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 :

- x

Pages 1749 through 1923

Hearing Room No. 1
State Office Building
Broad & Spring Garden Streets
Philadelphia, Pennsylvania

Tuesday, January 7, 1986

Met, pursuant to adjournment, at 10:00 a.m.

BEFORE:

JOSEPH MATUSCHAK, Administrative Law Judge

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P R O C E E D I N G S

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 against the Philadelphia Electric Company, Docket No. R-850152 and consolidated complaints.

Are there any preliminary matters to be brought up before we call the first witness?

(No audible response.)

JUDGE MATUSCHAK: Very well. We may proceed.

MR. MacGREGOR: Your Honor, we are ready to proceed with the continuing cross-examination of Mr. Sundermeir.

JUDGE MATUSCHAK: Very well.

Whereupon,

WILLIAM F. SUNDERMEIR

having previously been duly sworn, testified further as follows:

CROSS-EXAMINATION

BY MR. HANGER:

Q. Good morning, Mr. Sundermeir.

A. Good morning.

Q. My name is John Hanger. I'm with Community Legal Services and I'm representing CEPA, the Consumers Educations and Protective Association, ACORN, Action Alliance of Senior Citizens, Philadelphia Citizens in Action and Mr. Bradshaw in

this matter.

Sitting with me at Counsel table today is George Sterzinger, who is with the National Consumer Law Center in Boston.

Mr. Sundermeir, could you please turn to WFS-1, page 7-A, line 12?

A. Yes.

Q. Are you at that time, Mr. Sundermeir?

A. Yes.

Q. Am I correct in stating that that line lists the revenue PECo received from the rental of equipment?

A. It's money that PECo received from rent for electric property. I don't know exactly what property that refers to.

Q. So you cannot describe the property that is being referenced in that line item?

A. Not without checking the books, no.

Q. Could you please so check? Or is there somebody, perhaps, in the room who might know?

MR. MacGREGOR: I don't believe there is. It's really a matter of going through electric plant in service, which is part of the company's rate base claim, to describe what's in the account.

MR. HANGER: Well, at this point I would like to make an on the record data request. The request is for a complete description and listing of all items of property that are rente

and that derive revenue for PECo in line 12 on page 7-A.

MR. MacGREGOR: Do you want a general description?

MR. HANGER: Yes, a general description of the propert and a listing of the dominant items within that property, for example, distribution poles or transformers, or what they are.

JUDGE MATUSCHAK: Do you want the value of each one of those, the predominant ones?

MR. HANGER: Yes, if it's available.

MR. MacGREGOR: We will provide whatever breakdown is available.

JUDGE MATUSCHAK: Very well.

BY MR. HANGER:

Q. Mr. Sundermeir, in the number of years that you have had your position have you ever investigated what properties are being described or are being capsulized by that line item?

A. I can't say that particular item. There are times that we go to the description of what's included in the various accounts to see what kind of dollars are included in there for cost allocation purposes, and I suppose at one time we looked at that account.

Q. When you did that do you know what you found?

A. I haven't looked at it recently.

Q. So you don't have a memory of what's in that account?

A. No. As I say, when we respond to your request, why, you'll see in that.

My recollection is that that is primarily rentals for pole attachments by Bell Telephone.

Q. Well, let's assume that your memory on that point is correct. As a matter of general principle wouldn't the fairest way to allocate the revenue derived by the renting of that equipment, assuming that it is pole equipment for Bell Telephone, be to base the allocation on each class' contribution to the payment for that equipment?

A. Well, we don't -- I'm not quite sure I follow you on that.

Q. In other words -- what point don't you understand about the question?

A. You're saying each class' contribution to the payment for that?

Q. The question is assuming that the equipment being rented is poles for Bell Telephone, which is your memory of what that property is --

A. That might be one of the items. How predominant that is, I don't know.

Usually when you're looking to allocate any expense item that would include different items in it you look for what you think is best representative of means to allocate that. I think until we know for sure what's in there, why,

it's difficult for me to respond to that.

Q. So what you're saying is once you have gone back and hopefully found out what's in that account, the most appropriate basis for allocating the revenues derived from that account or from that rental is on the kind of property that is being rented?

A. Well, we would look at see which schedule is available to us we feel would be best representative of a way to allocate that particular cost, depending on the nature of the dollars that are in that account. In fact, that's what you do with all of the accounts in the cost allocation.

Q. Presently, Mr. Sundermeir, you're allocating that account on the basis of A-1?

A. That's correct.

Q. Is that correct?

A. Yes, it is.

Q. Would you turn to Section 5, page 35?

A. Yes.

Q. And would you read for the record the primary allocation for A-1?

A. The primary allocation of A-1 is production and transmission plant and expenses.

Q. Thank you.

Now, wouldn't the use of A-1 be correct only if the equipment being rented is production and transmission equipment?

A. Again, it's hard for me to answer your question when I don't know exactly what's included in that account at this time.

Q. Assume -- I ask you to assume -- that the use of A-1 would only be a correct usage if the equipment being rented in that account is production and transmission equipment.

A. Not necessarily. As I indicated on page 35, that is the primary allocation function of that schedule. It doesn't mean necessarily it is the only allocation function of that schedule.

Q. Well, let's ask you another question that asks you to assume that if the equipment being rented in that account was primarily distribution poles, say, for Bell Telephone, would not the more appropriate methods of allocation be D-7 or D-9?

A. Not necessarily. I suppose you would have a choice partly from looking at that type of schedule. You can also look at some of the other demand related schedules such as A-2 or A-3.

Q. But A-1 would not be an appropriate method of allocation assuming that the predominant item being rented there is distribution poles for Bell Telephone? Is that correct?

A. That would be something we would take into consideration. And, again, not knowing the total amount of

dollars and the predominant dollars in that account it's hard for me to answer your question.

Q. I'm just asking you to assume if the equipment being rented in that account is predominantly distribution pole for Bell Telephone, I'm asking your opinion in that event whether or not you think A-1 is an appropriate method of allocation.

A. I would say A-1 would be one of your choices of making the allocation, and perhaps there's others; as we indicated, perhaps an A-2 allocation schedule or something like that.

Q. Okay, Mr. Sundermeir. Could I ask you now to turn to WFS-1 again, page 22-A, line 15?

A. Yes.

Q. Isn't it correct that that line indicates the total amount of distribution plant investment to be allocated among the classes is $1,509,556,000?

A. That's the total of the distribution plant, yes.

Q. Would you now turn to page 21-A?

A. Yes.

Q. Could you give us the total for the Account 365, which is the overhead conductors and devices?

A. Yes. It's $208,206,000.

Q. And am I correct in saying that the total is

split into three categories: primary lines, secondary lines -- three functional categories: primary lines, secondary lines and HT lines?

A. That is correct.

Q. What do you mean by "HT lines" Mr. Sundermeir?

A. Well, as it indicates, it's high tension lines that I think in this case are -- I think it's lines that are distribution lines of 66 KV and above, I believe.

Q. 66 KV and above, did you say?

A. Yes. I would have to check that, though.

Q. The primary and secondary functional categories are classified into customer and demand categories; isn't that correct?

A. Yes.

Q. Focusing on the primary category, approximately 81 percent is classified as a customer cost; isn't that correct, Mr. Sundermeir?

A. I'll accept that.

Q. And turning to the secondary category, approximately 99.8 percent of the investment in that functional category is classified as customer related?

A. I accept that.

Q. Would you also accept, Mr. Sundermeir, that if we added Account 360 through 368 you would find the total of $719,990,000 classified as the customer related costs?

A. Account 362 to 368?

Q. No. Acount 360.

A. Oh, 360.

Q. Accounts 360, 61, 62, 63, 64, 65, 66, 67 and 68. The addition of those categories would give a total of $719,990,000 classified as the customer related costs?

A. You say all accounts from 360 to 368?

Q. That's correct, Mr. Sundermeir.

A. Well, short of going through and doing the addition here right now, I'll accept that subject to check.

Q. Fine.

And the total investment for those same accounts -- for those same accounts with the exception of 361 and 362 -- is $935,120,000. Would you accept that subject to check, Mr. Sundermeir?

A. That's 360 to 368 excluding --

Q. Excluding 361 and 362, which have no customer related costs.

A. In a quick check I did, I got $938 million, and I think you said 935, so that's close.

Q. Okay. Approximately 935 or 938?

A. Yes.

Q. So roughly 77 percent of the total investment for Accounts 360, 364, 365, 366, 367 and 368 is customer

related; isn't that correct, subject to check?

A. Not if I understood the original number that you gave me were the customer related costs. I thought you told me it was 17 million.

Q. No, $719,990,000.

A. Oh, $719 million.

Q. Yes.

A. Well, I would have to check that number, but subject to check, if that is correct...

Q. Okay. Subject to check. Thank you.

(Witness performing calculations on electronic calculator.)

A. ... that is approximately 77 percent of the total, if that is correct.

Q. Now, Mr. Sundermeir, for Accounts 360 -- for the accounts that we have been talking about, the cost allocators used most frequently are A-5 and D-7? Would you agree with that?

A. Well, they are used frequently, but so are a number of other schedules: A-3, A-7a, B-9.

Q. Thank you, Mr. Sundermeir, for the responses to that.

MR. HANGER: At this point I would like to mark as CEPA Trial Exhibit 1 Interrogatory-OCA-7-8.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as CEPA Exhibit No. 1 for identification.)

BY MR. HANGER:

Q. Could you turn to page one of six?

A. Yes.

Q. That's the section labelled "Primary Lines-Aerial (Account 365)"?

A. Yes.

Q. Mr. Sundermeir, I merely want to go through with you the derivation of the numbers in this account.

A. Yes.

Q. Is it correct that that account shows -- that the workpapers for this account show that there are 8,205,752 feet of primary overhead lines?

A. It's that many feet of line in excess of the minimum sized line.

Q. What do you mean by that, Mr. Sundermeir?

A. Well, the way this is done, we look at the minimum size equipment, the predominant minimum size of the equipment that is being installed, and from our property records we can tell the number of feet of line that is larged than the minimum size equipment that is installed; and that's what this number is.

Q. Mr. Sundermeir, how many feet of minimum size line are there in this account?

A. I would have to refer to our property records to see how many feet there were at the time we did this study. This study -- for the purposes of this study we only had to know the number of feet of line above the minimum size.

Q. Mr. Sundermeir, do you know how many feet of conductor are below the minimum size?

A. If I knew the total I would know how many were below because I could subtract this number out of it. This study was done in 1982. The only way I would be able to determine the total number of feet, and consequently the number under, would be to go back to that basic data, assuming it's still available.

Q. Could you please do that?

A. Well, assuming that it's still available.

Q. Assuming that it's available could you please do that and provide that data to both myself and Mr. Sterzinger; and also the 1982 study, as long as it's available?

A. Well, the 1982 study is what you're looking at.

Q. The numbers that you were talking about going back to get, are you talking about the workpapers to the 1982 study?

A. No, I'm talking about going back and looking at our property records data and finding out how many total

feet of primary line there were in Account 365 at the time that we did this study. I thought that is what you asked for.

Q. Are there any workpapers, Mr. Sundermeir, that support this study?

A. Well, at the time we had our property records data, which gave us cost data and gave us length of line data that we have used.

Q. Are there any workpapers to determine the definition of predominant?

A. Well, I don't know if you could call it the definition of predominant or not, but there was a determination made by looking at the property records data at that time and with discussions with our engineering department as to what the predominant minimum size of equipment was that we were installing at that time, and as indicated on the sheet that you're looking at that was determined to be 4/0 aluminum wire for that account.

Q. Mr. Sundermeir, is there any written record of that decision, about what constituted a predominant wire?

A. No.

Q. Am I also correct, Mr. Sundermeir, that the Account 365 indicates that the cost is 44.2 cents per foot for the predominant size wire?

A. That's correct.

Q. And that the total for the predominant wire is $3,626,942?

A. No. The $3,626,000 you're referring to is what the wire larger than the predominant minimum size cost if it had cost the same as the predominant minimum size, the 44.2 cents.

Q. So the $3,626,942 figure is derived by multiplying the 8,205,752 feet by 44.2 cents?

A. That's correct.

Q. What does the $19,356,076 figure represent, Mr. Sundermeir?

A. That is the total cost of that 8,205,752 feet of conductor wire.

Q. And the 15,729,134 figure is derived by subtracting the minimum equivalent from the actual minimum? Is that correct?

A. It's obtained by deducting the cost of the wire that is larger than the minimum size as if it had cost the same as the average cost of the minimum size from the total actual cost of that wire that's larger than the minimum size. And it's a difference between the 19,356,076 and the 3,626,942 that's shown on the sheet that you're looking at.

Q. Then the $83,703,623 figure is the total cost for primary line in that account; is that correct?

A. Yes.

Q. And the 18.79 percent is the percentage of the primary lines that are considered demand related?

A. Yes.

Q. Mr. Sundermeir, do you follow this same procedure for each of the functional categories left in OCA-7-8?

A. Yes, the exact same procedure is followed.

Q. Okay. Mr. Sundermeir, could you please define or give us your definition of customer costs?

A. Yes. Customer costs are those costs that the company incurs that are independent of the energy use or the demand requirements of the customer. Another way to look at it is they are the costs the company incurs just to have the customer attached to our system.

Q. Mr. Sundermeir, could you go back to WFS-1, Section 6, page 43?

A. Yes.

Q. And go down that page to the line that is labelled "Total Unit-Annual Cost to Serve"?

A. Yes.

Q. According to this study, each Rate R customer costs $207.30 per year; isn't that correct?

A. Yes.

Q. Mr. Sundermeir, at this point I'm going to have a few questions about production plant. The installed capacity of Limerick 1 is 1055 MW; is that correct?

A. Yes.

Q. And the yearly cost of Limerick 1 and common plant for this rate case is $949.5 million; isn't that correct?

A. That cost of the plant?

Q. The yearly cost of Limerick 1 and common plant.

MR. MacGREGOR: Each and every year or just in the first year?

BY MR. HANGER:

Q. For this case, Mr. Sundermeir.

A. I don't know what that number is.

Q. Mr. Sundermeir, do you have the statement of reasons? It's PECo Exhibit No. 3. Do you have that in front of you?

A. No.

Q. Does somebody behind you have it?

A. Yes.

(Document handed to Witness Sundermeir.)

A. Yes, I have that exhibit in front of me.

Q. Can you turn to page four of that document?

A. Yes.

Q. Could you read the sentence in the middle of the page, which begins, "On a more detailed basis," and ends at the comma in front of "savings"?

A. "On a more detailed basis, the increase includes

approximately $742 million associated with Limerick 1 and common plant net of anticipated energy savings."

Q. Thank you.

And on page one of that same document the company's anticipated energy savings is $207.5 million; isn't that correct?

A. That's correct.

Q. So the gross amount of yearly cost would be the addition of those two numbers; isn't that correct?

A. Did you say $949 million?

Q. That's right -- .5.

A. .5. Yes.

Q. Given those numbers, Mr. Sundermeir, would you accept subject to check that the cost per KW is $900 per year?

A. The cost per KW of Limerick capacity?

Q. Of the Limerick plant, Mr. Sundermeir.

A. Of the Limerick plant capacity, yes. Now, what did you say the number was?

Q. $900 per year.

A. Approximately $900 per year, yes.

Q. And if that KW were to be used only four hours, the cost per KWH is $225; isn't that correct?

A. You said $200-some a KWH?

Q. $225.

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of service based on energy use at the point of generation.

MR. HANGER: Mr. Sundermeir, those are all the questions I have for you. Thank you very much.

THE WITNESS: You're welcome.

MR. HANGER: Your Honor, according to our previous agreement with the company, Mr. Williams was going to be made available for cross-examination at this time. I would ask that Mr. Williams be called.

MR. MacGREGOR: I have no objection to that, if it's all right with Your Honor.

JUDGE MATUSCHAK: Mr. Williams has been previously sworn.

MR. CORRODI: Your Honor, Jim Corrodi for Scott Paper. Will Mr. Sundermeir be recalled because I do have some cross-examination for him.

JUDGE MATUSCHAK: Yes.

(Witness temporarily excused.)

MR. MacGREGOR: Your Honor, Mr. Williams has been previously sworn, as you have indicated, and I also believe his Statement No. 17 has been previously admitted as evidence in this proceeding.

In addition, I have just distributed to Your Honor, the court reporter and Counsel for the parties copies of a document entitled "Pennsylvania Public Utility Commission versus Philadelphia Electric Company, Docket No. R-850152,

Proposed Rate OP Off-Peak Service." I would ask that that be marked for identification as Exhibit RCW-1.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as PECo Exhibit No. RCW-1 for identification.)

MR. MacGREGOR: Your Honor, this document is a tariff sheet reflecting revisions to the company's Rate OP. This revision is discussed in Mr. Williams' direct testimony. However, the tariff page was inadvertently not submitted with the original filing of the case. But the proposal is fully described in Mr. Williams' testimony and I'm simply distributing the document to the parties at this time to correct that inadvertent error.

JUDGE MATUSCHAK: Fine.

Whereupon,

RAYMOND C. WILLIAMS

having previously been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. MacGREGOR:

Q. Mr. Williams, do you have a copy before you of a document that has been marked for identification as Exhibit RCW-1?

A. Yes.

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

A. Yes, it was.

Q. Does this document reflect the proposed change discussed in your testimony to Rate OP off-peak service?

A. It does.

Q. And is the information contained in this document accurate to the best of your knowledge?

A. Yes.

MR. MacGREGOR: Your Honor, I would ask that this document that has been marked for identification as Exhibit RCW-1 be admitted as evidence in this proceeding, subject to any timely motion to strike or other objection.

JUDGE MATUSCHAK: Under those conditions the motion is granted.

(Whereupon, the document marked as PECo Exhibit No. RCW-1 was received in evidence.)

MR. MacGREGOR: Your Honor, Mr. Williams is available for further cross-examination.

JUDGE MATUSCHAK: You may proceed.

CROSS-EXAMINATION

BY MR. HANGER:

Q. Good morning, Mr. Williams.

A. Good morning.

Q. For the Residential Rate R, Mr. Williams, you have determined the impact of your proposed rate design on levels of usage, would that be a fair statement?

A. Yes, it was.

Q. Does this document reflect the proposed change discussed in your testimony to Rate OP off-peak service?

A. It does.

Q. And is the information contained in this document accurate to the best of your knowledge?

A. Yes.

MR. MacGREGOR: Your Honor, I would ask that this document that has been marked for identification as Exhibit RCW-1 be admitted as evidence in this proceeding, subject to any timely motion to strike or other objection.

JUDGE MATUSCHAK: Under those conditions the motion is granted.

(Whereupon, the document marked as PECo Exhibit No. RCW-1 was received in evidence.)

MR. MacGREGOR: Your Honor, Mr. Williams is available for further cross-examination.

JUDGE MATUSCHAK: You may proceed.

CROSS-EXAMINATION

BY MR. HANGER:

Q. Good morning, Mr. Williams.

A. Good morning.

Q. For the Residential Rate R, Mr. Williams, you have determined the impact of your proposed rate design on levels of usage, would that be a fair statement?

A. I have provided calculation, yes.

Q. Would Section 7, page 59, of WFS-1 reflect those calculations?

(Witness perusing documents.)

