

ORIGINAL

COMMONWEALTH OF PENNSYLVANIA

PUBLIC UTILITY COMMISSION

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 Pennsylvania Public Utility Commission, et al.:  
 versus Philadelphia Electric Company. : Docket No.  
 Investigation into a requested \$660 million : R-850152  
 annual rate increase. :  
 :  
 Further Hearing :  
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Pages 3717 through 3815 Hearing Room No. 1  
 State Office Building  
 Broad and Spring Garden Streets  
 Philadelphia, Pennsylvania

Thursday, February 20, 1986

Met, pursuant to adjournment, at 10:02 a.m.

BEFORE:

JOSEPH MATUSCHAK, Administrative Law Judge

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C O N T E N T S

WITNESSES

	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
Richard J. Rudden				
By Mr. Fort	3719	----	----	----
By Ms. Chestnut		3721	----	----
By Mr. Kleppinger		3722	----	----
George Grier				
By Mr. Hanger	3725	----	----	----
By Mr. MacGregor		3728	----	----
		3748		
George J. Sterzinger				
By Mr. Hanger				
By Mr. MacGregor	3750	----	3779	----
By Mr. Rainey		3752	----	----
By Mr. Kleppinger		3771	----	----
		3772		
Vukan R. Vuchic				
By Mr. Fort	3781	----	----	----
James A. Ross				
By Mr. O'Donnell	3783	----	3812	----
By Mr. MacGregor		3785	----	----
		3811		
By Ms. Chestnut		3802	----	----
By Mr. Wersan		3810	----	----

E X H I B I T S

NUMBER

FOR IDENTIFICATION

IN EVIDENCE

<u>NUMBER</u>	<u>FOR IDENTIFICATION</u>	<u>IN EVIDENCE</u>
<u>SEPTA/Amtrak</u>		
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NUMBER

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Occidental Chemical Corp.

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Statement No. 1 (Ross)

3785

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Statement No. 2 (Ross)

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Exhibit No. 2 (Ross)

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P R O C E E D I N G S

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ADMINISTRATIVE LAW JUDGE JOSEPH MATUSCHAK: This is the time and place set for the further hearing in the matter of the Pennsylvania Public Utility Commission, et al. versus the Philadelphia Electric Company at Docket No. R-850152.

Would Counsel inform us as to what order they would like to proceed?

MR. MacGREGOR: Your Honor, I believe we are going to proceed with the SEPTA/Amtrak witnesses first and then either the CEPA witnesses or Occidental's witness. I'm not entirely clear on the order, but I know we are to proceed first with the SEPTA/Amtrak witnesses, which are Mr. Rudden and Mr. Vuchic.

JUDGE MATUSCHAK: Very well.

Would Amtrak call their first witness?

MR. FORT: Would you please swear in Mr. Rudden?

Whereupon,

RICHARD J. RUDDEN

having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. FORT:

Q Please state your name and business address for the record.

A. Richard J. Rudden, 425 New York Avenue, Suite 207, Huntington, New York 11743.

1 Q And by whom are you employed?

2 A I'm employed by R. J. Rudden Associates, where  
3 I hold the position of President.

4 Q And by whom have you been retained in this  
5 proceeding?

6 A By SEPTA and Amtrak.

7 Q I show you what has been marked as SEPTA/Amtrak  
8 Statement No. 1 and ask you if you were asked the questions  
9 which appear in this statement would you give the same  
10 answers?

11 A Yes, I would with three minor typographical  
12 modifications.

13 Q Please advise us as to what those are.

14 A The first one appears on page eight, in the fifth  
15 line of the first answer. The word "subway" should be  
16 suburban.

17 JUDGE MATUSCHAK: What is that again?

18 THE WITNESS: The word "subway" should be suburban.

19 JUDGE MATUSCHAK: Thank you.

20 A On page 14, in the first line of the first full  
21 answer the word "delivered" is misspelled. There is an  
22 extra "r", so just strike the "r", the second "r", in that  
23 word.

24 And the third and final modification is on page 17.  
25 The first line starting with the word "between" and concluding

1 with the word "border" should be struck entirely because  
2 it's a repeat of language that appears on the prior page.

3 MR. FORT: I would like to offer into evidence  
4 SEPTA/Amtrak Statement No. 1.

5 JUDGE MATUSCHAK: SEPTA/Amtrak Statement No. 1 is  
6 admitted into evidence subject to any exceptions, objections  
7 or any other matters raised in a timely manner.

8 (Whereupon, the document was  
9 marked as SEPTA/Amtrak Statement  
10 No. 1 for identification, and  
11 was received in evidence.)

12 MR. FORT: Please cross-examine.

13 JUDGE MATUSCHAK: PECO.

14 MR. MacGREGOR: Your Honor, I have no questions for  
15 Mr. Rudden.

16 JUDGE MATUSCHAK: Staff.

17 MS. CHESTNUT: Your Honor, yes, I have a question for  
18 Mr. Rudden.

19 CROSS-EXAMINATION

20 BY MS. CHESTNUT:

21 Q Good morning, Mr. Rudden.

22 A Good morning.

23 Q My name is Marcie Chestnut. I represent the  
24 Staff in this proceeding.

25 Mr. Rudden, are the two 25 Hertz waterwheels at  
Safe Harbor 25 or 30 megawatts?



1 A. A part of it is, yes.

2 Q And which part of it would be taken from that  
3 study?

4 A. The total cost is taken, the total demand-  
5 related cost, is taken from the unit cost study. The amount  
6 by which it is divided, however, is taken from the company's  
7 billing determinants in Volume 4 of their original filing.

8 Q So that the \$29.22 number would not match, would  
9 it, the divisor utilized in the unit cost study in WFS-1;  
10 is that correct?

11 A. That is correct. The reason I computed it this  
12 way was to express costs on the basis of the demands that  
13 the company, that PECO, would reflect, that is, reflected  
14 in the rates.

15 Q Those were not the demand levels that were  
16 utilized as an input to the cost study; is that correct?

17 A. That's correct.

18 Q Similarly, for the SEPTA and Amtrak numbers,  
19 could you refer to page 45 and 46 of WFS-1?

20 A. Yes. I have that.

21 Q Now, on page 45 of WFS-1 it lists the SEPTA  
22 unit cost study; is that correct?

23 A. That's correct.

24 Q Now, if you were to identify what the cost per  
25 KW is for SEPTA utilizing the data from the cost of service

1 study what would the number be which would be comparable  
2 to your \$21.54 number in your testimony?

3 A. I'm not sure that any of the demands that PECO  
4 has used in the cost allocation study are in any way  
5 comparable to the demands that I have used. So I can't  
6 answer that question directly.

7 Q. Well, let's focus, then, on the total unit annual  
8 cost to serve line on page 45 of WFS-1. If we were to  
9 divide the numbers in the demand column by 12, indicating  
10 the 12 months, wouldn't that give us some indication as to  
11 what the cost per KW is as a result of the cost study?

12 A. That would give an indication of what the cost  
13 per KW expressed as a system four CP average would be. But  
14 it would give you no indication whatsoever as to what the  
15 cost per billed KW would be.

16 Since rates must be based on the billed KW, I thought  
17 it more appropriate to express that in terms of dollars  
18 per billed KW.

19 Q. Would you recognize that you would come up with a  
20 number different than the \$21.54 in your testimony if you  
21 were to utilize the cost study data?

22 A. If I were to use the coincident peaks that PECO  
23 has used to allocate costs and divided those into the  
24 total demand costs, yes, I would very clearly come up with  
25 a different number. I don't think the number is relevant,

1 however, for the reason I was using it.

2 MR. KLEPPINGER: Thank you, Mr. Rudden.

3 That's all I have, Your Honor.

4 JUDGE MATUSCHAK: Any further cross-examination of  
5 this witness?

6 (No audible response.)

7 JUDGE MATUSCHAK: Any redirect?

8 MR. FORT: No. Thank you, Your Honor.

9 JUDGE MATUSCHAK: The witness is excused.

10 (Witness excused.)

11 MR. FORT: I'm afraid to report that Dr. Vuchic is a  
12 few minutes late. I would ask that the other parties  
13 indulge us and proceed with their witnesses and we will  
14 proceed to call Dr. Vuchic later.

15 MR. HANGER: Your Honor, we can proceed with Mr.  
16 Grier and Mr. Sterzinger on behalf of CEPA, et al.  
17 Whereupon,

18 GEORGE GRIER

19 having been duly sworn, testified as follows:

20 DIRECT EXAMINATION

21 BY MR. HANGER:

22 Q. Could you state your full name and address for  
23 the record, please?

24 A. My name is George Grier, and my address is 6532  
25 East Halbert Road, Bethesda, Maryland.

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Q On whose behalf are you appearing in this proceeding?

A I'm appearing on behalf of the Consumers Education and Protective Association, the Action Alliance for Senior Citizens, Philadelphia Citizens in Action, the Association of Community Organizations for Reform Now and Mr. Bradshaw.

Q Do you have in front of you a document marked CEPA, et al. Statement No. 1?

A I do.

Q Was this document, appendices and exhibits prepared by you or under your supervision?

A They were.

Q Do you have any additions or corrections that you would like to make at this time?

A Yes. I have a couple of corrections and additions. Shall I go ahead with them?

Q Yes, please do.

A On page 32, lines 15 and 16, the wording, "This program is also governmental" -- page 32, lines 15 and 16, the wording, "This program is also governmental," should be changed to, "This program is operated by a non-profit corporation with support from the Philadelphia municipal government, the municipal utilites and PECO," and the rest of the sentence remains unchanged. The rest

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of it is, "and provides benefits only to low income residents of the City of Philadelphia." That remains unchanged.

Then on page 28, between lines nine and ten, I would like to insert one sentence. That sentence reads, "Also, based upon Department of Energy data for metropolitan residents in the mid-Atlantic region I have determined that 83.1 percent of households under 150 percent of poverty in Rate Class R use less than 500 kilowatt hours."

And finally, on page 36, lines 11 and 12, the words "one percent" should be changed to "two percent". That's a correction, one percent to two percent.

JUDGE MATUSCHAK: What line was that?

THE WITNESS: Your Honor, that was page 36, line -- I believe it appears on line 11.

BY MR. HANGER:

Q If I were to ask you the questions that appear in the document CEPA Statement No. 1 today would your answers be as they appear in the document with the corrections and additions just made?

A They would.

MR. HANGER: Your Honor, at this time I would like to move this statement into evidence subject to timely motions.

JUDGE MATUSCHAK: CEPA Statement 1 is admitted subject to any timely motions or objections.

1 (Whereupon, the document was  
2 marked as CEPA, et al. Statement  
3 No. 1 for identification, and  
4 was received in evidence.)

5 MR. HANGER: Please proceed with cross-examination.

6 JUDGE MATUSCHAK: Mr. MacGregor.

7 MR. MacGREGOR: Thank you, Your Honor.

8 CROSS-EXAMINATION

9 BY MR. MacGREGOR:

10 Q Mr. Grier, referring back to page 28, I'm not  
11 sure how you expected anyone to copy down the sentence that  
12 you read into your testimony. Perhaps you can read that  
13 again for us.

14 A I certainly will, sir.

15 "Also, based upon Department of Energy data for  
16 metropolitan residents in the mid-Atlantic region" --

17 Q Wait a minute. Based upon DOE data?

18 A Right, for metropolitan residents in the mid-  
19 Atlantic region. That region, incidently, includes  
20 Pennsylvania, New Jersey and New York.

21 -- "I have determined that 83.1 percent of households  
22 under 150 percent" --

23 Q Hold on. You have determined --

24 A "that 83.1 percent of households under 150 percent  
25 of poverty in Rate Class R use less than 500 kilowatt hours,"  
and that, of course, is per month. That is on a per month

1 basis.

2 Q I take it when you refer to Rate R you're not  
3 referring to just the Philadelphia Electric Company's  
4 Rate R, but the residential rates of any utilities in the  
5 mid-Atlantic region?

6 A That's correct. I'm referring to those customers  
7 who use electricity neither for main space heating nor for  
8 water heating purposes. So it would be equivalent to PECO's  
9 Rate Class R.

10 Q Now, is this data from a study that you reference  
11 elsewhere in your testimony or is this a separate and  
12 different study?

13 A This is new information from data provided by the  
14 Department of Energy, from a study done by the Department  
15 of Energy. I obtained the data and analyzed it.

16 Q Could you provide us with a copy of the data,  
17 please?

18 A I would be able to do that. I just got access  
19 to these data last week. We had problems with getting a  
20 technically useable copy of the computer tape of the study.  
21 I just got it last week. I would be glad to provide them,  
22 I can't provide them. I will provide them early next week.

