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May 20, 1986

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SECRETARY'S OFFICE
Public Utility Commission

Honorable Jerry Rich
Secretary
Pennsylvania Public Utility Commission
B-18 North Office Building
Harrisburg, PA 17120

Re: Public Utility Commission v. Philadelphia Electric Company, Docket No. R-850 152

Dear Secretary Rich:

Pursuant to 52 Pa. Code § 5.533, I enclose the original and nine (9) copies of the Exceptions of Action Alliance of Senior Citizens, Association of Community Organizations for Reform Now, Consumers Education and Protective Association, Philadelphia Citizens in Action, and Mr. Bradshaw to the Recommended Decision of Judge Matuschak.

Copies are being served on all parties of record.

Sincerely,

John Hanger

JOHN HANGER
Counsel for AASC, ACORN,
CEPA, PCIA and Mr. Bradshaw

JH/r
enclosures

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MAY 22 1986
SECRETARY'S OFFICE
Public Utility Commission

CERTIFICATE OF SERVICE

I have served this twentieth day of May 1986 by express or first class mail or by hand delivery on May 23, 1986 a copy of CEPA et al's Exceptions to the Recommended Decision upon the following:

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DATED: May 21, 1986

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Public Utility Commission

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	DOCKET NO. R-850152
PHILADELPHIA ELECTRIC COMPANY	:	

EXCEPTIONS OF ACTION ALLIANCE OF SENIOR CITIZENS, ASSOCIATION OF COMMUNITY ORGANIZATIONS FOR REFORM NOW, CONSUMERS EDUCATION AND PROTECTIVE ASSOCIATION, PHILADELPHIA CITIZENS IN ACTION, AND MR. BRADSHAW

TO THE RECOMMENDED DECISION OF ADMINISTRATIVE LAW JUDGE MATUSCHAK

FOLDER

MAY 22 1986

JOHN HANGER
COUNSEL FOR
AASC, ACORN,
CEPA, PCIA, and
MR. BRADSHAW

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I. INTRODUCTION

Action Alliance of Senior Citizens (AASC), Association of Community Organizations for Reform Now (ACORN), Consumers Education and Protective Association (CEPA), Philadelphia Citizens In Action (PCIA), and Mr. Bradshaw, by their undersigned counsel, hereby excepts to the Recommended Decision of Administrative Law Judge Matuschak.

There is one theme to CEPA et al's exceptions herein. The Recommended Decision sets rates at a level that the 226,000 low-income households (of whom 33% are senior citizens) cannot pay and rejects without an evidentiary basis the essential need rate proposal submitted by CEPA, et al. and the Office of Consumer Advocate. If the Decision is allowed to stand and if the testimony of Mr. Oliver and Mr. Grier is not accepted the Recommended Decision will mean that PECO which now performs 66% of all the residential electric terminations conducted in the entire state will shut-off 98,947 residences per year by 1989. See CEPA, et al's Main Brief, pages 1-2. Many more families will be forced into bill delinquency, and possibly bankruptcy, as a result of this Recommended Decision. Again, a very significant proportion of the people who will suffer the trauma and stress of bill delinquency and service termination will be senior citizens, since 72,000 senior citizen households (fully 33% of all low-income households) reside in PECO's service territory and have incomes below 150% of the poverty level.

II. EXCEPTIONS OF AASC, ACORN, CEPA, PCIA AND MR. BRADSHAW

A. CEPA et al except to the Residential Rate Design section of the Recommended Decison at pages 166 to 167. The Recommended Decision's rejection of the essential need residential rate design proposed by CEPA, et al. and OCA is contrary to the evidence in the record. That evidence includes the following:

1. Two hundred and twenty Six thousand (226,000) households, consisting of 600,000 persons, with incomes below 150% of the poverty level reside in PECO's service territory. Indeed, 20% of PECO's residential customers and 30% of PECO's customers in Philadelphia have household incomes below 150% of the poverty level. (See CEPA, et al. Stmt. No. 1, p. 12 and Main Brief, p. 4).

2. These low-income households typically have few persons living in them. In fact, 60% of all low-income households are composed of one or two persons. (See, CEPA, et al. Stmt. No. 1, Exhibit GG-5).

3. Fully 72,000 low-income households in PECO's service territory are persons 65 years old or older. Consequently, 33% of all low-income households are elderly. The majority of these low-income, senior citizen households consist of a person living alone. In fact, 49,000 PECO customers are low-income senior citizens who live alone and who must cope with poverty and isolation. (See CEPA, et al., Stmt. No. 1, p. 13-14). Having

reviewed these facts, CEPA witness Mr. Grier testifed:

> Q. Is there any other important fact about low-income electric customers who live alone which bears on their vulnerability?
>
> A. Yes. About three-fourths of them (and nearly 85 percent of those aged 65 and older) are women. Most of these women are widowed.
>
> Q. Would it be correct to state that the most typical low-income PECO customer is an Elderly and/or disabled woman who lives alone?
>
> A. Yes, in thinking of the situation and needs of such a customer, the most accurate image to keep in mind is your elderly mother or grandmother -- not a young welfare mother with a lot of children.

(See CEPA, et al. Stmt., No. 1, p. 14).

4. The average annual income of households with incomes below 150% of the poverty level in PECO's service territory is $7,826. (See CEPA et al. Stmt, No. 1, Exhibit GG-3). The average household size of households with incomes below 150% of the poverty level in PECO's service territory is 2.6 persons (600,000 low-income persons living in 226,000 households). (See CEPA, et al. Stmt. No. 1, p. 12). The average low-income PECO customer, therefore, has an annual income of $7,862 which must support 2.6 persons.

5. All households with incomes below 150% of the poverty level have enormous ability-to-pay problems with PECO's existing rates as is shown by the following data:

> (i) Low-income single person homeowner ratepayers have $2.00 per month left after just food and shelter costs.
>
> (ii) Low-income single person renter

ratepayers experience a $26.00 per month deficit after paying just for food and shelter expenses.

(iii) Low-income homeowner ratepayers of all household sizes have $52.00 per month remaining after just food and shelter expenses.

(iv) Low-income renter ratepayers of all household sizes have $116.00 per month left after just food and shelter costs.

(See CEPA, et al. Stmt. No. 1 at P. 23 and Brief at p. 6). Moreover, 57% of single person households which have the most serious ability-to-pay problem are senior citizens. (See CEPA et et al Stmt. No. 1, p. 13-14 and Main Brief at p. 5). Of course, low-income households must pay other expenses, apart from food and shelter, like transportation and medical expenses. Consequently, the above figures demonstrate the very grim circumstances of poor PECO customers.

6. Another indicator of the critical ability-to-pay problems of poor PECO customers is the percentage of their income that must be paid to PECO to purchase electric service. Poor PECO customers spend 8% to 15% of their income just for electricity. (See CEPA et al. Stmt. No. 1, p. 22-24 and Brief at p. 6).

7. Unsurprisingly, given the aforementioned facts, PECO shut-off 41, 853 residences in 1985. (See CEPA et al's Main Brief at p. 1). PECO's shutoffs increased by 26% from 1984 to 1985. (See CEPA et al., Stmt., No. 1A, p. 8).

8. Indeed PECO performs 66% of all the residential electric terminations conducted in Pennsylvania. (See CEPA et al. Stmt., No. 1A, p. 8).

9. If PECO's terminations follow present trends, PECO will shut-off 98,947 residences by 1989. (See CEPA et al's Main Brief at p. 2).

10. PECO has forced 70,000 customers into such financial distress that they must sign deferred payment agreements. (Tr. 3747).

11. Since 1980, the number of PECO customers with payment agreements more than tripled. (Tr. 3747).

12. The rapidly increasing number of PECO customers who are delinquent, the enormous number of households shut-off by PECO, the total inadequacy of assistance programs, the very high price of PECO's current service before any rate increase is implemented, and the large number of poor and elderly household customers in PECO's service territory are all factors that make the ability-to-pay crisis far more acute for PECO customers than for customers of any other Pennsylvania utility. (See CEPA et al., Reply Brief at p. 7-9).

B. The Administrative Law Judge's decision rejecting OCA's and CEPA's essential need rate on the ground that it is not the best way to assist the 226,000 low-income customers is not supported by the evidence. In fact, the record shows OCA's and CEPA's proposal will serve all low-income households whereas the alternatives will not.

1. The record contains two proposals for dealing with the grave and proven ability-to-pay crisis confronting 226,000 low-income households, consisting of 600,000 persons, in PECO's

service territory. The first proposal advocated by OCA and CEPA et al is implementation of an essential need rate and extension of the Customer Assistance Program (CAP) to all high-use-low-income households. (See CEPA et al Stmt., No. 1 and 1A and testimony of OCA Witness Oliver). Put forth by PECO, the second proposal is to rely on existing conservation and energy assistance programs as the means for insuring access to electric service in PECO's service territory. PECO implied that these current programs should be improved but never described by argument or evidence how these programs would be made better.

2. The record clearly establishes that OCA's and CEPA's proposal to use the essential need rate and to extend CAP participation to high-use-low-income customers will ameliorate the ability-to-pay problems of all 226,000 low-income households in PECO's service territory.

3. The record also establishes that the programs on which PECO relies served last year only 7% or 15,000 of the 226,000 low-income households. Without massive increases in funding, there is no reason to believe these programs will serve more persons in the coming year.

4. The programs that PECO identified as those on which it relied to protect low-income families from suffering from bill delinquency or service termination are the Low-Income Home Energy Assistance Program (LIHEAP), the Utility Emergency Services Fund (UESF), Project Heat, Chester County Cares Utility Fund (CCCUF), Customer Assistance Program (CAP), Tighten Up Low Cost Conservation Program (TLC). (See CEPA et al Stmt. No. 1, p. 31-

35 and testimony of PECO Witness Williams at Tr. 4187).

5. Only 7% or 15,000 of the 226,000 low-income households (with 600,000 persons) living in PECO's service territory receive help to pay or reduce their electric bill from even one of the foregoing programs. (See CEPA et al. Stmt. No.1, p. 35-36 and testimony of PECO Witness Williams agreeing the programs only serve 7% of all low-income customers at Tr. 4188).

6. Indeed, if state funded programs like LIHEAP are not included, the record without contradiction shows that PECO's own programs are reaching only 2% of the low-income households in its service territory. (See CEPA et al., Stmt., No. 1, p. 36; Tr. 3727).

7. Additionally, the record is uncontradicted on the crucial point that the average household LIHEAP grant declined by 35% from $289.00 in 1984-85 to $185.00 in 1985-86. (See, CEPA et al, Stmt., No. 1A, p. 8).

8. Faced with these facts that prove that 93% of low-income families in PECO's service territory receive no assistance in paying or reducing their electric bill, PECO Witness Williams conceded that these programs were only an "excellent start." (Tr. 4189). Yet, given the 35% reduction in LIHEAP experienced this year and the prospect for further cuts from Gramm-Rudman, the programs described by Mr. Williams as a start certainly will not help in the coming year the 93% of households who do not now get any help and may not reach the meagre 7% who had received some assistance, even if it was only a hot water heater wrap.

9. Given this record, the Administrative Law Judge's

conclusion that the essential need rate and CAP extension proposal of CEPA et al., which helps all low-income PECO customers, is either not needed or not vastly better than existing programs on which PECO relies is unsupported by the evidence.

C. The Administrative Law Judge's decision erroneously concluded that OCA's and CEPA's essential need rate should be rejected, because it would not assist high-use low-income PECO customers and would benefit "some affluent customers." Recommended Decision at p. 167.

1. CEPA et al. introduced detailed evidence that only 13% of low-income households who do not use electricity for water and space heating would use more than 532 Kwh per month which is the "cross-over point" (the point after which a household would pay more as a result of the essential need rate). (See CEPA et al, Stmt., No. 1A, p. 7 and Exhibit GG-12).

2. Low income households use an average of 4.4 thousand Kwh each year. Households with incomes above $35,000 use 8.6 thousand Kwh per year. Customers of all income levels use 6.1 thousand Kwh per year. (See CEPA et al., Stmt., No. 1, p. 26 and Main Brief at p. 8).

3. Of households with incomes below 150% of the poverty level, 53.9% have no air-conditioning. Of households who are not low-income, only 29.7% have no air-conditioning. (See CEPA, et al., Stmt. No. 1, p. 30-31; Exhibit GG-10).

4. PECO attempted and failed to rebut the fact that

only 13% of low-income households would not benefit from an essential need rate by relying on data from its Customer Assistance Program(CAP). Such data are useless. CAP participatnts are not randomly selected, and CAP participants may well have unrepresentatively high usage when compared to the population of low-income households. (See Testimony of PECO Witness Williams at Tr. 4195). Additionally, its unclear whether or not CAP serves only customers with incomes below 150% of poverty. (Tr. 4194). Further proof of CAP's unrepresentativeness is the low number of senior citizens participating in the program. Only 8.6% of CAP participants are elderly but 33% of all low-income households are elderly. (See CEPA, et al Stmt. 1A; Exhibit GG-14 and Main Brief at p. 20; Tr. 4282).

5. Recognizing that only 13% of low-income households have very high usage and would not be helped by its essential need rate, CEPA proposed those 13% be placed in PECO's Customer Assistance Program (CAP) which includes a conservation component. (See CEPA et al., Stmt. 1A, p.7). In this fashion, CEPA et al.'s proposal is comprehensive and provides protection for <u>all</u> low-income households, including the small minority of high-use-low-income families. Even if CEPA et al's proposal was not comprehensive, which it in fact is, a policy initiative that benefits 87% of the target population should be adopted as it is the most efficient and <u>only</u> means to insure that nearly every low-income household receives some assistance to pay for PECO's exorbitant rates.

6. Judge Matuschak's decision without reason or foundation ignores the comprehensive nature of CEPA's proposal which includes the essential need rate for the 87% of low-income customers with usage below 532 Kwh per month and CAP participation for the 13% of low-income customers above 532 Kwh. Judge Matuschak's decision, therefore, that CEPA et al.'s proposal would harm the small minority of high-use-low-income families is erroneous. Recommended Decision at p. 167.

7. Judge Matuschak also erroneously concluded that OCA and CEPA et al.'s essential need rate would benefit some more affluent customers. Recommended Decision at p. 167.

8. First, households with more than $35,000 annual income use 8.6 thousand Kwh per year (See CEPA et al., Stmt. No. 1, p. 26 and Main Brief at p. 8). On a monthly basis, these "affluent" households use 717 Kwh. The cross-over point -- the amount of usage after which households pay more as a result of the essential need rate -- is 532 Kwh (for customers who do not water or space heat with electricity). As a result, more affluent customers, because they use more than 532 Kwh per month, will not benefit from the essential need rate. Indeed, they will pay more. Again, Judge Matuschak's ruling is clearly erroneous and unsupported by any evidence in the record.

9. Additionally, CEPA et al. suggested that the unusual "affluent" family that uses less than 532 Kwh per month could be excluded from the essential need rate by restricting participation to families with incomes below 150% of the poverty level. Indeed, PECO is already verifying each year the incomes of

more than 70,000 customers who sign ability-to-pay payment agreements. (Tr. 3740). Consequently, PECO has established its capability and willingness to check household incomes and could easily administer an income test for the essential need rate as it does now when calculating payment agreements. (See Tr. 3740 and Reply Brief at p. 4-5).

10. Judge Matuschak's decision did not even address the possibility of verifying customer income, and his decision is, therefore, in error as such a procedure was discussed in the record and briefed and would certainly exclude affluent customers from receiving the essential need rate. (See Tr.3741 and Reply Brief at p. 4). Again, most affluent customers use far more than 532 Kwh per month and would, therefore, not want an essential need rate.

11. CEPA et al., also recognize that many households have incomes barely over 150% of the poverty level. These households are not poor and not affluent. Many of these households have difficulty paying PECO's unusually high bills. (See CEPA et al., Stmt., No. 1, p.8-9). To the extent that an essential need rate would reward these families for conserving electricity and would provide incentive for more conservation, the essential need rate would be a positive policy initiative. Judge Matuschak apparently confuses these struggling middle income families with the "affluent" to which he refers in his decision. (Recommended decision at 167).

D. CEPA et al except to the Recommended Decision's use of

PECO's cost of service study to allocate production and transmission plant. Recommended Decision at p. 149-153.

1. The reasons for CEPA et al.'s exception is that the Recommended Decision is contrary to the evidence and peculiarly inappropriate given that this case involves the rate basing of a nuclear plant. The evidence and arguments are summarized in CEPA et al's Main Brief at p. 10-14.

2. The Recommended Decision's allocation of production plant overcharges residential customers $35.00 per year.

E. CEPA et al. except to the Recommended Decision's use of PECO's cost of service study to allocate distribution costs. Recommended Decision at p. 153-155.

1. The Recommended Decision's allocation of distribution costs overcharge residential customers by $159.00 per year.

2. This $159.00 overcharge is devastating to low-income PECO customers.

3. The evidence and argument supporting CEPA et al's exception to the Recommended Decision's allocation of distribution costs is summarized in CEPA et al's Main Brief at p. 10-14.

III. CONCLUSION

For all the foregoing reasons, CEPA, et al., request that the following findings of fact and conclusions of law be made and

that the Recommended Decision be modified consistent with the residential rate design proposal of OCA Witness Oliver and CEPA Witness Grier.

A. Findings of Fact

(1). 226,000 households consisting of 600,000 persons with incomes at or below 150% of the poverty level live in PECO's service territory.

(2). 20% of all PECO households have incomes at or below 150% of the poverty level.

(3). 30% of all PECO households living in Philadelphia have incomes at or below 150% of the poverty level.

(4). 33% of all PECO households with incomes at or below 150% of the poverty level are senior citizens (65 years or older).

(5). PECO terminated 41,853 residences in 1985 or 24% more residential households in 1985 than in 1984.

(6). PECO did 66% of all residential electric terminations conducted in Pennsylvania during 1985.

(7). 83% of low-income households who do not use electricity to heat water or space heat use less than 500 Kwh per month; 87% use less than 532 Kwh per month.

(8). Households with incomes of less than 150% of the poverty level spend 8% to 15% of their total income on electricity.

(9). Low-income households' budgets are already drained by current shelter and food expenses.

(10). Low income households' budgets cannot absorb the

increased cost of electricity that will result from PECO's proposed rates or the Recommended Decision.

(11). Only 7% of low-income households in PECO's service territory receive any assistance in paying or reducing their electric bill from the programs on which PECO relies to insure access to its service.

(12). 93% of the low-income households receive no assistance from the programs on which PECO relies to insure that low-income households have access to electricity.

(13). The Low-Income Home Energy Assistance Program (LIHEAP) decreased its average household grant from $289.00 to $185.00 in 1986.

(14). The average annual income of a household with income below 150% of the poverty level is $7,826.

(15). 60% of low-income households consist of either 1 person or 2 persons.

(16). 57% of single-person-low-income households consist of senior citizens.

(17). Low-income households use 4.4 thousand Kwh per year.

(18). Households with incomes above $35,000 per year use annually 8.6 thousand Kwh per year.

(19). Households of all incomes have an average annual usage of 6.1 thousand Kwh.

(20). 53% of low-income households have no air conditioning.

(21). Only 29.7% of households with incomes above 150%

of the poverty level do not have air conditioning.

(22). 70,000 PECO customers have deferred payment agreements.

(23). Since 1980, the number of PECO customers with deferred payment agreements has tripled.

(24). The Recommended Decision's use of the four coincident peak method to allocate production plant overcharges residential customers by $35.00 per year.

(25). The Recommended Decision's method of allocating distribution plant overcharges residential customers by $159.00 per year.

B. Conclusions of Law

1. PECO has not met its burden of proof to show that its proposed rates are just and reasonable.

2. The Recommended Decision and PECO's proposed rates would seriously harm low-income households who can not afford existing rates by threatening their access to electricity and, therefore, those rates are not just and reasonable.

3. PECO has no adequate plan through its rates, rate structure, or other means to insure that access to electricity will be available to low-income households in its service territory and, therefore, its filing does not establish just and reasonable rates.

Respectfully submitted,

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DATED: May 20,1986

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MAY 22 1986

SECRETARY'S OFFICE
Public Utility Commission

May 21, 1986

Jerry Rich, Secretary
Pa. Public Utility Commission
Room B-18, North Office Bldg.
Harrisburg, PA 17120

RE: Philadelphia Electric Company,
Docket No. R-850152

Dear Secretary Rich:

Enclosed herewith for filing in the above-referenced docket please find an original and nine (9) copies of the Exceptions of United States Steel Corporation - Complainant.

Please acknowledge receipt of the enclosures by having the extra copy of this transmittal letter time-stamped and returned to me in the enclosed self-addressed envelope.

Very truly yours,

Kenneth R. Pepperney

Kenneth R. Pepperney

/klm

Enclosures

cc (w/encl.): All Parties of Record

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MAY 22 1986

SECRETARY'S OFFICE
Public Utility Commission

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY
COMMISSION, et al.

R-850152

v.

PHILADELPHIA ELECTRIC COMPANY

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MAY 22 1986

EXCEPTIONS OF
UNITED STATES STEEL CORPORATION
COMPLAINANT

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY
COMMISSION, et al.

R-850152

v.

PHILADELPHIA ELECTRIC COMPANY

EXCEPTIONS OF
UNITED STATES STEEL CORPORATION -
COMPLAINANT

I. INTRODUCTION

On September 27, 1985, Philadelphia Electric Company ("PECO") filed Supplement No. 15 to Tariff Electric-Pa. P.U.C. No. 26, to be effective November 27, 1985. Supplement No. 15 was designed to produce an increase in PECO's electric revenues of approximately $670,700,000, or 28.2% of test year revenue. The proposed increase would reflect an actual base rate increase of approximately $878,200,000, offset by an estimated energy cost savings of $207,500,000.

By an Order, the Commission initiated an investigation into the justness, reasonableness and lawfulness of Supplement No. 15. The Order did not expressly allow PECO's new rates to take effect as requested; accordingly, Supplement No. 15 was

suspended by operation of law pursuant to 66 Pa. C.S. Section 1308.

A pre-hearing conference was held before Administrative Law Judge Joseph P. Matuschak (hereinafter referred to as "the ALJ"). Pursuant to the schedule established as the pre-hearing conference, hearings were held regarding the proposed increase.

United States Steel Corporation ("USS") owns and operates a large steel production and distribution facility located in Fairless Hills, Pennsylvania and known as USS's Fairless Works. The Fairless Works receives its sole supply of purchased electricity from PECO under Rate HT (high tension).

USS filed a complaint, against Supplement No. 15, alleging that Supplement No. 15 would result in rates and charges to USS which were unjust, unreasonable and discriminatory, in violation of law. USS's complaint was consolidated for hearing with Commission's own investigation of Supplement No. 15 and numerous other complaints.

USS participated in the proceedings in this matter and co-sponsored testimony of expert witnesses in conjunction with the Philadelphia Area Industrial Energy Users Group ("PAIEUG"). USS filed an Initial Brief and a Reply Brief addressing issues affecting both the amount and timing of PECO's rate increase, and the appropriate rate structure and rate design for PECO.

On May 14, 1986, the ALJ served his Recommended Decision ("R.D."). USS now files its Exceptions thereto.

EXCEPTIONS

1. The ALJ Erred by Rejecting USS's Phase-In Proposal.

PECO proposed to "phase-in" its requested rate increase over a three-year period. Under this proposal, PECO would have increased its rates by 9.4% per year until the total increase of 28.2 percent was reached in the third year. The unrecovered revenue from the first two years of the period then would have been collected over a three-year period beginning with the fourth year after the initial increase occurs.

USS proposed a modification of the phase-in, using a six-year averaging approach and sinking fund depreciation. The ALJ, however, rejected USS's proposal and adopted PECO's (R.D. at 174, 175)[1/] The Commission should correct this error and implement USS's recommended phase-in plan for the reasons set forth in USS's Initial Brief, at 4-6, which are incorporated herein by this reference.

2. The ALJ Erred by Rejecting a Guarantee of Limerick I Fuel Cost Savings.

PECO's case rested in part upon the assumption that an estimated energy cost savings from Limerick I of $207,500,000

1/ The ALJ did so at the lower revenue level arrived at in his decision.

will occur and will offset a portion of the base rate increase in this case. USS proposed that the Commission should require PECO to "guarantee" that its customers will receive the full benefit of PECO's estimated fuel savings through the rates that they will pay. Specifically, USS asked the Commission to require PECO to "guarantee" the capacity factor for Limerick assumed in its fuel savings calculations, which was 65 percent or better.

The ALJ, however, rejected USS's request (R.D., at 178-180).[2/] The Commission should correct this error and impose such a requirement on PECO for the reasons set forth in USS's Initial Brief, at 6, which are incorporated herein by this reference.

3. The ALJ Erred by Rejecting the Recommendations of Witnesses Pollock and Bloom Regarding a.) Cost-of-Service, b.) Revenue Allocation, and c.) Rate Design.

a.) Cost-of-Service

The ALJ accepted PECO's cost-of-service study and rejected Witness Bloom's weather adjustment to that study (R.D., at 155). By accepting PECO's study, the ALJ also rejected Witness Pollock's recommendations, which incorporated

---

2/ Other parties had also proposed such a guarantee, which proposals the ALJ also rejected.

the weather adjustment and a correction for curtailable HT load. The Commission should correct these errors and implement the recommendations of these witnesses, for the reasons set forth in USS's Initial Brief, at 9-11, which are incorporated herein by this reference.[3/]

b.) Revenue Allocation

The Commission allocated the increase among PECO's customer classes in the last three PECO rate cases on a "zero-fuel" basis, with certain modifications. This approach is proper in a base rate case where the increase is driven by non-fuel costs, and USS recommended that it be followed again in this case. However, PECO proposed to spread the increase according to base revenues with the fuel element included and the ALJ accepted PECO's proposal (R.D., at 159).