A. Yes. That revenue line shows the Rate R revenue at various annual energy use levels.

Q. Thank you.

Mr. Williams, do you know how you included the differential between winter and summer into the total annual bills?

A. Well, that is in accordance with the blocking of Rate R as shown in the tariff that was filed. The summer end block as proposed is 15.66 cents and the winter end block is 13.62, and that end block is applicable in the summer in the months of June through September of the summer months.

Q. Is the annual bill reflected on page 59 calculated on the basis of the summer rate for the whole year?

A. Well, there is both a winter and summer calculation there.

Q. Why is there difference between the two if they are an annual bill?

A. Well, the calculation shown there is simply a -- I'm not sure I understand your question.

Q. Why isn't there just one annual bill for the

Residential Rate R?

A. Well, this demonstration is simply to show the difference between costs and the calculation of a rate based on the winter pricing or summer pricing. It's that straightforward.

(Pause.)

A. I agree that a customer -- if you're asking if a customer is using 1,000 kilowatt hours, he would have a different bill in the summertime than he would in the wintertime. He wouldn't have 12 months of a summer bills, nor 12 months of a winter bill.

Q. And you would have one annual bill, isn't that correct?

A. You will have an annual bill based on that customer's usage by months, which obviously would vary month by month.

Q. My question is, then, why in that event do you show two lines in this exhibit for winter and summer?

A. Well, we are showing the effects of the two price blocks, the winter and summer price blocks. That is what we are showing.

We are not -- I'm certainly not saying that any customer is billed 12 months at the summer rate, nor 12 months at the winter rate. They are billed in accordance with the tariffs and in accordance with their usage.

Q. Mr. Williams, have you considered the impact of your proposed rate design on household income for families living at the poverty level?

A. The company is continually aware and concerned about the impact of our existing rates and proposed rates on families at the poverty level as you described, and we have and are continuing to try to do everything we can to address help and aid to those particular people and pinpointed to those particular people in a manner that will be of true assistance to those people, and not in a broad-based rate that's available to everybody without designation of need. We believe the way in which we are applying our programs is appropriate, much more appropriate and much more helpful than any change in any rate would be which would be broad-based.

Q. So you are aware of the impact of your proposed rate design on families living at the poverty level?

A. I didn't say that. I said we are continually aware of the problem of families at low income levels and we are working in every way we can every day in bill collection and in our various programs to deal with these people and try to work with them in budget billing, spread the payments, in our programs addressed to these people in every way we can.

Q. I understand the company is engaged in a number of other non-rate design efforts to deal with the ability to pay issue. My question focuses on the rate design that you

are sponsoring in this case.

Have you considered the impact of that rate design on families living at the poverty level, and if so, how have you done so?

A. As I explained, I believe it's much more appropriate to consider the impact of electric rates, be they present rates or proposed rates, with direct programs as we are doing, not by trying to design rates to broad-base such a treatment. I don't believe that's appropriate.

Q. Is my understanding of your last answer correct when I conclude that you think it's inappropriate to consider the impact of rates on families living at the poverty level?

A. I didn't say that, sir.

Q. In putting a rate design together?

A. I didn't say that, sir. It's certainly not what I intended to say.

We are very much aware of the impact of the cost of our service to people at the poverty level. I don't believe that --

Q. Can you give me a specific example in your rate design how that awareness of the impact on families living at the poverty level is reflected in your rate design?

A. It's maintained by our historic 500 kilowatt hour price blocking, recognizing that that is not as high

as it should be relative to the cost of service. It is reflected in the customer charge. We are maintaining those in the same manner that we have done in recent cases. We are maintaining the customer charge far below that which is specified by our cost allocation.

However, we are following the example as approved in the last several cases in making a very small increase to follow those precedents.

Q. Are those, the 500 KWH rate block and the customer charge, the only means within the rate design by which you have considered the impact of this proposed rate design on families living at the poverty level?

A. I have tried to explain that we consider the problems of families living at the poverty level every day in our programs.

Q. I understand that. I'm just focusing, again, on the rate design.

A. And I have explained to the best of my ability that I don't believe we can do any more in our rate design than we have done.

Q. Mr. Williams, in any past cases have you designed any rate tariffs that took into account the impact of rates or rate increases on one or more customer classes?

A. I'm sorry. You will have to be more specific.

Q. In any past cases have you designed a rate structure

that took into account, when designing that rate structure, the impact of the rate or the rate increase on one or more of customer classes?

A. If you can give me a more specific example, perhaps I can respond to that.

Q. Okay. For example, would you consider that the Supplemental Energy Rider took into account the impact of rates to a customer class?

A. The supplemental energy portion of the Night Service Rider, I assume, is what you are referring to. That recognized the possibility for retaining industrial employment in the area by addressing a very real need to provide service at a cost to the customer that would retain the employment in the area and at the same time provide revenue to all other classes through our income or return and, indeed, benefit the entire classes of customers.

Q. So one objective of that rider was to protect the level of employment in the PECo service territory; is that correct?

A. To retain jobs in the service territory and employment in the service territory.

Q. And, indeed, the rider was specifically designed with that goal in mind?

A. That was one of the goals, yes.

Q. Mr. Williams, I want to pose a hypothetical to

you. If you were considering two equally cost-justified residential tariffs, would you agree that it would be appropriate to take into account when deciding which tariff to utilize the effect of the tariffs on persons living at the poverty level?

A. That, as I have said, is a continuing concern. It is one concern. There are many other concerns in designing tariffs. But I believe that these concerns can be much more directly addressed with specific programs to help those specific people than through tariff design.

Q. In the design of Residential Rate R tariff which part or parts of that tariff do you consider to be the most sensitive to price?

A. Can you explain the question, please?

Q. Which part of the question do you not understand, Mr. Williams?

A. You say what part is the most sensitive? As far as the customer is concerned, to his usage, or what?

Q. That's correct.

A. You're talking about a residential customer?

Q. That's correct.

A. And his reaction to the tariff?

Q. That's right.

A. I believe the residential customer is most concerned about the total bill and he looks at the use level--

he or she looks at the use level -- and perhaps divides by the kilowatt hours used in that month to come up with an average price per kilowatt hour.

Q. Well, am I correct in saying that within the Residential Rate R tariff there are three parts to that tariff, namely, the customer charge, the first block of KWH and then the winter tail or the summer tail?

A. That's correct.

Q. Is it your testimony that there is no difference between those parts of the tariff to price sensitivity -- or in price sensitivity?

A. No, that is not my testimony.

I understand your question to be what do I believe is the usual customer perception, and I was trying to respond to that.

Q. Which part of the Residential Rate R tariff do you consider to be the most sensitive in terms of effect on usage to price?

A. Well, from a theoretical basis certainly the pricing of our summer end block, which we have as the highest price of any of the kilowatt hours in our tariff. That is meant to reflect our highest cost period to provide service and we believe it theoretically sends a message to conserve as much as possible during that period.

Q. Would you agree that the customer charge is the

least sensitive part of the tariff to price?

A. Least sensitive to price? What do you mean by that?

Q. By that I mean it gives the least information to the customer about the price of electricity.

A. As I said, unfortunately -- realistically, I should say, from the customer's viewpoint I believe the customer looks at the entire bill. I believe that from the realism of serving customers it's essential to follow the cost to provide that service, and certainly it realistically costs money to go out and reach each service point and there should be some recognition of that in the tariff and that is what the customer charge is designed to do. The meter has to be read, billing has to be done; these charges go on regardless of use.

Q. Thank you.

In the event of an adjustment, speaking hypothetically, reducing PECo's revenue requirement how would you alter the rate design to reflect that adjustment?

A. Could you describe the adjustment?

Q. A lower revenue recovery.

A. A lower total revenue recovery?

Q. Yes.

A. For the residential class?

Q. Yes.

A. I would suggest proportionate reductions of the kilowatt hour prices.

Q. Across all parts of the tariff?

A. Yes.

Q. Equally distributed?

A. Approximately equally distributed, yes. I would suggest no change in the customer charge.

(Pause.)

A. I might note that the customer charge has only been increased about five-and-a-half percent.

MR. HANGER: Those are the only questions I have for Mr. Williams at this time.

Could I move into the record CEPA Trial Exhibit 1 at this time?

MR. MacGREGOR: No objection, Your Honor.

JUDGE MATUSCHAK: The exhibit is admitted into evidence.

MR. HANGER: We are moving that into evidence?

JUDGE MATUSCHAK: Yes. It has been admitted.

(Whereupon, the document marked as CEPA Exhibit No. 1 was received in evidence.)

MR. HANGER: I have no further questions.

JUDGE MATUSCHAK: Consumer Advocate?

MR. WERSAN: May we put Mr. Sundermeir back on?

MR. MacGREGOR: We are switching witnesses, Your Honor.

(Witness excused.)

Whereupon,

WILLIAM F. SUNDERMEIR

having previously been duly sworn, testified further as follows:

CROSS-EXAMINATION

BY MR. WERSAN:

Q. Good morning, Mr. Sundermeir.

A. Good morning.

Q. I have a few questions for you.

Am I correct that in this proceeding the company has once again proposed to use the four summer coincident peak methodology for allocating production plant costs among the customer classes?

A. That's correct, and it's precisely the same method that we used, I guess, in the last six or seven rate cases.

Q. And I take it you feel that using the four CP is appropriate because in your opinion PECo's production system has been sized and built to meet the company's summer peak load rather than other factors?

A. That's correct.

Q. Is it your position that the company's production system was sized and built solely to meet summer peak load?

A. The production system has to be designed to meet

the company's system peak plus reserve, and the company's system peak at least for quite a few years now has been in the summer.

Q. I know. My question was is that the sole reason that the system has been built in the manner and with the plants and with the transmission lines that it has?

A. For the capacity, yes. The capacity of the production equipment of the company is built to satisfy the summer peak load.

Q. When you say "capacity" do you mean number of megawatts or types of megawatts also?

A. Megawatts, number of megawatts.

Q. What about the types of megawatts?

A. I don't know what you mean by "types of megawatts". A megawatt is a megawatt.

Q. Okay. I guess I was trying to be clear. I'm differentiating between kinds of production plant, base load nuclear plants, intermediate cycling plants, peak plants, et cetera.

It's your position that all of those were chosen solely on the basis of the summer coincident peak?

A. I think the total capacity is required to meet the summer system peak. The kinds of capacity that are installed are an effort to provide that capacity and energy requirement at the lowest possible cost.

I'm not involved in the system planning area but that would be my perception of what they would look at.

Q. I realize you're not involved in system planning but you have to make certain decisions about why that plant was built or constructed in order to allocate it in your cost of service study, so you must have some familiarity, I assume.

A. Yes, I do, and as you can probably tell from the method that we chose to allocate that plant that we do it on the basis of capacity because that plant, the size of the plant, the number of megawatts of capacity of that plant, are directly related to the summer system peak that the company has to satisfy.

Q. Suppose hypothetically that it could be demonstrated that a significant portion of the company's production plant costs were incurred for a reason other than to solely meet peak load requirements. Would you change your assessment of the proper method for allocating production plant costs?

A. No. The production plant costs, I would -- the cost of the plant, now -- I would allocate in the case of Philadelphia Electric Company on the basis of the coincident peak method, and in our case the summer coincident peak method.

If you're suggesting a different distribution of plant than what we actually have, would that cause me to change my

method of allocation, the answer is no, it would not.

Q. That wasn't my question. My question was you have assumed or you have stated that you believe that the production system was sized and built for peak load. Suppose it was sized and built for some other reason besides just peak load.

If you believed that latter conclusion, which I realize you don't, would you then develop a cost of service study based upon an alternative method?

A. Well, in your hypothetical, which I clearly don't accept and is not realistic, I guess I would have to reconsider possibly using some other method.

Q. But now that you have said that, you would agree that you have just stated earlier in response to questions that the company chooses the kind of capacity that it builds based upon overall economics, including the cost of energy by those facilities?

A. That's correct.

Q. Now, suppose Philadelphia Electric Company put out a load forecast that said they needed additional capacity in the future. What kind of criteria do you believe the company would look at to determine the type of capacity that it would install?

A. Well, I would assume that they would look at satisfying those requirements in the most economical means possible.

Q. And what goes into that determination?

A. Well, the cost of the capacity and the cost of operation and the cost of fuel.

Q. Under what condition in your opinion would it be more appropriate for the company to build a combustion turbine rather than, say, a base load plant?

A. Normally you would associate a combustion turbine with peak load and perhaps a sharp needle-type peak load where you would satisfy the demand, where you would have a very high cost of energy but it would be for a short duration.

Q. What role do you think the capacity factor of a type of generation plant would play in a decision to add capacity?

A. The capacity factor of the generating plant?

Q. Yes.

A. Well, maybe I'm not clear on what your definition of capacity factor is. I mean, normally you would think of a base load plant as having a high capacity factor and a combustion turbine as having a low capacity factor. The trade-off would be between the lower capital cost and the higher energy cost of the peaking system versus the higher capital cost and the lower energy cost of the base load system.

Q. How about instead of capacity factor, availability factor of a unit?

A. Well, if you were looking at a base load unit you would be looking at something with a high availability or capacity factor, and if you were looking at a peaking unit it would be something with a low figure, low capacity.

Q. I'm talking availability factor as compared to capacity factor. Are you familiar with that term?

Maybe I should give you my definition for it.

A. Perhaps you should.

Q. The hours in which the unit would be available to run, whether or not it's called upon to run. That's how I'm using it.

A. I believe that this is something that our system planning people would have to take into consideration when they are deciding what types and costs are involved with the units. But as I think I said earlier, I'm not involved in that area.

Q. You're not familiar with how they take that into account?

A. Only in general terms, as I have described.

Q. What role was system load factor play in your opinion in the choice of the type of generation unit to be constructed?

A. Well, again, I'm sure that the load characteristics of the system would be of prime importance in the planning, whether or not we have a needle peak which could conceivably

result in a low system load factor. That type of consideration would be taken into account, I'm sure, in selecting a base load versus a peaking type plant.

Q. Suppose you had a system with a high load factor, say, 80 percent load factor. Do you think, then, you would be more predisposed to build a new baseload plant like a nuclear or coal plant as compared to a combustion turbine because of the additional KWH that would be required from that plant?

A. I don't know. My reservation on that is if you have a high load factor system you have to plan around maintenance schedules and that could have some bearing as to what type of plant you install.

Q. Okay, but putting maintenance schedules aside --

A. Well, it's hard to put that aside. You have to have enough capacity to supply your load when you are doing maintenance on your other units.

Q. Let me put it to you this way: suppose you had an 80 percent load factor and you had to add 500 megawatts of capacity. In your opinion, even with the maintenance schedule considerations, would you expect that you would look for a base load plant because of the additional KWH that would be required from that plant as compared to a 500 megawatt combustion turbine?

A. I don't know because some of the other considerations

would be how long am I going to need the 500 megawtts of additional load.

Q. Well, with an 80 percent load factor doesn't that tell you what portion of the year you need that generation?

A. I was assuming that we were operating at 80 percent and we were going to add 500 megawatts of additional load. You're saying that's also at 80 percent?

Q. Yes, at 80 percent load factor.

A. I really don't know. There might be some other variables involved. Again, I would have to say that I'm not in the area of system planning and so it's difficult for me to know what other variables that they may be looking at other than the general area that they would be looking at the combined cost with the goal of providing capacity and energy at the cheapest price possible.

Q. Let me give you another example and get your opinion. Suppose Philadelphia today had capacity to meet a 25 percent required reserve margin, as required by PJM, and had a new 1,000 megawatt base load plant coming on line, but peak load was only increasing by 50 to 100 megawatts in the forecast.

What is your understanding of the criteria that the company would use to decide whether to retire other plant or to accept higher than PJM required reserve limits?

A. I think you're asking the wrong witness these

questions.

Q. Well, when you decide in your department how to allocate the Limerick Unit 1 you make an assumption about why that was built; is that correct?

A. I make an assumption as to how to allocate the actual cost of the production plant system. I make no assumption or have any input as to what plants are retired or what plants aren't retired.

Q. But you have to reflect your interpretation of why plants are constructed and why plants are retired, don't you?

A. Yes.

Q. So I'm asking you what your understanding is that enables you to make your assumptions about using the four coincident peak method.

A. I think it's fairly clear and I think I've stated in my testimony as to why we feel that the four coincident peak method is necessary. The company is a very predominant summer peaking company and we have to provide capacity to meet the summer peak plus reserve. That, to me, very clearly points to a coincident peak method using the summer demands as an appropriate method for allocating that production plant.

Q. Suppose Philadelphia Electric had 450 megawatts of combustion turbine that was not physically obsolete and could be used another ten years.

Under what circumstance in your understanding and opinion would the company choose to retire those combustion turbines and instead bring on base load nuclear capacity?

A. I think we are starting at a different level here. We take the total dollars of production plant, in the case that we are referring to here, and we allocate that to classes of service. What decisions that are made that result in those dollars of production plant I have nothing to do with.

Q. Well, let me ask you this: when you decided to use the four coincident peak methodology as your representation of how the company's system was designed and built, did you go and talk to Mr. Rush, or prior to him Mr. Clouse, or before him Mr. Kasum, and discuss your four CP method?

A. There have been some general conversations with those gentlemen that you mentioned over the years.

Q. What do you mean "general conversations"? A chance meeting in the hallway?

A. Well, I don't recall any specific conversations right now.

Q. So I would take it from that that you have designed your cost of service study and the allocations within that based upon your understanding without going down to the system planning division and confirming that with them?

A. As I have indicated, there have been some

casual conversations with our system planning people. They know how we do that allocation. They certainly don't object to the way we do it.

Q. Well, why would system planning feel particularly any need to discuss with you, on their own, how you allocate costs? That's not their job, is it?

A. No, it's not really their job. But you asked if there have been any conversations on that with me and I have indicated, yes, there have been some kinds of conversations on that.

Q. But you also indicated you never actually sat down with them to lay it out?

A. Well, remembering whether we sat down or what, I don't recall.

Q. Have you ever asked Mr. Rush from the system planning division, or his predecessors, whether your cost allocation methodology accurately portrays their decision process in developing the PECo production system?

A. I don't recall.

Q. Now, do you know of any other electric utilities in Pennsylvania -- let me change that, let me rephrase that. Do you know if any electric utilities in Pennsylvania allocate some portion of base load nuclear capacity on an energy basis?

A. The only other utility that I'm a little familiar with -- and I wouldn't profess to be an expert on what they

do, but I'm a little familiar with -- is PP&L, and they allocated their nuclear plant on the basis of demand.

Q. What demand measure does PP&L use?

A. What demand method did they use?

Q. Yes.

A. They used the average of the peaks in 12 months.

Q. Are you familiar with how Metropolitan Edison allocates its share of Three Mile Island Unit 1?

A. No.

Q. Are there customer classes in your cost of service study which are not allocated any cost responsibility for the additional investment in the Limerick station?

A. Not a customer class but a rate, Rate OP, which is an off-peak rate. The load is interrupted during our peak periods and therefore they are not contributing anything to our system peak.

Q. But that customer -- that rate -- does receive the energy benefits as the company has described them from Limerick?

A. That's right. But they place no requirement for additional capacity to meet the peak.

(Pause.)

A. I might add to that that the rate for the Rate OP customers was adjusted so that the net effect on the OP customer was zero.

