9 takes that probability into account when it forecasts load  
10 on its system?

11 A. I do not.

12 Q. Do you know whether or not they in any way adjust  
13 downward their projected peak demands by the probability that  
14 they won't be serving SEPTA and Amtrak?

15 A. I don't know that.

16 Q. Do you know whether or not Philadelphia Electric  
17 has in any way altered its generation expansion plans to  
18 take into account the power at Thorndale and Perryville?

19 A. To the extent that power is as PECO considers  
20 it PJM power, yes, indeed they do consider it in their  
21 system planning.

22 Q. How?

23 A. Well, it is a supply of power available to them  
24 under the PJM agreement, and part of any utility system  
25 planning process incorporates what power is available from

1 the pool in which they participate; in this case, PJM.

2 Q. But doesn't Philadelphia Electric first have to  
3 forecast its sales and its peaks and then determine its  
4 generation expansion plan based on that in context with the  
5 PJM?

6 A. Certainly. I would assume that PECO takes every-  
7 thing into account, all of its sources and supply, in making  
8 an economic decision as to what they should build and as to  
9 what they should purchase.

10 So to that extent, they have to look at not only their  
11 own native generation, but also the generation available to  
12 them through PJM. So they would of necessity have to take  
13 into account PJM deliveries, of which, as I stated before,  
14 the transactions at Thorndale and Perryville are a part.

15 So, therefore, indirectly, if not explicitly, they  
16 do take into account Thorndale and Perryville demands.

17 Q. However, to the extent that the Thorndale and  
18 Perryville demands are included in the company's peaks as  
19 experienced and therefore in their load forecast into the  
20 future, would you agree that PECO must take those demands  
21 into account when designing both its generation expansion  
22 plan and also its reserve requirement?

23 A. Again, I'm not sufficiently familiar with the  
24 details of the PECO planning process to answer that  
25 question.

1 Q Speaking of the details of the PECO planning  
2 process, I take it you were never involved in either the  
3 Limerick 1 or the Limerick 2 investigation?

4 A I have not been.

5 Q Have you ever been involved in a Philadelphia  
6 Electric rate case?

7 A No, sir.

8 Q Have you ever supported a cost of service study  
9 that uses energy as part of its cost allocation?

10 A No, I have not.

11 Q Is it your opinion that you would never allocate  
12 a portion of production and transmission plant on the basis  
13 of energy?

14 A Is it my opinion that I would never allocate  
15 production and transmission on the basis of energy?

16 Q Yes.

17 A That is not my opinion.

18 Q Have you ever presented a cost of service study  
19 that actually uses an energy allocator?

20 A I have supported many cost of service studies  
21 that use energy allocators, not necessarily with regard to  
22 production and transmission.

23 Q What were you allocating?

24 A Energy costs, variable costs, fuel costs.

25 Q I think PECO allocates energy on an energy basis.

1 I agree with you on that.

2 My question was whether or not you've ever allocated  
3 production and transmission plant on an energy basis.

4 A. Oh, I'm sorry; that's not what I heard the first  
5 time. Yes, I have allocated some production facilities  
6 on an energy basis.

7 Q. What kind of cost of service was that?

8 A. The cost of service study was a coincident peak  
9 cost allocation methodology.

10 Q. What was your basis for allocating some portion  
11 of production and transmission plant on an energy basis?

12 A. There was a very small piece of hydroplant that  
13 we allocated on the basis of energy.

14 Q. Have you ever used an average and excess cost of  
15 service study?

16 A. No.

17 Q. Have you reviewed the Pennsylvania Public Utility  
18 Commission's decisions with respect to other utilities in  
19 this state and the applicability of an energy function in  
20 the cost of service study?

21 A. I have not.

22 Q. So you don't know whether or not the Commission  
23 has approved the use of energy for allocating production and  
24 transmission plant for either other nuclear stations or all  
25 production plant of other utilities in Pennsylvania?

1 A. In Pennsylvania other than PECO, that's correct,  
I did not.

2 MR. WERSAN: That's all I have, Your Honor. Thank  
3 you.

4 JUDGE MATUSCHAK: Is there any other cross-examination  
5 of this witness?

6 (No response.)

7 JUDGE MATUSCHAK: Thank you.

8 (Witness excused.)

9 JUDGE MATUSCHAK: We will take a short recess.

10 (Recess.)

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MR. RAINEY: I call Michael Ileo.

Whereupon,

MICHAEL J. ILEO

having previously been duly sworn, testified further as follows:

DIRECT EXAMINATION

BY MR. RAINEY:

Q. Dr. Ileo, would you state your full name and business address for the record?

A. My name is Michael J. Ileo. My business address is Eight North Harrison Street, Richmond, Virginia.

Q. For whom are you testifying in these proceedings?

A. I am appearing on behalf of the City of Philadelphia.

Q. Do you have before you a document entitled "Rebuttal Testimony of Dr. Michael J. Ileo"?

A. I do.

Q. Does it contain 34 pages of testimony and an appendix?

A. That's correct.

Q. Was this document prepared by you or under your direct supervision?

A. It was.

MR. RAINEY: Your Honor, I would like to have this document marked for identification purposes as City

1 Statement No. 3.

2 JUDGE MATUSCHAK: Very well.

3 (Whereupon, the document was marked  
4 as City Statement No. 3 for  
5 identification.)

6 BY MR. RAINEY:

7 Q Dr. Ileo, are there any corrections, deletions  
8 or additions that you would like to make to City Statement  
9 No. 3 at this time?

10 A No.

11 Q Are the statements and appendix which appear in  
12 City Statement No. 3 true to the best of your knowledge,  
13 information and belief?

14 A Yes, they are.

15 Q If I were to ask you today the same questions  
16 that appear in City Statement No. 3, would your answers  
17 be the same as appear therein?

18 A Yes, they would be.

19 MR. RAINEY: Your Honor, I would like at this time  
20 to move for the admission into evidence of City Statement  
21 No. 3, subject to any objections or motions timely made  
22 by any parties to the proceeding.

23 JUDGE MATUSCHAK: The motion is granted.

24 (Whereupon, the document marked as  
25 City Statement No. 3 was received  
in evidence.)

1 BY MR. RAINEY:

2 Q Dr. Ileo, with respect to supplemental or re-  
3 buttal testimony, at page 5 of his surrebuttal testimony  
4 Mr. Figley states that your time of use allocation for  
5 energy costs would result in a significantly higher cost  
6 assignment to Philadelphia street lighting. Would you  
7 agree with that statement?

8 A If one allocated simply Limerick on that basis,  
9 it probably would be true. However, I made no such recom-  
10 mendation. The only recommendation I made was that I be-  
11 lieve the company's cost study could be improved if time  
12 of use considerations were taken into account in the allo-  
13 cation of energy costs on a total system basis; and if  
14 time of use were in fact used as a basis for allocating  
15 energy costs on a total system basis, I am pretty certain  
16 that the City of Philadelphia would end up bearing a lower  
17 energy cost responsibility.

18 So I think Mr. Figley has at least mischaracterized  
19 my remarks.

20 Q Also, Dr. Ileo, at the last paragraph on page 6  
21 of his surrebuttal testimony, Mr. Figley states that if  
22 fuel costs were reassigned to Limerick on the time of use  
23 basis, that such an allocation should recognize the rela-  
24 tively larger contribution of Limerick to the generation of  
25 off-peak power than on-peak power. Do you agree with that

1 statement?

2 A. Well, I think it goes again to the question of  
3 Mr. Figley trying to infer that I am making a statement as  
4 to how Limerick taken alone, independent of the total sys-  
5 tem, should be treated.

6 In the first instance, I make no recommendation. I  
7 don't believe Limerick should be carved out for special  
8 treatment, and it should be treated as part of the -- one  
9 of the components in the total mix of generation.

10 When that is done, I would argue that energy costs  
11 ought to be examined on a time of use basis because peak  
12 energy costs tend to be higher than off-peak energy costs,  
13 and, consequently, a failure to recognize that fact results  
14 in a misallocation of cost to time periods over the years,  
15 and, hence, to customer classes.

16 Q. Dr. Ileo, do the energy costs associated with  
17 Limerick differ during peak and off-peak periods?

18 A. Not for Limerick. Any plant taken in isolation,  
19 that plant's fuel cost is independent of time of use. It  
20 is only with respect to total system that energy costs are  
21 changed by time of use.

22 Q. Dr. Ileo, both Mr. Figley, at page 4 of his sur-  
23 rebuttal testimony, and Dr. Wirtshafter, at page 3 of his,  
24 suggest that Limerick 1 should be given special treatment.

25 In your estimation, have either of those witnesses or

1 any witness in this case set up any framework for the  
2 Commission to follow in classifying plant for special  
3 treatment?

4 A. I can appreciate the treatment of large base  
5 load nuclear plants in a special manner with respect to  
6 revenue requirement determinations, because many issues  
7 surround nuclear plants; such things as excess capacity,  
8 used and useful, prudence, things of that nature. But I  
9 don't feel that those plants should be treated in a special  
10 manner with respect to cost allocation.

11 I think it may well be appropriate to consider  
12 those issues in a revenue requirement determination, but  
13 not with respect to cost allocation.

14 Q. Also, Dr. Ileo, in refer to page 3 of Mr.  
15 Figley's surrebuttal testimony, he states that if the load  
16 curve is flat, the least cost mix will consist of base  
17 load plant.

18 Do you agree with that statement?

19 A. Yes, generally, if the load curve is absolutely  
20 flat, there is nothing but base load plant. In fact, the  
21 distinction between peak, off-peak, intermediate, really  
22 disappears, because there really is no time of use differ-  
23 ence in the load characteristics of the system.