The Commission should correct this error and order PECO to implement the zero fuel approach in the manner recommended by USS for the reasons set forth in USS's Initial Brief, at 11, which are incorporated herein by this reference. In so doing, the Commission also should adopt the interclass revenue allocation suggested by USS.

[3/] In regard to these pages of USS's Initial Brief, the ALJ apparently misinterpreted USS's position on the subject of energy versus demand allocation of production and transmission costs. The ALJ listed USS as supporting an energy allocation (R.D., at 149). In fact, USS has consistently supported a demand allocation of such costs and continues to do so in this case.

c.) Rate Design

USS proposed three changes to the design of the HT rate. First, the tail block energy charge should be lowered. Second, the high voltage discount should be increased. Third, the curtailment credit should be increased. The ALJ, however, rejected these proposals (R.D., at 165-166). The Commission should correct this error for the reasons set forth in USS Initial Brief, at 12-13, which are incorporated herein by this reference.

CONCLUSION

USS respectfully requests that the Commission modify the ALJ's decision as aforestated.

Respectfully submitted,

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Attorneys for
UNITED STATES STEEL CORPORATION

CERTIFICATE OF SERVICE

I hereby certify that on this 21st day of May, 1986, I served a copy of the Exceptions of United States Steel Corporation on all parties of record by placing the same in the U. S. mail, first class, postage prepaid.

Kenneth R. Pepperney

CITY OF PHILADELPHIA

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CITY SOLICITOR

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May 22, 1986

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Public Utility Commission

Mr. Jerry Rich, Secretary
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Commonwealth & North Streets
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission v. Philadelphia Electric Company, R-850152

Dear Secretary Rich:

Enclosed for filing in regard to the above-captioned matter please find an original and nine (9) copies of the Exceptions of The City of Philadelphia.

The City's Exceptions have been served upon the Administrative Law Judge and all parties of record as per the attached Certificate of Service.

Sincerely,

Charles E. Rainey, Jr.

Charles E. Rainey, Jr.
Assistant City Solicitor

enclosure
cc: All Parties of Record

CERJ: kyt

FOLDER

CERTIFICATE OF SERVICE

I hereby certify that I have served two (2) copies of the following document, Exceptions of the City of Philadelphia, upon the following persons by hand delivery on May 23, 1986, or by Federal Express mail on May 22, 1986, which service satisfies the requirements of 52 Pa. Code §1.54:

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
V.	:	DOCKET NO. R-850152
PHILADELPHIA ELECTRIC COMPANY	:	

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MAY 23 1986
SECRETARY'S OFFICE
Public Utility Commission

CITY OF PHILADELPHIA'S EXCEPTIONS TO THE RECOMMENDED DECISION OF ALJ JOSEPH P. MATUSCHAK

MAY 23 1986

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City Solicitor

Kathryn Lewis
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Dated: May 23, 1986

I. INTRODUCTION

On September 27, 1985, the Philadelphia Electric Company ("PECO" or "Company") filed Supplement No. 15 to Electric Tariff No. 26, increasing annual base rates by $671 million or 28.2%. PECO has proposed to "phase-in" this total increase in three equal amounts of approximately $223.7 million or 9.4% compounded annually over the three-year period June 1986 through June 1989. Those amounts less than the total increase which are deferred and not billed in the first two years would be collected in years four through six (June 1989 through June 1992) under PECO's proposal ("PECO's Rate Proposal").

The Pennsylvania Public Utility Commission ("PUC" or "Commission") ordered an investigation into the justness, reasonableness and lawfulness of PECO's proposal to increase the electricity rates of most of its 1.3 million customers.

The proceedings were assigned to Administrative Law Judge ("ALJ") Joseph P. Matuschak. Subsequent to hearings and the submission of briefs the ALJ issued a Recommended Decision on May 13, 1986. The ALJ recommended to the PUC that PECO be granted a $302 million or 12.1% rate increase. This rate increase would be phased-in over three (3) years at an annual increase of 4%. Deferred revenues would be recovered in years four (4) through six (6) in approximately equal amounts.

The ALJ's recommended annual percentage increase of 4% is commensurate with the rate of inflation and, therefore, would not have a severe economic impact upon the Philadelphia Metropolitan Area according to the study presented by the Wharton Policy Modeling Workshop, University of Pennsylvania. It is thus important that the PUC, in any grant of increased revenues to PECO, not exceed the annual percentage increase recommended by the ALJ.

The City further notes that the PUC must adopt the ALJ's recommendation of no increase in Philadelphia street lighting rates. The ALJ's recommendation in this regard is strongly supported by cost-based as well as equitable principles.

The City, however, excepts herein to certain other recommendations of the ALJ.

II. REVENUE ISSUES

A. PECO Must Not Be Allowed To Go Beyond The Deferred Revenue Recovery Period In Order To Collect Deferred Revenues

The ALJ recommended that PECO collect deferred revenues in years four (4) through six (6) following a three (3) year phase-in. R.D. at 188. The ALJ's Recommended Decision failed to clearly state that PECO would not be allowed to go beyond the sixth year in collecting its deferred balance. PECO has previously requested that it be allowed to go beyond any fixed period if necessary in order to collect all deferred revenues. PECO St. No. 17 at 7.

As more fully set forth in the City's Main Brief, utilities are provided an opportunity and not a guarantee of recovering PUC-approved rates. City Main Brief at 36. In addition, rates are set on a prospective and not a retrospective basis. Id. Utilities are not allowed to "reach-back" and collect additional revenues if the revenues they achieve prove insufficient. Id.

Finally, the City notes that failure to hold PECO to a fixed revenue recovery period would penalize ratepayers. Id. Customers would not fully realize savings from their conservation efforts as they would be forced to pay-out those savings to PECO at a later date in order to extinguish the deferred balance. Id.

The PUC in its Opinion and Order must, therefore, clearly prohibit PECO from going beyond a fixed period in collecting the deferred balance.

B. The ALJ Erred In Not Requiring PECO To Guarantee Projected Fuel Savings In Each Of The Next Two Years

The ALJ rejected the position of the City and other parties that fuel savings of $207 million projected by PECO in each of the next two

years must be guaranteed. R.D. at 179-180. The ALJ stated that this position is inconsistent with the energy cost rate mechanism which allows utilities to recover energy cost increases from ratepayers and flow-through energy cost decreases to ratepayers. Id.

As more fully set forth in the City's Main Brief, PECO's proposed rate increase reflects the estimated fuel savings. City Main Brief at 36-37. Without the guarantee of fuel savings PECO's request is greater. Id. Consumers have not bargained for plant that may not produce the fuel savings PECO has projected it would produce, thereby increasing their rates. Id. According to PECO, the benefit of Limerick I--which has enormous capital costs--are its fuel savings. Id. at 38. Ratepayers should, therefore, fully benefit from the projected fuel savings. Id. at 37-38.

Precedent for a fuel savings guarantee was set in PECO's last rate case. Id. at 37. In that case, PECO guaranteed the projected fuel savings associated with the Salem Nuclear Generating Unit No. 2 after parties questioned whether the plant was used and useful to the benefit of ratepayers. Id.

Similarly, in the present case, parties question whether Limerick I will be used and useful and provide the benefit of significant fuel savings which it allegedly was built to provide. For example, parties question whether PECO will be able to access an adequate water supply to operate Limerick I. Id. A fuel savings guarantee would thus give more credence to PECO's argument that the plant will be used and useful to the benefit of ratepayers. Id. at 37-38.

For all of the foregoing reasons, the PUC must require PECO to guarantee the projected fuel savings in each of the next two years.

C. The ALJ Erred In Not Requiring PECO To Pass-On To Ratepayers The Fuel Savings Associated With Limerick I's Operation at 65% Capacity After The First Two Years

The ALJ failed to address the City's recommendation that ratepayers realize the fuel savings associated with Limerick I's operation at 65% capacity after the first two years. In addressing the fuel savings guarantee, however, the ALJ stated that "if any performance standard for Limerick I were to be applied it should relate solely to the operation of the plant and not a dollar level of energy savings." R.D. at 179.

As more fully set forth in the City's Main Brief, the projected fuel savings of $207 million in each of the next two years is based on Limerick I's operation at 65% capacity. City Main Brief at 38. Ratepayers should, therefore, continue after the first two years to realize the fuel savings associated with Limerick I's operation at 65% capacity. Id. Precedent for such a performance standard was established by the PUC in the Limerick II Investigation at docket no. I-840381. Id. There, the PUC stated:

> Our concerns regarding the Company's estimates of the economic alternatives to completion of Limerick Unit No. 2 are not limited to the issue of the ultimate capital cost of the unit. We believe that further assurances should be given to the ratepayers in this case. Additional conditions pertaining to the unit's impact on energy costs are intended to protect the economic benefits which the Company predicted would be gained by the customers. Therefore, in addition to the cost containment plan outlined above, we establish the following operational incentive plan.
>
> 1. The established annual capacity factor objective is 65%...Limerick Unit No. 2 Nuclear Generating Station Investigation, I-840381 (December 5, 1985), mimeo at 87-88 (emphasis supplied).

The PUC must also establish a targeted 65% capacity factor for Limerick I and ensure ratepayers the fuel savings associated with the plant's operation at that level.

III. RATE STRUCTURE

A. The ALJ Erred In Not Adopting The Minimum System Method For Classification Of Distribution Plant Costs

The ALJ adopted PECO's Predominant Minimum System ("PMS") method for the allocation of distribution plant costs. The ALJ misstated the City's recommendation for classification of these costs and then rejected it. R.D. at 154-155. The ALJ characterized the City's recommendation in the following manner:

> Dr. Ileo proposes that the labor portion of distribution costs be allocated on a customer basis and that the materials portion be allocated on a demand basis. PECO argues that even a theoretical minimum size distribution system cannot produce service solely with labor.

Id. at 154. In these proceedings, however, Dr. Michael Ileo has not proposed the allocation of distribution plant costs on a labor/customer and materials/demand basis. Rather, as more fully set forth in the City's Main Brief, he has proposed that distribution plant costs be allocated based on the minimum system method. City Main Brief at 40-41. This proposed method is consistent with the NARUC manual on cost allocations which provides that the customer-related distribution plant costs are only those costs associated with distribution plant facilities necessary to serve a customer's minimal needs, such as a 25-watt light bulb. Id. at 40. All other distribution plant costs above these levels are deemed demand-related costs under the minimum system method. Id.

Conversely, the PMS method is repugnant to the NARUC manual on cost allocation because the customer component of distribution plant costs are based on the price of larger than "minimum-sized" facilities. Id. at 40-41. The PMS method, therefore, is not equivalent to the minimum system method. The PMS method results in an unfair allocation of distribution costs to an off-peak

customer such as Philadelphia Street Lighting (SLP) which consists of thousands of "customers". Id

The City, therefore, recommends that the PUC order PECO to employ the minimum system method in the next rate case.

B. The ALJ Erred By Not Requiring PECO TO Employ Time-Of-Use Considerations In The Allocation of Energy-Related Costs

The ALJ failed to address the City's recommendation that PECO be required to employ time-of-use considerations in the allocation of energy-related costs in the next rate case. See, City Main Brief at 41-42. As more fully set forth in the City's Main Brief, the energy costs incurred by PECO to meet the needs of peak and off-peak customers differ. Id. PECO incurs lower energy costs to serve off-peak customers. Id. It is, therefore, appropriate, just and reasonable that customer rates reflect these differences. Id.

The PUC, for the foregoing reasons, must require that PECO present a class cost of service study which reflects the allocation of energy costs on a time-of-use basis in the next rate proceeding.

IV. CONCLUSION

The City of Philadelphia respectfully requests that the PUC adopt the recommendations set forth herein.

Respectfully submitted,

DATED: MAY 23, 1986

Charles E. Rainey, Jr.
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Handsel B. Minyard
City Solicitor

Kathryn S. Lewis
Chief Deputy City Solicitor

Pamela Foa
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May 22, 1976

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Public Utility Commission

Secretary Jerry Rich
Pennsylvania Public
Utility Commission
P.O. Box 3265
Harrisburg, PA 17120

Re: Pennsylvania Public
Utility Commission
v.
Philadelphia Electric Company
Docket No. R-850152

Dear Secretary Rich:

Enclosed for filing in the above-captioned matter is the original and nine copies of Exceptions To Recommended Decision Of Administrative Law Judge On Behalf of Utility User's Committee/University of Pennsylvania.

Very truly yours,

Larry B. Selkowitz

LBS/pmm
Enclosure

cc: All parties of record

RECEIVED
MAY 23 1986
SECRETARY'S OFFICE
Public Utility Commission

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
v.	:	DOCKET NO. R-850152
PHILADELPHIA ELECTRIC COMPANY	:	

ED
MAY 2 1986

EXCEPTIONS TO RECOMMENDED DECISION OF ADMINISTRATIVE LAW JUDGE ON BEHALF OF UTILITY USER'S COMMITTEE/ UNIVERSITY OF PENNSYLVANIA

T
ED

Submitted by:

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DATED: May 23, 1986

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The Utility User's Committee and the University of Pennsylvania, by their undersigned counsel (hereinafter UUC/UP) hereby except to the recommended decision of the Administrative Law Judge, as follows:

1. The Administrative Law Judge erred in failing to make an excess capacity adjustment in this case.

The Administrative Law Judge (ALJ) has rejected (pp. 71-77) the testimony of four highly qualified, independent witnesses who testified with respect to two questions:

(1) Is Limerick I needed for reliability purposes in the PECO system or the PJM system?

(2) Will Limerick I provide economic benefits to ratepayers?

All the witnesses concluded that Limerick I is neither necessary nor of economic benefit. Following the precedent established by this Commission in the PP&L cases (discussed below), the Office of Consumer Advocate (OCA) and Philadelphia Area Industrial Energy Users Group (PAIEUG), as well as the Utility Users Committee and the University of Pennsylvania (UUC/UP) all requested that an excess capacity adjustment be made in this case. UUC/UP are greatly concerned that the ALJ's unwillingness to even analyze these issues, let alone make the adjustment, if approved by this Commission, will constitute the end of excess capacity as a viable doctrine in Pennsylvania. PECO, and all other electric utilities, will have found an easy

way to avoid any adjustments, simply by prematurely retiring plant. We respectfully ask the Commission to carefully review the overwhelming evidence of record on this issue discussed below and to make an appropriate adjustment, in at least the amount requested by OCA.

As stated by Witness Falkenberg on behalf of the Philadelphia Area Industrial Energy Users Group:

> A. 19. In Mr. Falkenberg's view the used and useful standard is the most appropriate standard for dtermining the rate treatment of a utility investment. The life cycle cost study is an important tool which would allow for a more realistic determination of whether an asset is used or useful over its life.
>
> For example take the case of an investment in a large plant, such as a nuclear plant, which is not needed for reliability purposes in a given test year. Suppose also the plant produces higher rates, in that year. Such an investment would fail to be used and useful to customers. However, provided the same investment produced lifetime economic savings to customers in a present worth sense, then that plant could be said to pass a cost benefit test. In this case the investment is used and useful when considered over the entire life of the asset. In the case when a unit fails to produce a positive cost benefit over its life, and it fails to produce a positive cost benefit during the test year, then the asset is clearly not used and useful during the test year. It would also not be used or useful over its life. In this case a departure from the ordinary full rate base recognition of the investment would normally be considered an appropriate course of action for the regulator to examine.

UUC/UP Exhibit No. 9.

It is primarily for the purpose of answering these questions that the testimony of Paul L. Chernick has been presented by UUC/UP. Mr. Chernick has testified credibly before a number of utility jurisdictions on precisely these questions. In addition, he is the author of several publications related to this field. See UUC/UP Statement No. 1, pp. 2-6, see also Appendix A to the Statement. Further, it should be stressed that Mr. Chernick's conclusions on these questions are entirely consistent with and supportive of the conclusions of several other credible witnesses in this case. These include Randall J. Falkenberg, on behalf of the Philadelphia Area Industrial Energy Users Group (PAIEUG Statement No. 1) and Charles Komanoff on behalf of OCA (OCA Statement No. 6). All of these witnesses' conclusions, in turn, are fully consistent with the testimony of Peter J. Lanzalotta (OCA Statement No. 5). Mr. Chernick's testimony, as well as the testimony of these other witnesses, provides clear and convincing evidence that supports an excess capacity adjustment in this case.

A. LIMERICK I IS NOT NECESSARY FOR RELIABILITY PURPOSES

In the discussion of Exception 3, we provide a detailed analysis showing that even PECO's witnesses do not contend that Limerick I was built for reliability purposes. The simple reason for this is that existing capacity is sufficient for a number of

years and much cheaper new capacity is available for reliability purposes in the future. As Mr. Chernick put it:

> Q. Is the capacity of Limerick I required to meet PeCo's reserve target anytime in the 1980's?
>
> A. No. Limerick I is only needed for capacity purposes in the 1980's if the units listed in Table 2.1 are retired. Those retirements are planned (or in the case of Richmond 9, have already occurred) because Limerick I is nearing commercial operation. Thus, the net reliability-related benefit of Limerick I is not that it will keep the lights on in Philadelphia (the existing units would have done a better job of that), nor that it will allow PECo to fulfill its obligations to PJM (which the retired plants would have done), but only that it allows the retirement of capacity which costs very little to maintain.
>
> The mere fact that PECo chooses to replace one type of plant with another does not imply that the basic function could not have been performed by the original plant, nor that the replacement was necessary. PECo could, for example, purchase a fleet of Cadillacs for its meter readers, and sell off its existing cars. It could hardly be argued that the investment in the Cadillacs was <u>required</u> to allow for orderly billing, or that they avoid the cost of taxicabs to transport the meter readers. Even though the Cadillacs perform both those functions (probably quite well), the old fleet served those same ends, at lower costs. The transportation benefit of the Cadillacs is the sale price of existing cars: the cost of the new fleet above that transportation benefit is either justified by a completely different kind of benefit (e.g., improved labor relations), or not at all.

UUC/UP Statement No. 1, pp. 9-10. See also, OCA Statement No. 6, p. 42.

Mr. Chernick also does a detailed analysis showing that, for reliability purposes, "Cadillacs" like Limerick are not ever necessary. Tables 2.1 and 2.4, described on pages 11-17 of his testimony, show conclusively "that most of the cost of Limerick I was not required, and would never have been incurred, for system reliability". UUC/UP Statement No. 1, p. 17.

Mr. Falkenberg reaches the same conclusion. He states that the addition of Limerick I will actually ". . . reduce PECO's reliability from previous levels . . . ". PAIEUG Statement No. 1, p. 23. As he explains:

> Q. 12. Refer to p. 24, lines 16-18. What is the basis for your statement that "Clearly, one large nuclear plant which is expected to be available only 65% of the time cannot provide the same level of reliability as several smaller units."? What factors did you consider in reaching this conclusion?
>
> A. 12. The answer to this question is obvious to anyone with an understanding of simple mathematics. Limerick Unit I is expected to operate 65% of the time. Thus, the unit is only available to serve load 65% of the time due to maintenance requirements and random forced outages. Clearly, the loss of 1000 MW of capacity is a situation which will adversely impact the Company's operating reliability at any particular point in time. However, PECO intends to remove much more capacity from several smaller units. The probability of loosing [sic] 1000 MW from ten small units,

all at the same time, is equal to the forced outage rates of those ten units to the tenth power. For virtually any reasonable forced outage rate this probability is much smaller than the 65% presumed for Limerick. For example, if it is assumed that the smaller units also have a 35% forced outage rate the probability of loosing [sic] all ten of these smaller units simultaneously is less than 1%. Thus, it would be virtually impossible for the many smaller units to be as unreliable as one large unit.

OCA Exhibit No. 87, p.3.

In short, the evidence of record is overwhelming that Limerick I is not of use in the public service for reliability purposes. As Mr. Chernick summarized the issue:

> Q. Do the reliability benefits of Limerick I, as you have estimated them above, justify charging ratepayers $800 million for Limerick I in 1986?
>
> A. No. Reliability considerations, standing alone, would justify 1986 cost recovery for Limerick I of no more than about $30 million, based on the value of the unit to PJM, and certainly no more than $37 million, even based on its inflated value to PECo under the PJM agreement.

UUC/UP Statement No. 1, p. 26.

Further, as discussed in detail by Mr. Lanzalotta (OCA Statements No. 5 and 5A), it must be emphasized that the retirement of certain economic and perfectly serviceable units by PECO does not change the facts or the conclusions to be derived from them one bit:

> The advancement of the retirement dates for

Southwark 1 and 2 and for the 458 MW of CT capacity is made possible by and is based upon the presence of the Limerick 1 capacity. It is circular and fallacious to, first, use the presence of Limerick 1 as justification for advancing the retirement dates of this generating capacity and then to turn around and use the capacity lost due to the advanced retirement dates for these units as justification of the need for Limerick 1's capacity. Using this type of reasoning, almost any new additional generating capacity could be justified regardless of a utility's existing reserve margin.

OCA Statement No. 5-A, p.3.

Finally, this Commission cannot permit PECO to avoid an excess capacity adjustment by such a strategy. As Mr. Chernick suggests to the Commission:

> Q. Has PECO retired economical capacity as a way of avoiding an excess capacity adjustment?
>
> A. It is possible that PECO's decisions to retire the existing units were motivated by the belief that more Limerick I costs would be allowed if inexpensive old plants were retired. I would strongly urge the Commission to make it clear to PECO and other Pennsylvania utilities, that uneconomical capacity planning decisions will not be considered to justify the recovery of expensive new plants. To this end, I would suggest that the Commission
>
> - measure the reliability need for new plant (including Limerick I) in terms of the costs of other capacity sources it displaces rather than solely in terms of megawatts of capacity,
>
> - analyze the reliability benefits of Limerick I by comparison to the most economical alternatives, including

life extensions, as I have done above, and

- warn PECO that it is at risk for premature retirements, and will [not] be expected to make up the difference between the costs of the retired units and those of replacement capacity sources, if it experiences a shortage in reserve capacity.

UUC/UP Statement No. 1, pp. 27-28.

B. LIMERICK I WILL NOT PROVIDE NET ECONOMIC BENEFITS TO RATEPAYERS FOR THE FORSEEABLE FUTURE

Mr. Chernick (as well as Mr. Falkenberg and Mr. Komanoff) have demonstrated clearly and convincingly that Limerick I, in addition to being unnecessary for capacity, will provide no economic benefits to ratepayers for many years and, in all likelihood, will never provide economic benefits. We note that the ALJ simply ignores this issue entirely.

At the outset, in discussing this crucial issue, it should be clearly noted that PECO's present disinterest in or claim of irrelevancy of this issue (as argued by Dr. Hieronymus) (and apparently silently accepted by the ALJ) is both disingenuous and inconsistent with its position in previous cases before this Commission. As stated by Mr. Chernick:

> Q. Are large rate increases such as those required by conventional ratemaking for Limerick I a normal and necessary result of commercial operation of large units?
>
> A. No. According to PECO, Peach Bottom saved more than it cost from its first year of operation (IR-OCA-2-24, Attachment (a)). As recently as 1981, PECO expected that Limerick I would decrease rates in its first year of operation, and raise rates less than $200 million in the second year. The plant as a whole was expected to break even by the third year of operation of each unit (IR-OCA-2-24, Attachment (b)). Even with a billion dollar cost increase for the plant and a 60% capacity factor, PECO projected that the maximum rate increase from Limerick I would be less than $300 million. Excerpts from PECO's 1980 and 1981 Limerick studies are provided in Appendix I.

UUC/UP Statement No. 2, p. 45 and see Appendix I, referred to in the quotation.

It is strange indeed that PECO suddenly finds the question of whether Limerick I will provide economic benefits to ratepayers an irrelevancy. As shown above, the question is a crucial one: If Limerick I is not needed for capacity, then what is its use in the public service? What is the legal justification for it? On what grounds can it be considered used and useful? Certainly, the mere fact that it exists is indeed irrelevant. As Mr. Chernick noted, there is no legal doctrine that requires ratepayers to pay for Cadillacs when less expensive alternatives are available.

It must be stressed, furthermore, that this Commission relied heavily in its investigation at I-80100341 on PECO's cost-benefit projections in concluding that Limerick I should be completed. See Opinion and Order, pp. 18-21, e.g. Furthermore, PECO attacked as "implausible" and "unrealistically high" a total construction cost estimate for Limerick I and II of $6.6 Billion, which we now know was too conservative. PECO insisted that the cost of <u>both</u> units would be 4.2 Billion - a figure we now know hardly covers its present request for Unit I alone. See UUC/UP Exhibits No. 3 and 4. As Mr. Falkenberg correctly states in criticizing PECO's position that a cost benefit analysis is irrelevant: ". . . regardless of the prudence of past PECO decisions, which led to the current

situation, the question is raised as to whether PECO should profit from its mistakes. None of the members of PAIEUG profit from mistakes they make." (PAIEUG Statement No. 1, p. 30). And as Mr. Falkenberg elaborated:

> Q. 21. On page 30, at line 14, Mr. Falkenberg states "whether PECO should profit from its mistakes." Please explain what Mr. Falkenberg means by PECO profiting from its mistakes.
>
> A. 21. The question is raised as to whether PECO should profit from its mistakes. The economic analysis performed by Mr. Falkenberg shows that Limerick is clearly a mistake for PECO. The plant is not needed capacity and will result in much higher rates for customers over time than alternatives would have. On this basis "profiting from its mistakes" would mean earning a return on an asset that is not used and useful. It would not mean "having learned from their mistakes".

OCA Exhibit No. 87, p.4.

It is precisely for this reason that it is the duty of this Commission to review the costs and benefits of Limerick. If the costs are unreasonable and unwarranted, as compared to the benefits, then an adjustment is both necessary and proper. (See also discussion of legal authority in Part C of this Section of the Brief.)