Q. Zero on a total bill base in this case?

A. There is no increase in the total bill to the Rate OP customers.

Q. Now I would like to discuss with you some of your demand and load data. I would start out by referring you to page 64 of Exhibit WFS-1.

A. Yes.

Q. Are you there?

A. Yes.

Q. Am I correct that page 64 indicates by class or by rate the source and the age of the load data that you have used in WFS-1?

A. That's correct.

Q. Now, where it shows for the high tension and the primary classes, the source says billing records and the age says current. Does this mean that for each customer in those two classes that the company has actual data on usage at the time of the four CP for all of the customers in that class?

A. No. For the high tension class we obtain the data on the days of the system peak for all customers over 2,000 kilowatts and for a sample of customers under 2,000 kilowatts.

For the primary class, again, the data is obtained on the day of the peak for a sample of the customers.

Q. How are the samples for the HT and PD classes chosen?

A. It's a random sample of customers under 2,000 kilowatts.

Q. What kind of stratification variable did you use to develop your sample? Do you know how that was done?

A. They are -- if you're thinking in terms of stratification the way we do it for the residential class, they are not stratified. It's a random sample of the customers under 2,000 kilowatts.

Q. Well, how big is the random sample, first of all?

A. I thought I had that data handy. It's approximately...

(Witness perusing documents.)

A. ... approximately 125 customers.

Q. For which class?

A. For HT.

Q. And how about for PD?

A. Approximately 210 customers.

Now, just to make it clear, the number 125 that I gave you for HT is only for the customers under 2,000. The customers over 2,000, it's a complete sample.

Q. When you say it's a random sample, you're assuming, then, that the random sample is representative of the group of

customers you're trying to measure?

A. That's generally the assumption that's made in any type of random sampling.

Q. Have you done any check to verify whether or not that's true?

A. We checked the accuracy of our load data by developing the load for each class of service independently, adding those values together and matching the resulting load with our system load.

Q. But that would only tell you, once you have added it up, how far off you are from the actual. It wouldn't tell you which class you're off from the actual, would it?

A. Well, in the case of HT where we have a good deal of the load represented by the customers over 2,000 kilowatts and we have a random sample and the load data from those customers on the days of the, again, on the days of the system peak, you would expect a fair amount of accuracy in the determination of that class load.

Q. Let me ask you this: the data that you sort of described on page 64, the source, is what goes into page 63, am I correct, in developing the class demands that are shown in your cost of service study using the third line from the bottom? I assume that's maximum divisible demand and KW --

A. No. Diversified.

Q. Diversified. I'm sorry.

A. Maximum diversified demand.

Q. Okay. So the line there for maximum diversified demand is the demand for each class that goes into WFS-1 allocation?

A. You're referring to the third line up from the bottom?

Q. Yes.

A. No. That's not used at all in the cost allocation. The cost allocation uses primarily two demands. One is the contribution of each class -- the average contribution of each class to the four summer month peaks and the other is the non-coincident peak. All that number is at the bottom of the page is to show the maximum diversified demands -- the maximum diversified demand of that class for the average of those four days. And the value that's used is at the time of the peak. This isn't necessarily at the time of the peak.

(Pause.)

A. The demand schedules that are used in the cost allocation, incidently, are included in my exhibit.

Q. Can you give me a page?

A. Yes. Page 29.

Q. Can you give me a line number or a reference?

A. Well, the A-1 line shows the average contribution to the class peak.

Q. Okay.

A. I don't know if I misspoke or not. It is the average of the demand on the four days at the time of the system peak.

MR. WERSAN: Your Honor, at this time I would like to mark for identification OCA Exhibit 72, which is the company's response to IR-OCA-21-4.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as OCA Exhibit No. 72 for identification.)

BY MR. WERSAN:

Q. Are you familiar with the response to this interrogatory, Mr. Sundermeir?

A. Yes.

Q. Am I correct that this shows in the different subheadings the number of HT customers and the number for whom actual demand measurements for the hour of the monthly system coincident peak demand was not available for use in estimating the HT class coincident peak demand contribution, and that's a. and b. of that answer?

A. Yes.

Q. So, for example, if we look to the month of June there were 2,276 HT customers and actual demand measurements were not available for 1,935; is that correct?

A. That's correct.

Q. And if we turn to e., which is the sum of the actually coincident system peak demand for those HT customers for whom actual demand measurements were available, could you provide me the comparison, again, for the month of June since I don't have that number. Is that what is on page 29?

A. No.

Q. That would be the average on page 29?

A. It's the average at the point of net generation on page 29. That is not what is shown --

Q. Would the average of the four numbers in e. be comparable to --

A. No, because the values shown in e. are metered.

Q. Okay. If you adjusted for the line losses they would be comparable?

A. Yes.

Q. And what we are looking at for high tension on page 29, at generation, was 2,235,585 KW; is that correct?

A. Yes.

Q. And the average of these four monthly metered data at e., would you accept subject to check that it's 1,346,824 KW?

A. Would you repeat that number?

Q. Sure; 1,346,824 KW.

A. A quick look at the four numbers would indicate that that's reasonable.

MR. WERSAN: Your Honor, at this time I would like to mark for identification OCA Exhibit No. 73, which is the company's response to IR-OCA-21-5.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked as OCA Exhibit No. 73 for identification.)

BY MR. WERSAN:

Q. Are you familiar with this answer, Mr. Sundermeir? And does this show similar kinds of data for the PD class as we have just looked at for the HT class?

A. It is precisely the same type of data that we provided for Rate HT.

Q. And again, for example, under the number of PD customers served and those for whom actual demand measurements were not available, in the month of June there were 2,836 customers and of those customers 2,642 you did not have actual measured demand for the hour of the peak; is that correct?

A. That's correct. Again, we take a sample of the total number of customers. It would not be practical, nor possible, to obtain that data from all of the customers.

Q. Mr. Sundermeir, when you use your random sample for the HT and PD classes do you apply the data, then, from that sample to those customers below 2,000 KV for developing their demand data alone?

A. We use ..... . the relationship determined by the

sample data between the demand values and the energy values of the universe.

Q. Do you use any of the demand data you get for those customers over 2,000 KV in developing the demand for customers below 2,000 KV?

A. No.

Q. If I could refer you now to page 66 of WFS-1, you there discuss loss factors; is that correct?

A. Yes.

Q. Am I correct that you lay out your description of how you developed your loss factors and in part B you discuss system component losses and that those classifications are based upon data from 1976?

A. The study that is shown in Section 9 is actually a study that is performed by our systems planning department We use the results of that study in developing our load data. So when you say that I put on page 66, I did not, nor did I supervise the preparation of this study.

Q. Okay. But you rely upon that information; is that correct?

A. We use the results of the information, yes.

Q. For the system component losses discussed under Section B, that discussion and those calculations are based upon data from 1976?

A. Yes.

Q. And you state in the last sentence of paragraph B that, "The use of percentages based on 1976 data is justified because the physical system essentially remainded unchanged"; is that correct?

A. That's correct.

Q. Now, since 1976 has Philadelphia Electric added any new power plants?

A. If you're leaning towards anything that would affect the development of the system losses, I believe there was an interrogatory response from system planning that verified this statement that is on this page that you're referring to.

Q. Do you have that available?

A. Yes, and we can find it.

Q. I will take a pause here for that.

(Witness perusing documents.)

Q. Could I refer you to IR-OCA-7-28? I'm sorry. I think it should be 7-27.

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

MR. WERSAN: I think so.

JUDGE MATUSCHAK: We will take a ten minute recess.

(Recess.)

JUDGE MATUSCHAK: Whenever you're ready.

BY MR. WERSAN:

Q. Mr. Sundermeir, we were discussing the system losses and the data used in WFS-1, which you stated had been provided to you by systems planning and that that is 1976 data.

A. Yes.

Q. And I was asking you about additions to PECo's system since 1976.

A. Yes.

Q. If I could refer you to Interrogatory-OCA-7-29, which I have quickly made some copies for reference purposes, would you agree, Mr. Sundermeir, that this interrogatory answer shows major additions to transmission and distribution plant from 1976 to 1984?

A. That appears to be what that shows, yes.

Q. And would you accept subject to check that if you totaled all the amounts expended on transmission and distribution plant in that eight year period it would equal $212,329,000?

A. I'll accept that subject to check. I'm assuming that you added the column headed "Amount"?

Q. Yes.

And if I then refer you to page 20-A of WFS-1, line 10, we could then compare that $212 million to the amount of transmission and distribution plant you actually have on your

system; is that correct? For example, at line 10 you have the transmission plant, which is $336,683,000 overall?

A. Yes.

Q. And would I be correct that generally --

A. No. I'm sorry. Could I have just a minute, please?

(Witness conferring with associates.)

A. The number that you referred to on page 20-A, line 10, is total transmission plant.

Q. Yes. And 7-29 is transmission and distribution. I recognize that.

A. Transmission and distribution.

Q. Yes.

A. So there is not a direct comparison.

Q. That's correct. But then if you look at the description of 7-29 of the plant that was added, would you agree that many, if not most, of these, certainly, the large items related to the transmission system, such as a 220 KV line for Limerick, for example -- let me turn it around. Could you point out which ones would not be transmission?

A. The interrogatory, IR-OCA-7-29, was a response by our plant accounting division and I can't look down this list and tell you which one of these items they would classify as transmission and which ones they would classify

as distribution.

Q. How about where they have been identified on this item as transmission? For example, Salem transmission plant, Deans to Branchburg transmission line, et cetera. Those certainly would be transmission items?

A. The only way I would feel comfortable with that would be to check with our plant accounting people as to how they would classify each one of those items.

Q. Let me ask you this: are you familiar with how much energy Philadelphia Electric was purchasing on interchange in 1976?

A. In 1976?

Q. Yes.

A. I don't have the data for 1976.

Q. Do you have an idea how much is imported today, or prior to the operation of Limerick 1?

A. In 1984 --

Q. I guess my question is purchased on interchange.

A. In 1984 I do have a figure for that. In terms of millions of kilowatt hours it was 11,975.

Q. And do you know how that is expected to change by Philadelphia Electric with the commercial operation of Limerick?

A. I do not.

Q. How about would you know the information for

similar comparisons for the amount of power imported from western utilities in western Pennsylvania and Ohio?

A. I do not.

Q. Do you have any general knowledge of whether or not the company projects that purchases by the company both on interchange and import are to be reduced with Limerick coming on line?

A. I really don't know.

Q. Now, yesterday you briefly stated during cross-examination how the load data was developed in arriving at the class non-coincident peak demands. Do you recollect describing that?

A. Yes.

Q. I'd like to go over that again because I wasn't completely clear on what your answer was. Would you please state for me by class how you developed that data?

A. The class annual --

Q. Non-coincident class peak.

A. Yes. The basic information we have to start with is the data that we develop on the four days of the system peak in each of the four summer months. We assume that for the residential class and the small commercial and industrial class that the annual peak for those classes would occur on one of those four days. They are weather sensitive; the peak normally occurs on a hot day. Therefore, we feel that

it's a very good assumption that the peak for those classes occurs on those days. So it's a simple matter of looking at the four days and picking out the highest value.

For HT and PD we are also limited by the data that we have on those four days. However, we feel that a conclusion that they also peak on each of those four days may not be accurate, so based on an analysis that was done a couple years ago we determined a ratio of the system peak -- or the class peak -- to the highest demand on one of the four peak days. So we take the highest number on the four peak days, knowing that that is the bottom line, and make a small adjustment to that to bring it up to what we estimate the class peak to be.

Q. For both HT and PD?

A. For both HT and PD.

Q. So as I understand it, then, you don't actually have metered data, unadjusted metered data, for any of the classes in developing the non-coincident peak?

A. Oh, we do, as I described.

Q. But you adjust that to get there.

A. You're saying that we adjust the load survey data to develop loads on the day of the peak?

Q. Let me restate the question.

A. Or maybe I can provide -- no adjustment is made to the data that we develop on the days of the four peaks for

residential and small commercial to obtain the class peak.

Q. Right. But for the HT and PD class you have to adjust the data, as I understood it, so it's not actual metered data that is used solely to develop the class non-coincident peak?

A. It is actual metered data in the sense that the analysis that we did a few years ago was also based on metered data.

Q. But then you take that information and you make an adjustment to the current class peak?

A. That's right, and it's usually a very, very small adjustment.

Q. How much is "very, very small"?

A. Well, a percent or two.

Q. And just so I understand it, then, the company makes an assumption that for the residential and small commercial and industrial that their class peak, the class non-coincident peak, is the same as their coincident peak?

A. No.

Q. It's on one of those days?

A. It is on one of the days, one of those four peak days, but not necessarily at the same time. In fact, it would most likely not be at the same time, particularly the residential class.

Q. But all of your non-coincident peaks are assumed to occur in the summer months on the days of the class peak -- on the days of the coincident peak but not necessarily at the same time?

A. No. No. Not all of them. Maybe we didn't cover all of the classes. The Rate RH, the electric space heating -- I think we talked about this a little bit yesterday-- their non-coincident class peak is obviously in the winter. So we determine their data in the winter and it has nothing to do with the summer as far as their non-coincident class peak is concerned.

The same way, we look at the highest demand for the street lighting customers, which may also not occur in the summer.

Q. But for the HT --

A. I'm trying to think if I skipped any others.

Q. I understand. I'm just trying to make sure that I understood that for HT and PD you're assuming that it occurs on the days of the peaks, but not at the same time?

A. No. As I said, we look at the demands on the days of the peak, and we know that the non-coincident class peak is at least as high as one of the values shown on those days.

Then, when appropriate we make a small adjustment to reflect, possibly, the fact that the peak occurs and is

slightly higher than that value. We know it's at least that high.

Q. Now, as I understand it, the company uses actual demand data to the extent that it can -- or let me change that -- the company did not weather normalize its demand data from the historic period that's used in your cost of service study; is that correct?

A. You're referring to the demand data that we used for the cost allocation, as to whether we normalize any of the class loads in the cost of service study?

Q. Yes.

A. To reflect some normal weather conditions on the days of the peak? I just want to be clear on what you're asking.

Q. Yes.

A. Now, we do not. We allocate costs based on the actual demands on the days of those peaks.

Q. How long have you been doing it that way?

A. I would say at least ten years and in every rate case since that time.

Q. Are there some years in those rate cases when the demand data was based upon a summer period that was hotter than normal?

A. Well, generally what happens is we average four days and sometimes -- I think, without looking at it -- many

times one or two of those four days might be below normal and one or two of those four days might be above normal. We take it as it falls.

Q. So whether the demand data, the actual demand data, for those four days on average or individually were hotter than normal or cooler than normal, in all of the cases that you have been in in the last ten years or so you have always used actual data?

A. Yes. If we are developing, for example, the loads from the June day, we develop loads for the weather on that particular June day is it actually occurs. We would do the exact same thing for July, August and September, and depending on how the weather actually occurred, one or two of those days may be above average and one or two may be below.

This is one of the reasons why you would use an average of four days -- at least more than one day -- to give some stability to your cost allocation.

Q. Okay. Now I would like to switch subjects and discuss the development of customer costs through the use of the predominant minimum size method that the company used.

A. Yes.

Q. Am I correct that this predominant minimum size system for classifying distribution plant costs is one that you have used for a number of years?

A. Yes. Again, going back to the last ten years, it has been the method that has been used in every one of those rate cases.

Q. And if you could, please -- I realize this has come up in the past -- could you define for me predominant minimum as you use it?

A. Well, I'm always leery of the word predominant. I think sometimes it has led to the wrong conclusions. But it is, looking at it in a real world sense, what is the minimum size equipment that the company is installing, the minimum size wire, for example, currently installing. And when we say predominant minimum size it's looking at the real world to see what is being installed.

Q. When you say "being installed" you mean being installed today?

A. And -- yes. Primarily. However, you don't normally find that this type of thing changes from one year to the next very often.

Q. Does it change over a period of 10 or 20 years? Do you think the size of the wire and transformers change that they are installing?

A. Without going back and looking I'm not sure but I would almost venture to guess that there has been very little change over a ten year period.

Q. How about over 20 years?

A. I don't know. You're getting back before my time.

Q. Do you have any estimate of the number of customers in each rate class -- and here I'm referring, I guess, to the residential and small commercial/industrial -- whose individual maximum demands could be satisfied by the predominant minimum size facility that you use to estimate the customer component of distribution costs?

A. Literally the number of customers?

Q. Generally, broadly.

A. Well, in the case of services, for example, for one, if we could limit it to that, I would say by far most of the residential customers could be satisfied by the minimum size service. The demand component of service is very small.

Q. Now, when you develop your cost allocations for the distribution system you have the customer component and then the demand component. For those customers whose demands can be served by the predominant minimum size facilities, do you still allocate to them the demand costs of the remaining portion of the distribution system?

A. Well, I'm not quite sure I -- the way that's done is the costs are split between demand and customer by whatever our analysis is on the minimum size system. The customer portion of that, as it indicates, is allocated to

each class of service based on the number of customers, and the demand portion based on the number of demand. So there would be some allocation to every class of a demand component of cost. As in the case of services that we just talked about, it would be very, very small.

Q. But to the extent that you have customers whose demands can be satisfied by the predominant size minimum facility, they are also being charged with costs of the demand to meet a higher level of demand?

A. You design rates and you do costs for a class of service. I don't think we would design rates for a group of customers whose service can be satisfied with a minimum size and then we have another rate for customers who can't. So it's an average. You're looking at the average for the class, the average for the rate.

Q. Have you made any adjustment to the customer class demand measures used for allocating demand related portions of distribution plant to reflect the fact that customers whose maximum demands are satisfied by facilities in the predominant minimum size system in that they don't contribute to the need for the demand related portions of the distribution plant?

A. As I indicated earlier, the costs are split between demand and customer and the demand related portion is allocated in accordance, basically, with non-coincident class peaks.

Q. Can you tell me how the predominant minimum size was determined for the different components of distribution plant including primary lines, secondary lines, services and transformers?

A. Well, there are two basic ways you can do it. One is by looking at your property records. You can tell by looking at that which sizes -- at least in groups of sizes of wire -- most of your investment is in and most of your physical plant is in. That's one way to do it.

And another way to do it is to talk to the appropriate people in our transmission and distribution department and see if they concur with that and what the current practices are. From that you can conclude what the predominant minimum size is.

Q. At this time, Mr. Sundermeir, I would like to refer you to CEPA Exhibit 1, which was the answer to Interrogatory-OCA-7-8. This, again, is the workpaper developing your minimum grid split.

A. Yes.

Q. Am I correct that basically what you have done, for example, for primary lines-aerial, is you have gone to size 4/0 aluminum wire and that has been your cut-off point for the portion of the primary lines that are customer related? All lines up to that size are customer related in your study?

A. That's correct.

Q. And then all lines over that are demand related?

A. Yes.

Q. Or the additional cost of those lines?

A. The additional cost of the lines, yes, over and above the average cost of the minimum lines.

Q. Do you know if there is wire smaller than 4/0 aluminum in the primary system?

A. Yes.

Q. So 4/0 doesn't represent all of the wire up to 4/0? It's a piece somewhere in the range of size wires that you have picked out; is that correct?

A. Well, again, it's a predominant minimum size.

Q. When you say "predominant minimum" here in this section, do you know what percent of the wire in that class is 4/0 or how big a piece 4/0 is?