23 Q That would be fine.

24 MR. MacGREGOR: Your Honor, I would object to the  
25 admission of this sentence into evidence until the company

1 has an opportunity to review the data and is also provided  
2 with the opportunity, if necessary, to file rebuttal  
3 testimony at a later date or conduct further cross-examina-  
4 tion of Mr. Grier if necessary in order to analyze and  
5 respond to this additional testimony that has been added  
6 just today.

7 MR. HANGER: Your Honor, I believe it ought to be  
8 moved into evidence. If the company, after receiving the  
9 data that Mr. Grier is to provide, wishes to file a motion  
10 to strike that sentence at that time, that would be appro-  
11 priate.

12 MR. MacGREGOR: I want your agreement that I will  
13 have an opportunity to conduct further cross-examination if  
14 necessary and that I will be allowed sufficient time to  
15 prepare rebuttal testimony.

16 JUDGE MATUSCHAK: We will reserve ruling on the  
17 motion until you determine, Mr. MacGregor, what you want to  
18 do, if you have any objections to it.

19 MR. MacGREGOR: Thank you, Your Honor.

20 JUDGE MATUSCHAK: You can inform us later on as to  
21 what your position is. Remand us to make a ruling.

22 MR. MacGREGOR: Thank you, Your Honor.

23 BY MR. MacGREGOR:

24 Q Mr. Grier, in the first part of your testimony am  
25 I correct that you provide various data on household income

1 levels?

2 A. I do, sir.

3 Q. National and middle Atlantic data; is that  
4 correct?

5 A. Well, the data are not middle Atlantic. They are  
6 specific to the Pennsylvania portion of the Philadelphia  
7 metropolitan area.

8 Q. Just the income data?

9 A. The income data, yes.

10 The census data throughout are with few, if any,  
11 exceptions specific to the closest I could get using  
12 census data to PECO's service area, which is the Philadelphia  
13 portion of the -- the Pennsylvania portion of the Philadelphia  
14 metropolitan area.

15 Q. And you also provide various usage data, for  
16 example, at the bottom of page 22 and going over to page  
17 23. There you cite a DOE residential energy consumption  
18 survey; is that correct?

19 A. That is correct.

20 Q. And you report the results of that on the top  
21 of page 23?

22 A. That is correct.

23 Q. Now, that is not based on Philadelphia-specific  
24 data, is it?

25 A. No. That is --

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Q. Is that middle Atlantic?

A. That is middle Atlantic region. That is the same survey that I referred to in my addition on page 28. But it was the published version of that survey and, as a consequence, because it appeared that that was useful I attempted to obtain the data tapes so that I could get more specific data and that is what I was unable to provide today.

Q. Now, you state that result again on page 26 of the testimony and then you cite certain evidence which you call partially inferential to try to develop a relationship of income level and usage for Philadelphia Electric Company ratepayers in particular; is that correct?

A. Yes, sir.

Q. And on page 28 of your testimony, beginning at line ten, you discuss your conclusions about income-related characteristics of ratepayers in the lowest electricity consumption category; is that correct?

A. That is correct, based upon the company's study. That is correct.

Q. And you state in your answer that these low consumption ratepayers were predominantly retired elderly persons and people in low paying jobs; is that correct?

A. That what my conclusion based upon the evidence in the company's study, yes.

Q. And you provide your data and you state that

1 39 percent of the people in the 201 to 300 kilowatt hour  
2 category reported occupations of the head of the household  
3 of retired; is that correct?

4 A That is correct.

5 Q Now, I take it you would agree with me that that  
6 does not necessarily mean that the person in that home has  
7 an income level at the poverty level; is that correct?

8 Not all retired persons are at a poverty level or living at  
9 the poverty level?

10 A That is correct. Not all are. But a very  
11 considerable portion are. That is based upon a lot of  
12 evidence.

13 Q There are certainly a substantial number of  
14 retired persons who do not live in poverty. Do you agree  
15 with that statement?

16 A There are a substantial number who do not live  
17 in poverty; there are many who do.

18 Q And you state that an additional 14 percent  
19 reported an occupation of housewife; is that correct?

20 A That is correct.

21 Q Is it your testimony that all housewives who  
22 head households, or all women who head households, are  
23 below the poverty level?

24 A Well, I also looked at the characteristics of  
25 those housewives inasmuch as the company's data provided

1 any evidence as to their situation, and all of those house-  
2 wives were single persons living alone. From that I inferred  
3 that they were probably, many of them, widowed and retired.

4 Q Or professional women?

5 A They presented themselves as housewives. If  
6 they were professional women I would think that they would  
7 announce their profession or would respond with their  
8 profession rather than calling themselves housewives.

9 Q On page 29 you go on to report that another 17  
10 percent of that group reported occupations which generally  
11 pay low wages and you give some examples. To your knowledge  
12 is the salary paid to the average bank teller such that it  
13 would place that person below 150 percent of the poverty  
14 level?

15 A It would depend a bit on how long the teller had  
16 been with the bank. Starting salaries for bank tellers,  
17 from my understanding, are not that high.

18 Q Do they fall below the poverty guidelines?

19 A Most of those people, by the way -- the majority  
20 of those -- I think there was one bank teller -- the majority  
21 of those were classified in other categories such as  
22 laborer, porter, house cleaning --

23 Q I would like to examine them one at a time. We  
24 will go through them.

25 A All right.

1 Q With respect to bank tellers, is it your testimony  
2 that most bank tellers live below poverty level -- have a  
3 below poverty level income?

4 A I cannot testify that most bank tellers live  
5 below poverty level. I will state that --

6 Q Will you testify the same as to --

7 MR. HANGER: Objection, Your Honor. Would you instruct  
8 Counsel to let Mr. Grier finish his answer?

9 MR. MacGREGOR: I'm asking very specific questions,  
10 Your Honor, and I really don't need to hear a speech.

11 JUDGE MATUSCHAK: Answer the question first and then  
12 if you have an explanation you may make your explanation  
13 after you answer the question.

14 THE WITNESS: Yes, sir.

15 BY MR. MacGREGOR:

16 Q With respect to the clerks, is it your testimony  
17 that all or most people who have clerical jobs have incomes  
18 below the poverty level?

19 A I cannot say that most clerks or all clerks  
20 live below the poverty level. I did say that it was a  
21 predominantly low-paid job.

22 Q But they certainly at least -- and correct me  
23 if I'm wrong -- hold jobs and would not be classified as  
24 being in poverty level circumstances; is that correct? Is  
25 it your testimony that most clerks --

1 A. I don't believe that I said they lived below  
2 the poverty level at any point in my testimony. I said that  
3 their jobs were predominantly low-paid.

4 Q. Well, I'm not saying what you said in your  
5 testimony. I'm just asking you a few questions.

6 A. Okay.

7 Q. What about most maintenance employees? Do you  
8 think that they have incomes such that they would be below  
9 the federal government poverty guidelines?

10 A. I know that many do. It's a very low-paid  
11 minimum wage job and that kind of job at minimum wage places  
12 many of them below the poverty level, yes.

13 When you're talking about a minimum wage job you're  
14 talking about a job that basically puts people below the  
15 poverty level.

16 Q. That might not be the only source of income for  
17 a particular family, however; is that correct?

18 A. No, but in many of these cases these people were  
19 very small households and many are single. So there were  
20 not in those households a lot of extra people with extra  
21 income.

22 Q. What was the average income of people holding  
23 these jobs, the maintenance jobs? Have you examined what  
24 the average income was for that group?

25 A. I have not examined it for Philadelphia. I have

1 looked at it in other cases and it's down there at the  
2 minimum wage level, which is generally under \$4 an hour.

3 Q Those are national figures?

4 A Pardon me?

5 Q Those are national figures?

6 A Nationally and locally in a number of areas.

7 Q But not for Philadelphia?

8 A I don't have the specific Philadelphia figures.

9 I could get them for you if you would like to have them.

10 Q Now, you have attempted to examine the usage  
11 level of what you call low income or poverty level households.  
12 Have you done any examination of those Philadelphia Electric  
13 Company customers who are not paying their electric bills  
14 on a timely basis or who are troubled payment customers to  
15 determine their either income levels or usage levels?

16 A I could only in that case rely upon company data.  
17 I did review the year-end report on the Customer Assistance  
18 Program for the period January to December, 1985, and I  
19 found that that report in general confirmed all my informa-  
20 tion from census and other sources about the income levels  
21 of these customers.

22 Q Did you examine the average usage level of the  
23 CAP customers? Was that provided in the report that you  
24 reviewed?

25 A Average usage levels, I do not believe, were

1 in the company's report, no.

2 Q So you did not examine that number?

3 A Not with respect to this. As I indicated, I  
4 did, in order to provide further information in connection  
5 with the purposes of this hearing, I did attempt to and  
6 finally obtained information on usage in terms of kilowatt  
7 hours from a DOE survey.

8 Q I'm not asking about the DOE survey.

9 A Okay.

10 Q I'm asking about troubled --

11 A From the company's survey?

12 Q I'm asking about troubled payment PECO customers.  
13 PECO customers who are having trouble --

14 A I did not look specifically at that particular  
15 item.

16 Q To determine their usage levels or income levels,  
17 of customers who are not paying their bills?

18 A I did look at income levels of customers in the  
19 CAP program.

20 Q But not usage levels?

21 A Not usage levels as such.

22 MR. MacGREGOR: Thank you.

23 That's all I have for Mr. Grier.

24 JUDGE MATUSCHAK: Staff.

25 MR. WERSAN: She just stepped out. I think she will

1 be back momentarily.

2 JUDGE MATUSCHAK: Is there any other cross-examination  
3 for this witness?

4 (No audible response.)

5 JUDGE MATUSCHAK: Well, until the Staff comes back  
6 I have a couple of questions for the witness.

7 Mr. Grier, on page 38 you make this statement:

8 "If the Commission should be concerned about a  
9 policy that might benefit some who are rich while protecting  
10 most of the poor, then one possibility would be to limit the  
11 rate to those under 150 percent of poverty."

12 THE WITNESS: Yes, sir.

13 JUDGE MATUSCHAK: Do you see that?

14 THE WITNESS: Yes, sir, I do.

15 JUDGE MATUSCHAK: Now, how do you suggest that the  
16 Commission go about doing that?

17 THE WITNESS: Well, sir, that 150 percent of poverty  
18 level is the income eligibility level for --

19 JUDGE MATUSCHAK: I understand that. I'm asking  
20 you how would the Commission go about implementing that  
21 suggestion.

22 THE WITNESS: Okay, sir. Well, there are a couple  
23 of ways. The company collects data when people run into  
24 payment problems. It collects data on their income. So the  
25 company has, for example, for CAP customers and for all of

1 its, I think, now 70,000 customers on deferred payment  
2 agreements, has information on income levels from which --

3 JUDGE MATUSCHAK: You mean the company, PECO, has  
4 information on the income level of every one of its rate-  
5 payers?

6 THE WITNESS: No, sir. It has information on those  
7 who run into payment difficulties such that they negotiate  
8 deferred payment agreements.

9 JUDGE MATUSCHAK: Well, that's only a small part of  
10 their ratepayers, isn't it, the people who are having  
11 difficulties?

12 THE WITNESS: It's 70,000 now out of a total of  
13 some 200,000-plus customers in the low income category.  
14 There are 70,000 deferred payment agreements now in operation  
15 by the company. That is up three-and-a-half times since  
16 1980. So there are a lot of customers, Your Honor, is what  
17 I'm saying.

18 JUDGE MATUSCHAK: How is the Commission going to  
19 enforce such a provision or implement such a position that  
20 any special rate that you suggest would be available only  
21 to those under 150 percent of poverty?

22 THE WITNESS: I think the simplest answer is that  
23 if people want access to this rate they should be required  
24 to provide along with their application documentation of  
25 their income level.

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JUDGE MATUSCHAK: Wouldn't that incur another bureaucracy that would not only be time consuming but expensive not only to PECO itself but to all of the other PECO ratepayers?

THE WITNESS: Well, Your Honor, it is not --

JUDGE MATUSCHAK: You almost have to become a welfare agency to investigate each ratepayer, don't you?

THE WITNESS: Your Honor, with 70,000 deferred payment agreements PECO is getting into the position of being an agency which is serving a large number of people who cannot pay their bills, and they already have a mechanism in place to do so.

JUDGE MATUSCHAK: We are not suggesting that some relief not be granted to these people. But what we are inquiring about is why and how should the Commission do that. Isn't there some other agency or some other facility that could better administer such a project than having the Commission get into a social welfare role?

THE WITNESS: I understand the thrust of your question. Your Honor.

The Department of Public Welfare, as I understand, certifies people for low income energy assistance and in that process they verify incomes. And as I indicated, PECO itself is now verifying incomes for a very substantial number of its customers.