What is striking about the facts relevant to this issue, is that even PECO expects that the costs of Limerick I will exceed its benefits for much of its useful life. Further, Messrs. Chernick, Komanoff and Falkenberg all conclude that

many of PECO's assumptions are not valid or realistic. All conclude that the costs of Limerick will exceed its benefits, even at the conclusion of its useful life. As Mr. Falkenberg puts it: ". . . Limerick I is not a cost effective addition for PECO . . ." PAIEUG Statement No. 1, p. 32. Or as stated by Mr. Chernick: "It is clear from the analysis Limerick I will be very expensive in its early years, as compared to its benefits, and that plausible projections of plant performance, of operating cost levels and trends, and of operating benefits would prevent Limerick I from ever saving money for PECO's customers." UUC/UP Statement No. 1, p. 41 (emphasis added).

Turning first to PECO's own projections, Mr. Chernick demonstrates in his Table 3.2 (UUC/UP Statement No. 1), that Limerick I does not have positive present value benefits until well into the next century, UUC/UP Statement No. 1, p. 32. After analyzing PECO's own projections and their significance, Mr. Chernick concludes:

> Q. What can be concluded from these analyses?
>
> A. First, even using PECO's own assumptions and projections, Limerick I will not save money for PECO customers who pay for the plant's early, uneconomic years, unless they remain customers for over twenty years. Second, given PECO's own projections, many customers would be better off if Limerick I had never been started, or had been canceled or sold off long ago.

(UUC/UP Statement No. 1, p. 42)

We respectfully submit, therefore, that even on PECO's assump-

tions, which Mr. Chernick properly calls a "better-than-best case" (p. 44), there are proper and lawful grounds for this Commission to determine that Limerick I is not used and useful in the service of the public because it is not needed for reliability purposes and provides an actual cost penalty to ratepayers for the forseeable future.

When PECO's projections and assumptions are examined, however, they reveal themselves to be optimistic in the extreme, such that three highly qualified, independent experts all concluded that PECO's projections are most unlikely to be realized:

1. Mr. Chernick examined in great detail the assumptions PECO has made in its cost-benefit analysis. After identifying seven biased assumptions made by PECO, Mr. Chernick ran five different "cases" which adjusted for these biases. The results reached are quite simply frightening. They are particularly frightening when one considers that the adjustments are conservative and realistic, based on actual experience with plants like Limerick; when one considers that they are confirmed, in whole or in part, by Messrs. Komanoff and Falkenberg; and when one considers the economic calamity to Southeastern Pennsylvania that will occur if the projections turn out to be accurate.

Examining Tables 3.3 through 3.7 and Figures 3.3 through 3.7, one views the following picture:

(a) Simply making PECO's projections conform to its own filing, where it is asking for 100% of common:

- At a 10% discount rate (see UUC/UP Statement No. 1, pp. 77-81 for discussion of discount rates): No net benefit to the year 2015; total net benefit at year 2024 of $1.6 billion (less than half the initial investment).
- At a 15% discount rate, no net benefits ever and net cost over Limerick I's lifetime of $1 billion.
- At a 20% discount rate, no net benefits ever and net cost of $1.6 billion.

See Table 3.3.

(b) Adjusting PECO's unrealistic avoided capacity charges (see Section 2.1 of UCC/UP Statement No. 1) and capacity factors more consistent with actual experience:

- At a 10% discount rate, no net benefits ever and net costs over Limerick I's lifetime of $1.1 billion.
- At 15% discount rate, net costs of $2.35 billion.
- At 20% discount rate, $2.44 billion net costs.

See Table 3.4.

(c) Adjusting PECO's assumptions by using more realistic OCA fuel cost assumptions and more realistic capacity (see UUC/UP Statement No. 1, pp. 38-39 and pp.50-62 and OCA Statement No. 6) figures:

- At 10% discount rate, $1.3 or $1.6 billion net cost.

- At 15% discount rate, $2.3 or $2.5 billion net cost.

- At 20% discount rate, $2.4 or $2.5 billion net cost.

See Tables 3.5 and 3.6.

(d) Make adjustments for operating costs based on actual experience (see UUC/UP Statement No. 1, pp. 63-70):

> Q. Do the cost-effectiveness results change substantially in Case 4, when the operating costs are adjusted to more realistic values?
>
> A. Yes. With realistic operating cost estimates, combined with the savings estimates of Case 3c, Limerick I would cost ratepayers more than it would save them annually for essentially its entire life. As a result, the plant would never even reach simple breakeven, let alone discounted breakeven. If the plant remained in service until 2024, the present value of the net cost to customers would rise into the $3 to $5 billion range.

UUC/UP Statement No. 1, p. 39. See also Table 3.8 which summarizes the various projections.

2. Mr. Komanoff's calculations on cost-benefit of Limerick I are entirely consistent with Mr.Chernick's:

> Q. Please summarize your conclusions regarding Limerick I's annual and lifetime costs and benefits.
>
> A. First, the first year in which Limerick I will provide robust net benefits to ratepayers will be 1998. Second, on a net discounted present-worth basis, Limerick I will cost ratepayers between $2.6 and $2.0 billion over its 30-39 year life. As I discuss below, relaxing PECO'S extreme assumptions regarding the availability of two-party purchases outside of PJM results in an even later turnaround date and even greater net costs for Limerick I.

> The expected costs and benefits from Limerick I, both annual and cumulative, are shown in Exhibit CK-3.

(OCA Statement No. 6, p.7).

3. Mr. Falkenberg, only adjusting for 100% of common plant, adjusting O&M expenses to a more realistic level, and using a conservative 14.3% discount rate based on his own survey concluded that "Limerick Unit I is not a cost effective addition for PECO and . . . it results in $1.2 billion in higher rates over the life of the plant". PAIEUG Statement No. 1, p. 32.

We respectfully submit to this Commission that the evidence of record is overwhelming that Limerick I will not provide net economic benefits to ratepayers for the forseeable future and that, most likely, it will never provide net economic benefits. As argued immediately below, the recent decision of this Commission relating to the Susquehanna II plant at R-842651 is certainly a relevant precedent in determining whether an excess capacity adjustment is appropriate here. The testimony of Mr. Chernick has been presented in this case to support the contention that Limerick I does represent excess capacity and should be treated accordingly. While UUC/UP recognizes that the exact amount of any excess capacity adjustment would depend on how the Commission treats various other adjustments proposed by the Staff and OCA, it urges the Commission to make such an adjustment. Furthermore, we

respectfully suggest that the evidence of record in this case, summarized above, supports an excess capacity adjustment larger than that applied in the Susquehanna II case. As Mr. Chernick states:

> Q. How do the economics of Limerick I compare with those of Susquehanna 2.?
>
> A. Limerick I is much less cost-effective. Table 3.9 compares the cost and benefit streams of the two plants as projected by their owners. To improve the comparability of the results, all figures are stated in $/kW-year. Susquehanna 2 appears to be more cost-effective than Limerick I for two reasons: it was much less expensive ($2027/kW, as opposed to $3011/kW for Limerick I and 50% of common), even though it entered commercial operation only about one year before Limerick I is expected to go commercial, and its avoided cost projections were performed when fuel price projections were much higher than at present. It should be noted that the Susquehanna 2 avoided cost projections, unlike those for Limerick I, represented the entire cost of plant for which rate base treatment was sought.
>
> Q. If the Commission applies the same standard of review to Limerick I that it applied to Susquehanna 2, what would be the outcome?
>
> A. The Commission found that my testimony on Susquehanna (OCA Statement 3) established
>
> > that there is reason to believe that the Company's present value estimates for SSES 2 are overstated or, at least, uncertain (R-842651, page 18).
>
> The results of similar analyses for Limerick I indicate that it is a much worse deal for the ratepayers, and that its total benefits are likely to be a much smaller fraction of its total cost (under traditional ratemaking)

than was true for Susquehanna 2. The Commission continued

> Second, and more important, we hold that even on the Company's best case, future economic benefits will not accrue until the next decade. The sheer magnitude of the delay combined with the uncertainty of the projections render the net present value approach meaningless on the record before us. (ibid.)

> The "sheer magnitude of the delay" of benefits and "the uncertainty of the projections" of eventual benefits for Limerick I far exceed the comparable problems for Susquehanna 2. If anything, the facts in this case would suggest that the ratemaking treatment for Limerick I should be more sympathetic to ratepayers than was the treatment in R-842651.

UUC/UP Statement No. 1, pp. 45-47 (footnotes omitted).

Mr. Chernick then went on to discuss specifically why a disallowance of the equity return on Limerick I, based on the treatment of Susquehanna 2, does not sufficiently protect ratepayers in this case:

> Q. Do you have any suggestions regarding the application of the "used and useful" test which the Commission applied to Susquehanna Unit 1 and Unit 2?
>
> A. Yes. The "used and useful" concept was applied in different ways to the two Susquehanna units. For Unit 1, it was applied solely as an excess capacity adjustment, through exclusion of a "slice of the system" from rate base. For Unit 2, the equity return on the unit was denied, due to the remoteness of either a reliability need or a direct economic benefit to ratepayers.
> The adjustments made by this Commission in the Susquehanna I and Susquehanna 2 cases were fully justified by the economics of the Susquehanna units and did

significantly reduce the burden on ratepayers. Even these approaches would not really solve the inter-temporal equity problems posed by Limerick1. The equity problems would not be solved because Limerick I would still sharply increase rates to customers in the short run without commensurate benefits, and regardless of whether the unit is beneficial in the long run. In part, the Susquehanna ratemaking treatments are less effective in the case of Limerick 1, because that unit is almost twice as expensive as either of the Susquehanna units. The slice-of-the-system approach is the less effective of the two, since the average PECO capacity is much less expensive than Limerick I. Applying the Susquehanna 2 treatment to Limerick 1 would address the short-term problem better, but does not fully protect ratepayers in this decade from substantial rate increases for a plant which will provide most of its benefits in the next century.

Just as significant as the immediate rate effect for PECO customers, this case gives the Commission the opportunity to establish that the cost to the utilities of excess capacity will be greater when that capacity is excessively expensive. The slice-of-the-system approach puts utilities at risk for excess MW's of capacity, but not for excessively expensive and uneconomical capacity. The Susquehanna 2 treatment is again superior, in that the costs it assigns to shareholders are at least proportional to the construction cost of the unit, but is also has shortcomings. The denial of equity returns places the burden for an essentially constant portion of the plant's cost on the shareholders. For a very expensive plant like Limerick I, the denial of equity return would relieve the ratepayers of a smaller portion of the net rate increase from the plant. Power plant economics are also affected by operating costs, capacity factor, and the value of the power they displace: ratemaking treatments which

> respond only to capital costs can not reflect these factors.
>
> In the Susquehanna cases, the Commission has started the process of defining and refining the concepts of "useful" and "excess" capacity. The Susquehanna 1 decision focused exclusively on excess megawatts, while the Susquehanna 2 decision was directed specifically toward the cost of that unit. However, the Commission's decision in R-842651 indicated that PP&L could apply again for full ratebase treatment of Susquehanna 2 when the unit's capacity was required, leaving open the question of whether the economics of the unit are at all relevant for ratemaking purposes, so long as the capacity is needed.
>
> The problems with Limerick I or with Susquehanna, or with Beaver Valley 2, have less to do with capacity than they have to do with cost....

UUC/UP Statement No. 1, pp. 93-95 (footnote omitted).

Based on the testimony of record in this case, we submit that not only does the net present value approach, which was advanced by PP&L to <u>support</u> the used and useful nature of Susquehanna 2, <u>not</u> support PECO's case, it supports the <u>non</u>-useful nature of Limerick I. As discussed further below, this is precisely why PECO, unlike PP&L, now argues that this approach is irrelevant. It is submitted, therefore, that Mr. Chernick's testimony supports an excess capacity adjustment to rate base for the test year of as high as $3,535,734,000. (See

Appendix I to our Main Brief). This figure is discussed on page 99 of Mr. Chernick's testimony and is based on the actual benefits flowing from Limerick I in the test year. As discussed in the discussion of Exception 2, this number would need to be updated. As further discussed in that discussion, the disallowed costs may ultimately be recovered if the plant operates as PECO projects and could be viewed as deferred.

To the extent that the Commission determines to adjust otherwise, based on the various adjustments proposed by the Staff and OCA, the excess capacity adjustment could be reduced accordingly. Thus, we submit that the evidence of record discussed above more than fully supports the excess capacity adjustment proposed by OCA based on Mr. Lanzalotta's testimony and shown in OCA Statement No. 7A at Rev. Schedule TEK-8.

C. THE LAW OF THIS JURISDICTION PERMITS AN EXCESS CAPACITY ADJUSTMENT IN THIS CASE AND THE CASES PROVIDE SUPPORT FOR SUCH AN ADJUSTMENT

This Commission, of course, has made excess capacity adjustments in several important cases. In Pa. P.U.C. v. Pennsylvania Power Co., 27 PUR 4th 426 at 436, the Commission emphasized the concept of balancing of ratepayer and investor interests (specially approved by the Supreme Court in Pennsylvania Electric Co., supra, and of sharing the risks of large construction projects:

> T he sudden burden of this new plant investment on the Company's customers was no fault of Penn Power or of its investors, but neither was it the fault of the ratepayers. Under these circumstances there must be some sharing of the risk associated with bringing large plants on line.

The basic theme was further developed in Pa. P.U.C. v. Philadelphia Electric, R-79060865, 37 PUR 4th 381 (1980); affirmed Philadelphia Electric Co. v. Pa. P.U.C., 61 Pa. Commw.Ct. 285, 433 A.2d 620 (1981) and in Re Pennsylvania Power and Light Co. 55 PUR 4th 185 (1983)(hereinafter "PP&L I") These cases were, in turn, reviewed and discussed with approval in

Pa. P.U.C. v. Pennsylvania Power & Light Co., R-842651 (April 25,1985) (hereinafter "PP&L II").

In PP&L II, the Commission reviewed the prior cases (see Appendix II of this Brief which reproduces that discussion in full.) and noted its disposition of the Company's argument in PP&L I that Susquehanna I would ultimately provide economic benefits to ratepayers and, therefore, should be considered to be "useful" in the public service. The Company made this argument in light of substantial evidence of record that Susquehanna I was clearly excess from a reliability point of view - i.e., the plant, like Limerick I, was not needed to "keep the lights on." The Commission then held:

> [T]he Company's arguments relative to the economic benefits of Susquehanna are premised upon its own study which clearly overstates the economic benefits over time. (PP&L Ex. WFH-3; R.D., p. 44). Nevertheless, as noted by ALJ Klovekorn:
>
> > ..., it is clear that under the company's base case the Susquehanna plant will not start producing net savings for ratepayers until the end of this decade and that the plant will not produce cumulative net benefits until the mid 1990's at the earliest....
> >
> > The bottom line, however, of all these studies is that the ratepayers would be better off without Susquehanna from an economic standpoint now and for the foreseeable future. (R.D., p. 44).
>
> This conclusion is further supported by the fact that under the Company's own economic analysis, the net economic benefits of Susquehanna Unit 1 are directly affected by a number of highly

likely alternative assumptions, which make those benefits speculative in nature. (OCA Stmts. Nos. 4 and 4A, Main Brief pp. 27-42, Ex. RAR-2; MI Ex. No. SS-1).

In the final analysis, the ALJ properly concludes that while the economic viability studies are unsupportive of the inclusion of the excess capacity in rate base, these studies clearly support the ultimate conclusion that from an economic perspective the Company indeed has excess capacity.

Id. at p. 20.

Quoted in PP&L II, p. 15 (emphasis added).

It is clear, therefore, that in PP&L I, this Commission recognized the relevance of a cost-benefit analysis in determining whether an excess capacity adjustment should be made.

As noted above, the Commission went through a similar analysis of reliability and economic benefit data in PP&L II. As Mr. Chernick noted in his testimony, quoted above, the Commission reaffirmed its position on both points and concluded that Susquehanna II represented excess capacity. PP&L II, p. 18. Noting, however, that there are many methods available to the Commission in adjusting for excess capacity, the Commission chose to disallow a return on equity for Susquehanna II. PP&L II, pp. 19-22. It is important to emphasize that the excess capacity adjustment in PP&L II involved a disallowance, not a deferral, of costs. As the Commission stated:

Third, we have ordered a total denial rather than deferral of the equity return. A deferral is administratively

> complicated and would eventually make the Company whole for investment which was not used and useful while the associated rates were in effect. Although the Trial Staff originally proposed a deferral, it also supported a denial (Staff Reply Brief, p. 10). We also note that the so called "Iowa" method, cited by Trial Staff as the source of its adjustment, consists of a permanent disallowance in its original form (Staff Main Brief, p. 16; Re Iowa-Illinois Gas and Electric Co., 46 PUR 4th 616 (1982)). Under the particular circumstances of this case, we hold that a denial more fairly shares the burden than a deferral.

PP&L II, p. 22.

It is also particularly instructive to note that the Commission specifically held both reliability and net costs to be relevant to the used and useful determination, when the Commission stated:

> Fourth, we have made continuation of our excess capacity adjustment contingent on either one of two alternatives: if the Company can show that SSES 2's net economic benefits have begun to outweigh its net costs, or that its capacity is no longer excess relative to system reliability, then the Company may take appropriate steps to seek a modification of this adjustment.

PP&L II, p. 22.

We must emphasize that, while Mr. Chernick has suggested a different method for calculating the dollar amount of excess capacity adjustment in this case, we believe that the approach quoted above to dealing with excess capacity in PP&L II is entirely correct and we urge the Commission to follow it in

this case regardless of the specific method it may finally adopt to calculate a dollar adjustment.

In this respect, we note that following the PP&L II order in this case would result in a very major excess capacity adjustment. As calculated by Mr. Falkenberg:

> Q. 14. Please explain the use on page 22, at line 7, of the phrase "at most".
>
> A. 14. On page 22, line 7 of Mr. Falkenberg's testimony it is stated that Falkenberg Exhibit 3 shows that if the PP&L order were applied to this case PECO's total rate request would be reduced by $609 million. Thus, instead of a $671 million increase PECO would be allowed at most a $61 million increase. The meaning of the term <u>at most</u> in this phrase means "no more than". In the case of Pennsylvania Power and Light Company, the Company identified several millions of dollars worth of rate claims that the Company could have made but which it did not make in order to reduce its rate request. If any or all of these were applied in this case, it is possible that PECO might in fact have a lower rate increase granted than PP&L. The second implication of the term "at most" is that the assumption that Falkenberg Exhibit 4 was that all other PECO claims in this case would be acted upon positively by the Commission. Thus, it would be assumed that PECO's requested rate of return as well as all other expense adjustments would be accepted. In the event that any of these other claims or adjustments are not accepted by the Commission then the fact PECO would receive less than the $61 million implied in Falkenberg Exhibit 4.

UUC/UP Exhibit No. 8.

D. SUMMARY

For the reasons stated above, we urge the Commission to adopt an excess capacity adjustment based on the testimony of record. Depending on the Commission's determinations on the other adjustments proposed in this case, we respectfully submit that the clear and convincing evidence of record supports an adjustment in the test year of an amount at least as high as that requested by OCA.

2. The ALJ erred in rejecting Mr. Chernick's net present value approach to setting rates.

Mr. Chernick's approach to the issue of phase-in is directly related to his analysis of the costs and benefits of Limerick. As that analysis demonstrates, and as we have discussed in the previous section, the costs of Limerick simply overwhelm the benefits by any analysis for a number of years. Then, under PECO's optimistic scenario, benefits will overtake costs and eventually the plant will pay for itself - as far as customers are concerned. Under less optimistic scenarios, the benefits will overtake costs much later in Limerick's life or, quite possibly, never will overtake costs.

The unfairness of this situation is self-evident. The economy of Southeastern Pennsylvania will, as the record shows (see City of Philadelphia Statement No. 1), be dealt a severe blow under PECO's proposal. The hardships will be felt by many who will never see the benefits: "Many of the customers who bear the largest burden for Limerick I capital costs (including the cost of the delay) in its early years simply will not be around to receive any benefits it may generate in 2024." UUC/UP Statement No. 1, p. 44.

Under these circumstances, Mr. Chernick has proposed that rates be phased in so that costs are recovered "in a time pattern which reflects the time pattern of benefits from the plant." UUC/UP Statement No. 1, p. 82. As he explains:

> The central goal is the alignment of costs with benefits. There is simply no compelling reason for Limerick I to make customers much worse off in one time period, so that customers in another time period may be much better off. If the plant is beneficial overall, in present value terms, it should be possible to ensure that rates will not be higher in any year with Limerick I than they would have been without the unit. If the allowed cost of the plant exceeds its lifetime benefits, the net burden can be shared fairly over time.

UUC/UP Statement No. 1, p. 84.

Whether the costs PECO proposes to charge now are deemed disallowed or whether they are deemed deferred, PECO would be given the opportunity to recover those costs as the benefits of Limerick are realized. Mr. Chernick has discussed the various ways - over time - that this matching of costs to benefits can be accomplished. See UUC/UP Statement No. 1, pp. 84-90. However it is done, "a substantial phase-in of plant costs is absolutely necessary to produce any semblance of equity."

Mr. Chernick has made a specific proposal for phase-in as follows:

> To the extent that the Commission finds that the costs of Limerick I are prudent and determines that financial considerations do not constrain the phase-in, I would recommend that PECO be allowed to collect base rates for Limerick I, starting in 1986, of $187 million. This figure is composed of $150 million of PECO's anticipated fuel savings, plus $37 million in reliability benefits (the costs avoided by retiring Richmond 9, Southwark 1 & 2, and the CT's). This figure will probably

exceed the benefits of Limerick I, due to PECO's optimistic capacity factor and high oil price rejections.

UUC/UP Statement No. 1, p. 99.

In addition, Mr. Chernick has proposed several ways of providing for future adjustments of rates to reflect increased benefits of Limerick I. The virtue of this approach is that it would allow the Commission to further examine the entire situation caused by Limerick in a time frame that permits adjustment of the terribly important interests at stake. Mr. Chernick has specifically suggested:

(1) A new rate case when benefits of Limerick so justify. This is precisely what the Commission did in PP&L II.

(2) A rate rider providing for revision of rates based on PECO projections of costs and benefits, with reconsideration required as in ECR proceedings.

(3) A third approach would be to establish now the cost recovery for each year of the unit's life. The Commission might initiate a proceeding, without the limitations of the suspension period in the present case, to

- determine the conditions, if any, under which PECO will be allowed to charge ratepayers for more than the value of Limerick.

- establish a series of annual avoided-cost values (in cents kWh and dollars per kW-year) to be used in future Limerick cost-recovery, and

- create a ratemaking mechanism to adjust Limerick cost recovery over time, to reflect the changing avoided-cost values and differences in Limerick performance, without requiring rate-case review.

UUC/UP Statement No. 1, pp. 98-99.

The ALJ has adopted a phase-in plan because he did not accept the adjustments proposed by Staff and OCA. Instead, we urge consideration of Mr. Chernick's approach, because it asks PECO to stand by its own predictions of economic benefits for Limerick I. If its projections are accurate, then PECO will benefit substantially and its customers will pay for the costs of Limerick when they are receiving its benefits.

3. The ALJ erred by failing to allocate most of the production related capacity costs of Limerick on an energy basis.

At pages 149 to 152, the ALJ discusses, quite cursorily, the various proposals to allocate production related capacity costs on a basis which recognizes that much of those costs are energy and not demand related. In rejecting such allocations, he concluded that:

- They ignore the way utility systems are actually planned and operated.
- They ignore the manner in which utility costs are actually occurred.
- They ignore the distinction between on-peak and off-peak energy costs.
- They arbitrarily reassign costs from demand(kw) to the energy (kwh) related categories.

As shown below, derived from our Main Brief at pp. 42-64, witnesses for UUC/UP relied on, rather than ignored, these factors, in recommending that approximately 90% of Limerick production related costs be allocated to energy.

The driving principle behind all cost allocation theories is cost causation; i.e., each class of customers bears responsibility for the costs it causes the utility to incur in order to serve the needs of that class. This principle was cited in one form or another by virtually every witness interested in rate structure/cost allocation, including Ray Williams of PECO, Bruce Oliver for OCA, Robert Wirtshafter for UUC/UP, Jeffrey Pollock for PAIEUG, and Charles W. King for PBUUG. Limerick is, of course, the overwhelming cause of this unprecedented rate increase request and it follows that in designing rates to generate revenues for PECO the

threshold question is, what caused PECO to incur the costs of Limerick? Only when that question is answered can the Commission determine the appropriate allocation of these costs and thereby approve an appropriate rate design.

PECO, in its 4 CP cost of service study (Ex. WFS-1) has allocated all of the costs of Limerick on the basis of class demand responsibility at the time of the four monthly sustem peaks, experienced in June, July, August and September. Its reason is simplistic and incorrect; PECO installs megawatts of capacity to meet total peak demands, ergo, you must allocate all capacity <u>costs</u> on the basis of peak demands.

A closer inspection of this statement itself reveals its flaw. The principle of cost causation allocates "costs", not capacity and not megawatts. PECO may indeed build capacity to meet peak needs (plus a reserve) but the decision regarding what type of capacity and, therefore, its costs, is a wholly different matter. It is these <u>costs</u> which we must analyze, and not blindly accept the notion that PECO suggests, i.e., if its a capacity cost it must be demand related.

The absurdity of this position can be seen by an admittedly extreme analogy: extreme in its terms, but faithful to PECO's logic:

Suppose that PECO had built an appropriately sized peaking facility (instead of Limerick) that all parties agreed was needed to meet anticipated peak needs. However, in the interest of aesthetics, PECO decided to gold plate the entire plant, raising its costs ten-fold. By PECO's logic, this is capacity, its costs are for capacity, therefore, the costs must be allocated in accordance

with demand.

Would anybody accept such a result? Yet that is precisely what the ALJ's Recommended Decision would cause. The Company's allocation of Limerick costs and resulting rate design relate to peak demand even though the bulk of these costs are no more related to peak demands than would be the cost of the gold plating in the above analogy. Lest this statement be viewed as hollow rhetoric, let us look at the facts of record on which this conclusion is based:

1. The Company - Although Mr. Sundermeir allocated Limerick's costs on the basis of demand, his colleagues at PECO apparently do not support his view. For these costs to have been required for peak needs, Limerick would have to have been planned and built for the purpose of maintaining or improving system reliability. This is why utilities have to be able to meet peak needs...so that the system is reliable.