A. No. No. The way the property records are kept, the wires are kept by certain sizes, by groups and what we refer to here and what we use to develop the 44.2 cents that was there was the group that included the 4/0 wire.

Q. Well, how do you know 4/0 wire is correct if you're telling me you don't even know what portion it represents?

A. We know that that particular grouping of wire is the predominant, that group that includes the 4/0 wire. And we know by talking to our T&D people what they say is the

predominant wire.

Q. So when you say "predominant wire" you're saying the 4/0 aluminum is -- there are more feet of 4/0 aluminum wire than any other wire in the primary aerial line account?

A. There are more feet of wire that is in the classification in which they are included, yes.

Q. Do you know how much more or how that compares to the other smaller sizes in that group?

A. No because you have to understand that we don't have -- our records are such that we don't have data for each and every single wire size.

Q. Well, why do you have data for 4/0?

A. We have data for a group of wire sizes that includes 4/0.

Q. When the cost information you have of .442 is some kind of an average cost for a group of wires?

A. A group of wires that are 4/0 or less.

MR. WERSAN: At this time, Your Honor, I would like to mark for identification OCA Exhibit 74.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as OCA Exhibit No. 74 for identification.)

MR. WERSAN: And that is the company's response to IR-OCA-7-17.

BY MR. WERSAN:

Q. Mr. Sundermeir, this interrogatory answer shows the number of feet of overhead distribution line as of December 31, 1984; is that correct?

A. Yes.

Q. And for primary we see 180,804,835 conductor feet of primary line; is that correct?

A. Yes.

Q. And that number is the total amount of conductor feet for that primary line; is that correct?

A. Yes.

Q. And then we can go back to CEPA Exhibit 1 and we see that you have developed 8,205,752 feet of primary wire which is bigger than the 4/0 predominant minimum size; is that correct?

A. In 1981.

Q. Well, that is what you're using for today also, aren't you?

A. Yes, but you're asking me to make a comparison between the total number of feet in 1984 to the size above the minimum size in 1981. I'm just pointing out that there's a time difference between the numbers that you're showing me.

Q. Do you know approximately what the comparable numbers would be, either in 1984 or in 1981?

A. No, not off-hand, no.

Q. Do you think the relationship has changed dramatically in that time period?

A. I don't know.

Q. Didn't you use this in your cost of service study?

A. We used the minimum size analysis that was done in 1982. I didn't use any numbers that are shown on OCA-7-17 in the cost of service study.

Q. No, I realize you didn't use these numbers. But you had to come up with the number of total feet of primary line and then you also had the number of feet that are bigger than the predominant minimum size of 4/0.

A. Which we did from our property records data in 1981. This study was done in 1982 and, as it says at the top of the page, it was for data as of 12/31/81. This type of study that we are doing here is a type of study that you only do periodically because there is usually not that much of a change over the years.

Q. What number on 7-8 is then used? The 18.79 percent?

A. The 18.79 percent is the proportion of the total dollars that are demand related, and that's the number that we have used in the cost study.

Q. So you have assumed that that number, that relationship of the cost of the wire above 4/0 to the rest

of the wire on the system in the primary account, has stayed the same?

A. Yes.

Q. Now, when you came up with the information in the study that is in 7-8, you must have had a total feet of primary line; is that correct?

A. We had data from our property records, yes. Now -- the answer is yes.

Q. But at this point you're not aware of whether that information for total feet was 180 million or 170 million or in that range?

A. Off the top of my head I don't know what it was.

Q. Do you think that number is available?

A. It may be. I would have to check our records.

MR. WERSAN: I will provide you with a data request for that, Mr. MacGREGOR.

MR. MacGREGOR: Fine. Thank you.

MR. WERSAN: And I would like to make the same request for primary lines-underground.

BY MR. WERSAN:

Q. I assume, Mr. Sundermeir, the company's response to OCA-7-16, which shows underground distribution lines would similarly be, as you have stated, not necessarily on a proper relationship to the 1982 study?

A. That's correct. The information provided as stated was as of the end of December, 1984. The data used in the minimum size study was in 1981.

JUDGE MATUSCHAK: Do you find this a convenient place to recess?

MR. WERSAN: That's fine, Your Honor. At any point I can pick up and go again.

JUDGE MATUSCHAK: Let's recess until 1:30.

(Whereupon, at 12:28 p.m., the hearing was adjourned, to be reconvened at 1:30 p.m., this same day.)

AFTERNOON SESSION

(1:35 p.m.)

JUDGE MATUSCHAK: When you are ready.

Whereupon,

WILLIAM F. SUNDERMEIR

having previously been duly sworn, testified further as follows:

CROSS-EXAMINATION (Continued)

BY MR. WERSAN:

Q. Mr. Sundermeir, continuing with our discussion of the development of the customer cost as worked out by your predominant minimum size analysis, if I can refer you again to CEPA Exhibit No. 1, only this time to page 5 of 6 of that attachment, does this show in the first half of the page, actually on the whole page, the calculation of the average minimum size secondary transformer?

A. It shows the average cost of the minimum size.

Q. So, it's your calculation of the average cost?

A. That's correct.

Q. Would you accept that within the aerial and underground categories shown on page 5 here, that the investment cost per unit varied considerably by continuing property record number?

A. That's quite possible.

Q. Would you accept that if we were to divide the

investment by the quantities, we would find that the average cost per unit by CPR number ranges from a low of about $130 per transformer -- and that's for CPR No. 612025 -- to a high of $1,240 per transformer for CPR No. 113802?

A. The first transformer size you referred to was which number?

Q. 612025. It's in the middle of the area.

A. Okay.

Q. And that shows that there is a range from a low of $130 per transformer to a high of $1,240 per transformer.

A. I'll accept that.

Q. Can you please explain what causes these large differences in cost for supposedly similar size secondary transformers?

A. I would have to check, but of course part of it could be, these are secondary transformers but the high side of the transformers may vary. The voltage on the high side of the transformers may vary.

I would have to check and see what the case is here.

Q. But to the extent that that is true, then some of these costs are reflecting I guess transformation of higher voltages down to lower and I assume to meet additional demands in those areas?

A. Not necessarily. The demand in the area is being met by secondary voltage. These are secondary transformers.

They are serving secondary customers, regardless of where they are located.

Q. So, it just varies depending on what line they are transforming down from?

A. That could be it, different voltages.

MR. WERSAN: At this time, Your Honor, I would like to mark for identification OCA Exhibit No. 75, which is the company's response to IR-OCA-21-8.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked OCA Exhibit No. 75 for identification.)

BY MR. WERSAN:

Q. Am I correct, Mr. Sundermeir, that this interrogatory answer under Part C provides information regarding the sizes and types of transformers used in the development of average minimum size secondary transformer costs shown in CEPA Exhibit No. 1, page 5 of 6?

A. Yes.

Q. And if I could refer you to the last page of that document, there is a short discussion at the end of Section C, is that correct?

A. Yes.

Q. And that indicates that, "The categories listed above in Section C were used to get an average cost for the installation of the 25 kVa transformer, which is the most

common and the predominant minimum size transformer?

A. That's correct.

Q. Now, do you know what the smallest size distribution transformer is on the PECo system?

A. Not with any great degree of certainty. I am sure there's 10's, and I imagine 5's, but I am not sure how many.

MR. WERSAN: Your Honor, at this time, I would like to mark for identification OCA Exhibit No. 76, which is the company's response to IR-OCA-7-18.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked OCA Exhibit No. 76 for identification.)

BY MR. WERSAN:

Q. Are you familiar with this answer, Mr. Sundermeir?

A. I think that that -- the data given out is a response to your last question. It looks like we have some down as low as 1 kVa. At least we have three down at 1 kVa.

Q. And the one you are using in your study is a 25 kVa, for which you have 29,737, is that correct?

A. That is correct.

Q. Do you know what percent of the total number of transformers that is? Would you accept it is approximately 17 percent of the total of 135,837 -- I'm sorry, let me rephrase that. Seventeen percent is a different number.

Let me first ask you what percent of the total is that 29,000 --

A. It's approximately 22 percent.

Q. And would you accept that for transformers smaller than 25 kVa, there is a total of 23,200 transformers?

A. I'll accept that subject to check.

Q. And that would be approximately 17 percent?

A. What was the number again?

Q. 23,200.

A. 23,000?

(Witness computing on electronic calculator.)

A. Approximately 17 percent.

Q. I note in the "Totals" column that at 10 kVa, you have 10,843 transformers, is that correct?

A. Yes.

Q. Can you tell me why you don't consider 10 kVA the predominant minimum size?

A. Well, first of all, there are three times as many transformers at 25 kVa as there are at 10 kVa. And second of all, the predominant size currently being installed is the 25 kVa.

Q. Do you know if at any time the predominant size being installed was 10 kVa?

A. I suppose at one time in the history of

Philadelphia Electric Company when the demands were not as high as they are, it possibly was.

Q Now, when we move down the column to 50 kVa, we see that 50 kVa, there are 29,656 transformers. How come you didn't use that number as the predominant minimum size?

A Because there was virtually an equal number of smaller size transformers.

Q Suppose instead of being 29,000 at 50, there were 40,000. Would you use that as the predominant minimum size?

A I would after consideration as to what the predominant minimum size currently being installed was, which again I would talk to our transmission and distribution people and find that information out. Then I would have to make a decision as to which I would use.

Q So, in other words, if demands on the system currently required that 50 kVa transformers were predominantly being installed, you might use that in your study?

A If the facts that we looked at indicated that that would be the proper size to use, that is what we would use.

Q Could you please define the limits of the company's secondary distribution system in terms of voltage levels?

A I think all of our secondary customers are served

at 110 or 220 volts.

Q. Wouldn't you agree that the customer component of this --

A. I believe, by the way, that that is defined, if I am not mistaken, in the tariff.

Q. Wouldn't you agree that the customer component of distribution facilities should be the theoretical minimum distribution system required to serve customers at nominal load conditions?

A. I'm sorry, would you repeat that?

Q. Would you agree that the customer component of distribution facilities should be the theoretical minimum distribution sysetm required to serve customers at nominal load conditions?

A. No, not the theoretical minimum, the practical minimum.

Q. And when you are looking at practical or theoretical, therefore, you are not really concerned about nominal customer loads, only what current customer loads are?

A. Again, I would look at the current practice to serve our customers. All things being considered for whatever reason, it is looking at the actual practices used by the company.

Q. Now, earlier you stated that at some point you thought that 10 kVa transformers may have been the predominant

size being installed, but due to demand it is now up to 25.

A. Again, I said that perhaps at one time that was. I can't say that I ever saw a study where it was used.

Q. Do you know whether the load carrying capability of the predominant minimum size system as the company has defined it has increased over time as customer electrical demands have grown?

A. I am sure it has.

Q. Are you familiar with some of the methods used by other electric utilities in Pennsylvania to estimate a customer component of distribution system costs?

A. I can't say that I know of any specific methods that are used, at least recently enough that I would feel confident that they are still using them.

Q. Do you review what other electric utilities are using for development of customer component of distribution system costs?

A. Could I review what --

Q. No. Have you reviewed that as part of your education to your position?

A. Not extensively. I have looked at some studies that were done by other utilities a few years ago. Whether they are still using it or not, I have no idea.

Q. So, you would not know --

A. I do know that the practice that we are using is

one that is one of two methods which is defined in the NARUC Cost Allocation Manuals for determining minimum size system.

So what we are doing, in other words, I might add, is nothing unique. It is nothing that --

Q. Let me ask you this: when you say it coincides with the NARUC Manual, it coincides with your interpretation of the NARUC Manual?

A. I think the words in the manual are fairly clear.

Q. I realize you stated you weren't very familiar with other customer component methodologies used by Pennsylvania utilities, but would you know if, to your knowledge, if there are any other electric utilities in Pennsylvania that use transformers as large as 25 kVa as a component of its minimum distribution system specifications?

A. I would not know that.

Q. Do you know if there are any electric utilities in Pennsylvania that exclude the primary portion of the distribution system from its calculation of the customer component?

A. You are saying that they have no customer component in the primary system?

Q. That's right, they use the secondary.

A. In other words, their primary system is all demand related, is that --

Q. Or demand and energy, yes.

A. I am not aware of that.

Q. Do you know if there are any other utilities in the state that use what is known as a modified zero intercept method?

A. I don't know if they do or not.

Q. Now, are you reasonably familiar with the major determinants of cost or cost causative factors for distribution operations and maintenance activities, since you have to allocate them in your cost studies?

A. Yes. We allocate them in proportion to the plant.

Q. On what information or analyses or bases have you based your allocations of these costs that I have just mentioned?

A. On the assumption that the operation and maintenance expenses are related to the cost of the plant.

Q. And so, you allocate those maintenance and operating expenses the same way you allocate the plant from which they are based?

A. It's related to the plant.

Q. Do you have any idea what portion of distribution maintenance costs incurred by the company are the result of storm damage or automobile accidents?

A. Not off the top of my head, no.

Q. Would you accept, at least for the purposes of

this case, that the company is making an extraordinary claim for $2 million related to storm damages from this past year?

A. I don't know whether they are or not. Furthermore, even if I did know that, I would doubt that it is included in the budget for the year, although I don't know that for sure.

Q. But if it is included in the rate case, then you would be allocating those costs?

A. I don't know if it's in the rate case or not.

Q. When there is damage to the distribution system as a result of an accident or a storm and there is a need for emergency repairs, would you agree that those repairs are performed to reestablish the flow of energy on the system?

A. Yes, to restore service to our customers.

Q. Would you state that the maintenance costs incurred in that situation are not related to the demand on the system at that time or to the number of customers on the system at that time, but instead are due to whatever event just occurred?

A. Well, when that event occurs, you have to in some cases replace the equipment that was already there, replace the wires. And I would say that that would be every bit as much in proportion to the demand and customer requirements

of the customer that existed before.

You still have to connect the customer to the system. You still have to provide the equipment to meet his demand. Now, true, you are replacing it because of an event that you describe, but I don't think that changes anything as far as the way I would allocate the cost.

Q. But those incurrences of storm damages and other repairs are not a function of whether or not you have added more customers or had additional peak on your system, would you agree to that?

A. It's not a function that we added more customers. It's a function of the number of customers on the system, and that's what we use to allocate those costs.

When there is storm damage, we are not adding customers. We are dealing with customers that we already have, and that is part of the cost of serving the customers that we already have.

Q. How is it that the -- suppose there's an accident to a pole, and you have to replace it. How does that vary with the number of customers? It varies with the number of automobile accidents or storms, doesn't it?

A. The number of customers do not vary because somebody runs into a pole. It's the same customer.

Q. And similarly, you have to allocate the distribution costs of, for example, tree trimming and right of way

clearing, is that correct?

A. That is all included in the appropriate account.

Q. And would you agree that the cost of tree trimming and right of way clearing are incurred on a periodic basis by the company to insure the reliability and accessibility of its facilities throughout the hours of the year, and do not vary with the timing or the magnitude of the peak demand?

A. It is really to protect the equipment that is there to serve both the customer and his demand and his energy requirement.

Q. But how much tree trimming you you do in a year doesn't relate to your peak, it relates to how much the trees grow, does it not?

A. It relates to the peak in the sense that the reliability of being able to satisfy those loads is enhanced.

Q. Let me ask you this: suppose you had two trees, and one was on a 25 kVa transformer and one was on a 50 kVa transformer. The cost of clearing or trimming that tree won't vary by the size of the transformer it is near, will it? I mean, the transformer takes up the space it takes up, and you clear the tree because the tree is getting in the way.

A. That is right, but when we clear the tree away, it can no longer hopefully fall over and deprive the load to that customer who is being served off of that transformer.

Q. Let me discuss with you now distribution system operating expenses. We've just been talking about maintenance expenses.

Once again, you allocate these distribution system operating expenses in WFS-1 in the same manner that you allocate distribution plant costs, is that correct?

A. Yes, that is correct, and I think that is clearly shown in the exhibit, precisely how that is done.

Q. Now, if you would please, consider load dispatching costs. Is it your position that all distribution system load dispatching expenses should be allocated on the basis of system coincident peaks during the four summer months? And I refer you to page 11a, Account 581 in WFS-1. Do you see that, Mr. Sundermeir?

A. Yes.

Q. On page 11a, we are looking at distribution expenses, is that correct?

A. Yes.

Q. And load dispatching, Account 581, which is line 4, you allocate on your A-1 allocator, is that correct?

A. That is correct.

Q. So that is allocated based on your 4-CP?

A. That is correct.

Q. In allocating that on the basis of plant, what piece of plant or portion of the system plant are you

allocating it?

A. We are not allocating plant. We are allocating the load dispatching expenses. We didn't say that the -- as I pointed out earlier; I wasn't sure if it was in response to your question or whose it was -- that the A-1 allocator is only used, we said that it was only used to allocate production and transmission. We said that that was its primary function.

Q. Right. But in reaching it and in developing your A-1 allocator, that's for the four coincident peak approach which you have developed, and that is based upon system demand and why production plant is constructed, in your opinion?

A. That's correct.

Q. Would you agree with me that none of your distribution plant itself as shown in WFS-1 is allocated on the A-1 allocator? And I would refer you to page 20 and 21a and b, please.

A. No -- will you make that reference again, please?

Q. Sure, pages 20 and 21a and b for both -- that none of your distribution plant that you have identified on these pages is allocated based on the A-1 allocator.

A. No. Under meters and installation, Account 370, that would be transmission.

Q. Where is that?

A. Account 370 on page 22a.

Q. So, except for that $133,000 of plant cost, then, my previous statement would be correct?

A. It appears that way.

Q. Would you agree that the company incurs the cost of load dispatching on an ongoing basis throughout the year and these dispatch operations are just as important during periods of service interruption due to storm damage or accident as they are at the time of peak requirements?

A. Well, the load dispatching is constantly taking place, yes.

Q. And would you also agree that a principle benefit of distribution system load dispatching activity is the greater reliability to customers of energy service throughout the year, not just at times of the peak?

A. Well, it's actually related to the reliability of the demand requirements of the customer at all times, at all instances.

MR. WERSAN: That concludes my cross-examination of Mr. Sundermeir. I would like to move into evidence OCA Exhibits Nos. 72 through 76.

MR. MacGREGOR: No objection.

JUDGE MATUSCHAK: OCA Exhibits Nos. 72 through 76 are admitted into evidence.

(Whereupon, the documents marked OCA Exhibits Nos. 72 through 76 were received in evidence.)

JUDGE MATUSCHAK: Who wants to proceed next?

MR. CORRODI: Your Honor, James Corrodi, for Scott Paper Company. I have a few questions for Mr. Sundermeir.

JUDGE MATUSCHAK: Very well.

MR. CORRODI: If somebody else wants to go first, I will be happy to wait.

MS. PITTS: I am waiting for Mr. Williams.

MR. SELKOWITZ: Your Honor, could I ask a procedural question? I had asked a handful of questions, only a couple of minutes, yesterday. There has been an awful lot of cross-examination in the meantime. It seems that I have three or four additional questions that have been engendered by that additional cross.

Am I permitted to ask Mr. Sundermeir those questions at the conclusion of the first go-around?

JUDGE MATUSCHAK: Yes. We are going to let you satisfy yourself as to those positions.

MR. SELKOWITZ: I will have a few then when the other counsel are done.