1 I think it's reasonable for the Commission to  
2 require that those who wish to obtain any special rate, if  
3 that rate is restricted to low income customers, for example,  
4 under 150 percent of poverty, if that rate should be so  
5 restricted, that those who apply either apply for certifica-  
6 tion for low income energy assistance --

7 JUDGE MATUSCHAK: Couldn't that be better treated  
8 within that average than rather with a rate manipulation  
9 if the Legislature wanted to take care of those people who  
10 cannot pay or have difficulty?

11 THE WITNESS: The problem, Your Honor, is that the  
12 low income energy assistance program has run out of funds  
13 now.

14 JUDGE MATUSCHAK: All right. It has run out of funds.  
15 All the Legislature has to do is appropriate more funds for  
16 it. Isn't that a better procedure?

17 You've got a facility there that is inquiring, that  
18 has the information. You have a welfare agency that has the  
19 information and has investigative powers for checking.  
20 Isn't that a better agency?

21 THE WITNESS: Well, Your Honor, I'm not recommending  
22 a specific rate restricted to low income customers. As a  
23 matter of fact, if you will recall, in my testimony I said  
24 if the Commission should be concerned --

25 JUDGE MATUSCHAK: What are you recommending?

1 THE WITNESS: Well, Your Honor, I am recommending  
2 this: that the facts that are presented here and that are  
3 available from objective governmental sources about the  
4 situation of low income customers --

5 JUDGE MATUSCHAK: You have stated the facts. Now  
6 what is your remedy? You must come to a conclusion as to  
7 what your recommendation is. Otherwise, the facts don't  
8 mean a thing. What is your recommendation?

9 THE WITNESS: My recommendation is that these facts  
10 be taken into account in determining how any rate increase  
11 that is granted to PECO in this case be applied to assure  
12 the protection of low income customers from the economic  
13 impacts of that rate increase.

14 Now, I do not myself specifically recommend any  
15 particular rate program. There will be other witnesses in  
16 this case that will. It's my understanding that Mr. Oliver  
17 will; it's my understanding that Mr. Sterzinger will also  
18 testify on this point. But I am not myself recommending a  
19 specific rate program.

20 I am, however, providing the evidence that in my  
21 view makes it essential that the economic impact on these  
22 low income customers be considered in determining whatever  
23 rate is adopted to carry out any increase in revenues that  
24 will be granted to PECO in this case.

25 JUDGE MATUSCHAK: What safety valve do you have to

1 protect those low income people who have high usage because  
2 of large families, for instance? Are you going to penalize  
3 those people to benefit another group of low income people?

4 THE WITNESS: I would not penalize them, Your Honor.  
5 I would say this, that where low income customers have high  
6 usage their situation should be systematically analyzed and  
7 the reasons for that high usage determined.

8 Now, it is my understanding that the company is doing  
9 this in its CAP program for a small number -- I think it's  
10 now about 600 by the latest figures -- of its customers.  
11 In that program they do such a determination: are you using  
12 excessively appliances, for example.

13 Also, under its TLC, or Tighten-Up Low Cost Program,  
14 the company is doing an energy audit and some quick-fix  
15 measures that are intended to produce some measurable and  
16 hopefully some significant decreases in the waste of  
17 electricity due to deteriorated housing, cracks, poor  
18 insulation, et cetera.

19 So there are measures that are available to help  
20 ameliorate the impact on low income high users, many of  
21 whom are suffering because their homes, their appliances  
22 and their living situation are such as to waste electricity  
23 because they cannot afford better. Those people are in a  
24 particularly bad bind and I think the programs like the  
25 CAP program and the TLC program should be much expanded.

1 Right now they serve relatively few customers. If they  
2 were much expanded then that would help.

3 JUDGE MATUSCHAK: Don't you think that that matter  
4 should be considered in a generic proceeding by the  
5 Commission so that all low income people who are having  
6 difficulties with all utilities could have the opportunity  
7 to benefit from this program?

8 THE WITNESS: Your Honor, this case is one in which  
9 a utility is proposing a rate increase that in my under-  
10 standing based upon the materials furnished by the company is  
11 on the order of 30 percent or more in one rate proceeding.  
12 That is a tremendous increase in the cost of its service to  
13 its customers.

14 JUDGE MATUSCHAK: Do you think that these ratepayers,  
15 low income ratepayers, are burdened much more than any  
16 others?

17 THE WITNESS: I do, Your Honor. They are already at  
18 the limits of their spendable income. I note, incidentally --  
19 and this very much interested me because I had come up with  
20 figures from the governmental sources that I examined showing  
21 that these people, many of them had a deficit in income. They  
22 actually had higher expenses than incomes. And I note that  
23 the company's report on its CAP customers shows exactly the  
24 same finding: that after verifiable expenses are subtracted  
25 from verifiable incomes these people have a negative amount

1 left. In other words, they spend and must spend on  
2 verifiable expenses more than they receive. This is true  
3 from governmental data and it is also true from the company's  
4 own data.

5 JUDGE MATUSCHAK: There's no doubt that that situation  
6 shouldn't be tolerated. There's no doubt about that. But  
7 there are already people who have that problem right now  
8 under the present rates.

9 THE WITNESS: That's correct. It will get much worse  
10 under this increase, Your Honor, and that's why I'm saying  
11 that because of the magnitude of this increase and the  
12 situation which already exists for so many of these  
13 customers where the company now has 70,000 customers on  
14 deferred payment agreements, this situation could become  
15 out of hand very fast if this rate increase goes through and  
16 no rate relief is given to these customers.

17 JUDGE MATUSCHAK: It would magnify the situation  
18 especially with the PECO ratepayers?

19 THE WITNESS: I think so, yes, sir, very much so.

20 JUDGE MATUSCHAK: On that basis you feel that there  
21 should be some special consideration made for those rate-  
22 payers?--

23 THE WITNESS: Absolutely.

24 JUDGE MATUSCHAK: -- under this proposal of PECO to  
25 raise the rates?

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THE WITNESS: Yes, sir, right in connection with this proposal because of its magnitude and because of the situation that already exists, which is very serious now. This 70,000 deferred payment agreements is without the rate increase. So you could easily have this number, which has more than tripled since 1980, increase to triple that amount in the next few years.

JUDGE MATUSCHAK: You haven't evolved any suggested plan as to how this situation could be best alleviated?

THE WITNESS: Well, Your Honor, this wasn't my task in this case. My task in this case was to present basic information as to the seriousness of the situation. I do understand that that is being performed very capably by Mr. Oliver and other witnesses in the case. So I would refer you to their testimony as to plans which would help to serve this situation.

JUDGE MATUSCHAK: Does the Commission Staff have any cross-examination?

MS. CHESTNUT: Your Honor has ably covered the points I was concerned with. We have no further questions for Mr. Grier.

JUDGE MATUSCHAK: You have no questions?

MS. CHESTNUT: No, Your Honor.

JUDGE MATUSCHAK: Is there any other cross-examination?

MR. MacGREGOR: Your Honor, I have two follow-up

1 questions.

2 FURTHER CROSS-EXAMINATION

3 BY MR. MacGREGOR:

4 Q Mr. Grier, you referenced a 30 percent increase  
5 in rates. Is it your understanding that that increase will  
6 take affect in year one at the end of this case in June of  
7 1986?

8 A No, sir. I understand that it's to be phased in  
9 over a three year period. But still ultimately in three years  
10 it would be 30 percent.

11 Q Secondly, am I correct that you recently testified  
12 in the PP&L rate structure investigation?

13 A That's correct.

14 Q Is it correct that you presented similar testimony  
15 in that case to what you presented here in terms of the  
16 impact of rate structure on low income households?

17 A Well, it was not similar to that presented here  
18 but I did present some testimony. It was quite different  
19 testimony. I did present some testimony on that --

20 Q What was your recommendation in that case?

21 A My recommendation in that case was in support of  
22 a rate for essential needs which I did not myself propose  
23 but was in support of.

24 Q And the Commission rejected that proposal, did  
25 they not, in their final order?

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A. That's correct.

MR. MacGREGOR: Thank you.

That's all I have, Your Honor.

JUDGE MATUSCHAK: Mr. Grier, we are not suggesting that this is not a problem. We recognize this as a problem. Our only concern is how best the problem can be met in the most efficient manner.

THE WITNESS: Pardon me?

JUDGE MATUSCHAK: I say our concern is how this problem -- there is no dispute about the problem. We recognize the problem.

THE WITNESS: Yes, sir.

JUDGE MATUSCHAK: The only concern, or our concern, is how best this problem can be met in the most efficient manner.

THE WITNESS: I understand that, sir. Thank you. Is there any redirect?

MR. HANGER: One moment, please.

(Pause.)

MR. HANGER: No redirect, Your Honor.

JUDGE MATUSCHAK: Thank you.

(Witness excused.)

MR. HANGER: At this time I would like to call Mr. Sterzinger to the stand, please.

1 Whereupon,

2 GEORGE J. STERZINGER

3 having been duly sworn, testified as follows:

4 DIRECT EXAMINATION

5 BY MR. HANGER:

6 Q. Would you state your name and business address  
7 for the record?

8 A. My name is George J. Sterzinger, S-t-e-r-z-i-n-  
9 g-e-r. The business address is National Consumer Law  
10 Center, 11 Beacon Street, Boston, Massachusetts.

11 Q. On whose behalf are you appearing in this  
12 proceeding?

13 A. I'm appearing on behalf of the Consumer Education  
14 and Protective Association, the Action Alliance of Senior  
15 Citizens, the Association of Community Organizations for  
16 Reform Now, the Philadelphia Citizens in Action and Mr.  
17 Bradshaw.

18 Q. Do you have in front of you a copy of a document  
19 marked Statement No. 2, CEPA, et al.?

20 A. Yes.

21 Q. Was this document, appendices and exhibits  
22 prepared by you or under your supervision?

23 A. Yes.

24 Q. Do you have any additions or corrections that  
25 you would like to make at this time?

1 A. Yes. I have one correction and one addition.

2 On page eight, the second line, the first KW should  
3 be a KWH.

4 And the one addition is following the discussion on  
5 page 15, which is that prior to completing the testimony we  
6 received a partial answer from the company on the kinds of  
7 equipment which the company rented and received revenues  
8 from. Based on that preliminary answer roughly 50 percent  
9 of the equipment is distribution-related. Another portion  
10 is transmission-related. We are not clear and there is a  
11 pending question on exactly what kind of transmission  
12 equipment is rendered.

13 However, pending the receipt of that further  
14 clarification my recommendation is that the distribution  
15 equipment serve as the basis for the distribution of roughly  
16 50 percent of the revenue since it is our position that a  
17 fair distribution of the revenue is to apportion it to  
18 classes on the basis that the class pays for that equipment.

19 Q. If I were to ask you the questions that appear in  
20 the document marked CEPA Statement No. 2 today would your  
21 answers be as they appear in the document with the corrections  
22 and additions just noted?

23 A. Yes.

24 MR. HANGER: Your Honor, at this time I would like  
25 to move CEPA Statement No. 2 into evidence subject to timely

1 objections or exceptions.

2 JUDGE MATUSCHAK: The motion is granted under those  
3 conditions.

4 (Whereupon, the document was  
5 marked as CEPA, et al. Statement  
6 No. 2 for identification, and  
was received in evidence.)

7 MR. HANGER: Please proceed with cross-examination.

8 JUDGE MATUSCHAK: Mr. MacGregor.

9 MR. MacGREGOR: Thank you, Your Honor.

10 CROSS-EXAMINATION

11 BY MR. MacGREGOR:

12 Q Good morning, Mr. Sterzinger.

13 A Good morning.

14 Q At page four of your testimony you state in the  
15 first full paragraph, "The cost allocation policies referred  
16 to above," and those are your criticisms of the company's  
17 cost allocation study, "have the effect of overcharging  
18 residential customers in the residential cost allocation."

19 Am I correct that you are using the term "over-  
20 charging" in the nature of meaning overallocating costs  
21 to the residential class?

22 A That's correct.

23 Q It's not a question of the rates themselves but  
24 the allocations in the cost of service study that you're  
25 referring to, at least in this portion of your testimony?

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A. That's correct.

Q. And you calculate a dollar amount of \$197 per residential customer; is that correct?

A. Yes.

Q. And again, that is in reference to the cost allocation and not the rates themselves?

A. Correct.

Q. Now, on page nine of your testimony is that a comparable number you provide for the effect of allocating Limerick 1 on a four CP basis of \$35 per year?

A. Comparable to the earlier number of --

Q. Yes. I mean, is \$35 -- my question, I guess, is is \$35 of the \$197 associated with your proposed difference in the allocation of the capital costs associated with Limerick 1?