But Limerick, as a type of capacity, was not built for system reliability reasons. It was built to generate energy savings.

First, we have Mr. Boyer, in Company Statement 1, who opined that,

> because the Company had sufficient generation for cycling and peaking service, it was clear that the new facility (Limerick) should be for base load operation.

Mr. Rush, PECO's witness responsible for providing the justification for Limerick 1, conceded that the plant was not built for reliability purposes (Tr. 822, and Tr. 823, lines 8-11). His own statement (PECO Statement #14, page 20) emphasizes that the costs of Limerick are justified primarily by large expected fuel savings. And further, as noted in cross examination:

Q. Now, regarding your description of the mix of generating facilities, of the types of facilities where you talked about base load, intermediate, peakers and so on, is it correct, by your definition of base load, a facility is generally one that is used to serve the continuous loads of the company?

A. It is one from a planning standpoint that we would certainly expect to operate whenever available. So, from that standpoint, yes. You put it in service to supply at least the minimum load. This is a unit you want to run around the clock.

Q. Indeed, isn't that really part of the definition of a base load plant, that is, it has long hours of use in order to take advantage of that kind of production?

A. Right.

Q. And similarly, the reason which you can justify higher capacity costs for such plants is because you are going to have long hours of use over which you will recover the higher capacity costs through a lot greater output of energy?

A. That's correct.

Q. Am I also correct that that is a justification for Limerick's additional capacity costs, Limerick 1?

A. Yes, Limerick is a base load unit.

Q. It's a base load unit as you and I have been discussing it in terms of long hours of use, recovering your capacity costs?

A. That's correct.

More fundamentally, the very decision to complete Limerick 1, which was the subject of intense scrutiny by this Commission at Docket I-80100341, was premised on energy savings, not peak needs (reliability). In that proceeding as noted by Dr. Wirtshafter at page 4 of his Surrebuttal Testimony (UUC/UP Statement 3B), the Company conceded that the decision to continue construction of Limerick (then only partially complete) was justified solely on the energy savings it would provide. As the head of system planning for PECO, Mr. Kasum testified (Tr. 3547-8):

> ...the reason for building Limerick is not a reliability reason because it is being put in to reduce the cost of operating the system and reduce the cost to Philadelphia Electric's customers, not to improve system reliability.

Thus, by the Company's own justifications, the costs of the plant which must now be allocated to customers were not caused by demand considerations. It was the goal of energy savings which caused PECO to incur these costs, and not peak loads.

2. UUC/UP - Doctors Wirtshafter and Feldman on behalf of the UUC/UP have also concluded that the costs of Limerick are primarily energy related and must be so allocated. After citing the above PECO references, Dr. Wirtshafter reveals further support for this conclusion. At page 8 of UUC/UP Statement 3, he notes that prior to completing Limerick, the

Company already had sufficient capacity to meet system peaks. The extent of such capacity, its costs and related impact on this case are detailed by Dr. Chernick in UUC/UP Statement 1. What is clear is that if PECO had had peak demand requirements as its concern, it would never have decided to incur the costs to complete Limerick. The only reason it did so was to produce energy savings. Dr. Wirtshafter calculated that a fair split of the energy/demand cost causation for rate design would allocate about 90% of Limerick to energy and 10% to demand. (Statement 3, p. 21). (This may be unduly generous to the company in that the 10% portion for reliability could easily be 0%, given the well reasoned argument by Dr. Falkenberg for PAIEUG that Limerick actually reduces system reliability). Because the demand cost component of Limerick is fixed, Dr. Wirtshafter is also suggesting that any reduction in PECO's overall rate relief for Limerick be deducted from the energy portion of the allocation, with the demand charge remaining essentially constant. Thus, if PECO receives 50% of its requested Limerick revenues, the HT rate would be as shown in Exhibit RMW 23 (revised) attached to UUC/UP Statement 3A.

Dr. Wirtshafter's resulting rates (with an adjustment to eliminate the ratchet) are set forth below: (See also RMW 19 (revised).

Customer charge	$264.15
Demand charge (kw)	5.34
First 150 hrs. use	0.0940
Next 150 hrs. use	0.0764
Additional use	0.0591

Mr. Chernick, who testified regarding the rate treatment of Limerick costs, also addressed the proper cost allocation principles for those costs. (UUC/UP Statement 1, p. 92)

> The Limerick 1 investment which is eventually charged to ratepayers would never have been incurred simply to meet peak demand. Most of the cost of building and running Limerick 1 is related to its energy-serving function, rather than its demand-serving (that is, reliability-related) function. Therefore, most of the cost of the unit should be treated as an energy cost, for both inter-class allocations and intra-class rate design.

An excellent treatise on this very point is attached Statement 1 as Appendix G and provides a very detailed analysis of the propriety of this type of allocation.

3. PBUUG - Mr. Charles King, appearing on behalf of the Philadelphia Business Utility Users Group also addressed the cost causation of Limerick and its relationship to cost of service and rate design (PBUUG Statement 1, pps. 24-26). He too concluded that the costs for Limerick were caused primarily by energy considerations and such costs must be allocated in that manner. As did Dr. Wirtshafter and Mr. Chernick, Mr. King noted that peak growth caused a need for some capacity, but

that such capacity could have been provided by peakers. He, therefore, allocates to demand that portion of the cost of a kw of Limerick ($3,621) which represents the cost of a new peaker ($396 per kw). This ratio (about 10 to 1) is carried forward to Mr. Figley's rate design testimony. At Exhibit RLF6, page 1 he suggests the following HT rate design (also without the ratchet).

Customer charge	$230.20
Demand charge (kw)	6.18
First 150 hrs. use	0.0928
Next .50 hrs use	0.0733
Additional use	0.0541

This resulting rate is very close to the rate recommended by the UUC/UP, as it too properly reflects the correct allocation of most of Limerick's costs on an energy basis.

4. PAIEUG - Along with its rate structure witnesses, PAIEUG presented the testimony of Randall J. Falkenberg, an experienced utility consultant with impressive credentials. Although apparently ignored by his co-witnesses for PAIEUG, Mr. Falkenberg also testified that reliability considerations were not the cause of the costs of Limerick. At pages 23 to 25 of his statement, Mr. Falkenberg begins his analysis of the reliability and economics of Limerick as follows:

> Q. Have you performed any analysis of the reliability and life cycle economic impact of Limerick Unit 1?
>
> A. Yes I have. I conclude that Limerick Unit 1 will reduce PECO's operational reliability from previous levels,

though reliability will remain more than adequate for the system. Secondly Limerick Unit 1 will not produce economic benefits to consumers over the life of the plant, based on PECO's own economic study, as would be interpreted by the majority of executives in the electric utility industry in the United States. My alternative economic analysis shows Limerick to produce even greater losses to consumers than the corrected PECO study shows.

Q. Regarding the subject of reliability, I am somewhat confused by the fact that PECO contends its reserve is only 28% with Limerick Unit 1. You contend PECO has a 43% reserve margin. Also, explain how adding the Limerick unit will reduce reliability on the PECO system.

A. The answer lies in the fact that PECO intends to remove several older oil steam plants, and a number of combustion turbines from service. In total PECO will remove some 1585 MW of capacity from service over the next 9 years. In 1985 and 1986 PECO will remove 962 MW of oil fired capacity. Clearly, one large nuclear plant which is expected to be available only 65% of the time, cannot provide the same level of reliability as several smaller units. In addition the nuclear plant cannot provide the quick start capability of the combustion turbines. Thus, Limerick Unit 1 will degrade PECO's reliability. However, owing to the interconnections with the PJM pool, the reliabiliy of the PECO system will still be more than adequate at the 28% active capacity level. Thus, the removal of several hundred megawatts of capacity from the PECO system, is proof of

> the fact that Limerick Unit 1 is not needed for reliable service. Based on PECO's load forecast and the 25% PJM reserve requirement, PECO does not begin to need the capacity of Limerick Unit 1 until 1989. With PECO's load growing less than 60 MW per year at that time, it would be a long time before the capacity of Limerick Unit 1 is fully needed. (emphasis added)

This well reasoned conclusion is, of course, supported by the UUC/UP. Unfortunately, Mr. Pollock and Dr. Bloom, appearing for PAIEUG, chose to ignore Mr. Falkenberg in their testimonies where they have attempted to support Mr. Sundermier's unsupportable demand allocation of Limerick.

5. OCA-The Office of Consumer Advocate also presented a witness on this issue of the allocation of Limerick. He too concluded that PECO has improperly allocated the costs of Limerick exclusively to demand. As he states at p. 4 of his testimony:

> I find that both the cost allocations presented by Mr. Sundermeir and the rate design proposals discussed by Mr. Williams fail to properly reflect the importance of energy considerations in the Company's decision to complete the construction of Limerick Unit 1, the primary cause of the requested rate increase in this proceeding. The rationale presented by the Company for its proposed allocation of Limerick Unit 1 costs among customer classes is inconsistent with system planning criteria regarding plant type decisions. The effect of this inconsistency is a distortion of actual cost causation for the Company in the proposed cost allocations, and that distortion,

> in turn, yields rate designs that greatly mismatch the costs and benefits to be derived from the availability and operation of Limerick Unit 1.

After reviewing the relevant considerations, Mr. Oliver concludes, at p. 12:

> There can be no doubt, in light of these considerations, that major portions of the Company's investment in base load generating facilities, such as Limerick Unit 1, have been incurred explicitly to provide lower energy costs.

Consistent with the 90/10 splits calculated by witnesses Chernick, Wirtshafter, King and Figley, Mr. Oliver arrives at an appropriate allocation of 92/8 (OCA Statement 8, p. 13). Mr. Sterzinger, on behalf of CEPA et al., agreed with Mr. Oliver and indeed, calculated allocation factors essentially identical to Mr. Oliver's (Tr. 3777).

Thus, working independently, and focusing on cost causation, all of these witnesses have concluded that the major problem with the PECO cost allocations in this case is the failure to allocate the costs of Limerick primarily by energy. They further independently deduced that a ratio of 90% energy and 10% demand appears to be appropriate.

There are two options from which the Commission can choose:

Limerick was built for energy and should be allocated on that basis (90-100%) or, Limerick was built for peak needs and

should be allocated on peak demands. The insupportability of the second option is apparent on its face.

A. PRIOR DECISIONS OF THIS AND OTHER COMMISSIONS SUPPORT THE ALLOCATION OF CAPACITY COSTS ON AN ENERGY BASIS.

The allocation of plant costs by energy is neither new nor rare. This Commission, and many others, have long recognized that the costs of certain types of capacity are reasonably related to several goals, principally meeting peak demand needs or lowering system energy costs. One of the leading decisions was originally authored by Judge Matuschak in Pa. PUC v. Met Ed., R-822249, affirmed by this Commission on October 14, 1983 and reported at 56 PUR 4th 230.

At issue in that case was the allocation of the costs of TMI-1. There, as here, the Company acknowledged that the plant was built to lower system energy costs and not just to provide reliable capacity. Consistent with that acknowledgement and unlike PECO's failing, the Company allocated the capital costs of TMI-1 on both an energy and demand basis, using a 55/45 ratio.

The industrial intervenors in that case argued precisely the way PAIEUG and some of the company witnesses are arguing herein: that capacity costs must be allocated based on demand.

The recommended decision reviewed by the Commission characterized that position as untenable (id. 290), a conclusion adopted by the Commission, stating:

> The ALJ recommended that the position of the industrials be rejected. The industrials excepted arguing that the company's cost allocation is a departure from its past practice and past commission decisions, in certain instances.
>
> The classification of a portion of the capital costs of a nuclear generating plant as energy related is not new to us and the commission has approved similar classifications in the past. As has been said on prior occasions, large energy users, as a class, are the prime beneficiaries of the lower energy costs associated with nuclear generation and, therefore it is only fitting and proper that they bear a major responsibility for the capital costs.

The Commission went on to cite a previous order regarding PECO in the case at RID 295 (50 Pa. PUC 511):

> We also concluded that the cost of new generating plant, allocated on a coincident peak responsibility basis, does not afford adequate recognition of the benefits that accrue to high consumption customers as a result of decreasing operating expenses associated with adding new generating plant. In the instant proceeding, the same rationale is still appropriate, because the company will be able to utilize the newer plant (which has been included in rate base in this case) during the period where the rates will be in effect.
>
> While the quotation above is not precisely in point, in that a portion of the plant was not classified therein as energy related, the rationale is analogous; that is, the energy cost reduction re-

> sult of a new plant should be recognized. Here, such result is proposed to be recognized by the company, through the vehicle of the classification procedure in the cost allocation study, which attributes additional "excess" capital investment to the objective of producing cheaper energy.

Finally, and we believe dispositive of the issue in this case, the Commission held:

> To the extent that additional capital investment is incurred to reduce energy production costs, that investment should properly be classified as energy, because it reduces energy production costs, below what they would otherwise be.

In the instant case virtually all of the costs of Limerick, as admitted by the Company, were "incurred to reduce energy production costs" and must, therefore, be allocated on that basis.

Similarly, this Commission has recognized the energy-relatedness of capacity costs for Duquesne Light Co. in Pa. PUC v. Duquesne, 43 PUR 4th 27 (1981), where the Commission approved an average and excess demand method which allocated a portion of the capacity costs to energy.

The North Carolina Utilities Commission recognized the energy relatedness of capacity costs in Re Carolina Power and Light Co., 49 PUR 4th 62 (1982). At issue was the Company's proposal to allocate 60% of capacity costs based on energy. In

commenting on a proposal to fine tune the energy portion of the capacity cost allocation, the Commission stated, at 209:

> The Commission is very aware that there is a trend toward more recognition of energy and less recognition of demand in allocating capacity costs. The commission recognizes that a utility has a choice of adding different kinds of capacity, either base load or peaking. The choice between these kinds of capacity will depend on how many hours in the year the plants are expected to run. Base-load plants are less expensive to operate and more expensive to construct. If the proposed plant were expected to run many hours during the year, the base load plant would be the appropriate economic choice. Conversely, if the plant were expected to run only a limited number of hours, then the peaking plant would be cheaper overall.
>
> The cost allocation method should focus on system planning and engineering. If that planning utilizes a significant amount of base-load capacity to supply the system requirements at the lowest possible fuel cost, then the cost allocation method should reflect that.

In that proceeding, witness Brubaker, of the same consulting company with which witnesses Pollock and Bloom of PAIEUG are affiliated, testified on behalf of industrial concerns, contending as herein, that capacity costs are not energy related. In rejecting Mr. Brubaker's argument, and his coincident-peak allocation methodology, along with other such suggestions, the Commission stated as follows:

Each of the intervenor witnesses discussed so far seems to justify basing the cost allocation method on the coincident peak method either single coincident peak or multiple coincident peaks, with the assumption that fixed costs of production plant are inherently demand related. Perhaps this assumption is best articulated by the position of NCTMA in this proceeding.

North Carolina Textile Manufacturers Association, Inc., contends that peak responsibility is the only proper allocation method for fixed plant costs, that the magnitude of demand determines the fixed cost of plant and that the fixed cost does not change when kilowatt-hour sales decline or vary. The Commission agrees that fixed costs remain fixed even if kilowatt-hour sales decline, just as they remain fixed if kilowatt billing demand declines. The question is not whether variations in kilowatt-hour sales or in kilowatt billing demand reflect variations in fixed plant costs, but which of them best reflects the causes for variations in fixed costs of plant. As discussed herein, the commission concludes that kilowatt-hour sales will best track that portion of production plant costs which was incurred to achieve lower fuel costs, and kilowatt demand will best track that portion of production plant costs (and transmission/distribution plant costs for that matter) which was incurred to meet capacity requirements. In this manner, demand-related production plant costs are still allocated based on peak responsibility just as they always have been. The commission

simply recognizes that not all fixed costs are demand related.

The Missouri Public Service Commission also rejected the industrial argument that all capacity is peak demand related in Re Union Electric Co., 66 PUR 4th 202 (1985). The Missouri Commission concluded that to adopt a coincident peak methodology, "one must first accept the contention that UE only builds new capacity to meet peak demand. The Commission cannot accept this."

The energy allocation of capacity costs has also been adopted, for example, by Massachusetts (53 PUR 4th 32 (1983), which allocated 70% of a plant to energy and by Florida (49 PUR 4th 547 (1982) which allocated CWIP for a capacity conversion for energy savings based on energy, not demand.

As these cases aptly demonstrate, when costs which were incurred for reasons of energy savings are to be allocated, they must be allocated on the basis of energy. Conceding, for the sake of conservatism and gradualism, that some portion of Limerick is or will be used for demand purposes in the not too distant future, it is appropriate to allocate some of Limerick's costs to demand. As advanced by Dr. Wirtshafter and others, 10% of Limerick seems to represent an acceptable approximation of the comparable value or cost of peaking capacity equal to the megawatts of Limerick, yielding a 90%

energy allocation/10% demand allocation to be adopted by this Commission.

B. OTHER INTERVENORS HAVE FAILED TO JUSTIFY THE ALLOCATION OF LIMERICK COSTS BASED ON COINCIDENT DEMAND.

As the above discussion convincingly demonstrates, the Company, in the form of witnesses Sundermeir and Williams, has utterly failed to justify the allocation of the costs of Limerick on a demand basis. Both logic and the specific reasons for Limerick's existence clearly demonstrate that the costs of Limerick are primarily energy and not demand related. Nevertheless, PAIEUG, through witness Pollock, and the Pennsylvania Food Merchant's Association, through witness Larson, both attempted to make the same argument as Mr. Sundermeir....All capacity costs are demand related. Mr. Pollock did it explicitly while Mr. Larson merely adopts the company's approach (Statement #1, p. 9). Mr. Larson goes on to argue that there is an over collection of capacity costs in the tail block because this block should only have energy costs. Thus, he too ignores the energy relatedness of Limerick's construction costs.

Mr. Pollock's analysis is more substantive. He begins the relevant portion of his testimony by conceding that rates should track the cost to serve. (PAIEUG Statement #3 , p.12). He also concedes that a utility should be attempting to optimize the mix of plants. (id) At page 21 he also concedes

that demand charges should cover demand related costs and energy charges should recover energy related costs. With all of these principles, UUC/UP agrees. His error is in concluding that the capacity costs to be included in the tail block of a properly designed rate are demand, rather than energy related.

At page 2 of his rebuttal testimony, Mr. Pollock states:

> My position is that production capacity costs are demand-related and they should be allocated to classes based on...coincident peak demands. (PAIEUG Statement 3a).

See also p. 5 of his rebuttal testimony.

As explored above, although cloaked in cost-causation language, this sweeping overstatement is inaccurate and is unsupported by evidence of record. For this Company, as well as many others, costs of capacity are frequently caused by energy reasons, not demand.

As "support" for his theory, Mr. Pollock suggests that system planning decisions are the key to determining whether capacity costs are demand or energy related. PAIEUG Statement 3a, p. 6.

> Q. But isn't it appropriate to classify a portion of production capital costs to energy because of the fuel savings resulting from the installation of modern base load plants?
>
> A. As a general proposition, no. One must be careful to distinguish between cause and effect. Although the <u>effect</u>

> of operating a base load unit at a high capacity factor is to produce fuel cost savings (relative to the costs which would have been incurred by operating a peaker plant at the same level), the factor which caused the utility to construct the base load plant was the need to meet projected demands reliably. To suggest otherwise would be an over-simplification of the planning process.

Mr. Pollock's logic might have some theoretical applicability, but not to Limerick. The unrebutted evidence of record, challenged by no party, not even PECO, is that the planning process determined to build Limerick for energy savings, not system reliability. Mr. Pollock's statement is not supported by credible evidence. It is a conclusion not deserving of further attention.

Perhaps recognizing his conclusion was unsupported by the facts, Mr. Pollock argued that if the Commission adopts an energy allocation of capacity, it must recognize that valuable savings must also be credited to those to whom more capacity costs are attributed. In principle, this may be correct. But as applied to PECO, which Mr. Pollock neglected to do, the theory does not hold. His "proof" of his theory is not supported by the evidence. He relies on a "Lowest Cost System" (LCS) analysis, as explained at page 8 of his rebuttal. In doing so he uses average numbers from a nationwide study by EPRI.

Frankly, if we were now considering costs for capacity as shown by that study, we wouldn't be engaged in this proceeding. The point is, we are not considering that study. We are considering Limerick, whose construction costs per kw are more than three times higher than those used in Mr. Pollock's "proof."

Mr. Figley addreseses Mr. Pollock's error at p. 6 of his surrebuttal, noting that:

> It appears that Limerick's capital costs, at least in its initial years of operations, are substantially greater than its fuel savings. For this reason it is probable that the increased capital cost allocated to high load factor customers would more than offset the reduced fuel and variable energy cost assignments from a time-of-use costing procedure.

Mr. Figley then proceeded to predict that an actual calculation for PECO will prove Mr. Pollock wrong. Dr. Wirtshafter supplied that actual calculation, beginning at page 5 of his surrebuttal (UUC/UP Statement 3B, p. 4-6). As shown in RMW 28, 29 and 30, under any reasonable assumptions of peaker-mix, using PECO actual figures, Mr. Pollock's theory would be correct as soon as the plants ran for 13,184 to 13,622 hours each year. Of course, as each year contains only 8760 hours, Mr. Pollock's prediction never comes true. The reason for this is a simple one. The cost of capacity at Limerick is so high as compared to the cost of a peaking unit that the fuel savings from Limerick, even if operated 100% of the year, are not large

enough to offset the difference. As shown on RMW 28, when capacity costs and operating costs are fully considered on the PECO system, the cost to run Limerick per kw per year is $100.89 while the cost to run a peaker is $74.68. If more realistic assumptions of availability for Limerick were used, the difference would be even greater. Interestingly, neither Mr. Pollock, nor PECO came forward on the record to dispute Dr. Wirtshafter's analysis, and it remains unrebutted on the record.

Mr. Rudden, for Amtrak, also argues that time-varying costs must be weighed against time-varying benefits, if one chooses to allocate Limerick on the basis of energy. Whatever validity his position might have for others, it must be remembered that the HT customers already receive time-varying credits by way of several off-peak provisions and credits available to those customers. Thus, an energy allocation of Limerick will not mismatch these two elements.

In defense of this "demand allocation for Limerick" argument, the Commission can anticipate that PECO, PAIEUG, PFMA and others will continue to argue both the "system planning" rationale and the time worn "capacity is demand" positions. However, the evidence, upon which the decision must be based, undeniably demonstrates that an allocation of the costs of Limerick must be based on its "energy savings" - causation, in

an amount upwards of 90% of its total costs, and no other conclusion is supportable on the record of this case.

4. The ALJ erred in recommending approval of the Demand Ratchet for Rate HT as proposed by the Company.

At p. 166 of the Recommended Decision, the ALJ addresses the issue of the ratchet. In four sentences he disposes of hundreds of pages of testimony and exhibits which clearly demonstrated the inappropriateness of the 80% demand ratchet. The reasoning for the approval seems to be that it was always approved before so it should be approved again. First of all, it should be noted that UUC/UP also recommended the reduction of the ratchet to a more reasonable level (65% for example) as a compromise to the outright elimination. Second, the overwhelming evidence in this record and on these facts, supports the elimination of the ratchet, irrespective of whether prior records in prior cases could have supported a similar conclusion.

A. THE DEMAND RATCHET IS UNFAIR, DISCRIMINATORY AND OBSOLETE AND MUST BE ELIMINATED.

1. Introduction.

A salient feature of the HT and PD rates for PECO is the demand ratchet. By this device, bills for a customer for October through May are calculated on its actual demands or 80% of its summer peak demand, whichever is greater. Notice, at the outset, that the ratchet is set according to a customer's own peak demand, irrespective of whether such peak is coincident with PECO's summer peak. The billing impact of this feature is to "force customers into the higher energy blocks causing additional penalties." (UUC/UP Statement 3, p. 12). Thus, not only is a customer who is

affected by the ratchet forced to pay for kws it does not use, but also it pays for its kwh usage at higher unit prices than would otherwise apply. Upon examining the rationale for the ratchet, it becomes evident that the ratchet, as formulated by PECO, should not be continued.

The reasons for the ratchet were not addressed by PECO in its direct case. Therefore, on cross-examination, Mr. Sundermeier supplied, for the first time, the rationale for this ratchet.

> Q. Do you recall a statement that you made in your rebuttal testimony in July of 1983 in a Philadelphia Electric rate case -- and I'm going to read it to you to see if this refreshes your recollection:
>
> A. The purpose of the demand ratchet is to send a price signal to HT customers encouraging them to reduce their summer demand. These demand reductions benefit all customers through lower fuel costs and in decreasing the need to add new capacity. Moreover, the ratchet also insures that the company will at least partially recover the costs it incurs to supply an additional kw of demand during the summer.
>
> Do you recall that statement?
>
> A. Yes.
>
> Q. Does that correctly reflect your present position as to the purpose of the demand ratchet?
>
> A. Yes.
>
> Q. Do you have any other purposes, any additions you would wish to make to that answer today?
>
> A. I think that fairly well sums it up.

(Tr. p. 1595-96)

Thus there are two reasons PECO has a ratchet:

1. Send a price signal that encourages summer demand reductions, and

2. Recover the costs to supply an additional kw of demand during the summer.

Actually, these reasons merge assuming cost based ratemaking, in that a proper price signal results in cost recovery and does not encourage unjustified usage responses to the rate. Mr. Pollock, in his rebuttal statement sums up the purpose of a ratchet on p. 30.

> The 80% demand ratchet is nothing more than a tool to reallocate the rate HT demand cost responsibility to those customers within the class who utilize more demand during the summer peak months than at other times.