24 MR. RAINEY: Your Honor, Dr. Ileo is available for  
25 cross-examination.

1 JUDGE MATUSCHAK: The company?

2 MR. MacGREGOR: No questions.

3 JUDGE MATUSCHAK: Staff?

4 MS. CHESTNUT: No questions, Your Honor.

5 JUDGE MATUSCHAK: Consumer Advocate?

6 MR. WERSAN: Thank you, Your Honor.

7 CROSS-EXAMINATION

8 BY MR. WERSAN:

9 Q. Good afternoon, Dr. Ileo.

10 A. Good afternoon.

11 Q. It is my understanding from personal experience  
12 that you testified in the last Philadelphia Electric rate  
13 case for the City of Philadelphia; is that correct?

14 A. That's correct.

15 Q. And in that case, correct me if I'm wrong, your  
16 main proposal dealt with classification of distribution  
17 costs; is that correct?

18 A. That's correct.

19 Q. Have you testified in any other rate proceedings  
20 involving cost of service in Pennsylvania?

21 A. Yes.

22 Q. For what cases?

23 A. I can't recall them.

24 Q. Do you recall the companies?

25 A. I don't recall that either. I can recall the

1 client, but I frankly can't recall -- I've testified in  
2 over 500 rate cases in the last 17 years, and it is pretty  
3 hard for me to focus on a particular company or jurisdiction.

4 Q. In those 500 rate cases you have testified in,  
5 have you ever supported the use of energy allocators in a  
6 cost of service study for production and transmission plant?

7 A. I have been accused of that. I have never made  
8 such a recommendation with respect to embedded costs.  
9 However, some would argue that in marginal cost studies  
10 that I have prepared and proposed, that I was in fact  
11 allocating production and transmission plant on the basis  
12 of energy.

13 I would admit to that, except that I did indeed  
14 take into account time of use differences; and when one  
15 takes into account time of use differences in using energy  
16 as an allocator, the difference between allocating produc-  
17 tion and transmission plant on an energy basis and produc-  
18 tion and transmission on a demand basis does not differ  
19 significantly.

20 Q. But for embedded cost of service study purposes,  
21 you have not testified or have not supported use of an  
22 energy allocator for dealing with production and trans-  
23 mission plant?

24 A. That's right.

25 Q. Are you familiar with practice of this Commission

1 with respect to cost of service studies for other elec-  
2 tric utilities in the State of Pennsylvania?

3 A. I can't say that I am.

4 Q. Are you familiar with whether or not the  
5 Commission has ever approved use of a cost of service study  
6 that allocates either a portion of a plant or a portion of  
7 a system using an energy allocator?

8 A. I have no familiarity with that.

9 Q. Were you involved in either the Limerick 1 or  
10 the Limerick 2 investigation?

11 A. I was not involved in either one.

12 Q. Do you have any familiarity with investigations  
13 or cases in which system planning considerations of  
14 Philadelphia Electric Company have been reviewed and ruled  
15 upon?

16 A. I have not.

17 Q. Have you reviewed the order from the Limerick 1  
18 investigation in which the decision on whether or not to  
19 proceed with Limerick 1 was discussed?

20 A. I have not.

21 MR. WERSAN: That's all I have, Your Honor.

22 Thank you, Dr. Ileo.

23 JUDGE MATUSCHAK: Is there anything further?

24 Mr. Squires.

25 MR. SQUIRES: Yes, Your Honor.

## CROSS-EXAMINATION

1  
2 BY MR. SQUIRES:

3 Q Dr. Ileo, in your rebuttal testimony on page 4  
4 you identify certain limitations as to the company's 4-CP  
5 cost of service.

6 A Yes.

7 Q Other than those alleged shortcomings of the  
8 PECO cost of service, is it true that you don't find any-  
9 thing else wrong with their cost of service study?

10 A That's correct, based on the analysis that I have  
11 performed; that's correct.

12 Q When you testified in the last PECO rate case  
13 on behalf of the City of Philadelphia, did your testimony  
14 in that case also identify these same two shortcomings?

15 A I can't recall if I specifically made an issue  
16 of the failure to allocate energy costs on a time of use  
17 basis. I may have, and I may not have. I can't recall,  
18 frankly. The preponderance of my testimony in the last  
19 case dealt with PECO's classification of distribution of plant  
20 and expenses into demand and customer components.

21 Q At that time did your testimony include changes  
22 to the company's 4-CP study to reflect your disagreeing  
23 with their approach?

24 A I made no changes to the demand and energy  
25 allocation -- coincident demand allocations or energy

1 allocations that the company had presented.

2 The only changes I made were with respect to the  
3 classification of non-coincident demand-related plant at  
4 the distribution level.

5 Q Can you tell me why you did not make your own  
6 study for any specific changes to the company's study?

7 A To be quite frank, I was not retained to inves-  
8 tigate and/or make changes in the demand and energy  
9 allocations of the company.

10 The City's concern has always been primarily with  
11 what the City believes is an improper treatment of dis-  
12 tribution related plant and expenses. A big chunk of that  
13 ends up getting allocated to the City and, hence, the  
14 City's view and my personal view is too much of that cost  
15 is treated as being customer-related. Consequently, I was  
16 retained primarily to challenge the company's treatment of  
17 distribution plant and expenses in that case, as well as in  
18 this case.

19 Q By not reviewing the company's cost of service  
20 study, did you acquiesce in the use of the non-time differ-  
21 entiated kilowatt-hours as a basis for allocating their  
22 variable cost?

23 A No. If I can recall for you, in the last case  
24 we performed a reclassification of the company's distribution  
25 plant. The Commission rejected that, our reclassification,

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1 and the City was placed in the position where its position  
2 was essentially rejected.

3 The company was proposing a pretty hefty increase  
4 for street lighting service in the last case. In this  
5 case, however, the company has proposed no increase for  
6 street lighting.

7 While the City still takes the position that in  
8 fact if we were to redo the company's cost allocation  
9 study, we could justify a decrease in the street lighting  
10 rates.

11 However, the City would indeed be satisfied with no  
12 increase as a step in the direction that we think reflects  
13 the cost of service conducted on a proper basis.

14 Q. So in answer to my question, as far as the pre-  
15 vious PE rate case was concerned, you went along with the  
16 company in that case, but in this case you are actually  
17 calling to task the parties who also emulate the company's  
18 allocation method in variable costs.

19 A. I'm sorry; I don't understand your question.

20 Q. I believe in answer to my previous questions you  
21 said that you didn't propose any change to the company's  
22 cost of service study.

23 A. No; I said I did. In the last case --

24 Q. With respect to the energy costs, the energy  
25 allocation.

1 A. No. I can't say that I -- I frankly can't re-  
2 call whether we took a position that the company's cost  
3 allocation study could be improved by a time of use  
4 allocator.

5 I can tell you that we made no changes to the com-  
6 pany's cost allocation study with respect to production  
7 and energy-related plant.

8 The only adjustment we made in the last case was to  
9 the company's treatment of distribution-related plant and  
10 expenses.

11 Q. Dr. Ileo, at page 4 of your testimony you note  
12 that the company's cost of service reveals that Schedule  
13 SLP has a rate of return of 174 percent of the system  
14 average based on present rates; is that correct?

15 A. Yes.

16 Q. Is it also correct that on the basis of the  
17 company's findings with respect to this rate, you are  
18 satisfied that their recommendation to limit the rate  
19 increase to that amount, to the projected fuel savings  
20 amount, is appropriate?

21 A. Well, the City's position is, in fact, that the  
22 City should have a decrease. I have stated that in my  
23 testimony. We believe that if the cost allocation study  
24 were performed in a more accurate manner, primarily with  
25 respect to the treatment of distribution plant, but

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1 secondarily with respect to time of use considerations  
2 and energy cost allocations, we believe the City -- the  
3 ratio that would be produced would greatly exceed the 174  
4 percent.

5           However, the City's position is that we are willing  
6 to accept no increase, in that it is a step in the direc-  
7 tion that reflects what the true cost incidence is.

8           In fact, in the last case we also took the position  
9 that on a cost of service basis, the City ought to sustain  
10 no increase, and, in fact, should have a decrease in rates.  
11 But in the interest of rate continuity, we are willing to  
12 accept the 4.5 percent increase.

13           I think the City's position is fully consistent  
14 with its position in the last case.

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1 Q. Are you aware of the fact that in each of the  
2 previous nine PE rate cases dating back to 1974, that the  
3 4-CP cost of service studies consistently show that the rate  
4 of return for the lighting service was lower than system  
5 average?

6 A. I think I'm aware of that, but the reason for  
7 that has largely been the treatment of distribution plant  
8 in the past. Now, as it turns out -- and that's what my  
9 evidence showed in the last case.

10 But if you alter the distribution treatment, that  
11 ratio turns around significantly.

12 Q. Since you were in the last PECO rate case, you  
13 probably know this, but would you accept subject to check  
14 that the lighting class rate of return was 90 percent  
15 of the system return?

16 A. I will accept that. I can't recall the number  
17 specifically, but I believe that's correct. That's what  
18 PECO's study showed in the last case.

19 Q. To what do you attribute this reversal in the  
20 SLP rate of return between 1984 and this case?

21 A. I think it is a product of a couple of things.  
22 First, the City sustained a rather healthy increase in  
23 streetlighting last time. Secondly, the City has continually  
24 been taking significant efforts to reduce its energy  
25 consumption. It has done so by turning off lights, done so

1 by replacing units with much more cost effective lumens and  
2 things of this nature, a program that was initiated three to  
3 four years ago. So I suspect it has been a product of both of  
4 those things.

5 Q In the 500 or so cases that you have testified in,  
6 have you ever participated in a Virginia Power Company case?

7 A Many.

8 Q And does the Virginia Power Company use the  
9 average and excess demand allocation method?

10 A No. It may have many, many years ago, but at  
11 least in my history it has always used the coincident peak  
12 method. It presently is using the average of the summer  
13 and winter peaks.

14 However, for FERC jurisdictional bases, it uses  
15 the 12-CP.

16 Q Dr. Ileo, is it your contention that any utility  
17 and/or regulatory agency that has adopted a production  
18 plant allocation method that incorporates an allocation of  
19 average demand has deliberately and without justification  
20 shifted costs from peak to off-peak users based upon ill-  
21 founded theories?