A. The \$35 is associated with the allocation of the capital costs of Limerick 1, yes.

Q. So the difference between the \$35 and the \$197 is the impact of the other changes you propose, which is the change in the allocation of all other production and transmission costs other than Limerick 1, your proposed change in the allocation of distribution system and the minor point about the electric rent?

A. It does not include the electric rent. Other than that you are correct.

1 Q With the exception of the addition of Limerick 1  
2 the existing production and transmission costs of the company  
3 have been allocated on a four CP basis in a number of prior  
4 company rate proceedings; is that correct?

5 A That's my understanding.

6 Q And in addition, the company's methodology of  
7 allocating distribution costs has been approved in a number  
8 of prior Commission proceedings?

9 A That's my understanding.

10 Q Now, in the bottom paragraph on page four you  
11 reference your proposed reduction to the Rate R and RH customer  
12 charge; is that correct?

13 A Yes.

14 Q And you state that the revenue lost by reducing  
15 the customer charge would be made up in the energy charges  
16 on a per kilowatt hour basis. But I take it you have not  
17 proposed a specific change in those rates at this time.

18 A That's correct.

19 Q And you say that that should be delayed depending  
20 upon a reassessment of the cost of providing service to the  
21 RH class. To what are you referring there?

22 A To the other cost allocation reforms. In other  
23 words, the cost allocation study --

24 Q That you propose?

25 A Yes.

1 Q With the exception of the addition of Limerick 1  
2 the existing production and transmission costs of the company  
3 have been allocated on a four CP basis in a number of prior  
4 company rate proceedings; is that correct?

5 A That's my understanding.

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7 allocating distribution costs has been approved in a number  
8 of prior Commission proceedings?

9 A That's my understanding.

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11 reference your proposed reduction to the Rate R and RH customer  
12 charge; is that correct?

13 A Yes.

14 Q And you state that the revenue lost by reducing  
15 the customer charge would be made up in the energy charges  
16 on a per kilowatt hour basis. But I take it you have not  
17 proposed a specific change in those rates at this time.

18 A That's correct.

19 Q And you say that that should be delayed depending  
20 upon a reassessment of the cost of providing service to the  
21 RH class. To what are you referring there?

22 A To the other cost allocation reforms. In other  
23 words, the cost allocation study --

24 Q That you propose?

25 A Yes.

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Q. So if those are adopted --

A. I should add, and also any subsequent reduction in the revenue requirement or the revenue entitlement of the company and the assignment of that to the residential class.

Q. You say that the KWH collection should be delayed. You're not saying that the company should not be -- the residential rates should not be designed to be made whole in this proceeding?

A. Absolutely not.

Q. So whatever cost allocation method the Commission adopts, there would be adjustments to the R and RH energy charges to reflect the revenue lost from the reduction of the customer charge?

A. That's correct. And as a temporary step the general proposal is simply to collect it on a per kilowatt hour basis unless there were some other overriding concerns that would rearrange that collection.

Q. Now, the allocation method you propose for production and transmission facilities is what you call an average and excess method; is that correct?

A. Yes.

Q. And you describe what you've done down at the bottom of page nine and continuing over to page ten. You say, "This factor is developed by allocating production costs

1 on each class' average demand responsibility and each class'  
2 share of the portion of the peak demand minus the average  
3 demand where the class share is based upon the class'  
4 coincident peak demand"; is that correct?

5 A. Yes.

6 Q. So correct me if I am wrong, but as I understand  
7 it you would break the total demand into two parts, an  
8 average demand and an excess over the average demand, and  
9 those two components together would make up the total  
10 class demand?

11 A. That's correct.

12 Q. And that portion of the average demand would be  
13 allocated on an energy basis?

14 A. That's correct.

15 Q. And the excess would be allocated to each  
16 customer class based upon that class' contribution to the  
17 excess?

18 A. No. That class' contribution to the overall  
19 coincident peak.

20 Q. Including the average demand?

21 A. That's correct. In other words, each class at  
22 the time of the peak is -- or each kilowatt of demand at  
23 the time of the coincident peak is considered the same as  
24 any other kilowatt of demand at the time of the coincident  
25 peak. So there is no differentiation made to recognize

1 the average demand.

2 So if, for instance, there were two classes, each with  
3 a coincident peak demand of five KW, they would each have  
4 50 percent of the responsibility at the time of the coincident  
5 peak rather than adjusting those to reflect average demands,  
6 which have no relationship to the requirements that the  
7 company must face at the time of the coincident peak.

8 Q So you're dividing up class' share of the excess  
9 not on their contribution to the excess but on their  
10 contribution to the total system demand, including average  
11 demand?

12 A Could I have that read back? Or can you repeat  
13 it?

14 Q Sure. I just want to understand your proposal.

15 When we are dealing with the excess portion over the  
16 average demand -- we have average demand and we have  
17 allocated that to all the customer classes based on their  
18 energy usage on a KWH basis. Now we are going to the next  
19 step to allocate the excess portion over the average.

20 A The plant-related investment.

21 Q Yes, the plant related to the excess.

22 A Yes.

23 Q And we are looking at that and we are not, under  
24 your proposal, going to allocate that to classes based upon  
25 their contribution to the excess, but based upon their

1 contribution to the total peak demand including average  
2 demand?

3 A. That's exactly right.

4 Q. So if we had -- going back to your example of  
5 two classes, if we have two classes of customers -- well,  
6 let's start with the system. If we have a utility system  
7 that has a total demand at the time of system peak of  
8 200 megawatts, and 100 percent of that is average demand  
9 and 100 percent is weather-sensitive or excess usage, so  
10 the system has a 50 percent load factor --

11 A. One hundred percent of the 200?

12 Q. One hundred megawatts of the 200.--

13 A. I see.

14 Q. -- is average demand and the other 100 is so-called  
15 excess.

16 A. All right.

17 Q. And we have two customer classes and their demands  
18 at the time of the system peak, Class A has 150 megawatts  
19 and Class B has a 50 megawatt demand. Then their average  
20 demand for Class A is 80 megawatts and the average demand  
21 for Class B is 20 megawatts. So the excess for Class A over  
22 average is 70 megawatts and the excess of Class B over  
23 average is 30 megawatts.

24 Now, as I understand your methodology you would allocate  
25 plant associated with the 100 megawatts of average demand

1 80 percent to Class A and 20 percent to Class B.

2 A. That's right.

3 Q. So Class A would be responsible for 80 megawatts  
4 in that case and Class B would be responsible for 20  
5 megawatts -- or plant associated with that, 80 percent of  
6 the plant to provide average demand?

7 A. I think that one of the problems is that what is  
8 allocated is not megawatts. What is allocated is dollars.

9 Q. But you're allocating them on the basis of  
10 class contribution to the average demand and class contribution  
11 to the peak demand?

12 A. That's right. But you can't really say that  
13 you're allocating 80 megawatts. You're allocating investment  
14 costs associated --

15 Q. Associated with it.

16 A. That's right.

17 Q. That's the percentage allocator you're going to  
18 apply to the plant cost, total plant cost?

19 A. Total plant cost; that's right.

20 Q. Now, with respect to the excess, Class A is  
21 responsible for 70 percent of the excess demand and Class B  
22 is responsible for 30 percent of the excess demand; is  
23 that correct under my hypothetical, there being 100 megawatts  
24 of demand over the average?

25 A. I'm going to have to go back with you over this

1 example a little bit.

2 Q. Sure.

3 A. There's a 200 KW peak -- 200 megawatt. I'm sorry.

4 Q. Yes.

5 A. And at the time of the peak each class has a  
6 100 megawatt demand?

7 Q. Class A has 150.

8 A. I'm sorry. So at the time of the peak Class A  
9 has 150 megawatts and Class B has 50 megawatts?

10 Q. That's right. And their average demands are  
11 80 and 20.

12 A. Okay, 80 and 20.

13 Q. So the excess over average demand for Class A  
14 is 70 megawatts; correct? That's 150 minus 80?

15 A. Class A, the difference between the peak demand  
16 and the average demand?

17 Q. Yes.

18 A. That is 70 megawatts.

19 Q. So that is their excess over average demand?

20 A. That's correct.

21 Q. And for Class B the corresponding number would be  
22 30 megawatts?

23 A. That's correct.

24 Q. So of the 100 megawatts total system excess demand  
25 over average Class A is responsible for producing 70

1 megawatts or 70 percent of that number?

2 A. No.

3 Q. Of the excess?

4 A. No.

5 Q. There is 100 megawatts of excess demand over  
6 the average; is that correct?

7 (Pause.)

8 Q. On a 200 megawatt system with a 100 megawatt  
9 average demand?

10 A. There is a 200 megawatt peak.

11 Q. Yes. And 100 of that is average demand and the  
12 other 100 is excess over the average.

13 A. That's correct.

14 Q. Now, looking at the excess over average for  
15 that system --

16 A. Of the system.

17 Q. -- at the time of its peak, it's 100 megawatts.

18 A. All right.

19 Q. And under the hypothetical I gave you, of that  
20 100 megawatts Class A is responsible for 70 megawatts of  
21 it and Class B is responsible for 30 megawatts of it.

22 A. No. I don't know whether you're talking about  
23 your allocation scheme or whether you're talking about my  
24 allocation scheme.

25 Q. I'm not talking about any allocation scheme right

1 now. I'm talking about who produced the 100 megawatts  
2 excess demand.

3 A. No. My testimony is, and I think the underlying  
4 support for an average and excess calculated in this way  
5 is that at the time of the system peak the responsibility  
6 for the plant above the base plant, or above the average  
7 demand plant, is shared equally by all users at the time of  
8 the system peak. In other words, every KW or megawatt of  
9 demand at the time of the system peak is equally responsible.

10 Q. So that in this example at the time of the system  
11 peak the 150 megawatts of demand of Class A and the 50  
12 megawatts of demand of Class B are equally responsible.  
13 There is no attempt made to differentiate them on the basis  
14 of their average demand.

15 A. Another reason --

16 Q. So I take it --

17 A. Let me make just one more point.

18 There is another reason for doing that, and that is  
19 if you proceed with the calculations as you are laying them  
20 out you will calculate a factor that can very easily be  
21 shown to be algebraically equivalent to the coincident peak  
22 factor.

23 Q. That's exactly right.

24 A. So all you've done is gone around the bush to  
25 redetermine or recalculate the coincident peak demand and

1 you've left out the basic thrust of this allocation  
2 principal, which is that you try to differentiate the  
3 production investment into an average or base load-  
4 related portion and an above average or peak-related portion.

5 So those are the two reasons.

6 Q Well, let me ask you a question. Under your  
7 methodology I take it you would allocate 75 megawatts  
8 associated with the excess --

9 A Seventy-five percent.

10 Q Seventy-five percent of the excess to Class A  
11 and 25 percent to Class B?

12 A Correct, under this example.

13 Q Under that example. Even though Class A's excess  
14 over average demand at the time of the peak was 70 megawatts  
15 or only 70 percent of the 100 megawatts excess over average?

16 A Well, I think that --

17 Q Is that correct?

18 A No, it's not correct.

19 Q What is 100 minus --

20 A Could I explain?

21 Q Is 70 70 percent of 100?

22 A Yes, it is. That's correct.

23 Q Thank you.

24 A The arithmetic is correct, but the notion of the  
25 causality is not. It's the same -- I have to just reiterate

1 what I said before.

2 At the time of the system peak the plant that under  
3 this method -- or the investment costs that under this  
4 method are separate and associated with the investment to  
5 meet the peak are assigned equally on the basis of all of  
6 the usage that occurs at that peak. In other words, there  
7 is no attempt or no justification with this method for taking  
8 one megawatt of demand at the time of the system peak and  
9 forgiving that because it was associated with some average  
10 demand that occurred during the course of the year.

11 Each KW of demand at the peak is equally responsible  
12 for the plant investment associated with meeting the system  
13 peak.

14 Q Let's look at page ten of your testimony. You  
15 state that you allocate the costs based upon each class'  
16 share of the portion of the peak demand minus the average  
17 demand.

18 A That's correct.

19 Q What, in my system basis, is the peak demand  
20 minus the average demand?

21 A On your system basis?

22 Q Yes. It's 100 megawatts.

23 A Are you asking me or telling me?

24 Q Well, am I correct that it's 100 megawatts?

25 Peak demand, 200 megawatts, minus the average demand,

1 100 megawatts, equals 100 megawatts; is that correct?

2 A. The problem --

3 Q. I'm asking you to apply the sentence in your  
4 testimony to my hypothetical.

5 A. I'm trying to answer you.

6 Q. What is peak demand minus average demand for the  
7 system in my hypothetical?

8 A. The average demand minus the system demand is the  
9 excess demand. However, it is --

10 Q. Which is, in my example?

11 MR. HANGER: Excuse me. Your Honor, could he please  
12 have a chance to answer the question?

13 MR. MacGREGOR: He's not answering my question.

14 MR. HANGER: He's answering the question and Mr.  
15 McGregor is bullying the witness and not letting him explain.

16 JUDGE MATUSCHAK: Answer the question and then you  
17 may explain.

18 A. I'm having a hard time keeping all the hypothetical  
19 in my head. Could you state the question over again? I  
20 will try to be as cooperative as I can.