This definition, as well as Mr. Sundermeir's, implies that the ratchet should recover the costs to serve peak loads which are in-addition to non-peak loads. By such a definition, one could properly expect that the demand ratchet would be set to recover the capacity costs associated with peaking units...new or used, average prices, etc. By such a definition, one can also properly conclude that a ratchet which collects more than peak capacity costs is improper and should be modified or eliminated. As the evidence shows, PECO's ratchet is set at the wrong figure, grossly overpriced, and compounded by the hours use rate-form. As such, it is violative of the very definition of and reasons for its existence. In addition, it is discriminatorily applied between and within rate classes. For all these reasons, as explained below, it must be eliminated.

2. PECO's ratchet grossly overcollects revenues.

As noted above, the PECO ratchet contains a "double-whammy". First, it artificially sets billed demand levels at 80% of peak summer demands, then forces more hours of usage through the higher rate blocks. As Dr. Wirtshafter explains at page 12 of his testimony. (UUC/UP Statement #3) the ratchet produces the following results:

> Q. Could you give an example as to how the demand ratchet works?
>
> A. Suppose that a customer uses 1875 kw of demand in August and 1000 kw in each of the following eleven months. Also assume that monthly use is 500,000 kwh in each month of the year. The ratchet imposed on this customer in the non-summer months will be eighty percent of his highest demand in the preceeding summer, in this case 80% of 1875 kw. A demand ratchet of 1500 kw will be imposed on this customer because of his winter demands. The customer will be billed for 1500 kw of demand instead of his actual demand of 1000 kw. Furthermore, because the energy blocks are determined by billed demand and not actual demand, more energy (75,000 kwh) is charged in each of the first two energy blocks as a direct result of the demand ratchet. RMW 5 shows a breakdown of this hypothetical customer's bills for one winter month with and without the ratchet. For this customer, the ratchet costs for this month are $11,335 or 22% more than if no ratchet were imposed.

Some further bill comparisons are of equal interest. For example, the bills of the UUC members increased an average of 3.2% by the effects of the ratchet, with results ranging from 0.8% to 5.7%. See Exhibit RMW 6 and 7 and UUC/UP Statement 3, at p.13. For the University of Pennsylvania this increase to the annual bill is $650,000. The question to be answered is, did the higher summer usage of these customers, as compared to their winter usages, cause PECO to incur these kinds of increased costs? The answer is no.

First, what costs are legitimately recovered by a ratchet? According to PECO and Mr. Pollock, they are costs associated with additional capacity experienced in the summer. Are those the costs that PECO's ratchet recovers? No, PECO's ratchet recovers ten times these costs (UUC/UP Statement 3, p. 18-19). Although it would have cost only $10 per kw year to maintain the peaking capacity to meet summer peak loads, the ratchet is collecting $120/per kw/year. This "signal" is particularly distorted by the pricing of the demand charges to reflect the energy related costs of Limerick. Having included all of Limerick's costs in the demand recovery, a ratchet set at 80% causes the lower load/factor (high summer/low winter) customer to pay a triple penalty. First, excessive demand charges for kw actually used. Second, excessive charges for billed kw in the ratchet months, kw which are never actually used. Third,

excessive kwhs charged at the higher blocks of the HT (and PD) rate schedules.

Such an effect can be very serious for a given customer, yet is totally unsupportable given the cost picture for PECO today. Indeed, as noted by Mr. Figley in PBUUG Statement 2, p. 11, the ratchet may have made sense when first introduced but not now.

> At that time (when introduced) PECO's peak was growing rapidly, its reserve margins were low, and it relied heavily on peaker generation to meet summer loads. A demand ratchet might arguably have furnished a reasonable approach to collect the costs of peak service from low load customers. With greatly reduced load growth and with the commercial operation of the Limerick 1's additional 1,055 mw of base load production, these arguments are no longer compelling.

Although appearing as early as Dr. Wirtshafter's original testimony, this analyses of the overcollection by the ratchet was never challenged by PECO. For all of Mr. Sundermeir's nit-picking regarding bill comparisons between utilities and the estimate of total ratchet revenues, there is no criticism whatever of the basic points. The ratchet, set at 80%, over-collects the costs of providing peak power, its only legitimate function. The ALJ's error, much like in the decision to allocate Limerick to demand, is to conclude that the ratchet must collect the costs of base load units, when it should only attempt to recover summer peak demand costs.

3. The ratchet is a discriminatory rate provision.

A part of Mr. Sundermeir's justification of the ratchet, noted at Tr. 1595, is that "These demand reductions benefit all customers through lower fuel costs and in decreasing the need to add new capacity. "(emphasis added) Despite this acknowledgement that the benefits go to everyone, the cost of those benefits go only to HT and PD customers and not to all of them. It is only the HT or PD customers whose own monthly winter demands are less than its own summer peak demand. Thus, only a portion of the customers on a portion of the rate schedules pay the penalty for everyone else to reap the reward. In a system which has, as a basic principle, that rates should not discriminate, this is an intolerable situation. Indeed, if it costs the company x dollars per kw to meet additional capacity needs in the summer, then it costs x dollars per kw no matter which customer class creates that need. Yet, there is no ratchet in the residential rates; no ratchet in the general service rates, even where demand charges are explicit and no rachet impact for HT and PD customers whose summer/winter loads are relatively constant.

How high is this penalty? According to Dr. Wirtshafter's estimate, the ratchet collects between $14 Million and $15 Million annually from low load factor HT customers. (UUC/UP Statement #3, pp. 13-16). The Company has no idea how much is collected, despite its insistence on its importance and the

fact that it is under heavy attack in this case. PECO's only criticism of the estimate, if accepted, would lower the estimate slightly. In other words, Dr. Wirtshafter's estimate must be accepted as reasonable based on the record. Although representing only 1.3% of total HT revenues (id., at 20) the burden falls squarely on the commercial segment of the Philadelphia economy, (more on this subject below) a group that can be described as non-manufacturing or low load factor, HT customers.

This last description is, however, somewhat misleading and reveals another discriminatory aspect of the ratchet. The customers which are penalized are those whose own summer/winter differential exceeds the 80%. However, there is no necessary connection between a given non-manufacturing customer's own summer/winter peak differentials and that of PECO. Indeed, as Mr. Figley notes at page 10 of his testimony, "it is unlikely that a customer's individual peak demand will correspond with those (the company's) peak demands." This diversity is, of course, ignored by PECO when it concludes that the ratchet is a proper way to recover the increased costs of peaking capacity based on the erroneous assumption that a given customer's own peak is coincident with the company's. The existence of this diversity, in itself, is reason enough to reduce the ratchet to more modest levels, if not to eliminate it entirely.

4. The ratchet sends the wrong price signal and does not

encourage conservation.

One argument used to support the ratchet is that it sends the proper price signal to curb summer demands and, therefore, it encourages conservation. In reality, this is incorrect, at least for PECO. As Dr. Wirtshafter notes at Statement 3b, pp. 7-8, the 80% ratchet actually encourages additional demand in the winter. For PECO, this additional demand became less advantageous when it retired multiple units and added Limerick. Having done so, it is now in the ironic position of needing its off peak months for scheduled maintenance of very large plants while at the same time it is telling very large HT customers that winter demand up to 80% of summer demand is <u>free</u>.

Of course, by employing the ratchet linked to an inflated demand charge, PECO is certainly sending a signal. But the signal, being improper, is going to lead to an improper and, indeed, harmful result...the drastic waste of generating resources. As described by Dr. Wirtshafter at p. 23-24 of UUC/UP Statement 3, and again at Tr. 3922, current technology will allow the non-manufacturing sector to shave peak load and avoid the ratchet by installing its own peaking equipment. Whereas before it was not economical to do so, a price signal which charges $120/kw for peak loads will result in customers installing their own peakers at a fraction of the cost. The negative impact PECO's service territory is immense.

> The customers are forced to spend this extra money on redundant generation equipment in order to avoid the demand charges. The customers are reacting properly to an improper pricing signal. The high demand charges signal that PECo is capacity short and will be required to spend large sums of money if peak loads increase. As has been shown, the real cost of additional peak demand is $10.00 per kw. The improper pricing signal leads to the construction of three duplicate sets of generation systems: the plants installed by the customer, Limerick I, and the original peaking plants. This is an unnecessary redundancy of expenditures for which all customers will have to pay.

5. PECO's ratcheted demand charges are dramatically higher than neighboring utilities.

One additional way to ascertain the relative reasonableness of the PECO ratcheted demand charges, both explicit and implicit, is to compare them to neighboring utilities. Such comparisons are always difficult, owing to the nuances of various company rate structures and the inconsistent rate provisions found in different tariffs serving similar voltage levels but in different utility areas.

Despite these difficulties certain interesting results were obtained by Drs. Wirtshafter and Feldman. As reported in their testimonies, the impact of the PECO rates is greater than on any utility in PJM or for Duquesne Light. As shown by Exhibit SLF 9 to UUC/Up Statement 2A, even when pending rate increases are included in the comparison, PECO's rates are from

8.62% to 39.22% higher for the commercial sector. As these utilities all face similar costs for capacity and fuel and similar operating conditions, one can conclude that the ratchet which multiplies the effect of an improper cost allocation for Limerick, cannot be supported.

Explicit proof of the effect of the PECO ratchet was also demonstrated by Dr. Wirtshafter. As shown on RMW 31, an additional 10 kw of peak summer demand on PECO's system, because of the ratchet, increases the University of Pennsylvania's bill by $1200. The next highest increase for a similar 10 kw increase would occur on Atlantic Electric. It equals $410. Thus, the impact of PECO's ratchet is almost three times that of the next highest ratchet and generally twelve times higher than any other PJM utility. See RW 31. This is especially noteworthy when one considers that all PJM utilities share the same reliability costs due to their being interconnected. This analysis, and its graphic depiction on RMW 32 is proof of the inappropriateness of PECO's ratchet and the improper cost signal it is sending. It simply does not cost 12 times as much for PECO to supply peak needs than it does for any other PJM company.

Although UUC/UP concedes that there was some dispute as to which companies actually have ratchets and how some comparative bills might be calculated, there is no legitimate dispute that the impact of the PECO rachet far outweighs both other PJM

companies and the costs it can legitimately collect. We respectfully submit that the evidence on this point is clear and convincing.

Respectfully submitted,

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Dated: May 23, 1986

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Jerry Rich, Secretary
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Re: Pennsylvania Public Utility Commission
v.
Philadelphia Electric Company, Docket
No. R-850152

Dear Secretary Rich:

Please find enclosed for filing with the Commission the original and nine (9) copies of the Exceptions of the Philadelphia Electric Company to the Recommended Decision of Administrative Law Judge Joseph P. Matuschak in the above-referenced proceeding.

As the attached certificate of service indicates, copies of these Exceptions have been served on all parties of record.

Sincerely,

Walter R. Hall II

Walter R. Hall, II

/paa
Encl.
cc: All Parties of Record
The Honorable Joseph P. Matuschak

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SECRETARY'S OFFICE
Public Utility Commission

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION, ET AL.	:	
	:	
v.	:	Docket No. R-850152
	:	
PHILADELPHIA ELECTRIC COMPANY	:	(1986)

EXCEPTIONS OF THE PHILADELPHIA ELECTRIC COMPANY

To the Recommended Decision of
Administrative Law Judge Joseph P. Matuschak

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Appendix A - Derivation of Cost Savings for Limerick 1 and 50% of Common Based on a January 31, 1984 Fuel Load

I. INTRODUCTORY STATEMENT

Philadelphia Electric Company ("PECO" or the "Company") initiated this rate proceeding on September 27, 1985 by filing Supplement No. 15 to its Tariff Electric - Pa. P.U.C. No. 26. Supplement No. 15 was designed to produce a net increase in annual revenues from electric operations of approximately $670.6 million or 28.2%, based on budgeted sales for a future test year ending June 30, 1986.

On May 14, 1986, Administrative Law Judge Joseph P. Matuschak (the "ALJ") issued his Recommended Decision proposing that the Commission approve additional revenues totalling $301,648,000[1/] or some $368 million less than requested by the Company. The ALJ is to be commended for the extensive effort required in preparation of the Recommended Decision. The assimilation, analysis, and development of a report to the Commission from the testimony of 79 witnesses presented at the 33 days of evidentiary hearings and from the 5200 pages of transcript was a herculean task. However, the Company believes that the Recommended Decision contains several significant errors and herewith excepts to certain findings and conclusions of the Recommended Decision, as set forth below.

The Company strongly disagrees with three principal aspects of the Recommended Decision. First, as fully explained in Section II, a $302 million dollar revenue increase phased-in over three years without recovery of carrying charges on the deferred revenue would produce a seriously adverse impact on the Company's financial condition, which confiscates existing shareholder investment, imperils the Company's ability to attract capital on reasonable terms, and therefore does not properly balance ratepayer and shareholder interests. Second, as set forth in detail in Section III, the

---

1/ The Recommended Decision as originally issued proposed a $358 million revenue increase. The later discovery of calculation errors necessitated a correction, issued May 15, 1986, that revised the proposed revenue increase to approximately $302 million.

Recommended Decision's $554.9 million imprudency disallowance of Limerick 1 construction costs is completely unsupportable on the evidence of record in this proceeding and should be rejected or, at a minimum, substantially reduced. Third, as set forth in Section IV, the Recommended Decision's 14.25% return on common equity is unreasonably low and should be substantially increased. Finally, Section V presents the Company's exceptions to certain rate base and expense adjustments proposed by the Recommended Decision which should also be rejected.

II. THE RECOMMENDED DECISION, IF ADOPTED, WOULD CONFISCATE EXISTING SHAREHOLDER INVESTMENT AND IMPERIL THE COMPANY'S ABILITY TO ATTRACT CAPITAL ON REASONABLE TERMS.

A principal task facing the Commission in this proceeding is to equitably balance the interests of ratepayers and shareholders in its determination of just and reasonable rates. Pennsylvania Electric Co. v. Pa. P.U.C., __ Pa. __, 502 A.2d 130 (1985); Pa. P.U.C. v. Pennsylvania Gas and Water Co., 492 Pa. 326, 424 A.2d 1213 (1981). As described in PECO's Initial Brief (pp. 2-1 to 2-15), the Company's revenue request was carefully designed to achieve such an equitable balance. The Company made substantial efforts to minimize the impact of the rate increase on PECO customers and its service territory while maintaining the financial integrity that will allow the attraction of capital at a reasonable cost in the marketplace to finance plant additions and replacements required to provide reliable and economic service.

In recent PECO rate proceedings, the Commission has had before it, and has considered in its balancing of ratepayer and shareholder interests, data as to the serious weakness of the Company's financial condition. At the time this case was filed, financial indicators showed that the Company's financial condition was seriously substandard and were at the very bottom of the Standard & Poor's (S&P) benchmarks[2/] for maintenance

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2/ As explained in PECO's Initial Brief (p. 2-5), S&P recently established three new benchmarks or ratios to be used in rating securities of investor-owned utilities: (1) pre-tax interest coverage excluding AFUDC; (2) net cash flow divided by total (continued)

of a minimum investment grade BBB- bond rating. The requested revenue increase for Limerick 1 and 100% of common plant was designed only to modestly strengthen the Company's current financial condition and provide some improvement for the 1987-89 period. The financial indicators which would have resulted from the full requested rate increase would still have not qualified PECO for a desirable and beneficial single A bond rating (PECO Initial Brief, pp. 2-3 to 2-6). Moreover, as set forth in PECO's Initial Brief (p. 2-2), the rate increase request incorporated several elements intended to provide significant benefits to PECO ratepayers, including a phase-in plan of the rate increase without recovery of carrying charges on the deferred revenue and a proposed two-year "stay out" proposal.

The $302 million revenue increase proposed by the Recommended Decision to be phased-in in equal percentages over a three-year period without recovery of carrying charges on the deferred revenue does not, for the reasons set forth below, achieve an equitable balance of ratepayer and shareholder interests and should be rejected. Indeed, the Recommended Decision's conclusion that it had achieved an equitable balance was based on an anticipated $358 million revenue increase, not the actual $302 million revenue allowance (R.D., pp. 181-82).

The financial indicators which would result from the Recommended Decision's $302 million revenue increase are set forth in the table on the following page. The most significant impact of this proposed revenue increase is its seriously adverse effect on the Company's earnings per share. As shown on the table, 1987 earnings per share with a $302 million increase would be $2.06, which is significantly below the Company's 1985 earnings per share of $2.56, and even below the Company's current dividend of $2.20.[3/] Similarly, 1987 return on common equity would fall to

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capitalization; and (3) debt as a percentage of total capitalization (PECO St. 3, p. 11 and Table 5).

3/ It is important to note that the 1985 level is itself abnormally low due to the write-off of $73 million of purchased power costs required by the Commission's Order in the (continued)

11.3% as compared to the 14.4% achieved in 1985. These earnings and return levels could result in a dividend reduction and a consequent drop in the price of PECO common equity. A reduction in the stock price and the sale of new stock at below book value would confiscate the investment of existing shareholders and would seriously affect PECO's ability to attract common equity capital on reasonable terms.

PECO Financial Indicators
(1987)[4/]

	Revenue Increase			
	$302 Million Unadjusted AFUDC Accruals	$302 Million (Adjusted for Reduced AFUDC Accruals)	$302 Million (FASB 71 Write-Off)	$450 Million
Earnings per share	$2.14	$2.06	($0.80)	$2.46
Return on Equity	11.7%	11.3%	(4%)	13.3%
AFUDC as % Earnings	56%	54%	(142%)	42.1%
Mortgage Coverage	2.8x	2.8x	1.3x	3.2x
SEC w/o AFUDC	2.0x	2.0x	0.9x	2.1x
Internal Sources as % of Construction w/o AFUDC	16.5%	16.1%	(28.4%)	20.8%
Cash Flow/Total Capital	2%	2%	(0.8%)	3.5%

4/ This table presents financial data under four scenarios. The first column presents the financial results of the ALJ's $302 million revenue increase, but does not adjust AFUDC accruals to reflect the ALJ's proposed 14.25% return on common equity. The second column adjusts for the reduced AFUDC accruals which would result from the ALJ's 14.25% common equity cost rate recommendation. Since these reduced AFUDC accruals would occur if the ALJ's recommended rate of return were adopted, these adjusted figures present a more accurate picture of the financial results produced by the Recommended Decision. The third column presents the financial data resulting from the Recommended Decision if the amendment to FASB 71 is adopted. The fourth column presents financial data that would result from a $450 million revenue increase. AFUDC accruals in this scenario are adjusted to reflect a 15% return on equity. All four scenarios assume the ALJ's phase-in plan.

Similarly, the financial results of the Recommended Decision would do little to improve PECO's marginal BBB- bond rating. Cash flow as a percentage of total capitalization would be only 2% in 1987, squarely within the BB range of the S&P benchmarks and significantly below the Company's actual 1985 result of 3.7% (PECO Initial Brief, p. 2-4). Moreover, while some improvement over the 1985 actual data is evidenced in PECO's SEC coverage ratio without AFUDC, the resultant 2.0 times coverage is at the lower end of the S&P benchmark for a BBB bond rating. While these financial indicators, if actually achieved, might permit the Company to maintain its BBB bond rating, any adverse changes in revenues, expenses, or cost of debt could result in a downgrading.

It must be emphasized that these financial indicators were developed on the assumption that the proposed amendment to FASB 71 would not apply to PECO in 1987. However, if the amendment, which is to apply retroactively, is effective in 1987 as currently proposed,[5/] PECO would be required to write-off the $554.9 million prudency disallowance proposed by the Recommended Decision and to discount the value of the revenue deferred under the phase-in plan to reflect the non-recovery of carrying charges. The discounting requirement would reduce 1987 earnings per share by approximately $.08 and would result in earnings of but $1.98/share under a $302 million revenue increase.

With respect to the imprudency write-off, the effects of the Recommended Decision, if the FASB 71 Amendment is adopted in 1987, would be devastating. As shown in column three of the above table, the earnings and return on equity in 1987 would be

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5/ While it is true, as the ALJ notes (R.D., pp. 170-71), that the Commission is not legally bound to act in accordance with FASB-approved accounting principles, "its failure to do so could have severe consequences upon PECO and its ratepayers," as the above-described financial results demonstrate. Thus, "[w]hile the exposure draft [of the proposed amendment to FASB 71] has not been formally adopted," the ALJ concluded that "we believe that the Commission should act conservatively and assume its adoption, since it is proposed to be retroactive in effect."

negative which, in all likelihood, would produce a dividend omission and significant future dividend reductions. All relevant financial indicators would be well within the BB range, and coverage under the mortgage would be below 2.0x which would prevent the issuance of long-term debt needed for the continuation of the Company's construction program. Such results clearly are not in the interests of ratepayers or shareholders.

The Company also excepts to the Recommended Decision's proposal to phase-in the $302 million increase in equal installments over three years without recovery of carrying charges on revenue deferred for later collection. The Company's voluntary three-year phase-in plan without recovery of carrying charges was predicated upon approval of the full requested increase. As set forth above, the Recommended Decision's alternative phase-in of the $302 million increase would not produce reasonable financial results and therefore is not acceptable to the Company. For similar reasons, a $302 million increase would not permit the Company to implement its two-year "stay-out" proposal.

It is well established that a utility is entitled to a fair opportunity to earn a fair return on its prudent investment in property devoted to public service. Failure to allow such fair return is confiscatory and cannot be upheld. See, e.g., Ben Avon Borough v. Ohio Valley Water Co., 271 Pa. 346, 114 A. 369 (1921); Keystone Water Co. - White Deer District v. Pa. P.U.C., 19 Pa. Cmwlth. 292, 339 A.2d 873 (1975) aff'd, 477 Pa. 594, 385 A.2d 946 (1980); Solar Electric Co. v. Pa. Pub. Serv. Comm'n, 76 Pa. Super. 255 (1921), aff'd, 271 Pa. 385, 114 A. 373 (1921). See also Alabama Power Co. v. Alabama Pub. Serv. Comm'n, 422 So.2d 767 (Ala. 1982). The Recommended Decision's completely inadequate revenue allowance, as set forth above, confiscates existing shareholder investment and imperils the Company's ability to attract capital. In addition, the Recommended Decision's $554.9 million imprudency disallowance, as set forth in detail in Section III, confiscates shareholder investment in prudently planned, used and useful property.

The Company continues to believe that its requested increase is reasonable and should be approved. However, at a minimum, the Commission should approve a revenue increase that maintains the Company's existing financial position and does not permit that condition to further deteriorate. As shown in column four of the above table, a revenue increase of $450 million would approximately maintain the Company's 1985 level of earning per share and would solidify the Company's BBB bond rating. With such a revenue increase the Company would be able to implement its two-year base rate increase "stay-out" proposal. Moreover, with such a revenue allowance, the Company would be able to phase-in the increase over three years in equal percentages and without recovery of carrying charges on the deferred revenue.6/

This alternative revenue increase provides, as described above, only modest improvements to the Company's financial condition and is thus only marginally fair to PECO shareholders, who have suffered continued confiscation of their investment during the construction of Limerick 1. With respect to PECO ratepayers, the alternative increase affords substantial benefits. Under the Company's phase-in proposal, ratepayers will experience annual rate increases of approximately 5%, which is approximately the projected long-term level of inflation. The phase-in plan, coupled with the two-year base rate increase stay-out, will ensure that PECO ratepayers and the economy of the Company's service territory will suffer no adverse economic impact. Finally, ratepayers will receive the benefits of the substantial energy savings and long-term system reliability provided by Limerick 1.

6/ Alternatively, the Commission could approve an increase somewhat less than $450 million and allow the recovery of carrying charges on revenue deferred under the phase-in plan. This would increase 1987 earnings per share by approximately $0.11 without increasing the total revenue allowance during the three-year phase-in period.

III. THE RECOMMENDED DECISION SERIOUSLY ERRS AND WOULD CONFISCATE SUBSTANTIAL SHAREHOLDER INVESTMENT IN PROPOSING A $554.9 MILLION DISALLOWANCE OF LIMERICK 1 CONSTRUCTION COSTS.

A. The Recommended Decision

The Recommended Decision reduces PECO's rate base by $554.9 million to reflect alleged increased plant costs resulting from Company decisions in 1976 and 1978 to announce deferrals in the construction of Limerick Unit 1 (R.D., pp. 45-71). PECO excepts. The ALJ has, pursuant to his Bench Ruling of December 20, 1986 and this Commission's Order dated January 21, 1986, relied solely upon the Commission's Order at Re Limerick Nuclear Generating Station Investigation, Docket No. I-80100341, 56 Pa. P.U.C. 47 (1982) ("1980 Investigation") as the basis for his characterization of these announcements as imprudent. The ALJ states that the Commission's prior finding of PECO imprudence was based upon its belief that PECO made these announcements in part to avoid an excess capacity adjustment (R.D., pp. 64-66).

The ALJ further concludes that the Commission left open for decision in this proceeding only the issue of the extent of the delay, if any, in Project completion caused by these announcements. The ALJ defines this "quantification" issue as involving three important subissues (Tr. 2044):

> "First..., the additional cost of the construction of Limerick caused by the decisions;
>
> Second, external matters which affected the construction; and
>
> Third, any offsetting matters that could be used in evaluating the cost effect of those decisions."

As fully explained in the Company's Brief in Support of Petition for Commission Review and Answer to a Material Question, dated January 6, 1986, PECO firmly believes that the 1980 Limerick Investigation made no determination as to the prudence of the deferral announcements and that the Pennsylvania Supreme Court has so held. See Pa. P.U.C. v. Philadelphia Electric Co., 501 Pa. 153, 460 A.2d 734, 739 n.7

(1983). Further, PECO strongly believes that its 1976 and 1978 deferral announcements were not imprudent and were not based upon any fear of an excess capacity adjustment. No such fear was suggested by the Company testimony in that prior proceeding, relevant portions of which have been incorporated into this record in PECO Exhibit No. 37, PECO St. 9, pp. 8-14. That testimony simply explained the basis of the Company's judgment that the announcements and the possibility of Project delay that might result from them was in the interest of ratepayers, was consistent with least-cost generation planning and was consistent with emerging principles of regulation adopted by the Commission. The substantial benefits to ratepayers of the deferral announcements were avoidance of the risk of being excluded from the capital markets which could have even further delayed completion of the Unit and avoidance of the short-term costs of early rate recognition of the plant (PECO St. 3, pp. 39-43).