22 A I think if average demand without regard to  
23 time of use is the basis for the allocator, yes. But if  
24 average demands are taken on a time of use basis, then I  
25 don't think that that is necessarily true.

1 In fact, on the marginal cost methodology, for  
2 example, what one does, in fact, is take average demands  
3 by different rating periods to allocate costs. But in that  
4 kind of a setting, the average demands at least reflect  
5 time of use differences and that's the way costs are  
6 incurred by utilities.

7 Q Is it your contention that all utility companies  
8 and/or regulatory agencies that have adopted cost allocation  
9 methods that give weight to average customer demands  
10 purposely misrepresent the way costs are incurred the same  
11 way you allege other intervenors in this case have been  
12 motivated?

13 A Again, I can only repeat: if those average  
14 demands are used without regard to time of use, yes, that's  
15 my answer.

16 MR. SQUIRES: Thank you. I have no further questions  
17 of the witness.

18 JUDGE MATUSCHAK: Is there any further cross-  
19 examination of this witness?

20 MR. SELKOWITZ: I have one question.

21 CROSS-EXAMINATION

22 BY MR. SELKOWITZ:

23 Q Am I correct then that what you're saying is  
24 that if we are looking at intraclass picking any particular  
25 class and look at its cost-causation and how we would

1 structure the cost of service study for just that class,  
2 that if you did recognize time of use in allocating energy  
3 costs, then it would be appropriate to recognize time of  
4 use in allocating capacity costs and that you would do that  
5 by an energy tracking?

6 A. In fact, if you used the time period as an hour  
7 of which there are 8706 in a year, the allocation of  
8 production and energy costs collapses to be identical,  
9 because in every hour of the year kilowatts are identical  
10 to kilowatt-hours; i.e., energy is power times time.

11 So if time is one, then they collapse to be identical.  
12 In fact, under an appropriate allocation methodology, that  
13 is exactly what should be done and that is essentially  
14 what is done under a marginal cost framework.

15 Q. That assumes that you've got sufficient load  
16 data to come up with a way of doing it by 8706 hours, does  
17 it not?

18 A. Almost every utility that I am familiar with  
19 knows what the hourly loads are generally on a five-year  
20 basis.

21 Q. By customer class or just for the system?

22 A. By customer class.

23 Q. Have you ever seen any data that PECO knows  
24 that?

25 A. I have that data for VEPCO in a case I'm in

1 currently.

2 Q. PECO not VEPCO.

3 A. Well, the way that's done is by process of  
4 elimination, because obviously you don't have that data  
5 for small general service and residential customers. But  
6 if the utility is performing on a continuing basis load  
7 studies, those demands and consumption characteristics  
8 can, in fact, be estimated.

9 If one knows what the total system is -- one also  
10 has large industrial customers and to some degree smaller  
11 industrial customers on time-indicating meters -- the load  
12 curves for each customer class by time of use can, in fact,  
13 be derived.

14 Q. You haven't seen any of that data on PECO,  
15 though, have you, the results of that?

16 A. I'm trying to think of the last case. As I  
17 recall, I -- I may be confusing this with another case,  
18 but I recall seeing hourly load data for perhaps not all  
19 customer classes but at least some of them in the last case.

20 Q. You testified that you have testified in 500  
21 rate cases in the last 17 years?

22 A. That's correct.

23 Q. Thirty-some a year?

24 A. That's probably correct.

25 Q. Is that any kind of testimony or is that

1 restricted to filing written direct and being cross-examined  
2 and so on?

3 A. Our company handles roughly about 70 or 80  
4 cases a year, and I testify in probably half of them. It  
5 is not necessarily on one particular kind of issue, but on  
6 various types of issues.

7 MR. SELKOWITZ: Thank you.

8 MR. RAINEY: May I have a few minutes before  
9 redirect?

10 JUDGE MATUSCHAK: Yes. Let's take a five-minute  
11 recess.

12 (Recess.)

13 JUDGE MATUSCHAK: Are you ready to proceed,  
14 Mr. Rainey?

15 MR. RAINEY: I have no questions on redirect, Your  
16 Honor.

17 JUDGE MATUSCHAK: Thank you.

18 (Witness excused.)  
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1 MR. WERSAN: Your Honor, at this time, the Office of  
2 Consumer Advocate would like to present Mr. Bruce Oliver.

3 JUDGE MATUSCHAK: This witness was previously sworn.  
4 Whereupon,

5 BRUCE R. OLIVER

6 having previously been duly sworn, testified further as  
7 follows:

8 MR. WERSAN: Your Honor, at this time I would like  
9 to mark for identification as OCA Statement No. 8A the  
10 rebuttal testimony and exhibits of Bruce R. Oliver and as  
11 OCA Statement No. 8B the surrebuttal testimony and exhibits  
12 of Bruce R. Oliver.

13 JUDGE MATUSCHAK: Very well.

14 (Whereupon, the documents were  
15 marked as OCA Statements Nos.  
16 8A and 8B for identification.)

17 DIRECT EXAMINATION

18 BY MR. WERSAN:

19 Q. Mr. Oliver, do you have before you two documents  
20 that have now been marked for identification as OCA Statements  
21 Nos. 8A and 8B?

22 A. I do.

23 Q. Is OCA Statement No. 8A your rebuttal testimony and  
24 exhibits in this proceeding?

25 A. It is.

Q. Was this document prepared by you or under your

1 direction and supervision?

2 A. It was.

3 Q. Do you have any changes or corrections at this  
4 time to OCA Statement No. 8A?

5 A. No, I do not.

6 Q. If I were to ask you the questions contained in  
7 OCA Statement 8A, would your answers be the same as set forth  
8 therein and would they be true and accurate to the best of  
9 your knowledge, information and belief?

10 A. Yes, they would.

11 Q. Was the document that has been marked for identifi-  
12 cation as OCA Statement No. 8B prepared by you or under your  
13 direction and supervision?

14 A. It was.

15 Q. Do you have any changes or corrections to this  
16 document at this time?

17 A. No, I do not.

18 Q. If I were to ask you the questions in OCA Statement  
19 No. 8B at this time, would your answers be the same as set  
20 forth therein?

21 A. They would.

22 Q. Would those answers be true and accurate to the  
23 best of your knowledge, information and belief?

24 A. Yes.

25 MR. WERSAN: Your Honor, if I may, I would like to ask

1 Mr. Oliver a few short questions as oral sur-surrebuttal.

2 JUDGE MATUSCHAK: Do you want to offer these?

3 MR. WERSAN: Before I ask those questions, may I move  
4 into evidence, subject to any timely motions to strike, OCA  
5 Statements Nos. 8A and 8B?

6 JUDGE MATUSCHAK: The motion is granted.

7 (Whereupon, the documents marked  
8 as OCA Statements Nos. 8A and  
9 8B were received in evidence.)

10 BY MR. WERSAN:

11 Q. Mr. Oliver, with respect to the EPRI TAG study  
12 that has been discussed by Mr. Pollock today, does that  
13 study prescribe or recommend the use of the type of life cycle  
14 cost analysis presented by Mr. Pollock?

15 A. No, it does not. In fact, my fairly detailed  
16 review of that document does not even find a reference to  
17 life cycle analysis as a recommended or prescribed methodology

18 Q. How does the analysis presented by Mr. Pollock  
19 differ from that which would be supported by the EPRI TAG  
20 study?

21 A. Well, there are a number of ways, but most  
22 importantly, it does not recognize projected variations in  
23 the utilization of plant over time. It assumes that the  
24 utilization of each type of plant is level throughout the  
25 period and, therefore, the costs would be proportionate for  
each type of plant in each year.

1           Particularly, for example, in the case of a new nuclear  
2 plant, utilization in the early years when it is being started  
3 up and first operated tends to be lower than in subsequent  
4 years.

5           Q. With respect to unit lives, as Mr. Pollock  
6 discussed, what effect should differing unit lives have on  
7 the levelized carrying charges used in an assessment of  
8 alternative generating technology?

9           A. Well, because the capital related costs for a  
10 combustion turbine must be collected over a shorter lifetime--  
11 by the way, the EPRI TAG recognizes as representative figures  
12 a 20-year life for a combustion turbine and a 30-year life  
13 for a nuclear plant. That's a 50 percent difference in  
14 expected life. But because you must recover the capital  
15 related costs for a combustion turbine unit over a much  
16 shorter period of time, the carrying cost factors that are  
17 applied to that unit must be higher to ensure the recovery  
18 of those costs.

19           The fact that Mr. Pollock would bring on line another  
20 combustion turbine at the end of the useful life of the first  
21 does nothing to mitigate the need for a higher capital cost  
22 recovery rate for the combustion turbine.

23           The effect of this is understatement of the carrying  
24 charge rate for the combustion turbine, is an understatement  
25 of the costs for the combustion turbine plant; and working

1 through his analysis, that results in an overstatement of  
2 the number of hours in which he would find a peaking unit  
3 to be economic.

4 This in turn points to another problem that I find  
5 in his analysis in that he implies that you could actually  
6 utilize a nuclear plant for a relatively few hours of a  
7 year. A nuclear plant just cannot technically be operated  
8 in that manner. There are constraints such as minimum  
9 loadings on their operations that does not make it feasible  
10 for nuclear plants to be used in the kind of load following  
11 activities that a combustion turbine would be used.

12 Q. On a slightly different question, have you been  
13 involved in any Virginia Electric Power Company rate cases  
14 recently?

15 A. Yes, I have been involved in both of the most  
16 recent two base rate cases.

17 Q. To your knowledge, what cost of service study  
18 methodology does Virginia Electric Power Company use?

19 A. In both of those cases, Virginia Electric Power  
20 Company or what is now known as Virginia Power has utilized  
21 the average and excess allocation methodology both for  
22 jurisdictional and for customer class cost allocations.