21 BY MR. MacGREGOR:

22 Q. On line two of your testimony --

23 A. On page ten?

24 Q. Lines one and two, you refer to each class' share  
25 of the portion of the peak demand minus the average demand.

1 I'm simply asking under my hypothetical what is the peak  
2 demand minus the average demand?

3 A. I believe it's 100 megawatts in the hypothetical.

4 Q. For Class A, what is Class A's peak demand minus  
5 its average demand?

6 A. For Class A, for the individual class, it's  
7 70 megawatts.

8 Q. Class B, is the answer 30 megawatts?

9 A. Yes, it is.

10 Q. So that 100 megawatts excess over average demand,  
11 that's made up of 70 megawatts from Class A and 30 megawatts  
12 from Class B?

13 A. No. Again, I think --

14 Q. What is it made up of? What is the 100 megawatts  
15 of excess demand made up of, Mr. Sterzinger? Of the average  
16 demand of Class A and B?

17 A. The whole sentence beginning on page nine and  
18 ending on page ten reads, "This factor," the average and  
19 excess factor, "is developed by allocating production costs  
20 on each class' average demand responsibility and each class'  
21 share of the portion of peak demand minus the average demand."

22 Q. That's all I'm asking.

23 A. In cost allocation studies what you're essentially  
24 trying to do all the time is come up with measures of usage  
25 and relate them to costs. What is left out of this

1 hypothetical is that what is being allocated and the  
2 allocation factors that are developed are the costs of  
3 the investment responsibility. So they do not translate  
4 literally into 100 megawatts of the plant.

5 The factor is an attempt to separate the investment  
6 undertaken by the company to produce average demand and  
7 the investment undertaken by the company to meet the above-  
8 average demand. Each of those two separate investments are  
9 allocated on a different usage basis. The average demand is  
10 allocated on the average demand of the customer classes and  
11 the portion of the overall investment related to meeting the  
12 system peak is allocated on the basis of the class' coincident  
13 peak.

14 That is what the method tries to do.

15 Q. Fine, Mr. Sterzinger. If you don't want to apply  
16 the definition at the top of page ten that's fine with me.

17 A. I have in the exhibit.

18 Q. Now, you also criticize the allocation of  
19 distribution costs; is that correct?

20 A. Yes.

21 Q. And you provide in your Exhibit 2 a calculation  
22 of your \$48.12 per customer number; is that correct?

23 A. Yes.

24 Q. And you included in your analysis Account 369,  
25 which is Services; is that correct?

1 A Yes.

2 Q Can you explain to me why you did not include in  
3 your expenses Account 594, which is maintenance on those  
4 services?

5 A Do you have the definition of Account 594?

6 Q No. I will ask you to accept subject to check  
7 that it is primarily maintenance on service lines.

8 A I don't believe that's correct. We can check it.

9 Q You're saying that Account 594 does not include  
10 maintenance on service lines? Is that your recollection?

11 A If I remember correctly, I believe 594 is Customer  
12 Services, expenses for Customer Services, and that is not  
13 maintenance on the Services accounts.

14 The relevant accounts that apply to overhead conductors  
15 do not have a separate account for services.

16 Q And that's the understanding upon which this  
17 exhibit was prepared?

18 A Can I have a second?

19 (Witness perusing documents.)

20 Q Well, in any event, Mr. Sterzinger, Account 594  
21 either includes it or it doesn't, maintenance on service  
22 lines?

23 A That's correct. And it was my understanding that  
24 it did not.

25 Q And that's the reason you didn't include it in

1 your exhibit?

2 A. That's correct.

3 Q. And if that understanding were to be incorrect  
4 then you would include it?

5 A. Yes.

6 Q. Now, on page 14 of your testimony you state  
7 that the proper customer charge should be \$4 per month,  
8 which would produce yearly customer costs of \$48. "Thus,  
9 as a result of the improper classification of distribution  
10 plant costs, the average residential customer is overcharged  
11 by \$159 per year."

12 Again, when you use the term "overcharged" you're  
13 talking about overallocation in the cost of service study  
14 and not an overcharge in the company's rates; isn't that  
15 correct?

16 A. That's correct.

17 Q. The company's current customer charge is \$4.75;  
18 is that correct, or approximately \$57 per year?

19 A. That's correct.

20 (Pause.)

21 A. I should point out that Exhibit 2 is not the  
22 only criticism of the distribution plant. Most of the  
23 criticism goes to the classification of a large portion of  
24 the distribution system as a minimum system and an attribution  
25 of that as a customer-related cost; and it's that that the

1 major thrust of the testimony is to reform.

2 Q And your alternative recommendation as set forth  
3 on page 13 is to adopt a 50 percent/50 percent customer  
4 demand split for these costs?

5 A That's for Account 369. For Accounts 360 through  
6 368 they should be demand-related costs.

7 Q Demand only?

8 A Absolutely.

9 Q Finally, at the end of your testimony you state  
10 your, quote, policy conclusions. I take it you have not  
11 proposed in your testimony any specific rate design for  
12 Rates R or RH?

13 A That's correct.

14 Q And you have not proposed any specific allocation  
15 of the rate increase to the residential class in this  
16 proceeding?

17 A That's correct.

18 MR. MacGREGOR: Thank you, Mr. Sterzinger.

19 I have nothing further, Your Honor.

20 JUDGE MATUSCHAK: Staff.

21 MS. CHESTNUT: Your Honor, I have no questions for  
22 this witness.

23 JUDGE MATUSCHAK: Consumer Advocate.

24 MR. WERSAN: No questions, Your Honor.

25 JUDGE MATUSCHAK: Any other parties?

1 MR. RAINEY: Yes, Your Honor.

2 JUDGE MATUSCHAK: Mr. Rainey.

3 MR. RAINEY: Thank you, Your Honor.

4 CROSS-EXAMINATION

5 BY MR. RAINEY:

6 Q Good morning, Mr. Sterzinger.

7 A Good morning.

8 Q I would like to refer your attention to Exhibit  
9 1.

10 A I have that.

11 Q And would you explain to me the differential  
12 which you show for each of the categories, how that was  
13 derived and what was the source of the numbers shown there?

14 A Certainly. The differential was simply the  
15 subtraction of line C-1 minus A-1, and shows just the  
16 differential in cost allocation to classes between the  
17 four coincident peak and energy allocation.

18 Q So the A-1 and the C-1 are allocators that you  
19 show?

20 A That's right. They are from the company's cost  
21 of service study. A-1 is four coincident peak and C-1 is  
22 energy.

23 MR. RAINEY: Thank you very much.

24 No further questions, Your Honor.

25 JUDGE MATUSCHAK: Any further cross-examination?

1 MR. KLEPPINGER: Yes, Your Honor.

2 JUDGE MATUSCHAK: Mr. Kleppinger.

3 CROSS-EXAMINATION

4 BY MR. KLEPPINGER:

5 Q Good morning, Mr. Sterzinger.

6 A Good morning.

7 Q You testimony did not include the complete results  
8 of a cost of service study flowing through the production  
9 plant allocator which you modified through the entire study;  
10 is that correct?

11 A That's correct.

12 Q But as I understand your testimony your production  
13 plant allocator was applied to all production plant and not  
14 only Limerick 1 plant?

15 A It would be; that's correct.

16 Q Now, did you modify, or are you proposing to  
17 modify, any other allocators in the cost of service study  
18 other than the one you have mentioned here?

19 A Yes.

20 Q Is one of those the energy allocator?

21 A No.

22 Q So you have not made any modifications to the way  
23 fuel or purchased power expense is allocated?

24 A That's correct, unless -- I would have to check.  
25 If the purchased power was separated into a demand and energy

1 portion that would affect that.

2 Q I don't believe it is.

3 A All right.

4 Q Now, I'm still a little confused as to how you  
5 developed your average and excess allocator and if we could  
6 I would like to focus on the HT class, which is my primary  
7 concern, and have you develop the average and excess allocator  
8 for us.

9 I think if we start with Exhibit 1, page one, it  
10 may be a little bit easier to follow. You list there the  
11 peak demand and the average demand for the class; do you not?

12 A Yes.

13 Q Now, if we were to subtract those two numbers  
14 would that yield the excess demand for that class?

15 A It would, but that was not used in developing the  
16 allocation.

17 Q Okay. And would I be correct that that excess  
18 demand would be approximately 714,955 megawatts?

19 A I haven't done that but that looks correct.

20 Q Subject to check you will accept that?

21 A Yes.

22 Q Now, on page ten of your testimony, I guess the  
23 second full sentence, you begin, "The relevant weights given  
24 to the average demand and the coincident peak demand depend  
25 in turn upon the difference between the coincident peak of

1 the ... and the average demand of the company."

2 When you use the term "coincident peak of the company"  
3 there are you referring to the number listed on Exhibit 1,  
4 page one, for the total company A-1 allocator?

5 A. Yes.

6 Q. And similarly, the average demand of the company  
7 you consider the C-1 allocator?

8 A. That's correct.

9 Q. And in the beginning of that sentence you talk  
10 about the relative weights given those demands. Is that  
11 a percentage, that relative weight?

12 A. As it works itself through the allocator, yes.

13 Q. And what is that percentage in the allocator?

14 factor is equal for each class to the average  
15 demand... class plus the class' coincident peak as a  
16 percentage share of the company's total peak times the  
17 coincident peak of the company minus the average demand.  
18 So the relative weight in turning them into a percentage  
19 factor of the average demand and the excess portion or the  
20 coincident peak...-related portion depends upon the relationship  
21 of the average demand of the company as a whole to the  
22 coincident peak demand.

23 Q. Would you essentially describe to me -- as I  
24 understand it it would be a load factor weighting; is that  
25 correct?

1 A There are many different ways of calculating  
2 this. That load factor weighting is one way to do the same  
3 algebraic calculations that I just described.

4 Q Now, are you saying that that relative weight  
5 varies by class in the way you have performed your allocation,  
6 or is the same relative weight applied to each class?

7 A Well, the same relative weight in terms of the  
8 overall split between average demand and the coincident peak  
9 minus average demand is applied to each class. The relative  
10 portions of that vary.

11 Q In the first part of your answer are you essentially  
12 describing what you would term the company's system load  
13 factor? Isn't that the relative weight that is actually  
14 applied in your methodology?

15 A In calculations it's hard to say what is the  
16 real calculation and what is a derivative calculation. The  
17 company load factor is equal to the company average demand  
18 over the the coincident peak of the company, however that is  
19 measured or whatever measure of peak demand you choose to  
20 use. If you made the transformations or substitutions  
21 that's the way the calculations would come out.

22 Q And in your method, would I be correct that if we  
23 look on Exhibit 1, page one, and we calculate a total company  
24 load factor using the A-1 number and the C-1 number that you  
25 have there for the total company that those numbers would

1 yield a load factor of approximately 64 percent?

2 A. That looks to be about right.

3 Q. Now, that load factor is based, is it not, on  
4 a peak demand based on the average of four coincident peak  
5 demands of the system?

6 A. That's correct.

7 Q. That's not representative of an annual load  
8 factor of the company; is that correct?

9 A. It's representative. It may not be the same as  
10 you would get if you used one peak, but it's representative.

11 Q. Did you have occasion to examine what the annual  
12 load factors of the company have been in the last few years?

13 A. No, I did not.

14 Q. Would it surprise you if they were less than  
15 64 percent?

16 A. No, it would not.

17 Q. Did you have occasion to review the testimony of  
18 the OCA Witness Oliver, which is to be presented later this  
19 week?

20 A. Somewhat.

21 Q. Do you have a copy of that testimony with you today?

22 A. No.

23 Q. I would like to show you a copy of Schedule BRO-1  
24 from Mr. Oliver's testimony, which is labelled "Development  
25 of Peak and Average Allocation Factors."

1 A I did look at that one.

2 Q Now, the last column on that page lists, does it  
3 not, Mr. Oliver's peak and average allocation factors for  
4 each class?

5 A Yes.

6 Q Would you agree with me that his peak and average  
7 allocators are essentially identical to the average and excess  
8 allocators which you have on Exhibit 1?

9 A Exactly. I think to the fifth place they are  
10 identical. I did check that.

11 Q So what we are talking about here are two identical  
12 cost allocation methodologies between you and Mr. Oliver;  
13 is that correct?