JUDGE MATUSCHAK: There is a counsel here who represents Scott Paper Company, which has filed a Petition to Intervene. We have not permitted him to intervene.

Is there any objection to the intervention of Scott Paper Company?

MR. MacGREGOR: No, Your Honor, the company does not

object to Scott Paper Company's intervention. We will be filing an Answer to their Petition to Intervene. There are certain paragraphs which we do not agree with, and we will either admit or deny various paragraphs in the Answer; but our overall position is that we do not oppose the Petition to Intervene.

JUDGE MATUSCHAK: We are going to make the same ruling as to Scott Paper Company as we did with Occidental. We will permit intervention, but we are not going to make a ruling in the abstract about what evidence will or will not be permitted in that connection. We prefer to rule on the evidence as presented when it is presented rather than blanket permission or non-permission in the matter.

So we will permit Scott Paper Company to intervene as such with the understanding that some of its presentation, if objected to, will come up for ruling at that time.

You may proceed.

MR. CORRODI: Thank you, Your Honor. I would just like to make it clear at the outset, as was stated in our Petition for Intervention, we were not intending to intervene in this proceeding, because we have been under the impression from the information provided by Philadelphia Electric that it was going to file a revised Auxiliary Service Rider separately. I understand that Philadelphia Electric has since done so just within the last week or ten

days, Supplement No. 18 to Tariff Electric-Pa. P.U.C. No. 26, issued 12-30-85, effective 2-28-86.

Since that revised Auxiliary Service Rider was the subject of questions and answers yesterday on the record, I would like to clarify our understanding of that subject that was discussed here yesterday.

JUDGE MATUSCHAK: Very well.

MR. CORRODI: I trust that our questions today would not preclude us from participating in any other Commission action or privately initiated action relating to the Auxiliary Service Rider that may come before the Commission.

CROSS-EXAMINATION

BY MR. CORRODI:

Q. Mr. Sundermeir, I understand yesterday some questions came up and answers relating to the proposed revision of the Auxiliary Service Rider; is that correct?

A. Both to the existing Auxiliary Service Rider and the proposed Auxiliary Service Rider, yes.

Q. I was not present, but is it safe to assume that the references yesterday to the proposed revision in fact referred to what had been filed as Supplement No. 18 that I referred to a minute ago?

A. Yes. Any reference to the filed Auxiliary Service Rider was to the one that you mentioned earlier.

Q. You don't happen to have an extra copy of that,

do you, that could be marked as an exhibit?

A. Yes.

MR. CORRODI: I would like to request that the handout be marked Scott Paper Exhibit No. 1.

JUDGE MATUSCHAK: Very well. It will be so identified.

(Whereupon, the document was marked as Scott Paper Exhibit No. 1 for identification.)

BY MR. CORRODI:

Q. Mr. Sundermeir, under the provision of the Auxiliary Service Rider that is part of Scott Paper Exhibit 1, it says that at least 30 days advance, written approval is required for scheduled maintenance; is that correct?

A. That is correct.

Q. Why is advance, written approval required from the company?

A. So that the company can take that load into consideration and to the company's availability of load. For example, if a customer wanted to do maintenance power in the summer when the company has its peak loads, the availability of capacity during that summer period could be crucial. It could also be crucial in other periods, too, due to maintenance outages and things like that.

So the company reserves the right to provide advance, written notice to the customer when requested to supply

maintenance power.

Q Doesn't Philadelphia Electric have more than adequate reserve capacity at this time?

A Not all the time.

Q Not all the time?

A Well, you can get -- I guess I should say you never know what's going to happen in the way of outages. The company would strive, for example, to have all of its or as much as possible of its capacity available in the summertime, and if it could see that there could be a tight situation, it would be probably reluctant to allow a customer to put additional load on that could be scheduled for some other time.

If it sees that it can supply that, we are happy to supply the maintenance power.

Q So essentially, it is strictly a generating capacity situation?

A That would be the primary consideration, the availability of the capacity to supply that.

Q What does the company do now when supply is tight in the summertime and it has forced outages on some of the units that have been intended to be operative?

A Well, of course, we are part of a power pool. But if you got into a situation where we didn't have enough capacity to supply the load, there is a procedure that is

followed, including voltage reductions, obvious curtailment of our Curtailment Rider customers and our Supplemental Energy customers, voluntary load control by customers. There is a whole procedure. I'm not familiar with all of the steps.

Q. If you have a firm supply contract customer on the system, you would go through those other measures in an effort to try to supply that customer before curtailing that customer?

A. We would exhaust some of the other options available to us before we ask that customer to voluntarily curb his load.

Q. You would draw on the pool and curtail curtailable customers?

A. Yes.

Q. If you have a co-generator who is contracted for firm maintenance, why wouldn't you go through the same procedure for that customer?

A. The way this is written, we would provide firm maintenance power if the customer so requests.

Q. But you require him to get your advance approval?

A. That's correct; and in exchange for that, we will provide a firm service and we will pro-rate that service on the days which he takes that service, which is a concession to the customer for obtaining that permission to only use

the maintenance power when it's convenient to the company.

Q How much reserve capacity would Philadelphia Electric have to project to approve a request for maintenance power?

A I'm not sure that that's always the issue. I know there are times when we get tight on capacity even when it seems like we have enough installed capacity, but your installed capacity is not always available.

Q I don't believe I used the word "installed capacity." I didn't mean that. What I meant was: how much reserve available capacity would you have to project in order to approve a request for maintenance?

A That would be a call by our load dispatcher.

Q And you don't have any idea what that would be?

A No. They would have to make the decision as to whether or not they think that there would be sufficient capacity. They would be familiar with the scheduled outages, things like that.

Q Where do they get their guidelines? Do they just make them up themselves?

A I'm sure they would try to use their best judgment. I'm sure that they would be more than happy to have the capacity to provide the maintenance power when requested, and I believe that they would only deny that at such times when they did not feel comfortable with serving that load for

whatever reasons, whether it's scheduled outages or projected loads, or anything like that.

Q Would the dispatcher take into account available capacity from the pool?

A I'm sure he would.

Q So that if there appeared to the dispatcher to be sufficient energy available either from Philadelphia Electric's own facilities or through the pool, your understanding is he would grant approval for scheduling of maintenance?

A I think that would all be a consideration.

Q Can you give me some idea as to how promptly a co-generator would expect to get a reply from the dispatcher if he sends in a request, say, the first of the month? Do you have maintenance scheduled for a particular time period several months out into the future? How promptly would he get a reply to that?

A I would expect that -- I'm speaking now for somebody else -- but my expectation would be that a reply could be given rather quickly.

Q Would you define rather quickly for me?

A Less than a week.

Q I understand that yesterday there was some discussion about the provision in this revised Auxiliary Service Rider of the pro-rating of the demand charge based

on the number of days of use.

A. There was some discussion about pro-ration, yes.

Q. My understanding is that if -- let's take a curtailable backup power situation -- that if a co-generator customer normally bought zero firm power and was buying curtailable backup power under this revised Auxiliary Service Rider, Scott Exhibit 1, that if he needed that during one peak hour of a weekday during the month and that is all, that he would be charged essentially one-thirtieth the demand charge for the maximum demand of that one day; is that correct?

A. Yes.

Q. And that the energy blocks would be pro-rated in a similar fashion?

A. Yes.

Q. I would like to give you a variation on that hypothetical. Let me use a couple specific numbers to illustrate; although I'm not asking you for a numerical answer. It is a conceptual answer.

A. Sure.

Q. If on the 1st of the month -- and assume it's a weekday peak hour period -- on the 1st of the month the co-generator has a forced outage and requires 40 megawatts backup or standby power, gets his turbine generator up and operating before the end of that day, requires no more backup

or maintenance power until the last day of that month. The last day of that month he has a partial outage where his turbine generator does not go all the way down, but simply has to be slowed down. And let's say on the last day of the month, which is also a weekday peak hour situation, he requires 2 megawatts demand.

My question is: would he be charged one-thirtieth the demand charge times 40 plus one-thirtieth the demand charge times 2 megawatts? Is that the way you would pro-rate that situation?

A. Just to make it clear, when you refer to a month you're referring to a billing month? In other words, both of these days are in the same billing month for the customer?

Q. Let's make that assumption.

A. Okay. In that case, the demand would be pro-rated by taking -- because he used service on two days and his maximum demand in that two-day period was 40 megawatts, it would be pro-rated on the basis of two-thirtieths of 40.

Q. So in other words, you would charge that customer under this proposed revised Auxiliary Service Rider, you would charge that customer the same amount of demand charge as if his demand on the last day of the billing month had been 40 megawatts?

A. No. The customers are always billed -- when it's a customer such as you're describing or a regular customer,

they are billed on their maximum demand in the billing period. I am saying that this is consistent with that billing procedure.

Q Mr. Sundermeir, I would like you to answer my question, if you would, please. I appreciate any added explanation you want to make --

A I thought that was in response to your question.

Q I don't think the answer is clear on the record.

A All right; try it again.

Q Back to my hypothetical. The customer requires 40 megawatts of backup on the first day of the month, a weekday peak hour, and no other backup until the last day of the billing month. Then he requires only 2 megawatts of backup. You are going to charge him the demand charge pro-rated on a daily basis, pro-rated for each day of use.

My question is: are you going to charge him one-thirtieth times 40,000 kw times the demand charge plus one-thirtieth times 2,000 kw times the demand charge?

A I think the answer that I gave earlier still stands. The method of calculation is the number of days, which in this case is 2, times the customer's maximum demand, which in your example is 40. So it would be pro-rated as two-thirtieths of 40 megawatts.

Q All right; then my next question is: would there be any difference between what you charge that customer for

a demand charge versus a customer that required 40 megawatts on both the first and last days?

A. No. There would likely be some difference in the energy use, but the demand charge would be the same.

Q. Do you think that's fair?

A. I think it is fair and I think it is consistent with our existing and historical billing practices for pro-ration.

Q. Does it cost you the same to serve both of those customers considering they are getting interruptible backup power?

A. The demand costs are the same.

Q. I understand under the proposed revision to the Auxiliary Service Rider, the customer has an option if he is purchasing curtailable power as to whether to reserve firm transmission and distribution capacity.

A. That is correct.

Q. Is it safe to assume that Philadelphia Electric Company would be willing to provide relevant information to a customer who was trying to decide whether he wanted to reserve firm transmission capacity?

A. I don't know if that information is available or would be provided. I don't know. I personally would not be involved in providing it.

Q. You do not know what Philadelphia Electric's

position is on that?

A No.

Q Are you telling me that Philadelphia Electric might require the company to roll the dice and totally blind not know what the transmission capacity situation was?

MR. MacGREGOR: Objection, Your Honor. I think the witness stated he personally does not know what the company's policy is. He didn't state whether the company had a policy or not.

JUDGE MATUSCHAK: This is cross-examination. We are going to permit full opportunity to test the response.

The objection is overruled.

BY MR. CORRODI:

Q I will rephrase the question, Mr. Sundermeir.

Do you believe it is reasonable for a customer to have a need for some factual information upon which to make an intelligent decision whether to elect to reserve transmission capacity?

A Well, you referred to it earlier as the roll of the dice. In essence, that could very well be the case, because what you are told today may not be the same as what you might be told tomorrow.

Q I understand that, Mr. Sundermeir, but my question was: do you consider it to be reasonable for a customer to

need some factual information about the transmission capacity situation in order to make a reasonably informed judgment as to whether to pay to reserve transmission capacity?

A. I really don't know how to answer your question, because this is an area, as I stated earlier, that I am not specifically involved in.

JUDGE MATUSCHAK: I think probably you could approach this some other way and get a position from the company rather than from this witness. They may have some information to provide to you that would resolve that question.

Why don't you ask the company to respond to your question by whatever witness they want to respond to it. What this witness thinks is fair or not fair is not going to make any difference as to what the company thinks is fair or not fair and what the company intends to do in that case, whether they would supply you with information or not. That is the testing point.

MR. CORRODI: May I make a formal request for the company to provide me with a description of what information it would be willing to make available to a customer who is trying to decide whether to reserve firm transmission capacity?

MR. MacGREGOR: Certainly.

MR. CORRODI: Thank you.

BY MR. CORRODI:

Q. Mr. Sundermeir, did Philadelphia Electric enter into an agreement with Scott Paper on or about May 29, 1984 under which Philadelphia Electric agreed to file with the Public Utility Commission a revised Auxiliary Service Rider that provided for interruptible backup service under which any demand charge would be pro-rated on a daily basis?

A. I don't know the specific date, but sometime in that period such an agreement was --

Q. Thereabouts?

A. Thereabouts.

Q. Such an agreement was entered into?

A. Yes, and I believe that the Auxiliary Service Rider that we filed in the letter dated December 27 satisfies that.

Q. December 27, 1985?

A. Yes.

Q. You anticipated my next question.

Mr. Sundermeir, is a customer who is a co-generator and purchasing under the Auxiliary Service Rider also eligible for service under the Night Service Rider, specifically if he has a demand during, say, weekend hours; they are all off-peak?

A. A customer being served on the Auxiliary Service Rider has the option of being on the Night Service Rider with

the exception of the Supplemental Energy.

Q. Mr. Sundermeir, if a customer is in the process of constructing a co-generation facility and notifies Philadelphia Electric Company well in advance of that event coming to fruition, is it reasonable to assume that Philadelphia Electric Company would permit that customer to transition from a firm contract situation to the Auxiliary Service Rider at the time of the startup of his new co-generation facility without having the demand ratchet continue in effect after his co-generation facility starts up assuming he buys curtailable power once his co-generation facility starts up?

A. You are visualizing a situation where before he starts up, he has created a demand in the summer months and now we are in the following October through May period and now his demand would be lower because he started up his co-generation system, whether or not the ratchet would be applicable or whether it would waived?

Q. That is correct.

A. Assuming it is curtailable, the ratchet is not applicable. Only in my judgment, I think it would not be applicable. However, I would defer that to the people that make that type of decision.

Q. Would you confirm that for me also?

A. I certainly will.

MR. CORRODI: No further questions, Your Honor.

Thank you, Mr. Sundermeir.

JUDGE MATUSCHAK: Who wants to proceed next?

MR. MacGREGOR: I think Mr. Selkowitz had a couple of questions.

MR. SELKOWITZ: Yes, I do.

JUDGE MATUSCHAK: Do you have just a few questions to ask, Mr. Selkowitz?

MR. SELKOWITZ: Yes, I do.

JUDGE MATUSCHAK: Then proceed.

FURTHER CROSS-EXAMINATION

BY MR. SELKOWITZ:

Q Mr. Sundermeir, just a few things. As I understand some of the things you said today, and in reviewing some of your previous testimonies filed in other cases as regards the tailblock energy component of HT and PD rates, you have a concern about revenue stability as regards those, do you not?

A I don't know what your reference is as far as my concern about stability. The tailblock price is developed in accordance with the cost to serve, and I believe that that is appropriate, and I believe that the results of that and the price that we filed is appropriate to reflect that cost.

Your reference to instability I don't understand.

Q How about this: "The tailblock of Rate HT and PD already contains substantial fixed costs which the company will incur regardless of the level of kwh sold. Further increases in the tailblock would assign more fixed costs to this block and would further jeopardize revenue recovery."

Does that sound like a concern of yours?

A That is a concern, and as long as we design the pricing and obtain the pricing that we have, I do not have a concern.

If we shift more costs into that tailblock price than can be cost-justified, then I would have a concern.

Q Your concern then would be the revenue stability, because if people curtail their energy usage, there would be some fixed costs out there that you weren't recovering?

A That's correct.

Q From the customers' standpoint, is it kind of an economics decision; that is, they look at whether they can curtail some energy usage and look at the cost to them of curtailing it versus buying it, and if it is cheaper to curtail it than to buy it, they will curtail, and that gives you some revenue problems? Is that how that works?

A I don't follow your -- you mean buying it from the company?

Q Correct. It becomes unstable because the

customer can more economically do something else to reduce that kwh usage, rather than buy it from you.

A. I can't imagine any customer who would not reduce his energy cost as low as he can.

Q. That's really an economic decision that the customer makes?

A. Well, his other decision would be to waste energy, and I don't see really any incentive for the customer to do that.

Q. Have you done any particular studies of that effect of the revenue instability that you receive by putting additional charges in the kwh block?

A. Well, just the common sense of it, that the more fixed charges you're getting in the end block price, the less stability you have.

We believe philosophically that the rates should be designed to follow cost to serve, and the pricing that we now have in Rate HT and PD we believe as close as practical can follow those costs.

Q. Historically, I take it, it has been your understanding that it was more expensive for a customer to find alternative sources of meeting his demand requirements than his energy requirements. Is that a fair statement?

A. The customer could find --

Q. It would be cheaper for the customer to find ways

of curtailing energy usage than it was to curtail demand.

A No. I think that the HT and PD rate structures are such that the customer has significant incentive to improve his load factor.

He can do that in one of two ways. He can increase his energy use, or he can decrease his demand. And I believe that customers do respond to that. We know that customers respond to that.

Q I'm not quite asking you about that. I'm talking about what you know about the economics of replacing company kws with customer-supplied kws; is it cheaper for the customer -- has it historically been cheaper for the customer to respond on his energy side or his demand side?

A I'm sorry; I don't understand your question. You're saying: is it cheaper for the customer to lower his demand?

Q Has it been cheaper for the customer to go out and replace buying demand from you with their own generating equipment? Has that been the option of economic choice? Or has it been cheaper for them to reduce their kwh consumption?

A I think each individual customer would have to make his own economic analysis of his situation.

Q Indeed, you would expect them to do that, and then do what was economically indicated?

A. I would think anybody would do that, yes.

Q. You mentioned in passing a couple of answers ago that the chief goal of designing rates and doing cost of service studies is to track cost causation, something to that effect?

A. Well, we do cost studies for several purposes. One of them is to determine relative rates of return, and another is to aid in the development of rates.

Q. To the extent that we're talking about the development of rates, am I correct that what you want to do is have rates that generally track the cost to serve a given class of customers?

A. Well, that might be an admirable goal, but for a number of reasons you cannot always do that.

Q. You have to generalize certain kinds of things which are too difficult to pin down to a given customer's needs, I presume?

A. Not only a given customer's needs, but certain responses to other things such as historical, such as moving pricing in a direction that you would like to go but you are not there yet; at least if you are not charging the cost, where aren't you? That type of thing.

Q. So that you can get there later.

A. Beg your pardon?

Q. If you can see where you're not charging the

costs now, that's so you want to be able to start charging them later.

A. Well, in some cases you might want to tend towards -- gradually tending towards a cost goal with your pricing.

Q. Those things aside, then, I am correct that the goal of that exercise is to charge the costs to serve a customer class to that customer class?

A. That is a goal. Some of that is reflected in the relative rates of return of the various classes of service.

Q. I'm not interested so much in the rates of return end of it as I am just looking at your cost of service study, and I see you have a particular line or type of line, and you want to charge that to the classes of service which have caused you to incur the cost; is that right?

A. That's basically the case.

Q. If you looked at an account that had substations in it or, let's say, transformers, your goal is to charge the cost of the transformers to the class that is causing you the cost of the transformers?

A. A goal would be to price your product in accordance with the cost.

MR. SELKOWITZ: I have no other questions. Thank you very much.

There is a housekeeping detail, by the way, that Mr. MacGregor and I still have to clear up, and maybe this is an appropriate time to do it.