23 MR. WERSAN: Thank you. Your Honor, that's all the  
24 direct I have. Mr. Oliver is available for cross-examination.

25 JUDGE MATUSCHAK: PECo?

1 MR. MacGREGOR: No questions, Your Honor.

2 JUDGE MATUSCHAK: Staff?

3 MS. CHESTNUT: No questions, Your Honor.

4 JUDGE MATUSCHAK: Is there any cross-examination of  
5 this witness?

6 MR. KLEPPINGER: Yes, Your Honor.

7 CROSS-EXAMINATION

8 BY MR. KLEPPINGER:

9 Q. Good afternoon, Mr. Oliver.

10 A. Good afternoon.

11 Q. In your brief oral sur-surrebuttal, you made  
12 reference to the unit life of a peaker being about 20 years;  
13 is that correct?

14 A. That is the figure stated in the EPRI TAG.

15 Q. If we were to do a comparison over lifetime  
16 costs of two system planning scenarios to meet load for a  
17 period of 35 to 40 years, wouldn't we have to make some  
18 assumption as to what happens to the reliability of a system  
19 in the 21st year when the peaker drops off?

20 A. Absolutely, but that does not reduce the  
21 carrying charge rate that is necessary for the combustion  
22 turbine.

23 Q. Can that be handled in one of two ways; one,  
24 you could reduce the carrying charges or change the carrying  
25 charges, if you will, on a 20-year peaker, or you can leave

1 them the same as you're using on the nuclear plant and then  
2 assume that the peaker lasts for the 40 years?

3 A. No. The second method would not be correct. It  
4 would understate the present value cost of that plant.

5 Q. Would the analysis to some degree have to include,  
6 though, the capital costs incurred by the company in the  
7 21st year when the new peaker is installed to replace the  
8 old peaker?

9 A. Absolutely; but that would not reduce the  
10 carrying charge rate that you would apply for a combustion  
11 turbine. You would have a higher carrying charge rate both  
12 before and after the second unit was added for the combustion  
13 turbine, because the second combustion turbine would also  
14 have to have its costs recovered over an approximately  
15 20-year lifetime.

16 Q. So in the 21st year when you add the costs of  
17 the peaker, the capital costs of the peaker, as well as  
18 utilizing the higher carrying charges that you are suggesting,  
19 wouldn't that have the effect of increasing the overall  
20 cost of the peaker unit in relationship to the nuclear  
21 plant?

22 A. Could you repeat the question again?

23 Q. In that 21st year when you begin to add the  
24 capital costs of the new peaking plant as well as increase  
25 the carrying charges on that plant, as I believe you've

1 agreed you would do in your analysis --

2 A. It wouldn't be increased over the carrying charges  
3 for the first turbine.

4 Q. No, but they would be higher than what you  
5 believe Mr. Pollock has used.

6 A. That's right.

7 Q. Would that have the effect of increasing the  
8 cost of the peaker in those second 20 years relative to  
9 the nuclear plant?

10 A. Relative to the nuclear plant measured at what  
11 point in time; at the 21st year?

12 Q. Well, over the entire life of the nuclear plant.  
13 What you're doing essentially is taking two pieces of peaker  
14 plants at two 20-year periods, and if we were to change the  
15 analysis such that you are adding the new peaker in the 21st  
16 year as well as the higher carrying charges which you agree  
17 would go through the whole time period, isn't that going to  
18 narrow the cost differential between the peaker unit and  
19 the nuclear unit?

20 A. That, as I said, would increase the capital  
21 related costs and therefore decrease the number of hours at  
22 which you would find the use of the peaking unit economic.  
23 That's exactly what I was saying earlier.

24 Q. You mentioned that a nuclear plant can't be  
25 operated under a low hours of use.

1 A. That's right. Generally, you would have cycling  
2 plant filling in that gap, and the analysis presented didn't  
3 go into that.

4 Q. And the converse is also true, is it not, that  
5 a peaking unit can't be utilized for 8,000 hours a year?

6 A. I'm not sure I know of any unit that would  
7 operate 8,000 hours a year. Even your base load units  
8 generally do not make full utilization throughout a year.

9 A peaking unit would probably be somewhat less  
10 reliable and certainly more costly if you tried to utilize  
11 it for a high number of hours a year. When I say high  
12 number, I mean 7,000 or 8,000 hours a year. It doesn't  
13 mean it couldn't be done.

14 Q. It just might break.

15 A. Well, nuclear plants break at times, too, but  
16 the expectation is that it would break more frequently if  
17 it was used that many hours.

18 Q. Now, if we could go to your written testimony,  
19 first Statement 8A, particularly Schedule BRO-II. You  
20 have prepared there a comparison of customer class rates  
21 of return. You have labelled one of them "OCA with PAIEUC  
22 Demand Revisions."

23 Do you see that line?

24 A. I do.

25 Q. In developing those rates of return, which

1 allocation factors in the cost study did you change to  
2 arrive at these rates of return for the customer classes?

3 A. All allocation factors that would be changed  
4 by a change in the average of the four coincident peak  
5 input data for each class.

6 A. Is that only the A-1 allocator or did you change  
7 the other A allocation factors?

8 A. There are other A allocation factors that would  
9 be changed as a result of that.

10 Q. Did you make those changes as well as the changes  
11 to the A-1 allocator?

12 A. Yes, I did.

13 Q. What was, for example, the allocation factor  
14 utilized for Rate HT for the A-2 allocator in your cost  
15 study? Do you have that with you?

16 A. I don't have that with me; I'm sorry.

17 Q. Mr. Oliver, will you be able to provide us with  
18 the A allocators which you have changed in your cost of  
19 service study attached to the rebuttal testimony?

20 MR. WERSAN: Your Honor, I would have to give  
21 Mr. Kleppinger the same answer he gave earlier, which is  
22 the record is closing today. If he would like an interroga-  
23 tory that could be stipulated to as an exhibit, we can do  
24 that.

25 MR. KLEPPINGER: What I would like --

1 JUDGE MATUSCHAK: Would you agree to have that  
submitted as an exhibit without recalling the witness?

2 MR. KLEPPINGER: I would as long as it provides only  
3 the data that I am asking for, and that is the changes which  
4 have been made in Mr. Oliver's cost of service study which  
5 he has labelled "OCA with PAIEUG Demand Revisions," to the  
6 A series of allocators.

7 MR. WERSAN: Can that be done?

8 THE WITNESS: Yes.

9 MR. WERSAN: We will provide that, Your Honor.

10 JUDGE MATUSCHAK: Do you agree that it will be  
11 provided without any further identification, Mr. Kleppinger?  
12

13 MR. KLEPPINGER: Yes.

14 BY MR. KLEPPINGER:

15 Q Turning to your surrebuttal testimony -- and I  
16 would like to focus on BRO-14 for the time being -- you  
17 testified that this schedule demonstrates the symmetry  
18 of the peak and average method, is that correct, on page 13  
19 of your testimony, lines 1 through 5?

20 A Yes.

21 Q By symmetry, do you simply mean that on BRO-14  
22 the language that is labelled "Dollar per kw of Average  
23 Demand" under the Average Portion of the allocator is equal  
24 for all classes and that that is symmetrical with the dollar  
25 per kw of average demand under the "Total Fuel and Purchased

1 Power Expense" heading which also reflects an equal number  
2 for all customer classes? Is that the symmetry relationship  
3 you are discussing?

4 A. As well as the fact that the peak portion of  
5 the production costs are allocated on an equal cost per unit  
6 basis. Both portions of the allocator are allocated on an  
7 equal cost per unit basis for the units on which they are  
8 being allocated.

9 My problem with Mr. Pollock's presentation is that  
10 he took a portion of the costs that I was presenting and  
11 tried to present them in a context that redistributed them  
12 on a basis other than which they were being allocated.  
13 Naturally, that showed results that were somewhat distorted.

14 As I show down here, if you take the other extreme  
15 and you take the capital portion once allocated and spread  
16 it on an energy basis, we find the exact opposite of what  
17 Mr. Pollock suggests. You find that, in fact, when the  
18 total allocated costs of production plant are spread on the  
19 basis of average demands, that as we would expect and I  
20 find quite reasonable, the lower load factor classes are  
21 carrying a higher cost per kw of average demand.

22 Q. Under that analysis, what you've done for the  
23 peak portion is allocate on the basis of each class' total  
24 peak, contribution to the peak; is that right?

25 A. That's the 4-CP. That's the peak portion of

1 my allocation as I have done it consistently in the peak  
2 and average allocation.

3 Q. Mr. Oliver, from a system planning standpoint,  
4 would you agree with me that at least the initial decision  
5 that a company has to make is whether it needs any new  
6 capacity or not?

7 A. I think that's totally consistent with what I've  
8 previously testified to, yes.

9 Q. And they base that analysis, do they not, on  
10 load forecasting techniques that identify what size plant  
11 they need to meet that load forecast?

12 A. Not what size plant; how many megawatts of plant  
13 they need or kilowatts, or whatever you want to call it.

14 Q. And whatever plant they select will be rated,  
15 will it not, in terms of its kva production power, if you  
16 will? That's the way generating stations are normally --

17 A. Well, plant or combinations of alternatives.  
18 It could be purchased power or purchased capacity alternatives  
19 as well.

20 Q. But in terms of the name plate ratings of the  
21 generating plants, they're in terms of kva typically, are  
22 they not?

23 A. No, not necessarily. In fact, most of them  
24 are -- in fact, FERC consistently requires the stating  
25 of generating capacities in megawatts.

1 Q Megawatts; all right.

2 And even your own discussion of cost of service  
3 studies in your testimony, you label those capital costs  
4 of these plants in terms of dollars per kw, do you not?

5 A. For comparison purposes, yes. That does not mean  
6 that the costs are all incurred on a coincident peak basis,  
7 as my allocation suggests.

8 Q. Returning for a moment to the EPRI TAG report  
9 and your discussion of that at page 10 of your testimony,  
10 you indicate that the data in that study is not close to  
11 representing the costs presently faced by PECO.