In accordance with the ALJ's Bench Ruling and the Commission's affirmance of January 21, the Company will not in these Exceptions argue the prudency of the 1976 and 1978 deferral announcements. However, the Company hereby expressly reserves the right to present its position that the 1980 Limerick Investigation Order contains no findings or determinations as respects the prudency of the 1976 and 1978 deferral announcements or that any such findings adverse to the Company are incorrect in any appeal to a reviewing court. Moreover, PECO hereby excepts to the ALJ's March 10, 1986 Order striking Company testimony relating to the reasonableness of the deferral announcements.

B. No Costs Can Be Disallowed On Account Of Imprudence Unless That Imprudence Has Been Affirmatively Found To Be The Direct And Proximate Cause Of Project Cost Increase.

It is well established that a disallowance of costs based on a finding of imprudence is appropriate only where it is demonstrated that the unreasonable or imprudent conduct was the proximate cause of injury or resulted in the incurrence of

these costs. The Commonwealth Court described this principle in Metropolitan Edison Co. v. Pa. P.U.C., 62 Pa. Cmwlth. 460, 467, 437 A.2d 76 (1981) as follows:

> "[I]f there has been an abuse of managerial discretion and the public interest has been adversely affected thereby, then the Commission is empowered to intervene."

See also Park Towne v. Pa. P.U.C., 61 Pa. Cmwlth. 285, 295, 433 A.2d 610 (1981); Pike County Light & Power Co. v. Pa. P.U.C., 77 Pa. Cmwlth. 268, 465 A.2d 745 (1983).

The required demonstration of proximate cause between the alleged imprudence and ratepayer injury before a cost disallowance is permissible has also been adopted by regulatory commissions in both Pennsylvania and in other states. As the Pennsylvania Commission explained in Pa. P.U.C. v. Philadelphia Electric Co., Energy Cost Rate No. 8, 70 PUR4th 568, 574 (1985):

> "Cost disallowance based on imprudence is not permitted unless the alleged imprudence was the real and proximate cause of some injury. Thus, for example, if the alleged imprudent conduct did not cause any extension of outage time, such conduct could not be the basis for denying a utility's recovery of replacement power costs."

See also Re Investigation of Seabrook Involvements by Maine Utilities, Docket No. 84-113 (Phase II), Order, p. 14 (Me. P.U.C. May 28, 1985); Re Boston Edison Co., Docket No. 1009-G (Mass. D.P.U. July 27, 1980), aff'd, Boston Edison Co. v. Dept. of Public Utilities, 393 Mass. 244 (1984); Florida Power Corp. v. Cresse, 413 So.2d 1187, 1189 (Fla. 1982); Re Central Hudson Gas & Electric Co., Case 27780, Opinion 82-9 (N.Y.P.S.C. 1982).

C. Uncontroverted PECO Evidence Establishes That Limerick Project Costs Were Not Increased And That There Was Not A 27-Month Schedule Delay As The Result Of The 1976 And 1978 Deferral Announcements.

PECO presented numerous separate and conclusive evidentiary demonstrations that Limerick Project costs were not increased and that there was not a 27-month schedule delay as the result of the 1976 and 1978 deferral announcements. First, PECO demonstrated that Limerick Project completion could not have been

significantly advanced over the actual February 1986 in-service date due to late-imposed NRC design requirements, NRC licensing constraints and construction constraints. These analyses established, based on a thorough and documented review of the events and practical realities of Project construction, that Project completion and in-service could not have been significantly advanced (PECO Initial Brief, pp. 4-15 to 4-68; Reply Brief, pp. 4-42 to 4-60).

The licensing restraint analysis demonstrated that, even had PECO filed its operating license application in 1978 consistent with a mid-1982 completion date, an operating license would not have been received until May 1984. This result occurs, as testified to by Dr. Roger J. Mattson, a former Senior NRC official who was in fact the Senior NRC Staff official responsible for Limerick's operating license review, because of the highly contested character of the Limerick licensing hearings (a fact which distinguishes them from the Susquehanna hearings), the high population density which surrounds the Limerick site and thus increases the need for safety-related analyses (another distinguishing feature from Susquehanna) and the NRC's imposition upon Limerick (but not other plants and especially not Susquehanna) of a Probablistic Risk Assessment ("PRA") evaluation requirement to provide an extra measure of safety assurance prior to the initiation of operation (PECO Initial Brief, pp. 4-38 to 4-51). Despite the imposition of this latter requirement and the other differences between Limerick and Susquehanna licensing procedures, the OCA analysis, adopted by the ALJ, simplistically assumed an identical licensing process and period for these plants. In so doing, the ALJ ignored the extensive documentation, including numerous NRC documents, provided by Company witnesses that established the impossibility of shortening the Limerick licensing process (PECO Initial Brief, pp. 4-41 to 4-51).

In its construction restraint analysis, the Company demonstrated that, because of congested and space limited conditions in certain Project locations, principally the containment drywell in which the reactor vessel is situated, which

congestion was substantially caused by additional NRC equipment and design requirements, project completion could not have occurred prior to July 1984 (PECO Initial Brief, pp. 4-51 to 4-65). This analysis, which was presented by high level management officials of PECO and Bechtel Power Corporation, the Project's Architect-Engineer and Constructor, which officials were responsible for the development and maintenance of Project schedules during plant construction, drew upon substantial data respecting achievable labor staffing and productivity at nuclear power plants other than Limerick (PECO Initial Brief, pp. 4-51 to 4-65). This analysis also employed as a principal basis for its conclusions a study prepared by PECO of feasible staffing and Project construction pace in the identical Limerick 2 containment, which study was performed to determine and was the basis of the Company's decision that it could complete Limerick 2 within the cost containment cap adopted by the Commission. This analysis, as described in Section III.C; demonstrated numerous errors and clear impossibilities in the OCA's analyses. The OCA witness admitted many of these errors and was unable to effectively respond to the others (See Section III.D; PECO Initial Brief, pp. 4-110 to 4-143; Reply Brief, pp. 4-33, 4-36 to 4-39).

Company officials also performed an analysis of all late NRC-imposed design requirements to determine if their completion could have been advanced. Based upon careful analysis as to the necessity for completion of these equipment additions prior to fuel load (i.e., NRC documents indicating the requirement for such completion) and through analysis of the time required for their completion as shown by evaluation of completion acceleration possibilities based upon actual project schedules, it was determined that one major required safety system (i.e., ATWS) could not be completed until October 1984 while 4 others could not be completed until mid-1984 (PECO Initial Brief, pp. 4-25 to 4-38 & Sch. IV-2).

Finally, Theodore Barry & Associates ("TBA"),[7] a Management Consulting Firm employed by the Company to assist it in complying with Act 123 requirements and to evaluate its Project Management activities, performed an independent evaluation of the potential for Project acceleration (PECO Initial Brief, pp. 4-63 to 4-65). TBA concluded that the maximum feasible schedule acceleration had the 1976 and 1978 deferral announcements not occurred would have permitted the Project to load fuel in January 1984. However, TBA maintained that its analysis contained a number of simplifying assumptions which rendered it merely a check on the Company's more detailed and carefully documented analyses. Could the plant have been completed and fuel loaded at this date, the Project construction cost savings would have equalled $170.4 million. The calculation of these savings are shown in Appendix A and have been developed using the OCA witness computerized calculation procedure.[8]

Because of the many conservative assumptions contained in the above analyses, the Company believes that this evidence shows that the 1976 and 1978 deferral announcements caused no Project schedule extension (PECO Initial Brief, pp. 4-76 to 4-79). Accordingly, based on this evidence and other evidence described below, no cost disallowance is proper based upon the announcements' alleged imprudence. In adopting

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7/ TBA, by virtue of its performance of 67 Project Management Reviews and extensive experience in the conduct of retrospective reviews of nuclear generating station construction projects, is preeminent in this practice area of management consulting. They have been retained by both advocates, attorney generals and other attorneys, utilities and commissions and have supplied expert testimony in rate proceedings evaluating the prudency of owner actions and decisions at the Shoreham, Diablo Canyon, South Texas and Clinton nuclear construction projects. TBA has conducted a total of 12 retrospectives of major nuclear construction projects and has testified in 16 separate proceedings (including those involving fossil units) on their assessment of management prudence. The engagement director for TBA's Limerick review, James O. Love, has testified in 8 other major project prudency proceedings and the project manager, Basil P. Kononetz, has had 14 years of nuclear power plant experience.

8/ As noted in the Company's Initial Brief (p. B-26), TB&A, on behalf of the Consumer Advocate, performed a review of the prudence of PECO's oversight role in the Salem project. TB&A was also retained by this Commission to perform a management and operations review of General Public Utilities following the TMI-2 incident.

the OCA's proposed adjustment, it is noteworthy that the ALJ does not thoroughly evaluate these analyses, despite their clear relevance to the first two quantification subissues defined by the ALJ, i.e., "the additional cost of the construction of Limerick" and "external matters which affected the construction" (R.D., p. 47). The Recommended Decision's failure to carefully evaluate and state specific findings respecting these analyses is a clear and convincing demonstration of its error in adopting the OCA's proposed adjustment. Further discussion of the specific errors made by the Recommended Decision in its treatment of these analyses and in its adoption of the OCA's adjustment is set forth in Sections III.C and III.D.

The next separate and conclusive evidentiary demonstration presented by the Company in this proceeding to show the implausibilty of the OCA's proposed 27-month advancement of Limerick 1's construction schedule is its cost and schedule comparisons. This analysis was rejected in the Recommended Decision solely on the irrelevant basis that it does not prove that the 1976 and 1978 deferral announcements were prudent, a matter which the Commission and ALJ have directed is not at issue in this proceeding. This testimony shows that, on a comparative basis, there is no reason to believe that the deferral announcements had any effect upon project schedule or cost (PECO Initial Brief, pp. 4-2 to 4-15).

This Company-presented evidence reveals that Limerick 1's cost ranged from 21% below to 4% above the average for all plants depending upon the comparison methodology used (PECO Initial Brief, pp. 4-5 to 4-8). Further, these analyses demonstrated that Limerick 1's schedule duration was almost exactly average and spanned a narrow range from between three months shorter to just five months longer than those of comparable plants (PECO Initial Brief, pp. 4-5 to 4-12). In summary, these analyses forcefully imply that the Company's deferral announcements simply could not have had the 27-month impact claimed in the OCA analysis. In fact, the relevant data shows Limerick 1's schedule and cost to be essentially mainstream, and that the deferral

announcements had no significant impact whatever on project schedule or cost.

The next separate analysis presented by the Company which also fully establishes that no disallowance is appropriate under the OCA's proposed construction schedule is a revenue requirements analysis. This analysis compares the revenue impact over Limerick 1's operating life under the accelerated schedule proposed by the OCA and the as-built schedule of the Company (PECO Initial Brief, pp. 4-166 to 4-167). The revenue requirements analysis, which takes into account all relevant cost factors, reveals that there is no net increase in project cost to PECO's ratepayers even if one assumes the 27-month delay proposed by the OCA. Company Witness Hill explained that the analysis measured the total impact of the 27-month delay on the Company's revenue requirements, including not only the impacts on Limerick 1's capital cost, but also on the other effects attributable to the OCA's foreshortened schedule such as additional capital, operating and financing costs (PECO Initial Brief, pp. 4-165 to 4-166). In so doing, the Company's analysis captures both the time value of money to customers and the actual cost impact of beginning Limerick 1's operating life 27 months earlier, factors that are glaringly absent from the OCA's analysis (PECO Reply Brief, pp. 4-23 to 4-24). The Company's comprehensive analysis demonstrates that, far from the $554.9 million cost derived by the Recommended Decision from its exclusive focus on increased capital costs, the purported 27-month delay actually results in no net costs borne by ratepayers (PECO Initial Brief, pp. 4-165 to 169). The details of this analysis are described in Section III.F.

As previously noted, each of the above analyses was presented by the Company to demonstrate the "additional cost of the construction of Limerick caused by the decisions" and "external matters which affected the construction" and prevented accelerated project completion even in the absence of the deferral announcements. A fourth analysis presented by PECO demonstrated the existence of "offsetting matters that could be used in evaluating the cost effect of those decisions", the third subissue of

quantification defined by the ALJ (R.D., p. 47). These offsetting matters include the following: 1) the additional revenue requirement allowance which would have been necessary to maintain PECO's financial condition during the OCA's proposed accelerated completion of Limerick; 2) the additional costs which would have been incurred had PECO, in fact, been able to adopt the OCA's proposed approach of deferring late-imposed regulatory change requirements for completion during refueling outages after the plant was placed in service; 3) a PURTA tax computation error made by OCA witness O'Brien; and 4) Mr. O'Brien's failure to properly recognize the cost effects of an increased AFUDC rate due to accelerated project financing (PECO Initial Brief, pp. 4-106 to 4-107; 4-136 to 4-140). The effects of these "offsetting matters" upon the OCA's proposed imprudency adjustment are summarized in the table below:

REQUIRED OFFSETS TO OCA PROPOSED IMPRUDENCY ADUSTMENT

	Cost (in millions)
OCA Proposed Imprudency Adjustment (as adjusted by ALJ)	$554.9
Less:	
Capitalized value of additional revenue requirements necessary to maintain Company's financial status under OCA accelerated schedule	$200
Additional costs (i.e. replacement power costs and incremental construction cost) of deferring implementation of regulatory requirements until after Limerick placed in service	$188.8 to $205.9
Correction of OCA error in computing PURTA taxes	$38
Correction of OCA error in apportioning AFUDC rates under accelerated construction schedule	$8
Total Offsets To OCA Proposed Imprudency Adjustment	$434.8 to $451.9
Net OCA Proposed Imprudency Adjustment	$103 to $120.1

As with PECO's analysis respecting "the additional cost of the construction of Limerick

caused by the decisions" and the "external matters", the Recommended Decision essentially ignores this last, largely unrebutted Company analysis.

One example of this is the Recommended Decision's failure to address the well documented analysis of PECO witnesses Paquette and Sanders, that in order to finance the OCA's proposed construction schedule while maintaining PECO's actually experienced financial condition, the Company would have been required to secure additional revenue requirements through rate relief of $386 million (PECO Initial Brief, pp. 4-138 to 4-140). The OCA analysis simply assumes the availability of additional capital to feverishly fund its construction schedule proposal and completely ignores the real-world constraints of raising the necessary capital. In fact, as Company witness Hill plainly describes, in order for the Company to attract the funding necessary to attempt the OCA's construction schedule without incurring considerably higher per unit costs of capital, the Company would have to maintain its achieved financial condition (PECO Initial Brief, pp. 4-139 to 4-140; PECO Reply Brief, p. 4-28). The $386 million necessary to maintain its mortgage indenture coverage, and thus maintain its cost of raising capital, translates into an additional capital cost attributable to the OCA's proposed construction schedule of $200 million (PECO Initial Brief, p. 4-140; PECO St. 18D, p. 22). To ignore this attendant cost of meeting the OCA's proposed schedule would be to pretend that the Company had unlimited access to capital funding, in stark contrast to the Company's actual financial status during the period in question and the realities of capital financing in general.

The Recommended Decision seeks to justify its failure to consider the increased revenue requirement associated with financing the OCA's accelerated construction schedule by arguing that such considerations were foreclosed by the Commission decision in Re Limerick Nuclear Generating Station, I-80100341, 56 Pa. P.U.C. 47 (1982). (R.D., p. 57). The Recommended Decision quotes the following

passage from the 1980 Limerick Investigation Decision as the basis for this conclusion:

> PECO's final argument, that the relative economic benefits and detriments to rate payers and shareholders of earlier versus later plant completion favored delay is unpersuasive. (Emphasis supplied in Recommended Decision) (R.D. at 57).

The quoted Commission language, however, is from a proceeding which was concerned only with the reasonableness of the purported construction delays, not the quantification of the costs resulting from such delays. See Pa. P.U.C. v. Philadelphia Electric Co., Docket No. R-850152, Opinion and Order at pp. 8, 13 (Jan. 21, 1986) (emphasizing that its decision addressed the reasonableness of the 1976 and 1978 delay decisions, not their quantification). Nowhere, however, has the Commission ever suggested that the full effects of the 1976 and 1978 delay decisions, both positive and negative, should not be considered in this rate proceeding. Indeed, ALJ Matuschak expressly recognized in this proceeding that only the testimony relating to the reasonableness of the 1976 and 1978 delay decisions, and not testimony concerning the quantification of the effects of those decisions, were precluded by the Commission's Order in the 1980 Limerick 1 Investigation (R.D., pp. 48-49).

Further, the Recommended Decision, while erroneously accepting that compliance with major NRC safety design requirements could be postponed until after commercial operation to meet the OCA's hypothetical construction schedule, fails to consider both the signficantly greater outage time and cost of implementing such regulatorily-imposed design features into a plant which is already in service. The OCA's analysis is predicated on the assumption, for which absolutely no support is offered by OCA witnesses, that PECO could implement NRC design requirements during regularly scheduled outages, and at the same cost at which they were actually implemented during Limerick's construction (PECO Initial Brief, pp. 4-105 to 4-108). However, as PECO witness Helwig demonstrated, based on the complexity and number of the required changes, additional outage time (i.e., in excess of regularly schedule outages) of at least 10-12 months, at a replacement power cost of $150 to $180 million, would be required

under the OCA proposal. This range represents the average daily replacement power cost of $500,000 over the required 10 to 12-month period (PECO Initial Brief, pp. 4-106 to 4-107). The equivalent capital cost effect of these additional replacement power costs borne by ratepayers is $88.8 million to $105.9 million as developed in the footnote below.9/

In addition, the difficulty of implementing such design and equipment changes in a commercially operating plant under OCA's hypothetical proposal would require additional expenditures of approximately $100 million (Id.). Specifically, Mr. Helwig explained that this is because many of the requirements imposed by the NRC during the 1979-1981 time frame required extensive work in vital plant areas that would be subject to severe space and congestion constraints while the plant was in commercial operation. Further, numerous functions affecting an operating facility not applicable to a plant under construction, such as added procedural controls, access limitations, and blocking requirements would increase the cost of implementing regulatory changes in Limerick 1's design under the OCA's proposal, (PECO Initial Brief, pp. 4-107 to 4-108). Mr. Helwig's analysis was not challenged in any way during the hearing process.

The Recommended Decision also fails to acknowledge an error that Witness O'Brien himself has conceded, but only partially corrected, concerning the PURTA taxes

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9/ To derive the capital cost equivalent for a given revenue requirement requires two basic steps. First, the present value of the revenue requirement (e.g. $150 million) is multiplied by the capital recovery factor ("A/P" for "Annual Levelized Present Value") which, using the appropriate discount rate (9.7%) yields a levelized annual cost over the relevant time frame (39 years). Second, this levelized annual cost is then divided by a levelized carrying charge rate (16.9%) to determine the equivalent capital cost. In equation form this two step process is as follows:

Levelized Annual Revenue Requirement ($15 million) = $150 million X (AP, 9.7%, 39 yrs.)

$$\text{Equivalent Capital Costs} = \frac{\$15 \text{ million}}{\text{(Levelized Annual Revenue Requirement)}} = \$105.9 \text{ million}$$
$$16.9\% \text{ (Levelized Carrying Charge)}$$

See PECO St. 18D, Schedule 6.

which would be incurred under the schedule proposed by the OCA (PECO Initial Brief, p. 4-137). Witness O'Brien included only the incremental capitalized PURTA taxes resulting from the additional direct costs required under his schedule during the years 1975 through 1983, but failed to include the base dollars of capitalized overheads and taxes actually incurred during that period (PECO St. 18K, p. 2). Correction of this error would reduce the ALJ's recommended disallowance by $38.9 million (PECO Initial Brief, p. 4-138).

Finally, the Recommended Decision fails to recognize that AFUDC rates would have to be adjusted upward to reflect the higher capital and financing costs associated with the financing requirements determined by Mr. Paquette to be required to meet the OCA's shorter construction schedule (PECO Initial Brief, p. 4-138). The OCA analysis assumes the AFUDC levels actually incurred by the Company would exist unchanged over the accelerated construction period (PECO Initial Brief, pp. 4-137 to 4-138). Adjusting the disallowance to properly reflect the applicable AFUDC rate would reduce the Recommended Decision's proposed disallowance by $8 million.

An additional proposal placed upon the record was that of Trial Staff Witness Rosenthal that PECO be penalized by the Commission on account of its 1976 and 1978 deferral announcements by disallowance of an equity cost allowance on all or part of Limerick's equity investment (T.S. St. RAR-1, pp. 7-8). PECO's position as respects this proposal is that it can only be adopted after a properly supported finding of imprudency has been entered and further a proper finding that such imprudency has caused ratepayer injury (PECO Initial Brief, p. 4-84). The maximum penalty imposed could not exceed the additional costs found to be attributable to the identified imprudency. In these circumstances, this proposal could reasonably be applied when, such as in this case, disallowance of the full costs allegedly attributable to the identified imprudency would not be in the public interest as it could impede or destroy a utility's ability to render safe and reliable service (PECO Initial Brief, pp. 2-3 to 2-15; PECO Reply Brief, pp. 2-2 to 2-

28). Application of this principle in the instant case, and assuming that it were to be determined to deny recovery of all equity cost, which would constitute a most improper penalty under the facts of this case, the net revenue adjustment would equal $58,491,000, and would be computed as follows:

Calculation of Equity Penalty

Original Cost Plant	$ 554,900,000
Less Depreciation Reserve	$ 5,623,000
Less Accumulated Deferred Income Taxes	$ 23,075,000
Net Rate Base	$ 526,202,000
Common Equity Ratio	x .384
Portion Financed by Common Equity	$ 202,062,000
Equity Cost Rate	x 14.25%
Equity Return Element	$28,794,000
1 - Composite Tax Rate (1-.49768)	÷ .50232
1 - Gross Receipts Tax Rate (1-.02)	÷ .98
Net Revenue Adjustment for Equity Penalty	$ 58,491,000

Thus, as briefly stated above and as will be detailed more fully below, PECO strongly believes that no imprudency adjustment is appropriate in this proceeding. PECO firmly believes that its 1976 and 1978 deferral announcements were not imprudent. Even if these decisions could be found imprudent, there is no basis in the record to support the conclusion that such decisions caused any injury to ratepayers. Finally, as explained above, there are numerous clear and uncontrovertible errors in the OCA quantification analysis. Correcting these errors alone, and ignoring additional and even more serious errors described in the following section which require rejection of the entire OCA analysis, the maximum imprudency disallowance which can draw even flawed support from the record ranges from an adjustment of approximately $100 to $200 million. The

several alternatives available to the Commission for adoption employing this approach as described in this section are: 1) the OCA analysis after proper adjustment for cost increases attributable to the increased cost effects of the accelerated schedule ($103 - 120.1 million); 2) the independently developed TBA analysis evidencing a schedule acceleration to January 31, 1984 (i.e., 9 months) and project cost reduction of $170.4 million; and 3) the Trial Staff proposed equity cost penalty employing the ALJ adopted $554.9 million imprudency adjustment. Although each of these alternatives is flawed and thus no adjustment should be adopted, each is substantially more supportable based on the record and principles of prudency than is the OCA proposed adjustment adopted by the ALJ.

D. The Recommended Decision Seriously Errs In Adopting The OCA's Proposed $554.9 Million Disallowance Of Limerick 1 Construction Costs Despite Uncontroverted Evidence That The Proposal Is Unsupportable.

The sole basis upon which the quantification of the ALJ's recommended rate base disallowance of $554.9 million rests is a purported schedule analysis presented by OCA witnesses O'Brien and Hanauer (R.D., pp. 66-71). For the reasons set forth below and in detail in the Company's Initial (pp. 4-94 to 4-157) and Reply (pp. 4-30 to 4-42) Briefs, the OCA's analysis is seriously flawed and completely unsupported by the record, and the ALJ's reliance upon it should, therefore, be rejected.

The Company submitted a multi-stage construction schedule analysis in order to determine the effect, if any, of the 1976 and 1978 deferral announcements upon the construction process. Through this analysis, a number of significant errors were identified in the OCA's analysis which totally invalidate its use in this proceeding and which have been ignored by the ALJ. A brief description of these errors and their schedule extension effect is set forth below. The principal reason for these errors is OCA Witness O'Brien's reliance on a 1974 MSCS schedule without proper adjustment as the basis for his analysis.

QUANTIFICATION OF ERRORS CONTAINED IN
OCA's 27-MONTH DELAY ADJUSTMENT

ERROR	REDUCTION TO OCA DELAY ADJUSTMENT IN MONTHS
Pre-June 1976 Conditions	5
Start-Up Logic/Duration	6
Quantity Increases/Manpower Limitations	14
Other Critical Path Acitivity Omissions	2
	27

First, and most egregiously, Witness O'Brien asserts that his schedule has been adjusted to reflect the construction impact of the 1974 construction deferral announcement occurring in October 1974, which announcement and associated project funding restrictions were stated to be prudent by the Commission in the 1980 Limerick Investigation, while excluding any effects associated with the 1976 and 1978 announcements (PECO Initial Brief, pp. 4-118 to 4-119). Since the 1976 deferral announcement did not occur until June 1976, and this is the first PECO action allegedly found imprudent by the Commission in its 1982 Limerick Investigation Order, Witness O'Brien should have reflected the actual cash constrained condition of the project and construction progress through May 1976 (PECO Initial Brief, p. 4-118). Witness O'Brien asserts to be merely quantifying the effects of the Commission's alleged decisions in that Order, but, as to this determintion, is entirely inconsistent with that Order. As Witness O'Brien admitted (Tr. 3111-3117, 3120-3121), because of his reliance on a 1974 schedule, actual pre-June 1976 conditions were <u>not</u> reflected in the analysis, and greater than actual cash flow levels and construction progress were assumed beginning January 1, 1975, or only two months after the 1974 deferral announcement occurred (OCA St. 1, Ex. JJO'B-17). The effect of this error alone was to improperly shorten Witness O'Brien's proposed 27-month schedule adjustment by approximately five months (PECO Initial Brief, pp. 4-118 to 4-119; PECO St. 4A, pp. 3-4; PECO St. 8A, pp. 24-25).