We have agreed that we don't need Mr. Perl's return, and instead we are going to ask that what I have marked as Exhibit UUC/University of Pennsylvania No. 6 be placed in evidence by stipulation of the company and my client.

So I can get Mr. MacGregor's stipulation on the record, I would identify this as -- let me back up.

There was some cross-examination of Mr. Williams a couple of weeks ago in which he was asked some questions about the projection of the impact on employment, and he was asked to supply to counsel the material upon which that information had been based.

That was done, and it was supplied to us in the answer to an interrogatory; and this exhibit, which is Table 8, pages 1 and 2, called "Effects of the Lukens Shift on Pennsylvania Employment," contains the total calculation and derivation of the particular number that was used in Mr. Williams' cross-examination. And it was part of Mr. Perl's testimony, which is why we had asked that he be present.

But with the stipulation that this represents the schedule that he had from which that number was derived, we do not require his presence.

MR. MacGREGOR: Your Honor, I have no general problem with that. I have just been informed by the company, however, that there are certain assumptions governing the calculations in this schedule that are set forth in Mr. Perl's testimony, particularly on pages 19 and 20.

I could either read those into the record, or we could also include those pages in as an exhibit at a subsequent time if that would be more appropriate.

MR. SELKOWITZ: I have no objection to either procedure. It would be easier, probably, just to read them right now; we would have one less exhibit to deal with later on. Or we can make an exhibit if need be.

MR. MacGREGOR: Fine. Let me just state at this time that I have no objection to the admission of this document, subject to the statements that the study was performed on a statewide basis and that income levels were held constant in the study, and to the extent that you make further use of this later in your testimony, we would reserve the right to present rebuttal testimony or any further response that might be necessary.

MR. SELKOWITZ: I have no problem with that.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as UUC/UP Exhibit No. 6 for identification.)

MR. SELKOWITZ: We move the admission of Exhibit 6.

JUDGE MATUSCHAK: The motion is granted.

(Whereupon, the document marked as UUC/UP Exhibit No. 6 was received in evidence.)

MR. CORRODI: Your Honor, I would like to also move the admission of Scott Exhibit 1.

JUDGE MATUSCHAK: Any objections?

MR. MacGREGOR: I have no objection to the admission of the document, Your Honor, so long as it is not viewed in any way as formally consolidating the filing of the proposed Auxiliary Service Rider with formal consolidation in this proceeding.

JUDGE MATUSCHAK: With that understanding, the exhibit is admitted into evidence.

(Whereupon, the document marked as Scott Paper Exhibit No. 1 was received in evidence.)

JUDGE MATUSCHAK: Is there any other cross-examination of Mr. Sundermeir?

MR. RYAN: I'm sorry, Ms. Pitts, but I have a follow-up question that was prompted by one of Mr. Selkowitz's questions, if I may.

FURTHER CROSS-EXAMINATION

BY MR. RYAN:

Q If I may return to the issue of instability, which I didn't bring up, but I would like to pursue it with what I hope is a relatively simple question.

If you assume that contrary to your own desires you end up with a rate design for, let's say, HT or PD that has a tailblock energy charge which, in fact, does collect large amounts or significant amounts of fixed costs -- so assume that you have that situation -- don't you have a revenue instability problem? For example, in the period of a recession, for example, when manufacturing operations, let's say, decline for reasons beyond your control or any of your customers' control, they simply stop taking as many kwh, isn't that a revenue instability problem for PECo?

A. Yes. I think that was the type of thing we were referring to, and we feel confident that as long as those rates are properly designed, we won't have that problem.

MR. RYAN: I have no further questions.

JUDGE MATUSCHAK: Is this all of the cross-examination of Mr. Sundermeir?

Your cross-examination refers to Mr. Williams?

MS. PITTS: Yes, sir.

JUDGE MATUSCHAK: Does anyone else have any further cross-examination of Mr. Sundermeir?

(No response.)

JUDGE MATUSCHAK: Let's take a ten-minute recess, and then we'll come back with Mr. Williams.

MR. MacGREGOR: Your Honor, I have a few redirect questions that I could take care of right now.

JUDGE MATUSCHAK: Very well.

REDIRECT EXAMINATION

BY MR. MacGREGOR:

Q Mr. Sundermeir, you were asked certain questions yesterday by Mr. Selkowitz concerning the demand ratchet for Rates HT and PD.

If the company did not have such a ratchet in those rates, would there be any loss of revenue to the company?

A Yes, there would.

Q And would the company have to make any changes in its rate design to reflect that revenue loss?

A Yes; it would necessarily have to increase its demand charges.

Q Mr. Sundermeir, Mr. O'Donnell asked you several questions about what factors the company might consider in establishing a separate rate classification, and I believe you listed two factors, the voltage level at which a customer takes service, and the usage characteristics of a customer class.

How might the company reflect those characteristics in establishing a rate design?

A Well, it can do it in one of two ways, either by classifying the customers and having a separate rate, or it can do it through the rate design itself.

Q Does the company do each of these in its current

rate design?

A. Yes.

Q. You were asked certain questions by Mr. Fort regarding the service to Amtrak at Thorndale and Perryville.

Does the company provide service to Amtrak at Thorndale and Perryville?

A. Yes, it does.

Q. Does the company have facilities in place to provide that service?

A. Yes.

Q. You were also asked certain questions by the Consumer Advocate regarding the system component losses as described at page 66 of Exhibit WFS-1, and, in particular, you were asked questions regarding the fact that that data used to develop that study was from 1976.

Has the company performed any analysis to examine the question of whether it is appropriate or inappropriate to rely on that 1976 data in the current case?

A. Yes, it has. As a matter of fact, that information was provided in response to OCA Interrogatory 7-23.

MR. MacGREGOR: Thank you, Your Honor. That's all I have.

JUDGE MATUSCHAK: Any further cross-examination as a result of the redirect?

MR. FORT: May I ask a further clarifying question?

JUDGE MATUSCHAK: Yes.

MR. FORT: Just a moment, please.

(Pause.)

RECROSS-EXAMINATION

BY MR. FORT:

Q In reference, Mr. Sundermeir, to the answer you just gave concerning the facilities at Thorndale and Perryville, would you mind turning to Interrogatory Answers DR-Staff-RSS-9 and 10?

A I'm sorry; what was the reference?

Q DR-Staff-RSS-9 and 10.

A Yes.

Q Do you have before you DR-Staff-RSS-9?

A Yes.

Q Do you observe the statement, "The only PECo facilities at these interchange points are metering equipment; all transmission facilities are owned by the railroad"?

A I'm quite aware of that, but I don't think that was Mr. MacGregor's question to me. He said: does the company have facilities to provide load at those points? And the answer is clearly yes, because the flow of energy at that point can be out of the system as well as into the system; so we have 25 cycle equipment and we have transmission lines, et cetera, to get that energy to that point.

I don't think he was referring specifically at that

point.

Q Where does PECo have 25 cycle equipment?

A Richmond, Lamokin, Somerset, on our territory.

Q These are the other points on the Amtrak system where you have a connection with the Amtrak system; is that correct?

A They are three of the other points that are located in our service territory.

Q Are there not a total of six delivery points on the Amtrak system; to wit, Thorndale, Perryville, Somerset, Lamokin, Richmond and Metuchen?

A That's correct. Metuchen is not in our service territory.

Q And the equipment that you have reference to is located at Somerset, Lamokin and Richmond, not Thorndale or Perryville; is that correct?

A No. The only equipment that we have at Thorndale and Perryville is metering equipment, as stated in response to the interrogatory that you showed to me.

MR. FORT: Thank you.

RECROSS-EXAMINATION

BY MR. SELKOWITZ:

Q Mr. Sundermeir, you just said that if you did away with the ratchet in your rate design, you would have to increase demand charges. I'm just trying to clarify

something.

Yesterday you told me that you don't know how much money the company collects from the imposition of the ratchet; is that correct?

A. That's correct.

Q. So you don't know how much you would have to actually increase the demand charge?

A. No; that's correct, I don't know how much. But necessarily you would have to increase it, because by doing away with a ratchet you would not eliminate any cost. As a matter of fact, you may increase cost, but let's forget that for the moment.

Q. That doesn't answer the question.

A. What you would do is decrease the number of your demand billing units. With the costs not changing and the demand billing units going down, you necessarily have to increase the price to recover the same amount of revenue.

Q. You just don't know how much.

A. I do not know how much. It would definitely be an increase.

MR. SELKOWITZ: Thank you.

JUDGE MATUSCHAK: Anything further of this witness?

(No response.)

JUDGE MATUSCHAK: If not, we'll take a recess at this time.

(Witness excused.)

(Recess.)

JUDGE MATUSCHAK: When you are ready.

MR. MacGREGOR: Your Honor, the company would like to recall Mr. Williams for further cross-examination.

JUDGE MATUSCHAK: Very well, you may proceed, Ms. Pitts.

Whereupon,

RAYMOND C. WILLIAMS

having previously been duly sworn, testified further as follows:

CROSS-EXAMINATION

BY MS. PITTS:

Q Good afternoon, Mr. Williams. I am Mildred Pitts with the General Services Administration, representing the Federal Executive Agencies.

A Good afternoon.

Q Mr. Williams, have you consistently presented testimony in PECo rate cases that the rates charged to each class should reflect the cost of providing service as closely as practicable?

A I believe that is generally correct, yes.

Q Do you understand the term "cost of service" to mean that each class should provide approximately the same rate of return to the extent possible?

A Well, I believe I have also explained in several cases that it is desirable to have as a target somewhere

near equal rate of return for all classes, and that one should try to with each change in rates be moving toward that target, recognizing that it is a difficult thing to achieve.

Q In other words, as you just stated, that class rates of return should move in the direction of the system average rate of return?

A That is correct.

Q I realize that Mr. Sundermeir is the principal cost of service witness. However, Mr. Williams, are you the witness who has utilized the cost of service study results in developing a rate spread proposal?

A Yes.

Q Are you generally aware of the relative rates of return derived from the various cost of service studies which were presented in the last several PECo rate cases?

A Yes, generally.

Q I would now like to refer you to an exhibit entitled, "Results of Cost of Service Studies at the Then-Present Rate, Four Coincident Peak Method, 1974 through 1984."

MS. PITTS: And I would like this exhibit marked for identification as GSA Cross-Examination Exhibit No. 11.

JUDGE MATUSCHAK: It will be so marked.

(Whereupon, the document was marked GSA Cross-Examination Exhibit No. 11 for identification.)

BY MS. PITTS:

Q. Mr. Williams, the exhibit that you were just handed was the PAIEUG Exhibit No. 1, Schedule 7 in PECO's last rate case, Docket No. R-842590. You will agree, will you not, that this exhibit summarizes the results of the cost of service studies at the then-present rates based on the four coincident peak method beginning in 1974 through the year 1984?

A. I see the exhibit. I see what it purports to do. I simply have not had a chance to check its accuracy, and I believe from the title that it is just what it says, the then-present rates before the increase was applied.

Q. Referring to the exhibit itself, there are two sets of numbers. The top half shows the rate of return, while the bottom half shows the deviation. Are you familiar with the term "rate of return"?

A. Yes.

Q. Is the rate of return derived by dividing operating income, which is the difference between operating revenues and allocated operating expenses, by the allocated rate base?

A. That is generally correct.

Q. If a class is fully recovering its cost of service, would it have a rate of return approximately equal to the total company rate of return?

A That is correct.

Q Do you recall that the deviation, which is shown in the bottom half of the exhibit, represents a difference between a class' rate of return and the total company rate of return?

A Yes.

Q For example, referring to 1984, would the high tension class deviation of plus 1.95 be equal to the difference between the high tension rate of return of 11.65 percent and the total company rate of return of 9.7 percent?

A Yes.

Q Therefore, would it be fair to say that the deviation measures the spread between a class' rate of return and the total company return?

A Yes.

Q Mr. Williams, up through 1984, does the exhibit demonstrate that the deviation from all of the major classes with the exception of street lighting has been generally increasing over time?

A In absolute numbers, it certainly shows an increasing number. But one must look at the relative return of the class as compared to the total company, I believe.

Q Mr. Sundermeir has testified that essentially the same cost of service methodology was implied both in this case as well as in the last rate case. Is this also your

understanding?

A. Yes.

Q. Mr. Williams, in your opinion, does the methodology used in the cost of service study appropriately reflect cost causation for the PECo system?

A. Yes.

Q. I now would like to refer you to an exhibit entitled, "Comparison of Cost of Service Study Results, Four Coincident Peak Method," and ask that this be marked for identification as GSA Cross-Examination Exhibit No. 12.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked GSA Cross-Examination Exhibit No. 12 for identification.)

BY MS. PITTS:

Q. Mr. Williams, would you please take a moment to look over this exhibit? This document compares the rates of return and deviations of the major customer classes between the last case and this rate case.

The first column of figures for the last rate case was PAIEUG Exhibit No. 1, Schedule 3. And the second column, for this case, are from the cost of service study, WFS-1, pages 6 and 6a.

The results shown from the last rate case are based on PECo's proposed rate spread. Mr. Williams, was PECo's proposed rate spread adopted by the Commission in the last

rate case?

A. The methodology was adopted. The absolute values of increase were not approved.

Q. Was the last rate case based on a future test year ending December 31, 1984?

A. Yes.

Q. When PECo develops the demand allocation factors to be applied during a future test year, are those factors based on the coincident demand during an historical test period?

A. As explained by Mr. Sundermeir; however, they are related to the kilowatt-hours for the test year at hand ending June, 1986. The --

Q. Mr. -- oh, excuse me. Did you complete your answer?

A. Yes.

Q. Mr. Williams, in the last rate case, did PECo develop the demand allocation factors based on coincident demand which occurred in 1982?

A. I believe that is correct, yes.

Q. And 1982 is the year that should go in under the first column of the last case?

A. No, no. The test year was December, 1984.

Q. But the allocation factors under it?

A. No, we are mixing things. The test year was

December, 1984, just as this test year is June, 1986. You are suggesting on line 2 that I put in 1982?

A. Yes.

Q. I thought you said line 1.

A. No, no. The allocation factors were derived from historical data based on 1982?

A. Yes.

Q. Now, in this case, PECo is using a test year ending June, 1986, is that correct?

A. Yes.

Q. And are the demand allocation factors derived from actual coincident demands through the summer of 1984?

A. That is the source of the load test data, although the allocation factors are developed after relating to the test year kilowatt-hours.

Q. Note that in deriving the high tension class rate of return, both SEPTA and AMTRAK were included. Were SEPTA and AMTRAK both members of the high tension class in PECo's last rate case?

A. Yes, they were.

Q. In comparing the two cases, would you agree that the results are substantially different?

A. The relationship between Column 1 and Column 2, one would certainly expect to be different because in Column 1, we have none of the Limerick plant included in that

cost allocation, plus we are moving two years forward as far as expense levels are concerned.

JUDGE MATUSCHAK: Keep your voice up, Mr. Williams.

THE WITNESS: So that Column 2 excludes all of Limerick expenses and indeed is two years later in time than Column 1. In other words, they are not comparable in my view.

BY MS. PITTS:

Q. Mr. Williams, referring specifically to the class rates of return, were the high tension and primary class rates of return significantly above average in the last rate case but measurably below average in this case?

A. I am having trouble with your "significantly" and "measurably." The high tension was above average in the last case and is below average in this case, but in --

Q. Fine, I'll accept that as an answer.

A. -- both cases, it was not far from the average, in my best recollection.

Q. A second example: was the secondary class rate of return above average in the last case but only slightly above average in this case?

A. Again, it was above in both cases. I believe it was further above in the last case than it is in this case.

Q. Mr. Williams, can you tell us when was the last time that the residential class rate of return was at the

system average based on the four coincident peak method?

A. To the best of my recollection, the residential class has never been above system average or never equal to it. It has always been below.

Q. Do the cost of service study results in this case reflect the full impact of Limerick Unit 1, even though PECo is proposing a phase-in?

A. Yes. Limerick is fully reflected in this case, and yes, we are proposing a phase-in.

Q. Would you nevertheless agree, Mr. Williams, that the rather dramatic changes in the cost of service study results are not entirely related to the inclusion of Limerick No. 1 in PECo's rate base and operating expenses?

A. No, I would not agree. I think the addition of Limerick 1 ---

JUDGE MATUSCHAK: I can't hear you.

THE WITNESS: -- is by far the principal reason for the change in the rates of return. I would not agree with your supposition.

BY MS. PITTS:

Q. Mr. Williams, do you agree with Mr. Sundermeir that 1984 was an unusual year as far as the summer weather conditions were concerned?

A. I don't know what your term "unusual" means. I agree with Mr. Sundermeir's testimony relative to the 1984

test data.

Q Mr. Williams, could the milder than normal summer weather conditions during 1984 also explain the extreme disparity in the cost of service study results for the rates of return?

A I don't think there's an extreme disparity to explain. I think the facts speak for themselves. The costs have been thoroughly cross-examined and are set forward.

Q Now, referring to the proposed Rate HT tariff, Mr. Williams, is PECo proposing to change the high voltage discount?

A No.

Q Is the purpose of the high voltage discount to provide a lower rate to customers who take service at delivery voltages higher than the standard 13,200 volt service provided on Rate HT?

A The voltage discount is designed to recognize the difference to the customer to provide receiving equipment for receiving voltages higher than 13,200 under Rate HT.

Q Is the high voltage discount intended to reflect the transformation cost which PECo avoids by virtue of providing service at these higher delivery voltages?

A No. The discount is designed just to do as I said, to represent the cost to the customer of providing

transformation at a voltage higher than 13,000 volts. It recognizes the difference in cost between a substation at 13,000 to the customer's utilization as compared to one at 66,000 at the customer's utilization voltage.

Q Is this just the equipment and labor and installation costs?

A It's the installation of the substation, the capital cost of the equipment. They are components.

Q Are the high voltage discounts designed to reflect any other costs avoided by PECo in providing service at voltages above 13,200 volts?

A No, I think I've described it.

Q Mr. Williams, were you present when Mr. Sundermeir testified that PECo incurs lower demand and energy losses to provide service at 33,000, 66,000 and 132,000 volt than at 13,200 volts?

A I remember the cross-examination of that study by system planning on the losses to provide services at HT voltages as compared to secondary voltages.

Q Then by virtue of these lower losses, would the cost per kilowatt-hour at the meter also be lower to provide service at these higher voltages?

MR. MacGREGOR: Your Honor, I object to the question. I think it mischaracterizes Mr. Sundermeir's testimony. He did not testify that the line losses were lower for those

customers. I believe he only testified that the company had not performed a study and had provided no breakdown for the line losses for those higher voltage levels.

JUDGE MATUSCHAK: Do you want to revise your question, Ms. Pitts?

MS. PITTS: Can he answer it?

JUDGE MATUSCHAK: Ms. Pitts, there's an objection to your question. Do you want to rephrase your question?

MS. PITTS: Your Honor, if the witness does not understand the question, I would rather not rephrase --

JUDGE MATUSCHAK: It's not question of whether he -- you inferred that Mr. Sundermeir had made that observation, and it's objected to that that wasn't the testimony.

MS. PITTS: I will withdraw the question, Your Honor.

JUDGE MATUSCHAK: Very well.

BY MS. PITTS:

Q. Mr. Williams, does Rate HT provide for a credit to compensate for the demand and energy losses incurred to provide service at 33,000 volts or higher?