12 Now, did PECO know what costs it was going to face  
13 presently when it began the system planning process for  
14 Limerick 1?

15 A. I don't think that there is any question that  
16 they anticipated the current levels of cost for that plant.

17 Q. You also state that the EPRI TAG study notes  
18 that the cost estimates don't include additional costs  
19 resulting from the TMI experience; is that correct?

20 A. The numbers in the EPRI TAG to which Mr. Pollock  
21 has referred are specifically footnoted as not reflecting  
22 the effects of the TMI experience.

23 Q. When PECO began the system planning process for  
24 Limerick 1, do you believe PECO foresaw the costs that  
25 resulted due to the TMI experience?

A. Very unlikely.

1 Q So from a system planning standpoint, PECO had  
2 to rely on information and data as of some date in the early  
3 1970s and could not look forward to what TMI would do or  
4 what would happen to the capital cost estimates of the  
5 Limerick 1 station?

6 A. That's correct. But even at that time, there was  
7 no doubt in the industry that a base load nuclear plant would  
8 have a higher capital cost than a combustion turbine, and  
9 that higher capital cost had to be justified on some basis.  
10 Even at that time, the higher capital cost was justified  
11 on the basis of present value revenue requirements that would  
12 be lower for the nuclear plant because you would be using  
13 it for generating more energy.

14 Q And those types of analyses took into account,  
15 did they not, the total cost picture of a generating  
16 station, both capital and fuel costs?

17 A. That's correct. Let's hope they did.

18 MR. KLEPPINGER: I have no further questions.  
19 Thank you, Mr. Oliver.

20 JUDGE MATUSCHAK: Mr. Hanger?

21 CROSS-EXAMINATION

22 BY MR. HANGER:

23 Q Mr. Oliver, in your calculation of the break-  
24 even points between your essential use rate design and the  
25

1 residential rate design proposed by the company, you have  
2 assumed that the company is granted one-half of its proposed  
3 increase; isn't that correct?

4 A. That's correct.

5 Q. If the company is granted more than half of its  
6 requested increase, would the levels of your calculated  
7 break-even points necessarily be lower?

8 A. No, they would not.

9 Q. Could you explain why they would not be?

10 A. Well, the levels of the break-even points are  
11 a function not only of what changes you would have to make  
12 to the essential use rate design that I have proposed to  
13 collect the increased revenues, but also what changes would  
14 have to be made in the company's proposed rate design to  
15 collect the allowed revenue increase levels.

16 Depending upon how much you increased customer  
17 charges and initial block charges in the company's rate  
18 in comparison to the essential use rate and how that  
19 affected in each case the tail block rates, then there are  
20 clearly situations under which the break-even points could  
21 actually be higher as the level of rate relief granted the  
22 company increased.

23 MR. HANGER: I have no further questions.

24 JUDGE MATUSCHAK: Any redirect?

25 MR. WERSAN: No, Your Honor.

JUDGE MATUSCHAK: Thank you.

(Witness excused.)

1 MR. SELKOWITZ: I call Robert Wirtshafter.  
2 Whereupon,

3 ROBERT M. WIRTSHAFTER  
4 having previously been duly sworn, testified further as  
5 follows:

6 DIRECT EXAMINATION

7 BY MR. SELKOWITZ:

8 Q Dr. Wirtshafter, do you have in front of you  
9 what has been marked as UP/UUC Statement 3A and 3B?

10 A Yes, I do.

11 MR. SELKOWITZ: I would have these documents marked  
12 as UP/UUC Statements 3A and 3B.

13 JUDGE MATUSCHAK: So marked.

14 (Whereupon, the documents were  
15 marked as UP/UUC Statements Nos.  
16 3A and 3B for identification.)

17 BY MR. SELKOWITZ:

18 Q Do these respectively represent the rebuttal  
19 and surrebuttal testimony that you have filed in this case?

20 A They do.

21 Q Are there any corrections or additions that you  
22 wish to make to either of them at this time?

23 A No, there is not.

24 Q Were they prepared by you or under your direct  
25 supervision?

A Yes, they were.

1 Q If I were to ask you the questions that are set  
2 forth in them would your answers be the same?

3 A Yes, they would.

4 Q And are those answers true and correct to the  
5 best of your knowledge, information and belief?

6 A Yes, they are.

7 MR. SELKOWITZ: The witness is available for  
8 cross-examination.

9 JUDGE MATUSCHAK: Do you want to offer into evidence  
10 your exhibit?

11 MR. SELKOWITZ: Yes, I would like to offer into  
12 evidence Statements Numbers 3A and 3B of the University  
13 of Pennsylvania/UUC subject to any later objections.

14 JUDGE MATUSCHAK: The motion is granted.

15 (Whereupon, the documents marked  
16 as UP/UUC Statements Nos. 3A and  
17 3B were received in evidence.)

18 JUDGE MATUSCHAK: PECO?

19 MR. MacGREGOR: No questions.

20 JUDGE MATUSCHAK: Trial Staff?

21 MS. CHESTNUT: No questions.

22 JUDGE MATUSCHAK: The Consumer Advocate?

23 MR. WERSAN: No questions.

24 JUDGE MATUSCHAK: Is there any cross-examination  
25 of this witness?

MR. KLEPPINGER: Yes, Your Honor.

## CROSS-EXAMINATION

1  
2 BY MR. KLEPPINGER:

3 Q Good afternoon, Mr. Wirtshafter.

4 In your rebuttal statement at page 1 you indicate  
5 the notion that under Mr. Pollock's method the tail block  
6 would receive a rate reduction, and you believe, I take  
7 it, in your mind that that it is inappropriate given the  
8 size of the increase in this case.

9 Am I correct that in reviewing your proposed rate  
10 design that you are proposing a three cent per kW reduction  
11 in the demand charge for Rate HT?

12 A In the explicit demand charge; that is correct.

13 Q And you also make reference to the Limerick I  
14 investigation at the bottom of page 2 of your testimony;  
15 is that correct?

16 A Are we in the rebuttal now?

17 Q Still in your rebuttal statement.

18 A Yes, I do.

19 Q Do you know what percent of the Limerick  
20 station was completed at the time of that investigation?

21 A I believe it was a little less than 25 percent.

22 Q Is that total station or just Limerick I?

23 A That was Limerick I.

24 Q Do you recall what the sunk costs were at that  
25 time in the investigation of Limerick I?

1 A Somehow a number of \$900 million comes to mind,  
2 but it has been five years so I'm not entirely sure on that.

3 Q You indicate that PECO at that time based their  
4 argument solely on the notion that the plant was needed  
5 for energy savings; is that in the context of the continued  
6 construction of the station on an incremental analysis  
7 basis, or was that statement in your testimony that it was  
8 the sole justification for the entire completion of Limer-  
9 ick I?

10 A I'm not really sure that I see the distinction  
11 between the categories that you have given to me. Could  
12 you be more specific?

13 Q You say "they," meaning PECO, based their argu-  
14 ments solely on the energy savings of Limerick. What I  
15 am curious about is whether that means PECO was thinking  
16 at that time that the only way they could justify continued  
17 construction of the plant was on energy savings, or that  
18 if the plant were cancelled the plant would still at some  
19 time be needed or a substitute be needed for capacity  
20 reasons later on.

21 A The hearings were based on whether Limerick  
22 should continue. The justification for continuing Limerick  
23 was solely on its energy savings.

24 Q Did PECO in the context of that proceeding, or  
25 the Commission, ever state that the Limerick I station

1 would never be needed at any time in the future for capacity  
2 reasons, to your knowledge?

3 A My knowledge is what I have stated on page 2  
4 of my surrebuttal, that Mr. Kasum stated that the reason  
5 was not reliability.

6 Q Do you haven any idea of what the energy savings  
7 projections were for Limerick in the context of that first  
8 investigation compared to what those energy savings fore-  
9 casts are today?

10 A I disputed the energy savings in the '81 case.  
11 Do you want my projections back then and today, or do you  
12 want the company's projections back then and today?

13 Q What has been the general movement in the  
14 projected energy savings under either your scenario or  
15 PECO's scenario?

16 A Well, they have gotten substantially more --  
17 the picture is substantially more clear now than it was  
18 five years ago, but if you read our testimony and the  
19 testimony of several of the other witnesses even back then  
20 it was clear that Limerick I was not economical.

21 Q Let me ask the question again in a different  
22 fashion. Isn't it true, Dr. Wirtshafter, that the energy  
23 savings forecasted for Limerick I by either yourself or  
24 PECO in the 1981 and '82 time frame were significantly  
25 greater than what those energy savings forecasts are today

1 for Limerick I?

2 A I would have to say yes, just based on the  
3 fact that the oil prices have significantly changed over  
4 time, but there have been other factors such as the final  
5 costs of Limerick and the completion date, which has also  
6 worked to make it less economical.

7 Q You make reference on page 3 of your rebuttal  
8 testimony to the fact that PAIEUG, itself, has indicated  
9 that there is not a present need for the capacity of  
10 Limerick I. I take it that you have reviewed the  
11 testimony of Mr. Falkenburg in this proceeding to make that  
12 statement; is that correct?

13 A Only small parts of Mr. Falkenburg's testimony.

14 Q Are you aware that Mr. Falkenburg also indicated  
15 that for capacity reasons the plant may very well be  
16 needed by 1991?

17 A No.

18 Q Let's assume for the moment that the unit is  
19 needed for capacity reasons in the early 1990s. At that  
20 point in time does the allocation mechanism under your  
21 proposal for that plant change, or does it continue to be  
22 a 90 percent energy allocation?

23 A First of all, you have to -- you want me to  
24 assume that? I'm not sure that I can assume -- that I can  
25 assert that and I can take your assumption.

1 Q Let's take it as an assumption in a hypotheti-  
2 cal.

3 A I don't think that's an issue. The argument  
4 being made as to the decision process in system planning  
5 and the relevant decision point was where the opportunity  
6 to cancel Limerick was. Limerick wasn't cancelled, and,  
7 therefore, all of the expenses are allocated on an energy  
8 basis because that was what the system planning dictated  
9 was the reason for building that plant.