14 A With respect to that factor, yes.

15 Q Yes. Okay.

16 And if we look at the way Mr. Oliver arrived at his  
17 peak and average allocator, am I correct that you used  
18 essentially similar mathematical calculations to get to your  
19 allocator?

20 A Well, they were the same mathematical calculations.  
21 Again, some people do it on a load factor basis. I just  
22 prefer to do it on what to me is a more straightforward  
23 calculation.

24 Q But implied in your calculation, also, is the  
25 64.1 percent load factor that Mr. Oliver uses at BRO-1,

1 Column 3?

2 A. The separation implies that, or that can be  
3 deduced from the separation, whichever way you would prefer  
4 to put it:

5 Q. When you decided to use your cost allocation  
6 methodology did you go back in time and analyze capital  
7 cost comparisons between PECO's originally projected cost  
8 of Limerick 1 with the comparable cost of peaking units in  
9 that time frame, which would be the early '70s or late  
10 '60s?

11 A. No.

12 Q. Did you do a comparable comparison on the  
13 variable costs, or energy costs, associated with comparable  
14 plants at the time PECO was planning Limerick 1 in the  
15 preparation of your testimony for this case?

16 A. No.

17 Q. Now, finally, Mr. Sterzinger, you have not  
18 proposed a specific distribution of the proposed rate  
19 increase among customer classes in your testimony, have you?

20 A. No, I have not.

21 Q. Nor have you proposed a specific rate design  
22 for any individual customer class other than your Rate  
23 Schedule R potential modification??

24 A. That was not the purpose of the testimony.

25 MR. KLEPPINGER: Thank you.

1 I have no further questions, Your Honor.

2 JUDGE MATUSCHAK: Any further cross-examination?

3 (No audible response.)

4 JUDGE MATUSCHAK: Any redirect?

5 MR. HANGER: One moment, please, Your Honor.

6 (Pause.)

7 MR. HANGER: I have one question on redirect, Your  
8 Honor.

9 JUDGE MATUSCHAK: Very well.

10 REDIRECT EXAMINATION

11 BY MR. HANGER:

12 Q Mr. Sterzinger, why did you not go back and look  
13 at the planning process for Limerick?

14 A Basically, at this point in cost allocation and  
15 rate design I assumed that the plant costs as presented are  
16 economically justified and that there hasn't been a change  
17 from an early planning process to a later non-justified  
18 planning process. As the costs are given in the cost of  
19 service the presumption is that they are economically  
20 justified.

21 If that's not the case, that's not the subject of this  
22 testimony but would flow through the overall cost of service  
23 and would be picked up by the recommendations for plant  
24 allocation that I have made in the cost of service study.

25 MR. HANGER: No further questions, Your Honor.

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JUDGE MATUSCHAK: The witness is excused.

(Witness excused.)

JUDGE MATUSCHAK: Might this be a good time to take a short recess?

(Recess.)

1 JUDGE MATUSCHAK: Is counsel ready to proceed?

2 MR. FORT: Your Honor, would you please swear in  
3 the witness?

4 Whereupon,

5 VUKAN R. VUCHIC

6 having been duly sworn, testified as follows:

7 DIRECT EXAMINATION

8 BY MR. FORT:

9 Q Would you please state your name and position?

10 A My name is Vukan R. Vuchic. I am a Professor  
11 of Civil Engineering - Transportation at the University  
12 of Pennsylvania.

13 Q What is your business address, Dr. Vuchic?

14 A My business addresss is 113 Towne Building,  
15 University of Pennsylvania, Philadelphia, Pennsylvania  
16 19104.

17 Q On behalf of whom are you testifying in this  
18 proceeding?

19 A On behalf of SEPTA and Amtrak.

20 Q I direct your attention to SEPTA/Amtrak Statement  
21 Number 2, Direct Testimony of Vukan R. Vuchic. Was this  
22 statement prepared by you or under your supervision?

23 A Yes, it was.

24 Q And if you were asked the questions appearing  
25 in this statement would you give the answers appearing

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therein?

A Yes, I would be glad to.

MR. FORT: I would like to move the admission of SEPTA/Amtrak Statement Number 2 into evidence.

JUDGE MATUSCHAK: Are there any corrections or additions to your statement?

THE WITNESS: No, not at this time.

JUDGE MATUSCHAK: Under those conditions the motion is granted.

(Whereupon, the document was marked as SEPTA/Amtrak Statement No. 2 for identification and was received in evidence.)

JUDGE MATUSCHAK: Is there any cross-examination?

MR. KLEPPINGER: I have no questions, Your Honor.

MR. MacGREGOR: No questions.

JUDGE MATUSCHAK: Staff?

MS. CHESTNUT: No questions, Your Honor.

MR. WERSAN: The Consumer Advocate has no questions.

JUDGE MATUSCHAK: Since no one has any questions on cross-examination, Dr. Vuchic, you are getting off easy today. Obviously there is no redirect.

(Witness excused.)

Whereupon,

JAMES A. ROSS

having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. O'DONNELL:

Q Please state your name and business address for the record.

A James A. Ross, 605 Old Ballas Road, St. Louis, Missouri.

Q Who are you testifying on behalf of in this proceeding?

A Occidental Chemical Corporation.

Q Do you have before you a document marked "Corrected Testimony of James A. Ross"?

A Yes, I do.

Q Was that document prepared by you or under your direct supervision?

A Yes, it was.

Q If you were asked the same questions as contained in that corrected testimony today would your answers be the same as found therein?

A Yes, they would.

Q Are they true and accurate to the best of your knowledge?

A To the best of my knowledge, yes.

Q Do you also have before you a document entitled "Corrected Exhibit of James A. Ross," consisting of Exhibit JAR-1, Schedules 1 through 10?

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A I do.

Q Was this document prepared by you or under your direct supervision?

A It was.

Q Is the information contained therein true and correct to the best of your knowledge?

A To the best of my knowledge, it is.

Q Finally, do you have before you a document entitled "Supplemental Testimony of James A. Ross"?

A Yes, I do.

Q Was this document prepared by you or under your direct supervision?

A Yes, it was.

Q If you were asked the same questions as contained in the supplemental testimony today would your answers be the same as those contained therein, and would they be true and accurate, to the best of your knowledge?

A Yes, they would.

MR. O'DONNELL: Your Honor, I would ask that the corrected testimony of Mr. Ross, the supplemental testimony and Exhibit JAR-1, the corrected exhibits, be admitted into evidence, with the further suggestion that the corrected testimony be identified as Occidental Statement No. 1, the supplemental testimony as Statement No. 2, and I believe the next exhibit number for Occidental would

1 be Occidental Exhibit No. 2.

2 JUDGE MATUSCHAK: There is no Statement No. 1?

3 MR. O'DONNELL: Your Honor, we would prefer to have  
4 the corrected testimony treated as a substitute for the  
5 original testimony because it simply corrects typographical  
6 errors, so that that would then become our Statement No.  
7 1. The supplemental testimony would then be Statement  
8 No. 2.

9 JUDGE MATUSCHAK: Very well. Subject to any  
10 exceptions or objections, the motion is granted.

11 (Whereupon, the documents were  
12 marked as Occidental Statements  
13 Nos. 1 and 2 and Occidental  
14 Exhibit No. 2 for identification  
15 and were received in evidence.)

16 MR. O'DONNELL: Thank you, Your Honor. Mr. Ross  
17 is available for cross-examination.

18 JUDGE MATUSCHAK: The company?

19 MR. MacGREGOR: Thank you, Your Honor.

20 CROSS-EXAMINATION

21 BY MR. MacGREGOR:

22 Q Good morning, Mr. Ross.

23 A Good morning, Mr. MacGregor.

24 Q Mr. Ross, am I correct that the principal focus  
25 of your testimony is the company's auxiliary service rider?

A That is correct.

Q And you propose certain changes to that auxiliary

1 service rider; is that correct?

2 A I propose alternatives to the service rider;  
3 that is correct.

4 Q And certain of the points you raise are items  
5 which the company's proposed auxiliary service rider that  
6 has been separately filed at another docket take care of,  
7 and on other issues it does not; is that correct?

8 A There are certain indications in the revised  
9 auxiliary rider that the company agrees with the changes  
10 that I am proposing.

11 Q Certain of the changes?

12 A Certain of the changes.

13 Q And there are other portions of your changes  
14 where the company and Occidental disagree at this point?

15 A There are differences in my proposal and the  
16 company's proposal; that is correct.

17 Q Now one of those items is the issue of combined  
18 versus separate billing for back-up power and supplementary  
19 power; is that correct?

20 A Yes.

21 Q And under the company's tariff it would be billed  
22 on a combined basis; is that correct?

23 A The company's proposal is the identical rate  
24 applied to both types of service. My proposal is that  
25 two types of rates would apply to those two distinct

1 services.

2 Q And I take it in order to do that there would  
3 be separate meters installed, one for the back-up service  
4 and one for the supplemental service, so those two could  
5 be distinguished in some way?

6 A It is not necessary that separate meters be  
7 installed.

8 Q Well, if there is one meter installed that  
9 registers both demand and energy and during the course of a  
10 month a cogenerator uses both back-up and supplemental  
11 power, how would you be able to tell how much was one and  
12 how much was another?

13 A The technique that is used in some jurisdictions  
14 that I'm aware of is that the supplemental demand or billing  
15 demand is determined during the period of the month when  
16 the cogeneration facility --

17 JUDGE MATUSCHAK: Keep your voice up please.

18 THE WITNESS: When the cogeneration facility is  
19 operating and only supplemental power is being taken during  
20 the month, that particular period is used to determine  
21 the supplementary billing demand.

22 JUDGE MATUSCHAK: How would the company know when  
23 that change takes place?

24 THE WITNESS: The company would see an increase  
25 in the demand in the meter. They could also be notified

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by the cogenerator. Both of those techniques are used in identifying differences between --

JUDGE MATUSCHAK: What's the first technique?

THE WITNESS: One would be that the company in its billing tapes would see an increase in load during the time that the cogeneration facility is out. As an example, let's assume a customer has 10 megawatts of supplementary power and 10 megawatts of back-up power. During the time that the cogeneration facility is operating -- and let's assume it is at its full 10 megawatt level -- the supplementary demand would be 10 megawatts. That would be the billing.

At the time that the cogeneration facility sustained an outage the company's meters would see an increase of load; let's say it goes to 20 megawatts. So the company would know when the cogeneration facility was on the outage, and you could look at the difference between the maximum demand during the time of the outage and the time during the month when the cogeneration facility was in service to determine the two differences in billing demand.

That is a technique that is used by some utility companies.

JUDGE MATUSCHAK: Could it also be implemented via two separate meters?

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THE WITNESS: There could be an arrangement where two separate meters could be utilized to do the same thing.

BY MR. MacGREGOR:

Q How would that work, Mr. Ross? If the two meters would be connected to the same facility, what would they be measuring?

A You would have to meter the cogeneration facility, itself, to give an indication to the company that the facility was off-line. That's the technique where two meters are utilized.

Q But the production from a cogeneration facility could decrease for a number of reasons other than an outage for which back-up power would be supplied; the facility could simply cut back on production for some reason and take more supplemental power from the utility. Isn't that a possibility during a particular month?

A No. If the facility decreased its generation -- if the cogeneration facility decreased its generation and there was a commensurate decrease in electrical load, then the increase in demand when the facility was on outage would be back-up power. It would be back-up.

Q I'm not talking about an outage; I'm talking about just a reduction for operating reasons, any economic reasons or operating reasons, any reason at all not associated with an unscheduled outage.

1 A I guess I don't understand how that wouldn't  
2 be captured in the period where the operation of the unit  
3 would fluctuate, because --

4 Q That's not what I'm saying. I'm sure it would  
5 be captured in the meter, but how are we going to know  
6 what it is for, whether it is for back-up power or  
7 supplemental power or something else? We just get a read-  
8 ing off the meter. It's not clear to me at all how we  
9 are going to be able to tell what portion of the power  
10 during a particular month is to be billed on the back-up  
11 tariff and what portion is to be billed as supplemental  
12 power.

13 If you could explain how we are going to know that  
14 other than by taking Occidentals' or any other cogenerator's  
15 word for it, or conducting our own investigation each  
16 month --

17 JUDGE MATUSCHAK: Let me interject this additional  
18 thing. You are not suggesting that the cogeneration is  
19 going to remain constant at all times, are you?

20 THE WITNESS: No, sir. I believe it probably will  
21 vary.

22 JUDGE MATUSCHAK: That's what I mean. So how would  
23 the company know? Your explanation of a minute ago of  
24 10 and 10 --

25 THE WITNESS: Well, that is when an outage occurs.

1 is consistent throughout the period. Suppose that a company  
2 doesn't provide as much cogeneration in one period of  
3 time and needs more supplemental power. How is anybody  
4 going to know which is which?