A second, similarly egregious error in Witness O'Brien's analysis, again resulting from the use of a 1974 schedule, is the failure to accurately reflect actual start-up activities and duration (PECO Initial Brief, p. 4-123). It is uncontested that the 27-month start-up duration at Limerick (i.e. as measured from first energization to fuel load) was the shortest achieved among all comparable first unit nuclear plants, thus indicating that this phase of the project was completed in an extremely prudent and efficient manner (PECO St. 2, pp. 21-23; PECO St. 4A, pp. 8-9). It is also uncontested that the time required to complete startup activities substantially increased over that which was projected in the 1974 MSCS schedule utilized by Witness O'Brien, principally as a result of changing regulatory requirements, and therefore could not have been avoided (PECO St. 4A, pp. 8-9; PECO Ex. 2, Section III, pp. 19-21). Nevertheless, Witness O'Brien admitted during cross-examination that he used a 21-month duration for start-up without adjustment for the effects of regulatory changes (Tr. 3139-3140).10/

10/ As Witness O'Brien explained (Tr. 3139-3140):

> "Q. Mr. O'Brien, is it not correct that in each of the schedules that you have developed, including Exhibit JJO'B-13, you have continued to use the original start-up testing schedule, i.e., the schedule from the first testing through fuel load that was projected by Bechtel in 1974?
>
> A. That's correct. We have not changed, except we have extended the durations of, but have not changed any pre-fuel load start-up activities, correct.
>
> Q. Is it not correct that you have not extended the duration of any such activities either?
>
> A. That's probably true, because they would probably have fallen outside the window that we expanded.
>
> Q. And I believe you state that in your testimony.
>
> A. I don't recall if we have, but it sounds reasonable.
>
> Q. Is it not correct that there were very substantial regulatory changes as we discussed in relation to PECO Exhibit 2 which increased the time required for start-up by utilities in the mid to late 1970s and even into the early 1980's?
>
> A. Again, I would rely on Dr. Hanauer for that input, but I think it's a (continued)

Thus, witness O'Brien's July 1982 schedule fails to reflect an additional 6 months duration (i.e. 27 months less 21 months) that could not have been avoided by the Company (PECO St. 4A, p. 8; PECO St. 8A, p. 32).

A third error was the failure to accurately reflect the total quantities of commodities which had to be installed in order to complete Limerick 1 construction (PECO Initial Brief, pp. 4-112 to 4-114). Witness O'Brien recognized on cross-examination that the level of commodities required at Limerick grew, in large part, because of the substantial increase in new and revised regulatory requirements issued since 1974 (Tr. 3085). This increase in commodities, in turn, required substantially more manhours to install and thus contributed heavily to the lengthening of schedule duration (PECO Initial Brief, p. 4-113). For example, an examination of forecast data reveals that total manhours increased by approximately 16,449,000 manhours or 121.7% (PECO Initial Brief, p. 4-114). The reasons for this increase include a 699.5% increase in large pipe hanger manhours, a 425.2% increase for small pipe and a 330.6% increase for electrical conduit, each of which was an activity on the project's critical path that was substantially affected by increased NRC requirements (PECO Initial Brief, p. 4-114). In addition, Witness O'Brien also admitted that his schedule ignores the substantial engineering and construction restraints resulting from numerous late-imposed NRC design changes which, as described above, prevented project completion prior to 1984 (Tr. 3093-3096, 3111-3115; PECO Initial Brief, p. 4-113).

A fourth error in the OCA's analysis was the failure to consider practical limitations on the ability to use manpower during construction (PECO Initial Brief, pp. 4-116 to 4-117). As Witness O'Brien admitted on cross-examination (Tr. 3104-3108), because of the extremely limited space conditions, congestion and design complexity in critical plant areas, i.e., such as the containment drywell, there is a limit on the number of workers, i.e. maximum manpower densities, which can be employed over a sustained

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reasonable statement."

period (PECO Initial Brief, pp. 4-116 to 4-117). Failure to consider these limits will result in the development of an unrealistically short schedule because a higher level of manpower will be assumed to be applied than was physically possible (PECO Initial Brief, pp. 4-116 to 4-117). However, even though the completed project was far more complex than was projected in the 1974 MSCS schedule used as the basis for his analysis, manpower densities were not considered in Witness O'Brien's analysis as he simply assumed without analysis that the density limitations at Limerick could have been sufficiently high to permit a July 1982 completion date. As he stated during cross-examination (Tr. 1308):

> "Q. Mr. O'Brien, I note that on the second page of IR-PECO-OCA-5 — in fact, it's the third page -- you recognize that manpower density limitations are -- and I am quoting you here — 'a consideration in the development of a schedule involving a space constrained area such as containment.' But you state that they are assumed to have been high enough to permit completion of the work required to support the fuel load date as indeed they were at LaSalle and Susquehanna.
>
> Do I understand from that, sir, that you've done no independent analysis of the manpower density limitations that were possible on the Limerick containment during the late 1970s?
>
> A. We definitely did not."

In order to demonstrate the effect of Witness O'Brien's failure to reflect maximum sustainable manpower density limitations, the Company prepared a specific analysis as part of its construction schedule analysis (i.e. Case 1) previously described. Specifically, this analysis recreated Witness O'Brien's July 1982 schedule while holding the end date constant, and adjusted it to reflect the actual level of mechanical and electrical commodities required to complete the project, actual construction progress through May 1976 and the actual startup logic and duration (PECO Initial Brief, pp. 4-125 to 4-126). This analysis demonstrated that the maximum sustainable manpower density levels required to meet the OCA's schedule was more than 50% percent greater than achievable levels for the containment drywell, the Project's actual critical path (PECO

Initial Brief, pp. 4-125 to 4-126). This analysis, which has not been successfully rebutted, provides conclusive proof that it would have been physically impossible to achieve the OCA's proposed earlier schedule (PECO Initial Brief, pp. 4-125 to 4-136).[11/] The effect of this error alone was to improperly shorten Witness O'Brien's proposed schedule approximately 14 months (PECO St. 4A, p. 6; PECO St. 8A, pp. 29-30, Sch. 6).

Witness O'Brien's schedule also omits or substantially understates the durations of numerous activities which were actually on the critical path at Limerick, again because of his reliance on a 1974 schedule (PECO Initial Brief, pp. 4-119 to 4-122). For example, Witness O'Brien's schedule reflects only 3 of the 20 activities actually on the critical path prior to June 1976 which, as described above, clearly should have been reflected (PECO St. 8A, p. 27, Appendix A). Similarly, out of the 36 activities on the critical path in and after June 1976, only 6 of those are reflected in Witness O'Brien's schedule (PECO Initial Brief, p. 4-122). With regard to these latter activities, since the Company has always fully funded critical path activities despite its cash constrained condition, these activities and their durations were clearly not affected by the 1976 and 1978 deferral announcements and, therefore, should have been fully reflected in Mr. O'Brien's analysis (PECO Initial Brief, pp. 4-120 to 4-121). At the very least, Mr. O'Brien's failure to accurately reflect these critical path activities demonstrates that his schedule is completely unrealistic and should be rejected. This O'Brien omission alone improperly shortened the OCA's critical path analysis by an additional two months (PECO Initial Brief, pp. 4-120 to 4-121).

A further error identified was the inconsistency between Witness O'Brien's cash flow assumptions and the requirements of his proposed July 1982 schedule (PECO

11/ In an attempt to discredit the Company's analysis, Witness O'Brien criticized the Company's maximum density level assumptions as being inconsistent with recent forecast data and presented an alternative staffing pattern in the form of a handwritten exhibit submitted in the last day of hearings. These OCA positions were thoroughly refuted in the Company's Initial Brief (pp. 4-126 to 4-136) and, therefore, should be rejected.

Initial Brief, pp. 4-136 to 4-137). In order to arrive at a realistic schedule, cash flow requirements must be developed from assumptions used in staffing and material acquisition associated with the schedule in order to assure that a sufficient level of financial resources are available to fund the required level of effort. However, Witness O'Brien admitted that he performed no analysis whatsoever of the cash flows required to meet his schedule, nor did he prepare any analysis of whether the Company could have raised sufficient capital to meet a July 1982 completion date (PECO Ex. 10, IR-PECO-OCA-3-17(g) and 56; Tr. 3100). Instead, Witness O'Brien's projected annual cash flow requirements were developed by allocating post-1982 direct costs according to the as-built expenditures at Limerick between March 29, 1977 and October 26, 1984 (OCA Ex. JJO'B 17.3). These requirements clearly do not reflect the level of work and manpower required to meet a July 1982 schedule (PECO Initial Brief, pp. 4-136 to 4-137). As he recognized during cross-examination, his proposed schedule and quantification are thus inconsistent (Tr. 3122-3126).

Finally, compounding all of the above errors was Witness O'Brien's failure to employ sound scheduling techniques in developing an earliest possible completion schedule. As Witness O'Brien recognized (Tr. 3093-3096), proper schedule development requires the performance of a resource loading analysis in which the resources required to meet a schedule (i.e. quantities and manhours) and limitations on the use of those resources (i.e. unit rates, manpower densities and staffing limits) are determined. Witness O'Brien admitted that his analysis completely ignored this fundamental scheduling requirement, as follows (Tr. 3121-2122):

> "Q. Is it not correct, Mr. O'Brien, that the scheduling information that you have provided in particularly Exhibit JJO'B-13 is completely devoid of any analysis of underlying commodity installation rates, manpower to be used to install the commodities, unit rates, or other such data as we have discussed and which is used, as we have also discussed, in developing schedules for construction management purposes?
>
> A. Well, as to 13, disagreeing with a few of your adjectives, I think you categorize it reasonably."

The importance of this fundamental scheduling requirement was explained by Company Witness Coughlin (PECO St. 33, p. 5):

> "...OKA has conducted a very superficial analysis and has ignored fundamental requirements for accurate project schedule development. For example, a determination of project schedule requires an analysis of limitations on the amount of resources that can be efficiently employed, i.e., manpower density limitations and use of shift work, etc. This is referred to as resource loading and is the fundamental base upon which a project schedule is developed. What had to be done (i.e. installation of specific equipment, feet of large pipe, pipe hangers, etc.) and how it could be accomplished (size and type of craft force) must first be determined to establish specific activity durations, which durations along with activity interrelationships (i.e. the first floor concrete structure must be completed before the second floor can be started, etc.), determine construction logic, annual construction activities and schedule length. OKA's purported Limerick schedule evaluation fails entirely to conduct this necessary resource loading anaylsis. For this reason, based upon OKA's analysis, there is no reason or basis to believe that the OKA schedule could have been achieved at Limerick...."

In summary, as shown above, OCA Witness O'Brien has prepared an extremely superficial analysis which is fraught with error and completely fails to reflect the practical constraints upon construction at Limerick. In contrast, the Company's construction schedule analysis is supported by detailed resource loading, which includes Limerick-specific analyses of commodity and manhour growth, unit rates, craft staffing levels, overtime, manpower density limits and cash flow requirements that are consistent with schedule construction activities (PECO Initial Brief, pp. 4-51 to 4-65, 4-116). In adopting the OCA's proposal, the ALJ has ignored the Company's analysis, has provided no rationale for its rejection and has failed to explain why the OCA's analysis should be accepted by the Commission in light of the significant and largely unrebutted errors described above.

The ALJ also accepts without analysis the conclusion of OCA Witness Hanauer that major NRC regulatory changes which PECO believes delayed the project could have been deferred until after commercial operation in order to permit construction completion by July 1982 (R.D., pp. 59, 68). However, such a conclusion is

not supported by the record. Rather, it is based solely on a number of broad, unsupported assertions by Witness Hanauer regarding the NRC licensing process (PECO Initial Brief, pp. 4-94 to 4-110; PECO Reply Brief, pp. 4-56 to 4-60). Indeed, Witness Hanauer has repeatedly demonstrated through record admissions that these assertions are not based on any independent factual analysis of the Limerick project (PECO Initial Brief, pp. 4-94 to 4-95).

The conclusion reached by the ALJ stands in stark contrast to the regulatory change and licensing analyses presented by the Company, which are based on a comprehensive and detailed evaluation of Limerick specific conditions and circumstances as set forth in contemporaneous project documentation (PECO Initial Brief, pp. 4-94 to 4-110). These analyses demonstrate that because of the timing of new and revised regulatory requirements, the high population density surrounding the Limerick site and the highly contested nature of the licensing proceeding, construction clearly could not have been completed and a license received by July 1982. As noted above, these analyses do not merely reflect as-built conditions, have not been rebutted or substantially challenged on the record and, therefore, should be accepted.

Moreover, and more importantly, Witness Hanauer, whose conclusions the ALJ uncritically accepts, expressly recognized and accepted the major positions supporting the Company's analyses (PECO Initial Brief, pp. 4-96 to 4-98). For example, he acknowledged that Limerick has one of the highest population densities of all nuclear power plants, and as a result, Limerick operation has a higher perceived level of risk to the public (OCA St. 2A, pp. 19-20). Witness Hanauer admitted that this higher degree of risk resulted in the requirement that a PRA be prepared and that certain other major regulatory requirements not required at other plants (i.e. ATWS, fire protection, etc.) be implemented at Limerick in order to assure the requisite level of safety during operation (OCA St. 2A, pp. 21-22; Tr. 2808, 2818, 4918-4920). He further acknowledged that Limerick's high population density has resulted in an extremely contested licensing

process, which in turn has caused the NRC to be much more prescriptive in the application of licensing requirements (OCA St. 2A, pp. 24-25; Tr. 2808). Finally, Witness Hanauer acknowledged that the regulatory and licensing requirements described in the Company's analyses would have had to be implemented at Limerick even if an earlier schedule had been followed (OCA St. 2A, pp. 16-17).

Despite these admissions, Witness Hanauer nevertheless concluded and the ALJ accepted that some undefined accommodation could have been achieved in order to permit fuel load by 1982. This simply is not supported by any factual evidence and is in clear contradiction with the extensive and unrebutted evidence presented by the Company. For this reason, the ALJ's reliance on OCA Witness Hanauer's conclusions should be rejected.

To further demonstrate the error in Witness Hanauer's assertions, Dr. Mattson prepared an additional specific analysis which tested the thesis that the Company would have been able to obtain a license by deferring implementation of the many new and revised regulatory requirements issued during the 1978-1983 period (i.e. the Hanauer proposal) (PECO Initial Brief, pp. 4-104 to 4-105). As Witness Hanauer conceded (OCA St. 2A, pp. 25-26), if this scenario were realistic, which in Dr. Mattson's and the Company's view it clearly is not, intervenor contentions would have been filed on the deferred items and would have had to have been fully litigated and deferral approved by the NRC prior to receipt of a license. Based on data contained in the Company's licensing analysis, Dr. Mattson developed an earliest possible schedule for completing litigation of all contentions under these unrealistic circumstances. This schedule, which also has not been refuted or challenged, and which is ignored by the Recommended Decision, indicated that Limerick licensing could not have been completed prior to January 1984 (PECO Initial Brief, p. 4-105).

The Company's position is also supported by recent experience in the nuclear industry. As explained in the Company's Initial (pp. 4-100 to 4-102) and Reply (pp. 4-56

to 4-57) Briefs, and as admitted by Witness Hanauer (Tr. 4920-4921), there have been numerous significant licensing delays, i.e. for several years or more, by completed plants due to safety issues similar to those which would have existed had the Company been able to defer completion of significant NRC design safety requirements as proposed by Witness Hanauer. Indeed, more than 25 plants since the TMI accident have been either precluded from beginning operation or removed from operation because of such unresolved licensing issues (PECO Initial Brief, p. 4-101).12/

Moreover, as explained by Dr. Mattson, who has had extensive and direct responsibility at the NRC for negotiating the deferred implementation of regulatory items at Limerick and at other nuclear power plants during the post-TMI era, the NRC staff would not have agreed to permit deferral of the regulatory requirements at Limerick postulated by the OCA (PECO Initial Brief, p. 4-103). And, if deferred implementation would have been granted, the NRC staff's decision to provide such relief would, in Dr. Mattson's opinion, have been reversed by the NRC Commissioners or the Atomic Safety and Licensing Board, as actually occurred at a number of nuclear plants at which NRC staff-approved deferrals were granted (PECO Initial Brief, p. 4-103). The ALJ has simply chosen to ignore without basis this substantial evidence demonstrating that the OCA's analysis is in error.

The ALJ appears to rely heavily on the professional credentials of Witnesses

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12/ Like Limerick, many of these plants have been delayed not by "drastic safety concerns", as suggested by Dr. Hanauer (OCA St. 2A, pp. 11 & 13), but simply because of failure to fully meet NRC regulatory requirements. For example, the Shoreham operating license was delayed for more than two years due to emergency preparedness procedure contentions. A delay in receipt of an operating license of more than one year was experienced at Grand Gulf because of concern over deficiencies in the plant's technical specifications. Licensing of the Comanche Peak plant was delayed for several years to resolve hearing contentions over construction quality and electric equipment. Also, commercial operation of the McGuire nuclear plant was delayed because of litigation involving concerns over the effects of severe accidents. Dr. Hanauer admitted on cross-examination that these substantial licensing delays not related to "drastic safety concerns" were experienced by completed plants (Tr. 4720-21; see also PECO Initial Brief, pp. 4-10 to 4-104).

Hanauer and O'Brien (R.D., p. 64). However, as explained in the Company's Initial Brief (pp. 4-109 to 4-110, 4-143), these witnesses possess a surprising lack of expertise in the areas of nuclear power plant licensing and construction. For example, Witness Hanauer's licensing experience has been limited to only a few months in early 1978 and 1979 or immediately prior to the TMI accident, and during this period he did not directly participate in any licensing hearings or in the negotiation of deferrals of regulatory items in contested licensing proceedings (PECO Initial Brief, pp. 4-109 to 4-110). In fact, what little licensing experience Witness Hanauer has had did not occur during the post-TMI period in which Limerick obtained its license, which was substantially different than the pre-TMI period in terms of the prescriptiveness of NRC review, the level of public intervention and the need to consider the overall risk significance of NRC requirements prior to receipt of a license (PECO Initial Brief, p. 4-110). In sharp contrast is the experience of PECO Witness Mattson, whose 17 years of AEC/NRC experience included general responsibility for the NRC's technical licensing requirements and seven years (1977-1984) as a senior manager directly responsible for the technical review of utility applications for construction permits, operating licenses and license amendments. During this period, Dr. Mattson was the manager responsible for determining most of the licensing requirements for Limerick 1 and 2. Dr. Mattson's extensive post-TMI licensing experience and particularly his experience in the imposition of regulatory requirements at Limerick, place him in a far better position than OCA Witness Hanauer to address the specific impact of NRC regulation on Limerick 1 cost and schedule.

Similarly, Witness O'Brien and his firm have had absolutely no direct experience in managing the engineering, construction or licensing of a nuclear power plant (PECO St. 33A, pp. 1-2). Clearly, these witnesses lack the substantial engineering, construction and licensing experience needed to develop a credible analysis and which is clearly possessed by Company witnesses submitting testimony in this area (PECO Initial Brief, pp. 3-11 to 3-25). In contrast, the PECO witnesses who presented schedule

analyses of the impact of the deferral announcements on the Limerick construction process are extremely well qualified for the task. Mr. Coughlin has been directly involved in cost and schedule control on nuclear construction projects, including Limerick, for 15 of his 17 years with Bechtel (PECO Initial Brief, p. 4-51). PECO Witness Clary has been involved in PECO's major construction projects for the past 28 years and for the past 15 years has been Project Manager of Construction at Limerick (PECO Initial Brief, p. 3-42). Finally, TB&A has performed 67 project management reviews and has extensive experience in the conduct of retrospective audits of nuclear generating station construction projects.

In addition, the testimony of these OCA witnesses has been rejected in at least two other proceedings involving the prudency of construction at the Callaway and Wolf Creek nuclear generating stations, and have never yet been accepted by a Commission as pursuasive support for a construction related imprudency adjustment (Tr. 3078). In Re Union Electric Co., 66 PUR 4th 202, 245-246 (Mo. P.S.C. 1985) (Callaway) and Re Kansas City Power & Light Co., Case Nos. EO-85-185, EO-85-224 (Mo. P.S.C. May 5, 1986) (Wolf Creek), the Missouri Commission rejected delay adjustments proposed by these witnesses based on critical path schedule analyses similar to that proposed in this case. Indeed, in rejecting these witnesses' analysis the Missouri Commission stated:

> "The Commission has purposely not addressed the schedule set forth by Staff through O'Brien-Kreitzberg & Associates, Inc. (OKA). The OKA analysis was sufficiently flawed to negate any possibility of its use and is, therefore, rejected in its entirety. (Order at pp. 108-109).

Finally, the ALJ accepts the OCA's argument that since Susquehanna 1 and LaSalle 1 completed construction and resolved all regulatory requirements by July 1982, the Company should have been able to achieve the same result at Limerick 1 (R.D., pp. 68-69). This is incorrect. As described in detail in the Company's Initial Brief (pp. 4-144 to 4-152), the Company was required to install significantly more commodities and to more fully comply with major regulatory requirements than was the case at either

Susquehanna 1 or LaSalle 1, which requirements in turn necessitated additional time to complete and thus significantly contributed to Limerick 1's longer schedule duration. For example, Limerick exceeded Susquehanna in 10 of the 14 major commodity categories with significant differences experienced in commodities such as concrete, large pipe, large pipe hangers and small pipe, each of which substantially affected critical path activities and therefore directly caused an extension of the schedule (PECO Initial Brief, pp. 4-145 to 4-147). Similar comparative data was also presented for LaSalle 1 (PECO Initial Brief, pp. 4-147 to 4-148). Moreover, as a result of its higher site population density and the extremely contested licensing proceeding, Limerick was required to fully comply with certain regulatory requirements, i.e. ATWS, fire protection, PRA, which were not required to the same degree for licensing at either Susquehanna 1 or LaSalle 1 (PECO Initial Brief, pp. 4-148 to 4-152). These significant differences, which account in large part for Limerick 1's longer schedule duration, were completely ignored by the ALJ and render the OCA's comparisons meaningless.

The unreasonableness of the ALJ's adoption of the OCA's proposed schedule is perhaps best demonstrated by the fact that if Limerick 1 had been completed by July 1982, its construction duration would have been only 97 months (i.e. as measured from construction permit to fuel load). In contrast, the construction durations for Susquehanna 1 and LaSalle 1 were actually 103 and 104 months, respectively (PECO Initial Brief, p. 4-34). Thus, by adopting the OCA's proposal, the ALJ would require that the Company have completed Limerick 1 construction approximately 7 months sooner than either Susquehanna 1 or LaSalle 1. Such a result is clearly unreasonable given the significantly greater commodities, licensing and financing difficulties associated with Limerick and, therefore, should be rejected.

E. The Recommended Decision's Reasons For Rejecting PECO's Persuasive Evidence That The 1976 and 1978 Deferral Announcements Did Not Cause An Increase In Project Cost Or Schedule Are Themselves Without Merit And Should Be Rejected.

In an attempt to demonstrate that the 1976 and 1978 deferral announcements caused project cost increases, the Recommended Decision advances four arguments. First, it asserts that PECO reduced its expenditures on the Limerick project between 1976 and 1980. Second, it cites the Company's public announcements in 1976 and 1978 that it was delaying the project and that delays would increase plant cost. Third, the ALJ rejects comparisons of Limerick cost and schedule to other plants as a basis for evaluating what additional level of costs, if any, resulted from these announcements. Finally, the ALJ rejects the placing of any reliance upon the substantial Company engineering, licensing and construction evidence demonstrating no significant project delay as the result of these announcements. (R.D., p. 71).

The general implication of the Recommended Decision is that PECO, as evidenced by the deferral announcement, and funding constraints, did not seek to build Limerick as rapidly as possible. While it is certainly correct that the Company, because of its weak financial condition, was required to constrain expenditures on the project, this did not have the direct effect on project schedule that the ALJ asserts. Nor is it correct to assert that the Company, other than as the result of its financial condition restraints, failed to construct the project as rapidly as feasible.

As explained in detail in the Company's Initial (pp. 4-68 to 4-72) and Reply (pp. 4-6 to 4-8) Briefs, PECO's financial condition during the 1970s was extremely poor. This determination is based upon a comparison of the Company's financial indicators with those for the utility industry in general and other utilities which deferred construction on nuclear projects, as well as an assessment of the substantial uncertainties surrounding the Company's financial position at that time (PECO Initial Brief, pp. 4-70 to 4-71). To further demonstrate this fact, a specific analysis was conducted examining the

ramifications of significant increases in capital acquisition levels during the 1970s. From Forecast 2, which estimated Limerick 1's commercial operation date to be April 1982, the Company conservatively calculated (based on PECO Ex. 2) that regulatory and other externally imposed changes, as well as general design changes, accounted for approximately $1 billion in increased plant costs (PECO Reply Brief, p. 4-7). Had the Company attempted to raise these funds to support an April 1982 service date, substantial rate relief would have been required to protect its mortgage and SEC coverage ratios from falling below indenture levels (PECO St. 3, p. 47).