10 Q So that even if by 1991 we realize that this  
11 station is needed for capacity reasons and even if the  
12 UUC/UP position of Mr. Chernick turns out to be correct  
13 and there are negative net benefits in terms of energy  
14 savings trade-offs with capital costs, you would continue  
15 to allocate this plant based on 90 percent energy for the  
16 remaining life after 1990, just as you have recommended  
17 today?

18 A No, that's not true. I indicated that there  
19 was a certain amount of Limerick I that was capacity-  
20 related.

21 Q 10 percent?

22 A It's a certain amount. If the allocation --  
23 if a portion of Limerick is not allowed into the rate base  
24 then my number in that fraction changes. I have determined  
25 a certain figure as to the reliability figure for

1 Limerick I, and that's the portion that will remain  
2 allocated to Limerick I regardless of what else happens.

3 Q So I believe what you are saying is that we  
4 would revisit the allocation of Limerick I in each case  
5 to identify what portion at that given time should be  
6 attributed to capacity and energy?

7 A No, we don't do that -- we don't do that for  
8 other things, no. This portion of the cost, what turns  
9 out to be 10 percent which for the HT class was  
10 \$35,581,000, that is the portion of Limerick that is demand-  
11 related, and that remains the portion that is demand-  
12 related.

13 Q For the life of the plant?

14 A For the life of the plant.

15 Can I address the issue with Dr. Chernick that you  
16 brought up?

17 Q I don't believe I had an outstanding issue  
18 about Dr. Chernick.

19 A You said in the manner -- suppose that Dr.  
20 Chernick's situation in several years' time proves true,  
21 that the plant remains uneconomic. Do you want me to tell  
22 you how that works?

23 Q No, I know how that works.

24 A All right.

25 Q Moving to your surrebuttal statement one of

1 the points that you raise at page 5 is that for a base load  
2 plant using PECO's number there is no threshold or cross-  
3 over point between it and a peaker unit; is that a fair  
4 characterization?

5 A That is correct.

6 Q That analysis would lead us to the conclusion,  
7 would it not, that if we were to decide today on whether  
8 to build Limerick I, knowing what we know today we would  
9 not build it?

10 A That's correct.

11 Q But those conditions as we know them today were  
12 not known when the system planners were engaged in this  
13 process; is that correct?

14 A They are not that different. The capacity costs  
15 have not changed that much since 1981 -- or actually 1982  
16 when the final Limerick I decision was made, and that is  
17 the relevant date at which we should take the capacity  
18 costs. I believe at the time just after the hearing the  
19 company raised its price on Limerick to over \$6 billion,  
20 and that's not that different from today's projected cost.

21 Q Give or take \$1 billion?

22 A I'm not -- the company's number was more than  
23 \$6 billion, It may have even been higher than that.  
24 Again it was several years ago. It isn't going to change  
25 the fact that Limerick does not -- there are too many hours

needed to make Limerick's threshold appear.

1 Q I think you have already agreed that the energy  
2 savings viewed from 1982 to the present day condition is  
3 that energy savings will be less than originally thought  
4 in 1982; is that correct?

5 A Well, for several reasons. You asked me  
6 whether my -- I told you that I never agreed with the  
7 company's numbers. They have always used a higher capacity  
8 factor, for instance, than I have, or other witnesses, and  
9 those things have not changed. The oil price has changed  
10 and has had some impact on the energy, and it turns out  
11 to be quite a bit.

12 Q At page 12 of your surrebuttal testimony you  
13 indicate that a customer will have no incentive under  
14 either the PBUUG proposal or your proposal to lower  
15 peak demands, and he does under the existing PECO rates.  
16 I just want to make sure that by existing rates you are  
17 talking about PECO's rates currently in effect today, and  
18 that you are not doing a comparison between the PBUUG or  
19 your proposal with PECO's proposed rates.

20 A No, I'm talking about both of our -- both  
21 PBUUG's and my proposals to raise the total implicit and  
22 explicit demand charges; therefore, the incentives are  
23 greater under our proposals than they are for the rates  
24 that are in existence right now for PECO.  
25

1 Q Dr. Wirtshafter, you have provided revised  
2 exhibits for us, I believe at RMW-19, 23 and 24; is that  
3 correct? They are appended to your rebuttal statement.

4 A Yes.

5 Q And focusing on RMW-23 and 24, you provide us  
6 with rate designs under your proposal assuming only 50  
7 percent of Limerick is allowed in rate base?

8 A That is correct.

9 Q Am I correct that in those proposals you have  
10 reduced the demand charge from the original proposal at  
11 \$5.37 to \$5.14?

12 A That is correct.

13 Q And in your direct testimony do you recall  
14 indicating that if PECO is not granted its full request  
15 in this proceeding you would recommend reductions in the  
16 energy charges being proposed in your original testimony?

17 A If the full rate increase is not given, then  
18 the allocation comes out of principally the energy charge,  
19 yes.

20 Q But that is not exclusively? Otherwise the  
21 explicit demand charge would have remained \$5.37; is that  
22 correct?

23 A That is correct. There is a small change in  
24 the demand charge in the second case because I, as PECO  
25 does, basically used that demand charge to adjust to make

1 sure the revenues are equivalent.

2 Q So when you say in your direct testimony that  
3 if the Commission lowers the request made by PECO this  
4 reduction should be reflected in the energy component, you  
5 didn't mean that it should be reflected exclusively in the  
6 energy component; you have also made an adjustment in the  
7 demand charge, is that correct?

8 A It is also possible that you could take that  
9 portion, just that small adjustment that is needed to make  
10 sure that the revenues stayed the same, you could take that  
11 out of the customer charge as well and lower the customer  
12 charge instead of the demand charge. It's a very small  
13 amount of money. It turns out to be about --

14 Q It's 20 cents a kW, isn't it?

15 A Yes, it's 20 cents a kW that is needed to balance  
16 the revenues. It's a very small amount of the total.

17 Q Finally, in your surrebuttal statement you  
18 criticize Mr. Pollock's justification for the ratchet in  
19 his rebuttal testimony, and you state there that his  
20 example doesn't reflect the PECO situation and therefore  
21 does not justify the ratchet in PECO's case.

22 Could you tell me what data you are relying on in  
23 order to reach that conclusion?

24 That is on page 9; I'm sorry.

25 A If PECO's demand costs were \$1.00 then we would

1 be collecting in the ratchet, through the ratchet calcula-  
2 tions, some figure, maybe 80 percent of that dollar figure  
3 in each of the eight winter months, and you would be  
4 collecting in total demand charges \$10 or \$12 for the entire  
5 year on the basis of the ratchet.

6 The problem is that you are collecting \$120 out of  
7 the ratchet, and that is far and above the costs that it  
8 cost PECO for the capacity; so that when we look at this  
9 situation the logic is fine, but the situation is that PECO  
10 is collecting far too much money in its demand ratchet,  
11 and it's demand ratchet is way out of line with any other  
12 company, regardless of whether they have ratchets or not.

13 Q Have you analyzed whether the allocation method  
14 utilized by PECO in arriving at the ratchet is faulty in  
15 any way?

16 A I have taken the justification given by Mr.  
17 Sundermeier as to why there is a ratchet, and I have looked  
18 at those two factors that he gives -- just so I quote him  
19 correctly --

20 Q If that is what you relied on, I am familiar  
21 with that. I just wanted to know if there was anything  
22 in addition to that, a study which you have performed other  
23 than what Mr. Sundermeir has provided.

24 A Mr Sundermeir gives two reasons for the ratchet.

25 Q Right.

1           A    And I refute both of those by showing that the  
 2 ratchet is entirely higher here in this utility than in  
 3 any other utility, and I also show that the ratchet  
 4 collects more money than it needs to do to collect the  
 5 capacity charges over a year. Those are the justifications  
 6 given by Mr. Sundermeir.

7           Q    Let's go back to your criticism of Mr. Pollock.  
 8 When you referred to "the PECO situation," what you were  
 9 referring to really was the billing effect of the PECO  
 10 ratchet versus the billing effect of Mr. Pollock's  
 11 example; is that correct?

12                   That's what you have been discussing with me, the  
 13 \$1.00 effect versus the \$120 effect, if you will.

14           A    Yes. That is my objection to Mr. Pollock.

15           Q    Thank you.

16           MR. KLEPPINGER: I have no further questions.

17           JUDGE MATUSCHAK: Are there any further questions?

18           MR. RYAN: Yes, Your Honor.

19                                   CROSS-EXAMINATION

20           BY MR. RYAN:

21           Q    Let me ask a follow-up question to Mr.  
 22 Kleppinger's, and then I think I have one of my own.

23                   If the Commission were only to allow 50 percent of  
 24 PECO's investment in Limerick I into the PECO rate base  
 25 as a result of this case, would your recommendation then

1 be that 20 percent of that investment gets allocated on  
2 demand and 80 percent on energy, as opposed to the 10 and  
3 90 that is in your testimony?

4 A Yes. It is not the percentage that is fixed;  
5 it is the dollar amount.

6 Q A fixed dollar amount that is not going to  
7 change?

8 A Yes.

9 Q May I direct your attention to Statement 3A,  
10 page 2, the question in the middle of that page, where  
11 you posit an example of a take or pay contract that a  
12 utility might have for purchased energy, and those costs  
13 then are fixed charges incurred regardless of the load,  
14 but they are not demand-related. Do you see where I  
15 am referencing?

16 A Yes.

17 Q Isn't it true though that the utility would  
18 want to recover those fixed costs; in any event they are  
19 going to want to recover the costs of that take or pay?

20 A That's right.

21 Q Wouldn't they prefer to do that then by  
22 collecting them from one part of the tariff that doesn't  
23 vary with energy use, namely some component of the  
24 tariff that is not based on kWh sales, to guarantee that  
25 it collects those costs?