5 THE WITNESS: If the facility is not on outage,  
6 if the cogenerator does not notify the company that the  
7 facility is on an outage, any increase over and above --

8 JUDGE MATUSCHAK: Suppose no outage. It is providing  
9 some cogeneration, but, as you indicated, the cogeneration  
10 would vary. It wouldn't be constant. So suppose the  
11 cogeneration process is in effect. If it varies, how is  
12 the company to know whether it is providing back-up power  
13 or supplemental power?

14 THE WITNESS: If the cogeneration facility is  
15 varying because of the supply of steam or because of some  
16 equipment changes or malfunctions, then that type of  
17 power that's being provided by the company would be back-up  
18 power. It would be power that was related to the  
19 unscheduled reduction of the motive power that is driving  
20 the generator.

21 Similar things happen with utility operations. In  
22 a boiler one of the major components that allows steam  
23 to flow through the turbine generator is boiler heat pumps.  
24 Many utility boilers have more than one boiler heat pump.  
25 If they sustain an outage on this component, then the steam

1 that is supplied to the turbine generator is reduced, and  
2 they have an outage, and that is classified under the NERC  
3 guidelines as an unscheduled outage on their facility.

4 What I'm saying is a similar type of occurrence  
5 on a cogenerator would come under the same classification.

6 JUDGE MATUSCHAK: I understand that part, but what  
7 I am trying to understand is how is the company going to  
8 know which is which?

9 THE WITNESS: There would be --

10 JUDGE MATUSCHAK: Suppose you have a reduced co-  
11 generation for some reason other than an outage, just  
12 reduced. Then you may need -- you will need supplemental  
13 power.

14 THE WITNESS: Yes, sir.

15 JUDGE MATUSCHAK: How is the company going to know  
16 whether the power it is providing is supplemental power  
17 or back-up power?

18 THE WITNESS: If the cogeneration facility is not  
19 producing its maximum capability, then there has to be  
20 a reason for it not producing that maximum capability.

21 I guess the problem I'm having is trying to determine  
22 what kind of occurrence would happen that would not be  
23 considered an unscheduled outage of that facility.

24 What I mean by the maximum is there may be some  
25 variation with regard to steam flow, but I can't think

1 of a situation that falls into what you are saying that  
2 I wouldn't consider to be a back-up power type of situation.

3 JUDGE MATUSCHAK: You may proceed.

4 BY MR. MacGREGOR:

5 Q Mr. Ross, on your Exhibit JAR-1, Schedule 4,  
6 you provide an alternative billing calculation under  
7 combined and separate billing for supplementary and back-up  
8 power; is that correct?

9 A Yes.

10 Q You state on line 22 that under the two-bill  
11 calculations that the difference in charge for back-up  
12 service is 85.2 percent; is that correct?

13 A That is correct.

14 Q Would you agree with me that the difference  
15 in the total bill for the two customers is approximately  
16 15 percent, simply comparing lines 14 and 20?

17 A In the example at line 13 is the calculation  
18 of back-up power on a stand-alone basis.

19 Q I'm talking about the total bill for supple-  
20 mentary and back-up power under the two scenarios.

21 A That is correct. You are about 15 percent --  
22 (Witness computing on electronic calculator.)

23 15.7, between those two numbers; that's the percent-  
24 age difference, between those two numbers.

25 Q Now, you have made certain assumptions as to

1 the supplementary and back-up power requirements in lines  
 2 1 through 4. Do you agree with me that in the example  
 3 you have chosen the supplementary power usage by the customer  
 4 has a very high load factor, approximately 80 percent load  
 5 factor?

6 A That is correct.

7 Q And the back-up power load factor is very low,  
 8 approximately a 5 percent load factor; is that correct?

9 A You are calculating a load factor on a monthly  
 10 basis?

11 Q Yes.

12 A (Witness computing on electronic calculator.)  
 13 Using 730 hours?

14 Q Yes.

15 A That is approximately 5 percent.

16 Q And under those conditions there is an increase  
 17 in the customer's bill having a combined billing of  
 18 supplementary and back-up power as opposed to having separate  
 19 billings; is that correct?

20 A I'm sorry; I didn't follow that.

21 Q Under these conditions there is an increase  
 22 to the customer's bill from having back-up and supplementary  
 23 power being billed on a combined basis as opposed to a  
 24 separate basis?

25 The way the tariff operates if you take the back-up

1 under the auxiliary service rate of the company, the  
2 supplemental power and the back-up power are combined and  
3 calculated as I have illustrated on lines 14 through 20.

4 Q Now, I don't want to go through a lot of calcula-  
5 tions with you, and you could accept this or not, but is  
6 it correct that the conditions under which this will occur  
7 -- that is in which there will be a higher charge on a  
8 combined billing than a separate billing -- will only take  
9 place where the load factor for the back-up power is lower  
10 than the load factor for the supplementary power; and if  
11 we took any example in which the load factor for the back-up  
12 power was higher than the load factor for the supplementary  
13 power the reverse result would apply, namely that it would  
14 be less expensive for the customer to have combined billing  
15 rather than separate billing?

16 A The mathematics would indicate that what you  
17 have said as being correct. However, back-up power is to  
18 supply power that is normally supplied by a cogeneration  
19 facility, and for the back-up power to approximate the  
20 supplemental power, as you have stated, the facility would  
21 have to be out of service for an extended period of a  
22 month which --

23 Q One month?

24 A -- would be unlikely.

25 Q Is it unlikely that a facility could have an

1       unscheduled outage that would last a month?

2               Have you examined various outages that have occurred  
3       on the Philadelphia Electric Company system's various  
4       generating units over the past two or three years?

5               A    I have looked at Philadelphia Electric's forced  
6       outage rate in an overall context, and I have noted that  
7       the overall forced outage rate is somewhere around 18.5  
8       percent, somewhere in that neighborhood.

9               Q    That's not really my question. Have you made  
10       any survey or analysis to show whether or not it is likely  
11       or unlikely at any point in time for a cogenerating facility  
12       to have a one-month outage for any number of reasons?

13              A    It's possible that a one-month outage could  
14       occur. My experience with cogeneration facilities that  
15       I'm familiar with is that unscheduled outages have a less  
16       frequent duration than unscheduled outages for back-up  
17       power. Now, if you apply the same example over an annual  
18       period, you will still see the difference in the supple-  
19       mentary versus the back-up power that is illustrated in  
20       this one-month example.

21              Q    You have just looked at one month here; is that  
22       correct?

23              A    That's correct.

24              Q    Suppose in the next month there was no  
25       unscheduled outage at all.

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A All right.

Q At least under the company's proposal the customer would still pay -- if there were separate billings, the company would still pay a 40 percent contract minimum on 10,000 kilowatts for back-up power even though there was no outage in the next month, and would, therefore, pay approximately \$21,480 in the next month for back-up power even though there was no unscheduled outage?

A The assumption is that the outage occurred during the October through May period when the 40 percent ratchet would apply?

Q That is correct.

A In order to answer your question, for the first month you would see this 85 percent differential. For the second month you would see that the differential reverses itself as you have just illustrated. However, if you sustain over three months -- three or more months of outage; in other words, if the cogeneration facility was down in three or more months, this relationship for the dual billing over-charges for the back-up service would occur.

Moreover, if the outage occurred in the summer months when the 80 percent ratchet would apply, the differential would be something like 88 percent.

So the illustration, I think, holds over the broad

spectrum of how these units will operate.

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2 Q If you combine the billing -- let's look at it  
3 that way, where the company proposes to combine the billing;  
4 in the next month, if there was no back-up power needed be-  
5 cause there was no unscheduled outage, there would be no  
6 minimum contract charge because the supplementary power  
7 would make up for the minimum amount and there would be no  
8 separate minimum applied?

9 A That is correct; that is the way the tariff  
10 operates.

11 Q Just one point of clarification. Let me ask you  
12 about the maintenance power provision for a minute. You  
13 proposed a reduction to the maintenance power rate; is that  
14 correct?

15 A Are you referring to the scheduling provision?

16 Q Yes, and the actual rate itself. The rate that  
17 you propose for maintenance power as something less than  
18 what would currently be charged under PECO's auxiliary  
19 service rider.

20 A I guess I don't follow your question. I am  
21 using basically the same rate, as I understand the auxiliary  
22 service. It is just applied in a slightly different manner,  
23 or in a different manner.

24 Q Well, an application that would result in a  
25 lower charge to the customer who uses maintenance power;

1 is that correct?

2 A. Under my proposal, the maintenance power for a  
3 single month's scheduled maintenance would be less in cost  
4 than the company's proposal.

5 Q. You justify that, in part at least, by imposing  
6 more severe restrictions on the availability of maintenance  
7 power than those proposed by the company in that maintenance  
8 could only take place during an off-peak period and would  
9 have to be scheduled at least 12 months in advance; is that  
10 correct?

11 A. Both of those are provisions of my tariff.

12 Q. And they are not provisions in PECO's current  
13 tariff?

14 A. That is correct.

15 Q. Is it your position that cogeneration facilities  
16 in general are able to accurately and fully schedule the  
17 need for maintenance 12 months in advance? Have you done  
18 any study of that in PECO's service territory or otherwise  
19 to determine to what extent that may be the case or may not  
20 be the case?

21 A. The clients that I have worked with have indi-  
22 cated to me that they have the capability of knowing  
23 approximately 12 months in advance that maintenance must  
24 be performed and being able to determine, with a degree of  
25 certainty, when that maintenance needs to be performed in

1 order to order parts and have the labor schedules and other  
2 things available to perform that maintenance.

3 Q Do you know whether that is generally true for  
4 Philadelphia Electric Company's cogenerating customers?

5 A I have made no survey of Philadelphia Electric's  
6 customers.

7 Q Do you know whether Philadelphia Electric Com-  
8 pany is able to accurately schedule its maintenance plans  
9 more than 12 months in advance?

10 A My experience has been, with utility companies,  
11 that they make a 12-month schedule.

12 Q Does that schedule often change during the  
13 course of the next 12 months?

14 A Occasionally, there are reasons to modify the  
15 schedule.

16 Q Have you reviewed the company's maintenance  
17 schedule in this case as budgeted versus the adjustments  
18 made for the test year to reflect later changes in  
19 conditions?

20 A No, I have not.

21 Q Finally, Mr. Ross, with respect to your supple-  
22 mental testimony, this again deals with the maintenance  
23 power charge; is that correct?

24 A The first part deals with the firm service  
25 scheduled maintenance. The latter part deals with the

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"As Available" proposal, which would be for both back-up and maintenance.

Q I would like to just talk about the maintenance provision in the first part of the testimony at this point.

At page 2 of your testimony you cite the portion of the Pennsylvania regulations on the provision of maintenance power in support of your position that those charges should not include charges for production plant; is that correct?

A That's what the Commission rule states.

Q And you quoted a portion of that rule at page 2 of your testimony, which states, "A utility's rate for sales of maintenance power to qualifying facilities shall include all energy costs and a demand or capacity charge not in excess of a charge required to recover the appropriate transmission plant and full distribution plant costs;" is that correct?

A That is correct.

Q Would you agree with me that you only quoted a portion of that regulation and that you failed to quote the remainder of that section, which states as follows: "When the scheduled outages of a qualifying facility cannot be scheduled during other than utility peak periods, the demand or capacity charge shall be the full charge stated in the utility's filed tariff under which the qualifying

1 facility receives such service"?

2 A. I believe that's a correct reading of the rule.  
3 And if you will check, on page 6 of my corrected pre-  
4 filed testimony, beginning at line 15 and continuing  
5 through 24, there is a complete quote from the Commission's  
6 rule.

7 Q. But you did not quote the full portion when you  
8 were talking about the recovery of production costs in  
9 maintenance power rates, is that correct, in your  
10 supplemental testimony?

11 A. That's correct.

12 MR. MacGREGOR: Thank you, Mr. Ross.  
13 That's all I have, Your Honor.

14 JUDGE MATUSCHAK: Staff.

15 MS. CHESTNUT: Thank you, Your Honor.

16 CROSS-EXAMINATION

17 BY MS. CHESTNUT:

18 Q. Good morning, Mr. Ross.

19 A. Good morning, Ms. Chestnut.

20 Q. Mr. Ross, with respect to your maintenance  
21 provision, can you tell me why you have the 12-month notice  
22 requirement in there?

23 A. I wanted to provide the company with sufficient  
24 notification that it would allow them to schedule mainten-  
25 ance at the time that the cogeneration facility was

1 requesting that scheduled maintenance.

2 Q I think you testified earlier, in response to  
3 questions put to you by Mr. MacGregor, that you thought  
4 12 months was appropriate because that was -- that was an  
5 appropriate time because that gave the cogenerators time  
6 to purchase and have on hand the necessary equipment; is  
7 that correct, that the 12-month lead time was appropriate?