A. The loss factor we recognize for the HT class is just that, for the HT class, regardless of the service voltage.

Q. Then, is this an average combined of the 13,200 and all the others combined?

A. That is the subject that Mr. Sundermeir described

in detail.

Q. Mr. Williams, were you also present when Mr. Sundermeir testified that customers who are served 132,000 volts do not require the use of lower voltage facilities?

A. I don't understand your question. Any customer served at a high voltage, that's the end of our responsibility. We serve them at 132,000 or we serve them at 66,000. We have no responsibility beyond that. It's customer owned equipment beyond that.

MS. PITTS: Thank you, Mr. Williams. I have no further questions.

At this time, Your Honor, I would like to move into the evidence GSA Cross-Examination Exhibits No. 11 and No. 12.

MR. MacGREGOR: I object, Your Honor. The documents, first of all, were not prepared by the company. Mr. Williams indicated he had never seen the material before, nor did he agree with the way the information was developed.

I therefore object to their admission, because they have not been properly authenticated.

MR. FORT: Your Honor, on behalf of SEPTA and AMTRAK, I would like to also object to their admission. The second column opposite "High Tension," under June, 1986, it says the rate of return is 5.51 percent. That figure does not

appear on page 6 or 6a of WFS-1. Apparently, it is some composite figure separately computed by GSA.

The figure shown on the exhibit referred to is 5.37. Also, this does not show the return for SEPTA and AMTRAK. For SEPTA, it's 7.86 percent. For AMTRAK, when allowance is made for a contract entered into, it's 7.55 percent.

So, I think the figure of 5.51 percent is some kind of specially computed figure, not appearing, to repeat, on WFS-1.

JUDGE MATUSCHAK: It appears to us that the admission of these exhibits at this time is improper, and they are without basis, and have no foundation. We suggest that if you want to develop the information that's on these two exhibits, you do it on your direct examination and your own testimony, not through cross-examination.

The objections to the exhibits are sustained at this time. If you want to offer them in connection with your testimony, upon proper foundation, we will entertain an offer at that time.

MS. PITTS: Thank you, Your Honor. I will leave these two exhibits, GSA Exhibit No. 11 and GSA Exhibit No. 12, marked for identification.

JUDGE MATUSCHAK: Very well. They will be so identified.

Is Staff ready to proceed?

MS. CHESTNUT: Yes, Your Honor.

CROSS-EXAMINATION

BY MS. CHESTNUT:

Q Good afternoon, Mr. Williams.

A Good afternoon.

Q Mr. Williams, the first thing I would like to do is refer you to the company's response to IR-Staff-REL-1. I have distributed a copy for yourself, counsel and to Your Honor.

MS. CHESTNUT: Judge Matuschak, I would prefer that this not be marked as an exhibit, because I am going to supply a clean copy with my witness' testimony.

JUDGE MATUSCHAK: Very well.

BY MS. CHESTNUT:

Q As you can see on this response, Mr. Williams, part has been conveniently circled. Have you had a chance to read that response?

A Yes.

Q Are you responsible for the preparation of IR-Staff-REL-1?

A Yes.

Q Your name is listed as the responsible witness, and this discusses late payment charges, is that correct?

A Yes.

Q And the sentence that has been emphasized states

that, "Late payment charges are a rate for the service of carrying delinquent accounts," is that correct?

A. I agree that is what it says, yes.

Q. What do you mean by "service"?

A. Well, when payments are not made, the company must indeed carry those unpaid accounts, and the statement here refers to the cost to the company of carrying those outstanding balances.

Q. That service refers to the financial cost to the company of not receiving revenue?

A. That's correct, but I don't mean to infer that that is the only cost that late payment charges cause us.

Q. So, is it correct that the late payment charge was designed to provide some compensation to the company for the cost it incurs in carrying these delinquent accounts?

A. That is certainly one of the primary reasons for it, but there are others.

Q. Thank you, Mr. Williams. That is all the questions I have with respect to that at this time. I would like now to refer you to DR-Staff-RSS-11, which I have also distributed.

MS. CHESTNUT: Your Honor, I request that this response be marked for identification as Staff Exhibit No. 19.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked Staff Exhibit No. 19 for identification.)

BY MS. CHESTNUT:

Q. Have you had a chance to examine what has been marked as Staff Exhibit No. 19, Mr. Williams?

A. I am generally familiar with this, yes.

Q. And what this is is the contract for the transfer of power between AMTRAK and PECo, is that correct?

A. Yes.

Q. Now, there were some questions this morning from Mr. Fort to Mr. Sundermeir concerning power at the Perryville and Thorndale interchanges, is that correct?

A. Yes.

Q. And this contract is what I should say governs that power exchange franchise?

A. Yes.

Q. And the power that was referred to is discussed in paragraph 9 of this contract, which is on page 8. What this does is refer to the power flowing to the PECo system from AMTRAK's system, is that correct?

A. No. It describes the power that is exchanged between Pennsylvania Power and Light and PE at Thorndale, and Baltimore Gas and Electric and PE at Perryville. Both those points are on the AMTRAK system.

Q And it is correct that some or all of this power is produced from the Safe Harbor Power Company, is that correct?

A Well, the source of the power is not clearly determined. As far as PE Company is concerned, the power is from PP&L at Thorndale.

Exactly the source on the PL system depends on water conditions at Safe Harbor and the machinery available, and likewise the source from Baltimore depends on Safe Harbor water availability.

But the sale is clearly from Baltimore Gas and Electric to Philadelphia Electric at Perryville, and clearly from Pennsylvania Power and Light to PE at Thorndale.

Q To the extent that the power is received from Safe Harbor, it would be hydroelectric power, is that correct?

A I believe that is true, although when you say "received from Safe Harbor," there is conversion equipment at Safe Harbor to go from 60 hertz to 25 hertz.

So, although the 25 hertz power came from Safe Harbor, it could have come from other points on the PL system, be generated by coal and distributed through the 25 hertz machine at Safe Harbor.

Q I think I am a little unclear. Is all the power

generated from Safe Harbor at 25 hertz, or are you saying --

A. I don't profess to be an expert on Safe Harbor. It's a Pennsylvania Power and Light station. But my understanding is that there is conversion equipment there from 60 to 25 hertz.

There is also generation equipment there, water power generation, at 25 hertz. So, depending on limited availability of water or machine maintenance, you could have 60 hertz input to the conversion equipment from Pennsylvania Power and Light's coal generation and supply output to the railroad at Safe Harbor.

Q. Are electrified railroads such as AMTRAK the only users of 25 hertz power?

A. They are the only users on our system. Generally that has been historically used for propulsion power.

Q. And this power is billed to AMTRAK at the HT Rate, is that correct?

A. Yes. We are proposing a separate rate classification in this proceeding.

Q. As a general matter, Mr. Williams, is it correct that hydroelectric power is generally the cheapest type of power generated?

A. Yes.

Q. Mr. Williams, you were asked some questions this morning by Mr. Hanger with respect to ability to pay, and the

extent that that is a consideration in rate design.

Insofar as ability to pay is reflected in rate design, I think it was your testimony that it would be taken into account in two areas. One is the setting of the level of the customer charge, and the other is the use of the 500 kwh block to set the level for the energy block, is that correct?

A. Yes. I testified that is in my view the way it is recognized in our residential rate.

Q. Now, it is correct that the customer charges paid by each -- let me limit that -- the residential customer charge is paid by each customer on that rate schedule?

A. Yes.

Q. It is not a sliding scale?

A. No.

Q. And that is true also with respect to usage taken up to 500 kwh?

A. Yes.

MS. CHESTNUT: Thank you. I think that is all the questions I have, Mr. Williams.

Your Honor, I'd like to move into evidence Staff Exhibit No. 19.

MR. MacGREGOR: No objection.

JUDGE MATUSCHAK: Staff Exhibit No. 19 is admitted.

(Whereupon, the document marked Staff Exhibit No. 19 was received in evidence.)

JUDGE MATUSCHAK: Who wants to proceed next? Any further cross-examination of Mr. Williams?

MR. KLEPPINGER: I have a few.

CROSS-EXAMINATION

BY MR. KLEPPINGER:

Q I would just like to briefly discuss with you, Mr. Williams, the connection, really, between the spread of the increase as you have suggested it in the cost of service study and the interplay of that with the phase-in.

Now, as I understand your testimony, you are responsible for the methodology utilized by the company to spread the net increase of $671-some million; is that correct?

A. Yes.

Q And without the forecasted reduction in the ECR and the fuel savings associated with Limerick 1, we're talking about a gross increase of $880-some million in rough terms?

A. Yes.

Q And the difference between the net and the gross is being reflected in base rates, is it not, with a reduction in the fuel component of all rate schedules? Is that correct?

A. Yes. The fuel savings is demonstrated on -- the estimated fuel savings is demonstrated on page 21, I

believe it is, of TPH-2, which is 7.355 mills per kilowatt-hour on average during the first two years of operation.

Q So the effect of that adjustment is to reduce the amount of fuel being collected in base rates from the current amount of about 28.1 mills per kilowatt-hour to about 20.8 mills per kilowatt-hour; is that your recollection?

A Well, I agree that it reduces the so-called "base factor" in the present ECR from its present 28.178 to the proposed base in what has been filed as an energy cost rate factor in the 80/20 clause, and that difference is represented by 7.355.

Q And each of the energy charges in your rate schedules under proposed rates will be including, will they not, 20.8 mills per kilowatt-hour of energy, of fuel cost?

A Of energy; yes.

Q As a result of the phase-in, if there is not a base rate increase filed by PECo until after May 30 of 1992, the proposed distribution of the rate increase in this case will remain in effect for that six-year period, will it not?

A Distribution by class you are referring to?

Q Yes.

A Yes.

Q. Even if another base rate case is filed before May of 1992, insofar as the deferred liability of each class associated with this phase-in is concerned, that amount of dollars which will be decided at the end of this case will remain in effect through 1992, the way you have suggested the allocation of the increase in this case?

A. By "that amount" you mean that amount relating to this case?

Q. That's right, the deferred liability amount under the unrecovered revenue collection.

A. Yes.

Q. Does PECo intend on filing periodic reports to the Commission and the parties concerning the amount of unrecovered revenues by rate class in the latter years of the phase-in plan?

A. As I describe in my testimony, I believe the thought of the company is that we would certainly, at the point of the third year recovery factor, assess the point of recovery and adjust appropriately so that the recovery would occur approximately within that 12-month period.

Q. Will there be updates to that on an annual basis or a bi-annual basis to identify how much of that deferred amount has been collected from each rate class in the intervening period?

A. The proposal is to have such amounts recorded

on the company's books by rate classification, so it becomes available on the company's books of account.

Q. Under your current plans, does the company intend to file periodic cost of service studies during the pendency of the phase-in plan absent the filing of a base rate case?

A. No.

Q. So you would expect, then, that the next cost of service study to be prepared by PECo will be done in conjunction with a base rate case --

A. Yes.

Q. -- some time between now and 1992?

A. Yes.

Q. And it is your understanding, is it not, that the company has conditionally agreed not to file a base rate case until September 27 of 1987 absent extreme financial conditions?

A. Yes.

Q. Let's assume for the moment that the company does file an increase September 28, 1987, and that cost study is based on 1985 load data and the weather conditions and everything else entailed in 1985. If 1985 were a normal weather year -- and I used that term in conjunction with my cross-examination of Mr. Sundermeir yesterday -- could the relative rates of return of the customer classes

as you have shown them on page 9 of your testimony differ materially from those rates of return that would be calculated in that 1987 cost study?

A. Whether the rates of return differ or not, I think depends on many things. It depends on the reason for the rates being filed in '87, what cost increases have necessitated that rate filing, because necessarily they would be reflected in that filing and be allocated to the various classes of service; so that how they impact each class of service would probably be the major factor in changing the relative positions of the rates of return one to another, whatever cost or occurrence that may be.

Q. If we were to hold constant all of the conditions in the cost study with the exception of the weather information, and assume '85 is a normal weather year, would not past history indicate to us that the rates of return of customer classes would differ in their relative position to the system average than what are reflected on page 9 of your testimony?

A. I don't know how I could answer that question without having all the data to perform that study.

Q. Okay. Well, earlier today there was an exhibit marked, at least, by the GSA -- and I understand it has not been moved into evidence, but I suspect we'll see it later -- that did reflect -- and you are familiar enough,

are you not, with past PECo cases wherein the HT rate of return has consistently been above 100 percent of the system average; correct?

A. It has generally been above; I agree.

Q. So it wouldn't be uncommon for the study in 1987 that I am hypothesizing to reflect a rate of return of 110 percent for Rate HT? It is not out of the question, is it, Mr. Williams?

A. It is possible, I suppose, but by its very nature -- you're saying you would hold everything else constant. You certainly can't hold the test year constant. Sales are going to differ. The relative interaction between the classes for the allocation of that peak load in the summer is going to differ.

It just is something I don't think we can make a judgment on without knowing all the facts at that time.

Q. Turning for a moment to the methodology you have utilized to spread the increase to the customer classes. I take it that if the company is proposing a decrease in its fuel cost as a result of Limerick 1 coming on line, that it would be safe for me to conclude that increases in the cost of fuel have not contributed to the company's need for rate relief in this case; is that a fair conclusion?

A. That's true.

Q. And your recommendation for allocating this

increase is to spread it essentially on an equal percentage basis to all customer classes' present base revenues, including the fuel component of those revenues; is that correct?

A. That's correct.

Q. So that as a result of my earlier questions, this increase is being applied to base revenues which include that 28 mills of fuel, as opposed to the 20 mills of fuel which is going to be in base rates at the conclusion of the case?

A. That's correct.

Q. At page 8 of your testimony you list two of several factors which you utilized in developing the distribution of the rate increase, and at line 23 you mention the size of the increase, and at 26 you mention the individual class rates of return; is that correct?

A. Yes.

Q. At line 20 you mention that there were several factors that you considered. Was another factor that you considered the cost causation for the company's need for additional revenues in this case?

A. I certainly was cognizant of that, knowing that the main driving force was the addition of Limerick 1, certainly.

Q. In structuring your distribution of the increase

among customer classes, did you also consider how that would be affected by the length of the phase-in plan you were also proposing?

A. How what would be affected?

Q. Let me ask you this: did the company first decide on the phase-in plan and then the distribution of the increase, or did it decide on how the increase should be distributed and then decide the phase-in plan?

A. The company made the decision on how to distribute the increase among the rate classifications and then developed the phase-in plan.

Q. In deciding on the distribution of the increase, did you consider the reasonableness of Mr. Sundermeir's cost of service study results?

A. Yes, I did.

Q. Did you consider the reasons why those cost of service study results, as you have shown them on page 9 of your testimony, differed from prior cost of service studies?

A. I certainly considered, using the best background and knowledge that I have from the former cases and the situation that was resulting from the application of this proposed increase on the basis that we planned, what the effect would be on the relative rates of return of all the classes, as shown on page 9; and when I found that they were all moving generally toward the average return, with

the exception of Rate RH, I proceeded with my revenue distribution in that manner and held constant Rate RH at 116.

Q. When the printout came from the computer and showed you what the present rates of return were for the customer classes, did it strike you that Rate R had not been at 96 percent of system average for perhaps ten years, that it was much lower than 96 percent?

A. I was aware of that. I was also aware that there were considerable plant additions made with this increase.

Q. Did it strike you unusual that the HT rate of return in the new cost study was at 84 percent of system average when over the last ten years it had consistently been above the system average?

A. Yes. I considered that.

Q. And those considerations, I take it, were not sufficient to alter your decision on how this increase should be allocated among the customer classes?

A. No. In looking at the results after the increase I found that the classes were generally within 20 percent of the average rate of return, with the exception of Rate OP.

So with that acceptable criteria, we proceeded.

Q. From your response, it appears to me -- and tell me if I am wrong -- that you focused primarily on the

relationship between present rate rates of return and proposed rate rates of return, the relationship and the movement between those two, in concluding that your distribution of the increase was reasonable?

A. I focused on that, plus the final position relative to the average rate of return after the increase; yes.

Q. Would you say that you emphasized those factors, being the movement of the rate of return, more than a detailed analysis as to why the present rates of return differed from your prior cost studies?

A. The focus was on the rates of return, obviously. The consideration of changes from past cost studies are always a consideration when doing a cost allocation, and checking to make sure that everything is done correctly, make sure there are no mistakes, and we proceeded and did those things and satisfied ourselves that we had a solid, correct cost allocation.

Q. Mr. Williams, you were also responsible, were you not, for the proposed distribution of the increase in the company's last case at Docket R-842590? Is that correct?

A. Yes.

MR. KLEPPINGER: Your Honor, I would like to have marked as PAIEUG Exhibit No. 5 an excerpt of the direct testimony of Raymond C. Williams at R-842590, which is

dated April of 1984.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked as PAIEUG Exhibit No. 5 for identification.)

BY MR. KLEPPINGER:

Q. Mr. Williams, I have attached page 4 to Exhibit No. 5. Am I correct that in this proceeding you had suggested and recommended to the Commission that the increase be distributed to each rate classification in proportion to the revenue from that classification after all fuel revenue was removed?

A. Yes.

Q. And in your response on this page you reference Commission proceedings at Docket R-822291 and R-811626.

Am I correct that in both of those proceedings you recommended and the Commission approved the distribution of the increase in the same manner?

A. Yes.

Q. Am I correct, Mr. Williams, that also in the context of the proceedings at Docket R-842590, the company opposed the distribution of the increase to all customer classes on an equal percentage basis including fuel?

A. I don't specifically recollect that, but I know that we did not propose it.

MR. KLEPPINGER: Your Honor, I would like to have

marked for identification as PAIEUG Exhibit No. 6 the rebuttal testimony of Raymond C. Williams at R-842590, dated September of 1984.

JUDGE MATUSCHAK: So marked.

(Whereupon, the document was marked as PAIEUG Exhibit No. 6 for identification.)

BY MR. KLEPPINGER:

Q. Mr. Williams, I have appended pages 2 and 3 to your rebuttal testimony in the last proceeding. Are you familiar with that prior testimony?

A. Yes, if you will just give me a minute to read it.

(Witness perusing document.)

A. Yes.

Q. Now, the response to the question beginning on page 2 and carrying over to page 3 is obviously the response I am interested in.

Am I correct that at that time you opposed a proposal by an OCA witness by the name of Miller to allocate the increase across the board including fuel costs with a 140 percent cap?

A. Yes.

Q. And, indeed, you stated, at the second to the last line on page 2 of this exhibit, and I quote, "I believe my method of allocating the increase across the board

without fuel costs more properly reflects the fact that increases in fuel costs have not contributed to the base rate increase requested in this proceeding." Is that a correct quotation?

A. That's true.

~~And I would say that a similar increase in this proceeding would have resulted, in my view, in an unacceptable deviation between the percentage increases to the various rate classifications. That was my primary reason in shifting to the application that we chose as described at the bottom of page 8. Because of the size of this increase, we were concerned that it should be spread as equally as possible to all rate classifications.~~

MR. KLEPPINGER: Your Honor, I move to have that last portion of the answer stricken. I did not have a question outstanding and it was totally unrelated to the exhibit which I have marked and just moved into the record.

MR. MacGREGOR: I disagree, Your Honor.