1           A    There's no guarantee that the demand is fixed,  
2           that the demand portion allocated to each -- that each  
3           customer's demand will stay the same based on a higher  
4           price signal. So there's no -- the company receives no  
5           greater guarantee under pricing it all on demand than it  
6           might if it priced it in the third tail block.

7           Q    Maybe we ought to move away from guarantees  
8           because I think at this time that everybody would agree  
9           that PECO has no guarantees.

10           But they are fixed costs, is that correct? There  
11           is at least an element of it that is a fixed cost; it  
12           is going to have to pay a certain amount to that other  
13           utility for the kWh it is buying whether it takes it or  
14           not?

15           A    That's correct.

16           Q    So it is a fixed cost, not a variable cost?

17           A    That is right.

18           Q    Now, if you put on a hat as a PECO consultant  
19           and you wanted to design a tariff that gave you the  
20           maximum possible chance to recover that fixed cost,  
21           wouldn't you prefer to put it into the demand cost  
22           component of the tariff or the customer cost, as opposed  
23           to the energy sales cost?

24           A    Based on my knowledge of the commercial class  
25           and the energy conservation opportunities, I would

1 recommend against putting it in the demand charge. The  
2 demand charge would be too high. There would be too great  
3 an incentive for customers to switch off, to lower their  
4 demands; and the right way is the way that Mr. Williams  
5 originally stated in his cross-examination on his testi-  
6 mony. The right way is by assigning it based on the actual  
7 costs. If the costs and the rates are in line with each  
8 other, that is the best that the company can hope for.

9 Q I think I am stopped with that answer.

10 JUDGE MATUSCHAK: Is there any further cross-  
11 examination of this witness?

12 (No response.)

13 JUDGE MATUSCHAK: Any redirect?

14 MR. SELKOWITZ: No, Your Honor.

15 JUDGE MATUSCHAK: The witness is excused.

16 (Witness excused.)

17 MR. SQUIRES: If Your Honor please, I would like  
18 to have marked as PBUUG Statement Number 3 the surrebuttal  
19 testimony of Robert L. Figley on behalf of the Pennsyl-  
20 vania Business Utility Users Group.

21 JUDGE MATUSCHAK: Very well.

22 (Whereupon, the document was  
23 marked as PBUUG Statement No.  
24 3 for identification.)  
25

1 Whereupon,

2 ROBERT L. FIGLEY

3 having previously been duly sworn, testified further as  
4 follows:

5 DIRECT EXAMINATION

6 BY MR. SQUIRES:

7 Q Mr. Figley, do you have before you what has  
8 been marked as PBUUG Statement Number 3?

9 A Yes.

10 Q Was this testimony prepared by you or under  
11 your direct supervision?

12 A Yes, it was.

13 Q And if these questions were asked of you today  
14 would your answers be substantially the same?

15 A Yes, they would.

16 Q Do you adopt it as your testimony in this  
17 proceeding?

18 A Yes, I do.

19 MR. SQUIRES: Your Honor, at this time I would move  
20 into evidence, subject to any timely motions to strike,  
21 PBUUG Statement Number 3.

22 JUDGE MATUSCHAK: The motion is granted.

23 (Whereupon, the document marked  
24 as PBUUG Statement No. 3 was  
received in evidence.)

25 MR. SQUIRES: The witness is tendered for

1 cross-examination.

2 JUDGE MATUSCHAK: PECO?

3 MR. MacGREGOR: No questions, Your Honor.

4 JUDGE MATUSCHAK: Trial Staff?

5 MS. CHESTNUT: No questions, Your Honor.

6 JUDGE MATUSCHAK: Consumer Advocate?

7 MR. WERSAN: No questions.

8 JUDGE MATUSCHAK: Is there any cross-examination  
9 of this witness?

10 MR. KLEPPINGER: I have one or two, Your Honor.

11 CROSS-EXAMINATION

12 BY MR. KLEPPINGER:

13 Q Mr. Figley, you made reference to the fuel  
14 adjustment clause on page 6 of your testimony.

15 A Yes.

16 Q It is true, is it not, that the fuel adjustment  
17 clause in this state isn't a cost allocation type of  
18 clause; it is just simply a pass-through of fuel costs  
19 on a per kWh basis, is that correct?

20 A Yes, I realize that.

21 Q Is it your understanding of the PAIEUG proposal  
22 that modifications to the allocation of energy-related  
23 costs are only being made in the context of a movement  
24 toward a modification in the capital costs, as proposed  
25 by yourself and several other witnesses?

1 A Yes.

2 Q Would you agree with me that your statement  
3 indicating that fuel costs on a flat kilowatt-hour basis  
4 are treated in the fuel adjustment clause does not account  
5 for differential line losses among different types of  
6 delivery voltages?

7 A That's correct.

8 Q You also state, I believe, that one of the  
9 justifications for your proposal is that the high load  
10 factor classes receive greater benefits from the energy  
11 savings forecasted for Limerick I; is that correct?

12 A Yes, because they use more energy than other  
13 classes.

14 Q The fuel savings, if they turn out to be only  
15 50 percent of what is being forecasted, likewise those  
16 greater benefits that you believe large high load factor  
17 customers are going to receive are going to be substan-  
18 tially less; isn't that correct?

19 A Their benefits would be the same as the other  
20 classes, yes, on a proportional basis.

21 Q During periods when there was rapid fuel price  
22 escalation didn't those high load factor customers also  
23 receive their proportional share of those large increases  
24 when fuel prices were escalating in the early '70s?

25 A That's true.

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Q Thank you, Mr. Figley.

MR. KLEPPINGER: I have no further questions.

JUDGE MATUSCHAK: Is there anything further?

(No response.)

JUDGE MATUSCHAK: Is there any redirect?

MR. SQUIRES: No redirect.

JUDGE MATUSCHAK: Thank you.

(Witness excused.)

MR. HANGER: I call Mr Grier.

JUDGE MATUSCHAK: This witness has been previously sworn.

Whereupon,

GEORGE GRIER

having previously been duly sworn, testified further as follows:

DIRECT EXAMINATION

BY MR HANGER:

Q Please state your name and address for the record.

A My name is George Grier, and my address is 6532 East Halbert Road, Bethesda, Maryland 20817.

Q Have you testified before in this proceeding?

A Yes, I have.

Q On whose behalf are you testifying today in this proceeding?

1           A    I am testifying on behalf of Consumers Education  
2 and Protective Association, the Action Alliance for Senior  
3 Citizens, the Philadelphia Citizens in Action, the Associa-  
4 tion of Community Organizations for Reform Now, and Mr.  
5 Bradshaw.

6           Q    Do you have in front of you a document entitled  
7 "Surrebuttal Testimony of George Grier Concerning Impact  
8 of Rate Structure on Low-Income Households"?

9           A    I do.

10          MR. HANGER: For identification purposes, I request  
11 that this document be marked as CEPA et al. Statement 1A.

12          JUDGE MATUSCHAK: It may be so marked.

13                                 (Whereupon, the document was  
14                                 marked as CEPA et al. Statement  
                                  No. 1A for identification.)

15          BY MR. HANGER:

16          Q    Was this testimony that has been marked as  
17 CEPA et al. Statement 1A prepared by you or by persons  
18 under your direction?

19          A    Yes, it was.

20          Q    Is that testimony true to the best of your  
21 information and belief?

22          A    Yes, it is.

23          Q    Do you have any additions or corrections that  
24 you would like to make at this point to your testimony?

25          A    I have several corrections, yes, sir. The first

1 is on page 2. There's a typo that might be a bit confusing.  
 2 I won't correct all typos, but on line 8 from the top, it  
 3 says, "Only 3.2 percent," and the word "us" should be  
 4 changed to "use." It makes a lot more sense that way. It  
 5 reads, "Only 3.2 percent use 800 kilowatt-hours of  
 6 electricity per month or more."

7 On page 3 I have two corrections. On lines 5 and  
 8 6 it says "a table indicating that" and I'd like to strike  
 9 from "31 percent" in that line down to the words "that a  
 10 number" on the next line, so it is struck from "31  
 11 percent" to "that a number." And insert there "about 12  
 12 percent." So it would now read "there is a table  
 13 indicating that about 12 percent use electricity for  
 14 heating their homes, or for water heating, or both."

15 Then six lines below that, "Despite that fact, I  
 16 would" and "not" should be changed to "note," n-o-t-e.

17 Then on page 6 eight lines from the bottom, "rate  
 18 block proposed by OCA Witness Oliver extend," it says  
 19 "will" and it should be "well," w-e-l-l. That might be  
 20 confusing; "extend well beyond the upper limites."

21 Then in the table exhibit, GG-12, there is a typo  
 22 is the left-hand column in the fourth set of number ranges  
 23 down; it says "300 to 249." That should be "300 to 349."  
 24 "300 to 349" makes more sense that way.

25 That is the extent of my corrections.

1 Q If I today were to ask you the questions that  
2 appear in CEPA Statement 1A would your answers, with the  
3 corrections previously made, be the same?

4 A Yes, they would.

5 MR. HANGER: At this time I would like to move  
6 CEPA Statement 1A into evidence subject to timely excep-  
7 tions or motions.

8 JUDGE MATUSCHAK: Motion granted.

9 (Whereupon, the document marked  
10 as CEPA et al. Statement No. 1A  
was received in evidence.)

11 MR. HANGER: I have one question before turning Mr.  
12 Grier over for cross-examination .

13 BY MR. HANGER:

14 Q Mr. Grier, of the 226,000 low-income ratepayer  
15 households that your Census analysis indicates live in the  
16 PECO service territory, what percentage are elderly?

17 A Exactly 33.3 percent, one-third are elderly.

18 MR. HANGER: Your Honor, this witness is ready for  
19 cross-examination.

20 JUDGE MATUSCHAK: PECO?

21 MR. MacGREGOR: Thank you, Your Honor.

22 CROSS-EXAMINATION

23 BY MR. MacGREGOR:

24 Q Good afternoon, Mr. Grier.

25 A Good afternoon.

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Q Could I ask you your definition of elderly that you employed in deriving the 33.3 percent figure.