8 A That is part of the determination; that is  
9 correct.

10 Q Did you consider using any other notice periods?

11 A I examined the company's notice period, and I  
12 opted for the 12-month period in order to give the company  
13 the maximum flexibility with regard to providing scheduled  
14 maintenance.

15 Q With your proposed back-up power rate, Rate PD,  
16 can you tell us how the proration that you discuss on page  
17 23 is to be calculated on months where there are two  
18 different daily demand levels?

19 A The maximum demand level that would be associ-  
20 ated with back-up power would be prorated on the number of  
21 days that back-up power is taken.

22 For example, if a facility in a month sustained a  
23 partial outage, in other words, it was not a full outage,  
24 and the back-up billing demand was 5 megawatts, but later  
25 in the month sustained a full outage and would have had a

1 billing demand of 10 megawatts, the 10 megawatts, or the  
2 higher number, would take precedence with regard to  
3 proration.

4 Q Now, Mr. Ross, with respect to distribution  
5 facilities, I would just like to clarify what your proposal  
6 is for back-up and maintenance power customers.

7 Is it your proposal that these cogeneration cus-  
8 tomers would pay what they would have paid as a full  
9 requirements customer plus any costs over and above that?

10 A Yes; that is correct.

11 Q Now, Mr. Ross, on Exhibit JAR-1, Schedule 3,  
12 it is intended to show that simultaneous outages on co-  
13 generation systems at the time of system peak are unlikely;  
14 is that a correct summary of what you propose to show  
15 there?

16 A (No response.)

17 Q Why don't you tell us what that schedule is  
18 proposed to show?

19 A What I have demonstrated with Schedule 3 is  
20 that in order for a rate which is based upon full require-  
21 ments cost characteristics to be applicable to back-up  
22 power customers whose cost characteristics are signifi-  
23 cantly different, that there has to be an assumption of a  
24 simultaneous outage on those cogeneration facilities;  
25 otherwise, you do not get the same cost responsibility for

1 the two types of service that is being provided.

2 Q In your opinion, does that assumption reflect  
3 situations that are likely to occur?

4 A First of all, the FERC and the Pennsylvania  
5 regulations prohibit that assumption. And my experience  
6 with cogeneration facilities and with generating facilities  
7 of utilities is that simultaneous outages of this magnitude  
8 would be unlikely.

9 Q Can you give us some reasons why that would be  
10 so?

11 A I'm sorry?

12 Q Can you give us some reasons why that would be  
13 so?

14 A The predominant reason that a facility sustains  
15 an outage which would be attributable to back-up power is  
16 because of forced outages. Those outages occur on a  
17 random basis and are mutually exclusive of one and another;  
18 and the probability of the number of megawatts on outage  
19 is usually the product of the megawatts of generation  
20 times the equivalent forced outage rate.

21 If you do that probability calculation, the only  
22 way you can get all of the units out is to assume that  
23 the equivalent forced outage rate is one, which means the  
24 unit never did operate, which I think is an absurd  
25 assumption.

1 Q. Would you agree, Mr. Ross, that one of the  
 2 reasons that make it unlikely that there would be a simul-  
 3 taneous outage is due to the fact that cogeneration systems  
 4 utilize different technologies?

5 A. The use of different technologies will reduce  
 6 the equivalent forced outage rate, which will make the  
 7 likelihood even less than the likelihood of, let's say,  
 8 utility technologies, which may be different from those of  
 9 the cogeneration.

10 Q. And I think you mentioned earlier that there  
 11 are redundant systems so that a partial outage does not  
 12 necessarily result from a forced outage.

13 A. A partial outage is a forced outage, but the  
 14 overall reliability of cogeneration facilities is some-  
 15 times enhanced by the fact that steam is a primary objec-  
 16 tive of the cogenerator; and, therefore, in order to be  
 17 sure that he has sufficient steam to operate his process,  
 18 he will put in redundant systems, such as multiple boilers,  
 19 so that when he sustains an outage on a boiler, he can  
 20 continue to operate his facility at his maximum capability,  
 21 even with this one equipment component out of service.

22 The benefit of that is that there is sufficient  
 23 steam to continue to operate the generating facilities at  
 24 higher levels than would be the case of a utility which  
 25 has matched a boiler with a turbine.

1 Q Would you agree, Mr. Ross, that in comparison  
2 to a utility's generating station, that cogeneration systems  
3 are smaller and simpler in design?

4 A I would certainly agree that most of the co-  
5 generation facilities that I have seen are smaller than the  
6 most recent types of additions in base load facilities that  
7 the utility industry has been undertaking, i.e., the large  
8 nuclear and the large coal-fired facilities.

9 The design aspects -- I don't know if simplicity is  
10 necessarily the word, but the fact that these units are  
11 smaller, they typically use a design which has more  
12 experience of operation. So maybe more of the bugs may  
13 have been worked out of those smaller designs.

14 Let me give you an example. As generating units  
15 increased in size, the manufacturers of the turbines and  
16 the boilers extrapolated from smaller designs to get the  
17 larger designs. Sometimes in that extrapolation there are  
18 problems that aren't anticipated.

19 I think if you will look at some of the larger  
20 units on a utility's system versus some of the smaller  
21 units, you see a difference in the equivalent forced outage  
22 rates; you will see a difference in the reliability of  
23 those units.

24 Q Do you have any opinion as to the comparative  
25 duration of forced outages for cogenerators and for a

1 utility's generating stations?

2 A. (No response.)

3 Q. If you would like, I can rephrase that. Do you  
4 think that a cogenerator's forced outage is generally  
5 longer or shorter than the outage of a generating station  
6 of a utility?

7 A. I guess I couldn't make a statement based upon  
8 an analysis that I have performed, but let me say this:  
9 in the case of the utility, and in the case of the co-  
10 generator, the objective is to get the unit back on line  
11 as soon as possible.

12 The difference in the technologies that may be  
13 being applied could have an impact of whether one unit  
14 gets back on line faster than another. And the technolo-  
15 gies that are utilized by cogeneration facilities are  
16 smaller and they are typically the types of units that --  
17 well, I guess I couldn't say that.

18 That's all I can address on that.

19 Q. Mr. Ross, if we assume that cogenerator outages  
20 are shorter in duration than outages of PECO's units, for  
21 example, wouldn't that reduce the likelihood of a simul-  
22 taneous outage?

23 A. Yes.

24 Q. Finally, Mr. Ross, with respect to the table that  
25 you have on page 4 of your supplemental testimony, where

1 you show certain energy costs.

2 A. Yes.

3 Q. You say that those costs were provided to you  
4 by the company; is that correct?

5 A. That is correct.

6 Q. Do you know if those costs are the same as the  
7 company filed in its PURPA 210 filing with the Commission?

8 A. I did not make that comparison, so I do not  
9 know.

10 Q. Do you know if those energy costs are comparable  
11 to the costs utilized by the company in providing the  
12 projected energy costs required by the Commission's ECR-8  
13 order?

14 A. I guess I am not positive. I know that these  
15 numbers are lower than any of the other numbers I had pre-  
16 viously inspected that was an indication of their system  
17 incremental cost. That's all I know.

18 Q. Can you tell us what other numbers you pre-  
19 viously examined? Were they company testimony in this  
20 proceeding or what?

21 A. They were answers to interrogatories that had  
22 been provided by the company.

23 Q. In this proceeding?

24 A. In this proceeding.

25 Q. Did those interrogatories relate specifically

1 to cogeneration?

2 A. Those interrogatories were specifically pro-  
3 pounded by Occidental Chemical Corporation.

4 MS. CHESTNUT: Thank you.

5 I have no further questions, Your Honor.

6 JUDGE MATUSCHAK: Consumer Advocate.

7 CROSS-EXAMINATION

8 BY MR. WERSAN:

9 Q. Good afternoon, Mr. Ross. My name is David  
10 Wersan. I am with the Office of Consumer Advocate. I  
11 really only have one question, and it is once again about  
12 the 12-month notice provision on maintenance power.

13 It is my understanding that you are proposing that  
14 to in some way aid the company in its scheduling of its  
15 system and the way it plans its operation; is that correct?

16 A. Yes, to give them maximum flexibility.

17 Q. Now, if the company felt that it did not need  
18 a full 12 months, but rather only needed six months,  
19 three months, one month or one week, would that then be  
20 agreeable to you?

21 A. Yes.

22 MR. WERSAN: That's all I have. Thank you.

23 JUDGE MATUSCHAK: Any further cross-examination of  
24 this witness?

25 MR. MacGREGOR: I have some follow-up questions if

1 everybody is otherwise done.

2 FURTHER CROSS-EXAMINATION

3 BY MR. MacGREGOR:

4 Q Mr. Ross, if a cogenerator has a 10 megawatt  
5 facility and that facility goes off line as a result of an  
6 outage, a forced outage, if the cogenerator wants to main-  
7 tain its operations, how many megawatts of power will the  
8 company have to supply the cogenerator?

9 A Whatever he has contracted for.

10 Q If it is the full 10 megawatts, we would have  
11 to supply the full 10 megawatts at that time to replace  
12 the power lost as a result of the outage?

13 A The cogenerator might not contract for 10 mega-  
14 watts if the outage affects his electrical load. In other  
15 words, he may have a situation where the outage and the  
16 electrical load correspond to some degree, so he might  
17 contract for something less than 10 megawatts.

18 Q But whatever he contracted for would have to  
19 be supplied at that point in time?

20 A That's correct.

21 Q With respect to the table on page 4 of your  
22 supplemental testimony, am I correct that that table pro-  
23 vides on-peak and off-peak data for all hours of the year  
24 and is not a comparison of summer versus non-summer costs?

25 A That is correct. That is my understanding of

1 what that represents.

2 MR. MacGREGOR: Thank you.

3 That's all I have, Your Honor.

4 JUDGE MATUSCHAK: Any redirect?

5 MR. O'DONNELL: Could I have a moment, Your Honor?

6 JUDGE MATUSCHAK: Yes.

7 (Pause.)

8 MR. O'DONNELL: Your Honor, I think I have just one  
9 question.

10 REDIRECT EXAMINATION

11 BY MR. O'DONNELL:

12 Q Mr. Ross, you were asked about the technique to  
13 be followed by the company in determining when power was  
14 being consumed by a customer for supplemental purposes as  
15 opposed to back-up purposes; there were a series of ques-  
16 tions as to how the company would know whether the con-  
17 sumption fell in one category or another.

18 Are there other ways of handling that type of  
19 question aside from the tariff that you can suggest?

20 A. One of the things that I do suggest to the  
21 Commission is that an operating agreement between the co-  
22 generator and the company be part of the contract for  
23 supplying power. In that operating agreement the particu-  
24 lars of notification and any other operating procedures  
25 that need to be worked out could be included and could be

1 tailored to the specific needs of the utility and the  
2 cogenerating facility.

3 So I think in the form of an operating agreement,  
4 those notification provisions could be included.

5 Q. Speaking generally, what type of notice would  
6 be appropriate in order to trigger the back-up tariff,  
7 written, oral, what, in your opinion?

8 A. The best type of communication between the co-  
9 generator and the utility is between the utility's load  
10 dispatching center and the cogenerator's control room;  
11 that type of communication is best done orally, with log  
12 books being kept in both facilities reporting what types  
13 of transactions and what kind of notification occurred  
14 between the two entities.

15 MR. O'DONNELL: No further questions, Your Honor.

16 JUDGE MATUSCHAK: Anything further of this witness?

17 MR. MacGREGOR: No, Your Honor.

18 JUDGE MATUSCHAK: If not, the witness is excused.

19 (Witness excused.)

20 JUDGE MATUSCHAK: I believe that's all the witnesses  
21 we have scheduled for today. Is there any other testimony  
22 to be submitted today?

23 MR. MacGREGOR: Not to my knowledge, Your Honor.

24 JUDGE MATUSCHAK: Is it the consensus of counsel  
25 that we adjourn this hearing until tomorrow morning?

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(No response.)

JUDGE MATUSCHAK: Very well. We will adjourn at this time, and reconvene tomorrow morning at 10:00 a.m.

(Whereupon, at 12:20 p.m., the hearing was adjourned, to be reconvened at 10:00 a.m. on Friday, February 21, 1986, in Philadelphia, Pennsylvania.)

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C E R T I F I C A T E

We hereby certify, as the stenographic reporters,  
that the foregoing proceedings were taken stenographically  
by us and thereafter reduced to typewriting by us or  
under our direction; and that this transcript is a true and  
accurate record to the best of our ability.

COMMONWEALTH REPORTING COMPANY, INC.

By: Robert J. Stonaker

Robert J. Stonaker

By: John A. Kelly

John A. Kelly

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