MR. KLEPPINGER: There was no explanation required to that question.

JUDGE MATUSCHAK: The motion to strike is granted. If you want to refer to that in your redirect, you may.

MR. MacGREGOR: Thank you, Your Honor.

BY MR. KLEPPINGER:

Q. Mr. Williams, am I correct that at Docket

R-822291 the company also proposed an increase to be allocated among customer classes proportionately to the revenues from that class excluding all fuel? And in order to refresh your recollection --

MR. KLEPPINGER: Your Honor, I would like to have marked as PAIEUG Exhibit No. 7 the direct testimony of Mr. Williams at R-822291, dated February 1983.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as PAIEUG Exhibit No. 7 for identification.)

THE WITNESS: Yes.

BY MR. KLEPPINGER:

Q. I have attached page 4 of your testimony, Mr. Williams. Again, am I correct that you stated, "I believe it is appropriate that the base rate increase should be distributed to each rate classification proportionately to the revenue from that classification excluding all fuel, but subject to a limitation which is discussed below"?

A. That's true, and I am explaining in that paragraph some of the principal factors, and I also mention that the results of the cost of service study were also a factor and the final resulting increases to each individual customer.

Q. I understand.

MR. KLEPPINGER: Your Honor, at this time I would like to have marked for identification as PAIEUG Exhibit No. 8 the rebuttal testimony of Raymond C. Williams at R-822291, dated July of '83.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as PAIEUG Exhibit No. 8 for identification.)

JUDGE MATUSCHAK: Would you indicate what case this testimony is taken from?

MR. KLEPPINGER: Yes, Your Honor. This is an excerpt of Mr. Williams' rebuttal testimony at Docket R-822291.

BY MR. KLEPPINGER:

Q. Do you recall this testimony, Mr. Williams?

A. Yes.

Q. On the first page of this excerpt, am I correct that you responded to a proposal by a Dr. Rohr suggesting that the increase be allocated across the board including fuel costs?

A. Yes.

Q. And again, am I correct that you opposed Dr. Rohr's proposal and stated that "The company recovers fuel cost increases through the Energy Cost Rate; therefore, energy costs do not contribute to the instant need for additional revenue. For this reason, I believe it would be more appropriate to allocate the increase across the board excluding fuel costs, as approved by the Commission in the most recent rate proceeding"?

A. Yes; and at the end of that paragraph, I talk about the concern about further disproportional increases within the residential class.

Q. And your reference there to the methodology approved by the Commission in the company's most recent rate

proceeding, I take it that would be the immediately prior proceeding at Docket R-811626?

A. Yes.

Q. Now, Mr. Williams, you've also added three constraints to your proposed distribution of the increase in this case, at least as I have delineated them, and I would like you to confirm that for me.

First of all, you looked at classes with relative rates of return in excess of 140 percent and adjusted the increase for that type of class; is that correct? I'm going to refer you to page 9 of your testimony in this case, lines 1 through 3.

A. You are referring to the Streetlighting class and Rate OP?

Q. That's correct.

A. Yes.

Q. And another modification, if you will, to the equal percentage increase was applied to the SEPTA and Amtrak rate schedules to limit them to a system average rate of return; is that correct?

A. It is true that the rates proposed for SEPTA and Amtrak are at the system average rate of return, but that is a slightly different situation. We are creating a new rate classification, and it seemed to me to be appropriate to bring that rate classification into being on the target

for which we are all heading, namely 100 percent of return.

Q. Had it not been a new rate schedule, those customers would have gotten an equal percentage increase across the board like all others?

A. Yes.

Q. And then a third modification to your distribution was that you did not wish to increase the present deviation from system return of any rate schedule, and I believe that applied to Rate Schedule RH?

A. That is correct.

Q. Now, would these three modifications that I have discussed with you apply to whatever cost study was ultimately approved by the Commission in this case or are they specifically limited to the cost study and the results of the cost study which the company has prepared?

A. The things we've been discussing are the company's proposals and the reasons for the company's proposals. Many of the things are applicable, but in the final judgment a distribution of an increase is just that; it's a judgment based on as many inputs as one can possibly, relevantly consider.

I don't think I would commit to a judgment on something of which I know nothing of what you are proposing.

Q. Let's just hypothetically say that the Commission approves an average and excess cost of service study and

even the one that's in WFS-1, for example, and there is a customer class in that cost of service study with a relative rate of return of greater than 140 percent. Would you then suggest that that customer class be treated the same way as you have treated that customer class as a result of your cost study?

A. I don't think you can look at it in abstract and look at one class. You have to view the whole situation, the level of the increase which is being distributed, and the effect on the individual customer classes, taking into consideration whether their returns are relatively moving toward your target, which in your case would be creating an entirely new target and new relative positions, and determine if the distribution is indeed fair as it best can be determined to be to each class and reasonably move toward that target.

Q. Mr. Williams, you have been a participant in these cases for many years. Are you aware of any time in which the company was permitted at the conclusion of a case to revise its proposed distribution of the increase among customer classes due to the fact that the Commission approved a different cost of service study?

I am just concerned with the mechanics of what we are laying out here. If we go from the assumption that the Commission is not going to accept your cost study in this

case and accepts another one in its final rate order, it is then faced, the Commission is, with a decision on how the increase should be allocated.

At that point in time, would I be correct that the company doesn't have input anymore into that decision; that the Commission will decide how it should be allocated based on the results, if you will, of the cost study which it has approved?

A. Obviously, the Commission may make whatever disposition it decides in the final order. I would hope that all inputs would be considered by them in making that decision. That's all I can hope for.

Q. So that if the Commission makes that decision at that point in time, what I would like to do now is to try and get some idea as to what the company's recommendations to the Commission would be if that revised cost study would be accepted by the Commission.

Now, if that revised study showed a class with a relative rate of return at present rates in excess of 100 percent and that the relative rate of return was moving farther from 100 percent at proposed rates, would you maintain your position as originally stated in this case that such a customer class should get a below-system-average percentage increase?

A. I certainly maintain that principle as far as a

desired result. Whether we could achieve that with such a proposed distribution, I think one has to view the total picture and the effects on the individual customer classes and make the best reasonable judgment we can so that the increase is fairly distributed.

Q. Would you also attempt to hold to your position that a customer class with a rate of return in excess of 140 percent of the system average should receive a zero increase, such as the Streetlighting class?

A. That would certainly be my desire, but again, I think all things have to be considered.

Q. Would it still be your desire to establish rates for SEPTA and Amtrak which would produce a return equal to the system average because it's a new customer class, as you mentioned before?

A. Again, that would certainly be my desire, but I would have to look at the whole picture to make sure it's reasonable.

Q. I would like to turn now to the HT tariff itself for a moment. We've heard a lot about the HT Curtailment Rider in the last few days.

Am I correct that in the context of this rate case, the company is not proposing any changes to that Curtailment Rider?

A. That's correct. That is a separate filing.

Q. And the current HT Curtailment Rider provides a credit of $2 per kw per month for the amount of curtailable load made available by the customer?

A. That is correct.

Q. Are you familiar with how long that $2 per kw per month credit has been in effect?

A. Since the rider became a part of the tariff, which I believe was about five years ago.

Q. And it has not changed since that time?

A. No.

Q. Do you recall what the demand charge was on the HT schedule at the time the Curtailment Rider was first implemented?

A. No, I don't.

Q. Would you accept, subject to check, that it was approximately $4.34 per kw?

A. That sounds reasonable.

Q. And you would agree, would you not, that in this case, the company is proposing that the demand charge on Rate HT be set at $9.44 per kw?

A. Yes.

Q. As a result of this movement in the demand charge of Rate HT, would you agree that the cost differential between firm service and curtailable service has been substantially reduced at proposed rates compared to the

differential at the time that the Curtailment Rider was first implemented?

A. Yes.

Q. Are there still only two customers on the HT Curtailment Rider? I believe that was discussed yesterday with Mr. Sundermeir.

A. I believe that's correct.

Q. Is the amount of curtailable load from those customers still at about 7300 kw, the total of the two?

A. That is on an exhibit that Mr. Sundermeir was cross-examined on yesterday.

Q. That is correct. My point, Mr. Williams, is to determine whether or not the amount of curtailable load has been increasing over the last few years or whether we're still locked into the 7300 kw.

A. No, it has not been increasing.

Q. Would you agree with me, Mr. Williams, that a properly designed Curtailment Rider can provide PE with an alternative source of reserve generating capacity when its loads are higher than anticipated or when forced outages occur on the company's system?

A. Well, one must be careful when you describe it as a reliable source of reserve capacity, because certainly the company has no control over the customer's load, and whether indeed we will get any curtailment when we call for

it is entirely dependent on what the customer's load is at that moment.

The Curtailment Rider, as you know, provides for the customer to curtail a fixed level of firm load. If indeed the customer is operating at or below that fixed level of firm load, we call for a curtailment and get nothing.

So reliable -- it is certainly not as reliable as capacity, firm installed capacity. It is somewhere in between the two. The $2 credit was related at the time of the rider's initial acceptance to the relative cost of buying capacity on the PJM interchange, not the company's demand charges in Rate HT.

Q. Is that the continuing basis for the $2 credit?

A. Basically, that is still the thinking.

Q. I discussed yesterday with Mr. Sundermeir, briefly at least, the company's use of the Bary Curve in designing Rate HT. You were present for that cross-examination, were you not?

A. Yes.

Q. You list in your testimony as one of your purposes as including the responsibility of rate design, and I just refer you briefly to pages 3 and 4 to your testimony where you describe the purposes.

Rate design is one of the purposes, is it not?

A. Yes.

Q. Just to recap a little bit of yesterday, the Bary Curve, as I understand it and hopefully as you understand it, relates, does it not, to an individual customer's load factor to that of the customer's coincidence with a group or class peak; that is the basis of the relationship?

A. Yes, I believe Mr. Sundermeir discussed this at length yesterday, and certainly he's the expert on it.

Q. I'm sure Mr. Sundermeir can assist you in any of the responses that are necessary on this. I know for years you were responsible for the same things. So let's labor through it.

MR. KLEPPINGER: For example, I would like to identify, Your Honor, as PAIEUG Exhibit No. 8 a response to IR-PAIEUG-1-50.

JUDGE MATUSCHAK: You already have Exhibit 8, I think.

MR. KLEPPINGER: Excuse me; it's No. 9. This response is a copy of the workpapers used to develop the HT charges.

JUDGE MATUSCHAK: Very well.

(Whereupon, the document was marked as PAIEUG Exhibit No. 9 for identification.)

BY MR. KLEPPINGER:

Q. I would like you to turn to the third page of this packet, Mr. Williams.

A. Yes.

Q. The first column is labeled "Hours Use," and the second is labeled "F(M);" is that correct?

A. Yes.

Q. Now, would I be reading this correctly that a 200 hours use customer would have a coincidence factor of .660? Is that what the "F(M)" represents?

A. Yes.

Q. If that 200 hours use customer hypothetically had a maximum demand of 1,000 kw, would the Bary Curve imply that that customer contributed 660 kw to the class peak? That is simply taking the customer's maximum demand of 1,000 and multiplying it by .66.

A. Yes. It shows what we would expect that customer's contribution to the demand of the class to be.

Q. So that in developing that customer's contribution to the class peak, the Bary Curve examines the relationship between that customer's load factor and his coincidence with the class peak and not with the system peak; is that correct?

A. Yes.

MR. KLEPPINGER: My final exhibit, Your Honor, is Exhibit No. 10, which is a brief hypothetical that I would just like to walk through with Mr. Williams.

(Whereupon, the document was marked as PAIEUG Exhibit No. 10 for identification.)

BY MR. KLEPPINGER:

Q. Mr. Williams, this is a hypothetical which is intended to illustrate the difference between utilization of the Bary Curve and a coincident peak demand allocation method for the intra-class rate design. It is the last line of questioning that I have, and I hope we can do it rather quickly.

Would you agree that this exhibit is composed of a three-customer class with each customer having a non-coincident peak of 1,000 kw, and that is reflected on line 1, keeping in mind that it is a hypothetical? Can you follow that?

A. Yes.

Q. Now, these customers are of three types; one, a 200 hours use customer, a 400 hours use customer, and a 600 hours use customer, as reflected in the column headings; is that correct?

A. Yes.

Q. Now, line 2 is intended to develop the coincidence factors for these customers pursuant to the Bary Curve. And we've already identified the 200 hours use customer from Exhibit No. 9 as having .66.

If we go back to Exhibit 9, will you verify that the

400 hours use customer is .829 and the 600 hours use customer is .907?

A. Yes.

Q. Now, line 3 is intended to show the contribution of that customer to the class non-coincident peak. We had already calculated for the first column 660. I would like to correct a typo at this time. That 600 kw at line 3, column 1 should be 660.

By multiplying lines 1 and 2 for the other two customers, would you agree that their contributions to the class peak are as reflected in the exhibit?

A. Yes.

Q. Line 4 then is intended to show what percent of the demand-related costs would be assigned to each of those customer classes, and that calculation is simply their contribution to the class peak divided by the class non-coincident peak.

For example, the first customer would be 660 divided by 2,396. Will you accept that as line 4?

A. Yes.

Q. Now, the next line is a hypothetical assumption as to what the demands of these customers would be on an average basis at the time of the company's four peaks. These are simply assumptions on my part.

Will you accept those assumptions?

A. What is the basis of the assumptions?

Q. That these customers will have a coincident peak of 630, 745 and 775, those peaks being less than their non-coincident peaks; and that is a relationship which Mr. Sundermeir I believe agreed to yesterday.

MR. MacGREGOR: I'm sorry; could you restate what Mr. Sundermeir said?

MR. KLEPPINGER: Mr. Sundermeir agreed yesterday that a customer's coincident peak will, by definition, be less than or equal to their non-coincident peak. I have selected these values partially based on that assumption. Otherwise, they are a random selection.

MR. MacGREGOR: So you simply selected some number randomly less than 1,000 kw?

MR. KLEPPINGER: That is correct.

(Witness conferring with PECo personnel.)

THE WITNESS: As I understand it, you are using the same sort of relationship that Mr. Sundermeir described in moving between contribution to class peak as to the average of the 4CPs for the HT class. That sort of factor is what you are hypothesizing to get from the 660 down to the 630; is that right?

BY MR. KLEPPINGER:

Q. That is correct.

A. I agree that is the sort of thing Mr. Sundermeir

did, as I understand it, for the relationship of the HT class NCP to the average of the 4CPs. But he was dealing with a large class of customers and relating those two things, the NCP and the 4CP, for that class.

Here we're looking at just three customers that comprise the class, and I don't think it follows that all of them need be less than the NCP. You could have perhaps two considerably less and one more.

Q. I understand there are numerous variations to the types of demand levels that have been selected for this hypothetical. It is certainly not the purpose of this hypothetical to represent all conditions and all types of customer classes. It is simply a relationship that I would like to get established on the record.

Now, line 6 then attempts to calculate the percent of demand-related costs which would be assigned to each of these customers based on their contribution at the time of the 4 coincident peaks.

So, for example, for the 200 hours use customer, we simply took 630 kw and divided by 2,150.

Will you accept the calculations on line 6?

A. Yes.

Q. When we compare lines 4 and 6 on this exhibit --

A. Subject to check, I will accept that.

Q. Fine; I understand.

-- we find, do we not, that the demand cost responsibility for a customer differs depending on whether we utilize the Bary Curve relationship to establish that cost versus whether we use the contribution of that customer to the 4 coincident peaks to establish the demand-related cost? And that percentage difference is reflected on line 7.

A. I agree that's what your example shows. I don't necessarily agree that this example is representative of the way we do our cost allocation.

Q. For example, if a customer's contribution to the 4CPs was in excess of his contribution to the class NCP, the results would differ; is that correct?

A. Would you say that again?

Q. For example, one of the possibilities which you mentioned earlier was that a customer's contribution to the 4CP average demands may indeed exceed his contribution to the class non-coincident peak?

A. That's right.

Q. Now, that would also have the effect, would it not, of demonstrating that the demand-related cost to that customer would also differ depending on whether you utilized the Bary Curve to assign that cost or whether you utilized their contribution to the coincident peak to assign that cost?

A. I think what you are saying is that you are proposing a different method based on a knowledge somehow of what each customer contributes to the system peak. I don't know how you come by that number you are suggesting, because I think it is almost impossible data.

Q. Just so you understand, Mr. Williams, I'm not making any proposal at this point in time. Certainly, I'm just trying to demonstrate, as I think we have done, that whether you base intra-class rate design on the Bary Curve relationship or on the relationship of the customer's contributions to the four average demand CPs will result in different cost allocations within a customer class.

A. I believe that is what this example demonstrates, yes. I don't know for what purpose it is to be applied or what you are proposing by it.

Q. Better things are yet to come.

In response to earlier questions, Mr. Williams, you indicated that you felt one of the predominant reasons for the change in the relative rate of return relationships in the cost study were attributable to the addition of Limerick 1, the large base load unit.

A. Yes.

Q. Has the company performed any sensitivity type of cost of service studies which would include only portions of the Limerick 1 plant in the event that the Commission

does not approve the full investment being requested?

A. No.

MR. KLEPPINGER: Your Honor, that concludes my cross-examination of Mr. Williams. I would like to move into the record PAIEUG Exhibit Nos. 5 through 10.

MR. MacGREGOR: Your Honor, I have no objection except with respect to No. 10. I do not object to that so long as it is clearly stated that it is a hypothetical example offered simply to show that if you use two different methods of intra-class rate design, you will achieve two different results.

MR. KLEPPINGER: I have no objection to that qualification.

JUDGE MATUSCHAK: We had some problems, too, with Exhibit No. 10. With that qualification, we will admit Exhibit 10 and Exhibits 5, 6, 7, 8 and 9.

MR. KLEPPINGER: Thank you, Your Honor. I appreciate your indulgence.

(Whereupon, the documents marked as PAIEUG Exhibits Nos. 5 through 10 were received in evidence.)

JUDGE MATUSCHAK: I think this is a good time to conclude this session for today. We would like to have some expression from counsel as to where we are going from here.

MR. MacGREGOR: What other parties have cross?

JUDGE MATUSCHAK: Can we conclude this phase of the matter tomorrow or do we have to go to Thursday?

MR. MacGREGOR: I would anticipate, without knowing, that we could conclude tomorrow and ask the parties how much cross they have.

JUDGE MATUSCHAK: If we could have some expression as to the amount of cross-examination from various parties.

MR. FORT: We have a short amount, less than a half-an-hour on behalf of SEPTA and Amtrak.

MR. WERSAN: Fifteen minutes to a half-hour maximum.

MR. SQUIRES: About a half-an-hour on behalf of Pennyslvania Business Utility Users.

MR. RYAN: Depending on how they go, possibly up to half-an-hour, probably less.

JUDGE MATUSCHAK: Is there a concensus that we will conclude this phase of the proceeding tomorrow? We have some housekeeping things that we can take care of tomorrow if we know.

(No response.)

JUDGE MATUSCHAK: Very well. We will adjourn until tomorrow morning at 10:00.

(Witness temporarily excused.)

(Whereupon, at 4:40 p.m., the hearing was adjourned, to be reconvened at 10:00 a.m., Wednesday, January 8, 1986, in Philadelphia, Pennsylvania.)

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: Judith A. Toberman

Judith A. Toberman

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