A Yes, 65 years or more, and that applies to the age of the household head; that is if someone other than the household head were older, that household would not be included. The person who is identified as the household head or the chief person in the household is 65 or over.

Q Thank you.

On page 1 of your surrebuttal testimony you identify an Exhibit GG-12 as certain additional data that you are presenting in this testimony. Am I correct that you state in that testimony that this data is for the Metropolitan Area within the Mid-Atlantic Census Division and not for the City of Philadelphia in particular?

A That is correct.

Q And at page 2 of your testimony towards the top you state these data indicate that the majority of low-income metropolitan customers in the Mid-Atlantic states who use electricity neither for home heating nor for water heating consume less than 300 kilowatt-hours per month. To be exact, 55.4 percent are below this 300 kilowatt-hour per month level. Is that correct?

A That's a correct statement.

Q Mr. Grier, would it follow then conversely that 44.6 percent use in excess of 300 kilowatt-hours per month?

1 A Yes, that follows.

2 Q And further down on that page you referenced  
3 220,000 low-income households residing in the company's  
4 service area; is that correct?

5 A That is correct.

6 Q Am I correct that the company has approximately  
7 1,120,000 residential customers presently?

8 A It is my understanding that that is the  
9 approximate figure, yes.

10 Q And that 220,000 number is approximately 20  
11 percent of the total?

12 A That is correct, approximately one-fifth of  
13 PECO's customers' households are low income.

14 And so we have some 900,000 residential  
15 customers that is the difference between the 1.12 million  
16 and the 220,000 which are not low-income households by your  
17 definition; is that correct?

18 A That is correct. That's the 150 percent above  
19 poverty level. Approximately 900,000 are above the 150  
20 percent poverty level.

21 Q And under the essential use proposal advanced  
22 by the Consumer Advocate and yourself those customers  
23 would receive a benefit in the first 350 kilowatt-hours  
24 of their usage?

25 A All customers would receive a rate for usage

1 under 350 kilowatt-hours. That would be based upon the  
2 rate structure that Mr. Oliver has indicated. All  
3 customers would receive that rate.

4 Q Am I also correct that approximately 65 percent  
5 of the company's customers in total consume at or below  
6 500 kilowatt-hours a month?

7 A Would you repeat that please?

8 Q Am I correct or are you aware that approximately  
9 65 percent of the company's residential customers on Rate  
10 R consume 500 kilowatt-hours per month or less of electri-  
11 city?

12 A Are those company figures?

13 Q Yes.

14 A If you say that, I will accept it.

15 Q Thank you.

16 Accepting that for the moment, then if you took the  
17 900,000 residential customers who don't meet your test of  
18 low-income households and multiply that by the 65 percent  
19 figure, you will get approximately 585,000 non-low-income  
20 customers who consume 500 kilowatt-hours per month or  
21 less; is that correct?

22 A I'll accept the multiplication, but I'm not  
23 quite sure it's correct because I don't know how it would  
24 break down between low income and higher income customers.  
25 Overall that percentage would be correct, but I don't

1 know how it would break down between the low income as  
2 opposed to the higher income; I don't have that informa-  
3 tion.

4 Q And those 585,000 customers would have usage  
5 levels below the break-even point discussed by yourself  
6 and Mr. Oliver in his testimony?

7 A Again based upon that calculation. I said I  
8 do not know what the breakdown would be between low and  
9 high income overall, accepting the stipulation in your  
10 earlier statement.

11 Q One final question by way of clarification: I  
12 believe it is the second page from the end of your  
13 testimony; my page numbers are cut off on the bottom of  
14 the page. It is the page that begins with question at the  
15 top of the page, "Apart from the errors you have cited,"  
16 further down on that page in the answer you state that  
17 for those low-income customers with usage above 532  
18 kilowatt-hours cross-over level, CAP would protect these  
19 customers by determining through an examination of  
20 household income and expenses a monthly electric payment  
21 that the household could afford. Do you see that  
22 reference?

23 A I do.

24 Q I take it it is your testimony that the CAP  
25 program is an adequate program for those customers

1 using above 532 kilowatt-hours per month, and you would  
2 be satisfied to employ that program?

3 A If it is implemented as I understand it, and  
4 if customers were willing to accept it, and if it were  
5 offered to all such customers and those customers were  
6 willing to accept it under the terms in which it is offered,  
7 then it obviously would protect them within its limits.  
8 There is the lien problem, of course, on the premises.

9 Q If it would protect customers who use more than  
10 532 kilowatt-hours per month, would it also not follow that  
11 it would protect customers using less than 532 kilowatt-  
12 hours per month?

13 A Well, let me just think about that statement  
14 for a second, about that question for a second.

15 If those customers were to require it under those  
16 terms -- and there we are talking about a couple of  
17 conditions in here, one of which is that I'm saying there  
18 that those customers should be offered, and all customers  
19 should be offered the rate which Mr. Oliver is advocating.  
20 Under those circumstances I don't know how many of them  
21 would need the CAP program that would help to protect  
22 them. So I think that over 532 would, which is the cross-  
23 over point that Mr. Oliver has determined, some of those  
24 customers might need it because of their high consumption.  
25 I'm basing that on their higher than average consumption.

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Q Let's ignore Mr. Oliver's proposal for a moment. Then those customers above 532 kilowatt-hours would not receive any benefit from Mr. Oliver's proposal, and you state in your testimony, as I understand it, that the CAP program would protect those customers. If the CAP program will protect customers who use in excess of 532 kilowatt-hours per month, then would it not also follow that it would protect customers who use less than 532 kilowatt-hours per month?

A Basically I think if the CAP program were offered to customers and if they were willing to accept its terms, then obviously it would place them within the structure of the program in which their ability to pay would be part of the determination of how much their bill would be; so in that sense it would presumably involve a determination of their ability to pay, base their bill upon that, and therefore protect them against the bills that they are unable to pay.

Q Thank you, sir.

MR. MacGREGOR: That's all I have, Your Honor.

JUDGE MATUSCHAK: Staff?

MS. CHESTNUT: No questions, Your Honor.

JUDGE MATUSCHAK: Consumer Advocate?

MR. WERSAN: Yes, Your Honor.

## CROSS-EXAMINATION

1  
2 BY MR. WERSAN:

3 Q Mr. Grier, regarding the discussion you just  
4 had with Mr. MacGregor on the next-to-the-last page of  
5 your testimony on the CAP program, is it your understand-  
6 ing that part of the CAP program involves some kind of  
7 weatherization or audit of usage in the households?

8 A Yes, that is my understanding.

9 Q So when you suggest that CAP might protect  
10 customers above 532 kilowatt-hours per month, is that  
11 because in part the CAP program could possibly help to  
12 bring down usage for those customers?

13 A Yes. I would expect that that would be one of  
14 the major benefits if it is implemented as I understand  
15 it is supposed to be, because it is my view that the low-  
16 income customer who is using that much electricity  
17 probably is doing so, at least in part, because they have  
18 an energy-inefficient house or appliances they are using  
19 too much; there are a lot of factors that come into it,  
20 but I suspect that that's the major cause of the problem.  
21 Therefore, the CAP program would produce an energy  
22 audit, and measures which should follow from that audit  
23 could help them to lower their consumption and therefore  
24 reduce their electric bills.

25 Q Do you believe that a CAP program that

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services only 700 customers a year is adequate to take care of the concerns of low-income customers?

A No. No, I think that the program is now serving such a tiny percentage of the customers who conceivably could benefit from it, even higher consuming customers, that it really is not now serving the need.

Q So when you discuss the CAP program in your testimony in concert with an essential use rate, would I presume that you are anticipating or would hope that the company would expand both its CAP program and its weatherization program so that it would have an overall approach to the problem of low-income customers' usage?

A Yes, I am.

MR. WERSAN: That's all I have, Your Honor. Thank you.

JUDGE MATUSCHAK: Is there any other cross-examination of this witness?

(No response.)

JUDGE MATUSCHAK: Redirect?

MR. HANGER: May I have one moment?

JUDGE MATUSCHAK: Yes.

(Pause.)

MR. HANGER: I have one question, Your Honor.

REDIRECT EXAMINATION

BY MR HANGER:

Q Mr. Grier, you have identified 220,000 or  
COMMONWEALTH REPORTING COMPANY (717) 761-7150

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226,000 households at or below 150 percent of the poverty level; is that correct?

A That is correct.

Q Do you believe that either all of those customers or the vast majority of those customers are experiencing serious ability to pay problems concerning their electric bills at times?

MR. MacGREGOR: Objection, Your Honor; it is beyond the scope of cross-examination.

JUDGE MATUSCHAK: The objection is sustained.

MR. HANGER: I have no other questions, Your Honor.

JUDGE MATUSCHAK: Is there any recross?

MR. MacGREGOR: No.

JUDGE MATUSCHAK: Any further recross-examination of this witness?

(No response.)

JUDGE MATUSCHAK: Thank you.

(Witness excused.)

JUDGE MATUSCHAK: Are there any other witnesses to be presented at this time?

(No response.)

JUDGE MATUSCHAK: If not, we will adjourn at this time and reconvene tomorrow morning at 9:30.

(Whereupon, at 4:40 p.m. the hearing was adjourned, to be reconvened at 9:30 a.m. on Tuesday, March 11, 1986

1 in Harrisburg, Pennsylvania.)

2  
3 C E R T I F I C A T E

4 I hereby certify, as the stenographic reporter, that  
5 the foregoing proceedings were reported stenographically  
6 by me, and thereafter reduced to typewriting by me or under  
7 my direction; and that this transcript is a true and accurate  
8 record to the best of my ability.

9  
10 COMMONWEALTH REPORTING COMPANY, INC.

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13 By: Phyllis Glass

14 Phyllis Glass

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