Despite the Company's precarious financial condition, a number of steps were taken in an attempt to obtain additional funding to permit advanced completion of Limerick 1, including the use of available, non-traditional financing vehicles and requests for additional rate relief (PECO St. 3, pp. 29-31). Specifically, the Company continually reviewed the actual cash flows required to complete the plant prior to 1982 against the construction budgets to determine whether additional funding was required and, if so, whether it could be obtained (PECO St. 1, pp. 17-19). Available funding was also applied in order to maximize overall schedule progress, and projected completion dates were deferred only after every effort was made to meet the earlier completion date (PECO St. 1, p. 16). For example, PECO continued engineering and design activities despite the reductions in construction funding in order to maintain engineering sufficiently ahead of construction to ensure that when full construction activities resumed, the impact of the funding reductions would be minimized (PECO St. 8, p. 230). The Company also directed available cash resources to critical plant activities required to maintain overall schedule progress during the cash constrained period and postponed many of the non-critical expenditures (i.e. such as cooling tower construction) until later in the project (PECO St. 8, p. 231).

As Mr. Boyer further explained, actual funding was applied to the project during the period 1976 through 1980 at a level which was believed to be sufficient to

permit construction completion in October 1982 or earlier (PECO St. 1, pp. 17-21; PECO St. 3, p. 36). Indeed, in March 1979, special funding was requested and obtained from the Board of Directors to maintain construction on the 1982 completion schedule (PECO Initial Brief, pp. 4-75 to 4-76).

In addition, the Company employed construction target schedules that were always earlier, during the mid to late 1970s, than the publicly announced schedules, so as to place pressure on project personnel to maximize construction progress, and to maintain an active effort at overall schedule acceleration (PECO Initial Brief, pp. 4-74 to 4-75). As explained by Mr. Boyer, the project was at all times managed by the construction target schedules (PECO St. 1C, pp. 5-6):

> "Construction target schedules which were earlier than announced completion dates were employed precisely so that work would not expand to fill the available time. The Company never '... announced that it did not intend for the targets to be met...' as Mr. O'Brien contends. In fact, contrary to Mr. O'Brien's assertion, everyone involved in the Limerick project -- engineering, craft labor, subcontractors, supervision, and management -- worked diligently towards these target schedules until extraneous factors compelled their abandonment. As it became apparent that a target schedule could not be met, the to-go scope of the project was reevaluated and a somewhat later target schedule was developed. In this manner, target schedules actually forced all activities to proceed on a best possible efforts basis. As a result of working to these construction target schedules, the project was in fact kept on schedule for a 10/82 fuel load as late as June 1979. It was not until late-1979 and early-1980 that post TMI requirements and other late regulatory changes drastically impacted project schedule and forced delay. Thus, the project continued to support an earlier target schedule from 1976 through most of 1979, even though delays were publicly-announced." (See also Tr. 5042-5043).

That the Company continuously attempted to complete Limerick 1 construction prior to 1983 was further confirmed by TB&A in its assessment of the reasonableness of project management (PECO St. 8, pp. 230, 231-232).

The Company's efforts to complete project construction on the earliest possible schedule were also described in testimony presented in the 1980 Limerick Investigation (See PECO Ex. 37, St. 1b, pp. 6-9 and St. 9, pp. 12-14). In addition, both the

ALJ and the Commission in that proceeding specifically noted that the Company sought to construct the plant to the earlier internal construction schedules, including the provision of necessary funding. As expressed by the ALJ in that case (Recommended Decision, pp. 44-45):

> "In May 1978 PECO announced a decision to schedule Units I and II from 1983-85 to 1985-87. PECO Witness Mr. Paquette testified that PECO did not in fact change the critical path of the construction schedule from 1978 through 1980, and that in those years PECO authorized and spent the additional dollars to maintain the 1983-85 service dates in the event that it became desirable to complete the units earlier than 1985-1987 (PECO Statement No. 9, p. 12; Tr. 495). The record shows, however, that PECO reduced its direct expenditures from 1978-1980 from the budgeted amount of $529 million to $479 million (OCA Exh. 23, Tr. 7). PECO explains, however, that it funded all major construction activities required to maintain the earlier completion dates, but not activities of lesser importance (PECO R.B., p. 96, fn. 7)." (emphasis added)

And, as stated by the Commission (56 Pa. P.U.C. at 57-58):

> "PECO, however, maintained its options with regard to its construction timetable due to the fact that escalating oil costs made it appear that completion of Limerick at an early date might be advantageous to customers, even if the capacity was not required, since the fuel cost savings resulting from Limerick's operations would more than offset the carrying costs of the plant (PECO Stmt. No. 9, p. 14)."

Despite the Company's continuous efforts to complete the project in 1982 or earlier, many uncontrollable factors such as new and revised regulatory requirements, reduced labor productivity and manpower unavailability, combined to preclude such completion (PECO Initial Brief, pp. 3-27 to 3-44). Indeed, it was not until June 1980 that the Company recognized that, as the result of the extent of these factors, a 1982 completion date could not be achieved (PECO St. 1, p. 19). As Mr. Boyer explained in his direct testimony filed in this proceeding (PECO St. 1, pp. 21-23):

> "Q. Mr. Boyer, at several places in your testimony, you have stated that funding levels were requested to permit earlier than publicly announced Limerick completion (i.e. 1976-1980). In retrospect, with the knowledge that you have gained by completing the construction of the plant, were these funding levels sufficient to permit

plant completion upon the proposed dates?

A. No, they were not. Our judgments respecting the cash required for plant completion were based upon our understanding of the Project scope in those years. As I have explained above, and as is explained in greater detail by Mr. Kemper and Mr. Clarey, the Project's scope as we understood it in 1976 to 1980 turned out to be greatly underestimated. Because of new and changed NRC design requirements, the Mark II containment new loads problem, reduced labor effectiveness as compared to our estimates due principally to increased congestion and enhanced QA/QC requirements attributable to new or revised NRC requirements, labor unavailability and other factors, the funding levels provided would not have permitted Project completion by the earlier target dates. Indeed, even as late as 1980, we did not fully appreciate the scope of work required on the Project. Substantially greater work has been performed in the last four years of Project construction than we anticipated would be the case in 1980 when the October 1984 fuel load schedule was adopted.

....

Q. Mr. Boyer, could the Company have completed Limerick I and Common Plant any earlier than it did?

A. Obviously, that is a very hypothetical question. My answer is that no, given the circumstances that we faced and the resources that we had available, we could not have completed the plant earlier than we in fact did. As explained by Mr. Paquette, during the early years of the Project the amount of money which we could spend had to be restricted. Moreover, the amount of money which we needed grew substantially because of the NRC-imposed changes in the plant, further exacerbating our cash constraint problems. As described in PECO Exhibit 2, a number of those changes were imposed very late in the Project, in 1980 to as late as 1983. For instance, new NRC requirements resulting from the TMI accident in March of 1979 were issued through May of 1983. Compliance with these requirements delayed engineering completion until mid-1983. Consequently, related construction activities could not be completed until mid-1984. Another example of these late-imposed regulatory changes is the NRC's fire protection requirements. Although some of these requirements were imposed in 1975-1976 following the Brown's Ferry fire, the major fire protection regulations such as Appendix R were not issued until 1981. Engineering for these regulatory changes was not completed until mid-1984, while construction of additions and modifications could not be completed until

September 1984.

> Because of these and other late additions to work scope as a result of NRC requirements, substantial rescheduling had to be done and inefficiencies were generated in startup and system completion activities. In light of all of these factors, many of which are more thoroughly described in other testimony, and including the licensing delay I describe below, I do not believe that we could have significantly shortened the Project's duration."

Testimony to the same effect was presented to the Commission in the 1980 Limerick Investigation (See PECO Ex. 37, St. 1b, pp. 7-8). The impact of such uncontrollable factors was also recognized by the Recommended Decision in that proceeding, as follows (p. 46):

> "In 1980 PECO abandoned its option of maintaining the earlier 1983/1985 completion dates. This was made necessary when it became obvious that manpower availability and labor productivity in the installation of bulk commodities such as conduit and pipe were not meeting the target values. The manhours necessary to install the seismic design of pipe hangers and restraints turned out to be greater than estimated, and interferences introduced by these hangers to duct work and cable trays also required additional manhours to resolve. In addition, the NRC action items resulting from Three Mile Island were issued, adding additional manhours of job effort (PECO Statement 1B, p. 7)."[13/]

Clearly, the weight of evidence in this proceeding demonstrates that the Company continually attempted to achieve the earliest possible Limerick 1 completion.

In summary, the evidence in this proceeding clearly demonstrates that the Company applied necessary funding to critical path activities and deferred completion of certain non-critical work until later in the project in order to maintain overall schedule progress during the cash constrained years, i.e. 1975-1979. As a result, the Company was

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13/ The Company similarly maintained the option of accelerated completion at the time of the May 1976 announced deferral. As explained by PECO Witness Boyer (PECO St. 1, p. 17 & Sch. 2), the Company at this time announced a two-year delay in the Limerick 1 fuel load date, i.e. from October 1980 to October 1982. However, the construction target fuel load date was extended only 14 months, from August 1980 until October 1981, in order to permit earliest possible completion if financial conditions improved and additional funds became available.

able to maintain a scheduled fuel load of 1982 or earlier until as late as June 1979 (PECO Initial Brief, p. 4-75; PECO Reply Brief, pp. 4-8 to 4-10). Beginning in 1980-1981, however, substantial additional regulatory requirements were imposed upon the project, thus further increasing the amount of work which had to be completed (PECO Initial Brief, pp. 4-23 to 4-38; PECO Reply Brief, pp. 4-13 to 4-16). The combined effect of the deferral of non-critical work activities and the imposition of new NRC requirements is fully demonstrated in Section 2 of PECO Exhibit JJC-1/JRC-1 (pp. 2-3), which shows that a substantial increase in cash flow occurred during the 1980-1984 period in order to complete construction. Thus, although certain construction activities were delayed, the 1976 and 1978 deferral announcements clearly had no effect upon the project's critical path, and it was only because of unanticipated additional work late in the project created primarily by changing NRC regulatory requirements, that even the unlimited funding available beginning in 1980 was not sufficient to permit an earlier completion. This Company position is supported by overwhelming record evidence and, therefore, should be accepted.

As a principal support for his conclusion that the 1976 and 1978 announcements directly and proximatley caused a substantial extension in project schedule,, the ALJ states: "We take the Company at its word. When it said it was going to delay construction of Limerick, it meant just that - and it did just that." (R.D., p. 53). The ALJ then notes the Company's reduced funding of Limerick in the 1976 to 1978 period, and concludes that these funding curtailments were the cause of project delay. This is error.

First, although the Company did reduce expenditures on the Project in 1976 and 1977, it did not do so in 1978 to 1980. As described above, notwithstanding the publicly announced funding cuts, the Company continued to supply sufficient capital for perceived critical path activities to meet the earlier construction target schedules throughout the 1976 to 1980 period. This allowed the Company to maintain the earlier

target schedules until regulatory changes and other extraneous factors precluded such accelerated project completion (PECO Reply Brief, pp. 4-8 to 4-12).14/

Furthermore, as noted in the Company's Reply Brief (pp. 4-9 to 4-10), between 1975 and 1981 actual expenditures on the Limerick project totaled $1.2 billion, compared to the $1.0 billion which Forecast 1 projected would be spent during this period. Thus, actual Company funding levels were significantly greater than what was originally anticipated. Moreover, in 1979 the Company sought to obtain additional funding to support earlier project completion through rate relief. This request was denied by the Commission (PECO St. 3, pp. 41-42).

The ALJ also seeks to rely on late-1970s Company statements that project delays could increase ultimate plant costs (R.D., pp. 54-55). These statements do nothing to support the position that the Company's 1976 and 1978 deferral announcements actually caused project delay. PECO readily admits that its funding decisions risked delay and that such delay has an associated cost. But, as discussed above, the project delay upon which the ALJ bases his disallowance was not in fact caused by any Company action, but rather by extraneous factors such as regulatory change.

In contrast to the ALJ's conclusion, the Company consistently maintained an aggressive effort to construct Limerick 1 as quickly as circumstances would allow. Despite the announced project deferrals, the evidence presented in this proceeding conclusively demonstrates that factors outside the Company's control would have precluded any appreciable advancement in the completion of Limerick 1 over what was actually achieved, regardless of any Company actions. Thus, no causation has been established between the deferral announcements and increased plant costs for project delay. Therefore, the ALJ's disallowance is in error.

14/ The ALJ criticizes the Company's use of the term "deferral announcements." (R.D., pp. 50-53). However, the Company consistently uses this term to distinguish between the announced deferrals and the actual occurrence of delays.

The ALJ also refuses to give any weight to the Company's extensive testimony demonstrating that Limerick's cost and schedule are at or below average when compared with similar, contemporaneous nuclear units. The Judge finds no fault with the Company's methodology in performing these comparisons or the results obtained. Instead, he simply states that such comparisons are "not necessarily conclusive" because they "do not, in themselves, establish a particular utility's prudency or imprudency." (R.D., p. 57.) However, as clearly explained in the Company's Initial Brief (pp. 4-2 to 4-15), these analyses have not been offered to establish the prudence of the Company's actions and decisions in the construction of Limerick 1; rather, they have been presented to demonstrate that Limerick is not an unreasonably costly plant nor did it experience an unduly long time for its construction. Moreover, by showing that Limerick 1, despite the deferral announcements, took no longer to construct than the average plant built during the same time period, these comparisons demonstrate that it was not these announcements but extraneous factors similarly impacting other plants which actually delayed project completion. Certainly, these plant comparisons demonstrate that Limerick 1 could not have been completed 27 months earlier absent the deferral announcements, as is assumed by the OCA in its quantification analysis and by the ALJ in his disallowance.

The ALJ's reliance on Pa. P.U.C. v. Philadelphia Electric Company, R.I.D. 438, 52 Pa. P.U.C. 772 (1978), in dismissing the Company's plant comparison analyses is clearly misplaced. This case stands for the proposition that plant comparisons alone do not establish prudence. As noted above, the Limerick comparison analyses were never offered for this purpose and indeed, as the ALJ held, prudence has not been an issue examined in this proceeding. Moreover, the Commission's holding in R.I.D. 438, as quoted by the ALJ (p. 57), was expressly based upon the fact that the comparisons in that case did not properly reflect plant unique factors. On the other hand, the plant comparisons offered by PECO Witnesses Perl and Hieronymus expressly incorporate such

factors (See PECO Initial Brief, pp. 4-7 to 4-15.) Accordingly, the ALJ's rejection of the Limerick comparison analyses is clearly in error.

Finally, the ALJ rejects the Company's construction and regulatory change analyses on the ground that they reflect as-built information, including the alleged effects of the 1976 and 1978 deferral announcements, and therefore cannot be relied upon for determining an earliest possible completion date for Limerick 1 (R.D., pp. 58-59). This is incorrect and demonstrates a misunderstanding of the evidence submitted by the Company in this proceeding.

As explained in the Company's Initial (pp. 4-23 to 4-76) and Reply (pp. 4-43 to 4-45) Briefs, actual Limerick experience was admittedly used in the Company's construction, regulatory and licensing requirements schedule analyses. But that was essential in determining whether these activities could have been resolved in order to meet an earlier schedule. It was only after an understanding of what actually occurred was developed that experienced Company personnel and qualified experts could employ educated judgment, based on their experience at Limerick and at other nuclear plants, in order to determine a realistic and accurate "earliest possible" schedule for Limerick 1. Indeed, a close examination of the Company's analyses clearly demonstrates that they in fact do not merely reflect as-built facts and information, but instead are conservative and well-documented analyses of the earliest achievable Limerick completion dates in light of the external, uncontrollable forces affecting the project.

For example, a principal component in the Company's construction analysis was the maximum sustainable manpower density limitations assumed for critical path activities in containment. These assumed density limitations were obtained from the most recent forecast for Limerick 2 and were based on experience at both Limerick and at other nuclear power plants (PECO Initial Brief, pp. 4-56 to 4-58). Clearly, these assumed limitations do not simply reflect as-built conditions at Limerick 1; rather they represent the maximum staffing level which, in the Company's judgment, could be

achieved on a sustained basis under realistic construction conditions (PECO Brief, pp. 4-56 to 4-58). The Company's analysis also assumed a sustained staffing level based on a two-thirds second shift in critical plant areas. As explained by Mr. Clarey, this assumption exceeds actual experience at Limerick and at other contemporaneous nuclear plants, and thus introduced a measure of conservatism in the analysis by reflecting a higher staffing level than had actually been achieved (PECO Initial Brief, pp. 4-58 to 4-60). Again, this assumption clearly is not a reflection of as-built circumstances. Finally, other adjustments in the Company's analysis, such as those to reflect pre-June 1976 logic, actual start-up activities and duration, and actual quantities of commodities required to complete the plant, represent as-built conditions whose prudence has been accepted in this proceeding and therefore should be reflected (PECO Initial Brief, pp. 4-51 to 4-61).

The Company's regulatory change and licensing analyses do not assume as-built conditions as a "given" as the ALJ concludes (R.D., p. 59). The Company concedes that implementation of certain regulatory changes identified in PECO Exhibit 2, such as Mark II modifications, security requirements, ASME Section III requirements, high and moderate energy line break modifications, as-built pipe inspection requirements and seismic design changes, could on an individual basis have potentially been accelerated or deferred in order to meet a July 1982 completion date. For this reason, the Company has not presented argument that these items could not have been resolved to permit an earlier completion. In fact, only 8 of the 16 regulatory items identified in Exhibit 2 were selected for presentation as schedule restraints based on a detailed examination of the facts surrounding those requirements and application of engineering judgment (PECO Initial Brief, pp. 4-26 to 4-28; PECO Ex. 2, Sch. 2).

Moreover, the Company's analyses of regulatory and licensing items identified as precluding an earlier plant completion are not simply a recitation of historic facts. For example, with regard to ATWS requirements, the Company concluded that

earlier or deferred implementation was not possible because of a letter from the Advisory Committee on Reactor Safeguards in 1980 stating that these changes were required to obtain a license, the extensive complexity and first time nature of the design changes, and the fact that ATWS was the subject of an intervenor contention and was identified in the Limerick PRA as being required prior to receipt of a license in order to achieve an acceptable level of risk during operation (PECO Initial Brief, pp. 4-28 to 4-31). A similar conclusion was reached with respect to fire protection modifications, which were also expressly required to be completed by the NRC Staff prior to licensing, were the subject of an intervenor contention and were also perceived to be of high safety significance as demonstrated by the PRA (PECO Initial Brief, pp. 4-33 to 4-36). The Company's analysis of fire protection was further supported by the fact that repeated attempts to defer fire protection requirements were expressly denied by the NRC Staff (PECO Initial Brief, pp. 4-34 to 4-35). The same type of factual review and analysis was performed for each of the remaining regulatory items considered in the analysis (PECO Initial Brief, pp. 4-31 to 4-37). Similarly, in its licensing analysis, the Company explicitly assumed the earlier completion of certain critical activities, such as the filing of the Company's operating permit application in September 1978 as opposed to the actual date of March 1981 and the acceleration of certain hearings on PRA contentions (PECO Initial Brief, pp. 4-39, 4-47 to 4-50). Clearly, the Company's engineering and licensing analyses do not merely reflect "as-built" information, whatever that means.

For the reasons set forth above, the ALJ's failure to accept the Company's demonstration that the 1976 and 1978 deferral announcements had little or no schedule effect is clearly in error and should, therefore, be rejected.

F. The Recommended Decision Errs in Rejecting, Without Substantive Analysis, the Impact on Ratepayer Revenue Requirements as the Proper Standard for Measuring the Cost Impact of Delay.

The Recommended Decision substantially adopts, with one adjustment for overstated indirect costs, the disallowance proposed by the OCA in this proceeding (R.D., pp. 64-71). The analysis underlying the OCA proposal, however, is seriously flawed insofar as it one-sidedly presents only the increased costs associated with the 1976 and 1978 decisions to delay Limerick 1's completion and fails to account for at least four economic factors concerning delay which affect the net economic impact of delay felt by ratepayers:

1. The time value of money to PECO and its customers;

2. Differences in capital costs resulting from the timing of the replacement of Limerick 1;

3. Differences in fuel savings and non-fuel other costs incurred resulting from the timing of the replacement of Limerick 1;

4. Differential costs of capital between alternative construction and in-service schedules.

(PECO Initial Brief, pp. 4-160 to 4-161; PECO Reply Brief, pp. 4-20 to 22).

The Recommended Decision, by concerning itself only with the costs associated with the perceived extended "duration" of Limerick 1's construction schedule, violates this Commission's express mandate that disallowances must reflect actual damages. See Pa P.U.C. v. Philadelphia Electric Co., Energy Cost Rate No. 8, M-840375, et al., (Oct. 30, 1985). Consistent with this instruction, the Recommended Decision rejects the Trial Staff's analysis for failing to measure the impact of the 1976 and 1978 delay decisions on the Company's ratepayers (R.D., p. 61). Notwithstanding this apparent recognition of the need to measure the whole economic effect attributable to the delay decisions, the ALJ nevertheless precluded consideration of the Company's well documented presentation concerning the full costs and benefits applicable to the OCA's proposed construction schedule (R.D., p. 57). The ALJ evidently reasoned that because

the Commission found in the 1980 Investigation that the Company's 1976 and 1978 decisions to delay Limerick 1's construction were imprudent, and characterized the Company's argument that the relative benefits and detriments to ratepayers favored delay as "unpersuasive", that any offset to a quantification of costs had been rejected.

Quite simply, the ALJ's conclusion as to the effect of the 1980 Limerick Investigation is in error, and works a grave injustice upon the Company. The Commission was not presented with a quantification analysis in the 1980 Limerick Investigation, but only with analyses concerning the reasonableness of the Company's 1976 and 1978 decisions to delay construction. 56 Pa. P.U.C. at 56-57; see Pa. P.U.C. v. Philadelphia Electric Co., R-850152, Opinion and Order at pp. 8, 13 (Jan. 21, 1986). Indeed, the Commission expressly declined to make any findings quantifying the effects of the delay decisions on the grounds that the record below had not developed the issue of quantification and that any decision concerning quantification would be premature. (Id). To the extent, then, that the Commission alluded in its decision to the "persuasiveness" of the Company's arguments concerning "relative economic benefits and detriments to ratepayers and shareholders of earlier versus later plant completion," its analysis was necessarily limited to whether the considerations undertaken by the Company at the time of its 1976 and 1978 decisions to delay Limerick 1's construction were reasonable.

This conclusion is further supported by the fact that the Company raised the argument concerning relative costs and benefits to ratepayers for the first time in its Exceptions to the Recommended Decision's finding that the 1976 and 1978 delay decisions were not reasonable (PECO Reply Brief, pp. 4-18 to 19). Thus, the analysis in the 1980 Limerick Investigation was offered solely for the purpose of establishing the reasonableness of the Company's delay decisions, and was not submitted, as in this

proceeding, in order to develop an evidentiary record quantifying the effect of those decisions.15/

More importantly, the Commission has previously recognized the importance of considering factors which the OCA analysis and the Recommended Decision completely ignore. Most important among these is the Commission's past recognition that life-cycle present worth analyses are the proper measure by which to assess the relative costs or benefits to ratepayers in evaluating alternative capacity plans or schedules (PECO Initial Brief, pp. 4-158 to 159). Further, the OCA has itself previously recognized that the time value of money to ratepayers is a critical ratemaking consideration:

> "No rational economic evaluation of the costs and benefits of CWIP can be conducted without the use of present value analysis.
>
> * * *
>
> Ratepayers do attach a time value to their money and that preference must be respected."

(OCA Brief, Docket No. R-811626, March 2, 1982, pp. 26, 27).

An accurate, and fair, quantification comparing Limerick 1's actual in-service date and the OCA's accelerated schedule requires an assessment over a time frame long enough to capture the impact of all revenue requirement impacts, including capital, operating and financing cost impacts. (PECO Initial Brief, pp. 4-158 to 4-159). The ALJ decision, by contrast, adopts the narrow analysis contained in the OCA proposal and focuses on the comparative nominal capital cost of earlier rather than later

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15/ Identifying the effects -- positive as well as negative -- flowing from imprudence is not to be confused with using hindsight in determining whether given conduct was prudent, or imprudent, to begin with. In presenting its net-impact-on-ratepayers analysis PECO accepted, arguendo, that the 1976 and 1978 delay decisions were imprudent. PECO is not attempting to demonstrate that because there is no net economic harm to ratepayers from the delay, the delay decisions were not imprudent after all. PECO has reserved its right to argue elsewhere that, viewed without hindsight, its decisions to defer completion were not imprudent.

completion of Limerick 1's construction (R.D., pp. 68-71; PECO Initial Brief, pp. 4-159 to 4-165).

A proper analysis of all of the factors bearing on the actual effect of the 1976 and 1978 delay decisions on the Company's revenue requirements, including impacts on the capital cost of Limerick 1 as well as the additional capital, operating, and financing cost impacts reveals that, even assuming a 27-month delay, PECO's ratepayers suffered no net increased project cost (PECO Initial Brief, pp. 4-165 to 4-170). Rather, the evidence in this proceeding clearly demonstrates that, in 1986 present worth dollars, the 27-month delay alleged by the OCA resulted in net benefits to PECO customers of $469 million for Limerick 1 and 50% of common plant (PECO Initial Brief, pp. 4-165 to 4-170).

This evidence is summarized in the following Table:

		Cost or Benefit $Million
1.	The differential cost of annual carrying charges on capital costs over the useful life (i.e. 39 years)	$21 benefit
2.	Fuel savings net of operating and maintenance costs of the first completed unit during the period prior to completion of the second unit (i.e., Novembr 1983 to February 1986)	($146) cost
3.	Additional carrying charges for capital costs of a unit replacing the first completed unit during the period prior to the second completed units retirement (i.e. July 2022 to October 2024)	$169 benefit
4.	Fuel savings and operating and maintenance cost differentials for the period from the first retired unit to the second retired unit (i.e. July 2022 to October 2024)	$65 benefit

5.	Additional revenue required from customers from 1975 to 1985 to maintain mortgage coverage based upon a construction schedule to meet a November 1983 service date	$339 benefit

Total Change and Present Worth of Revenue Requirements

(a)	Excluding Gross Receipts Tax	$448 benefit
(b)	Including Gross Receipts Tax	$469 benefit

It is critical to note that the methodology and analysis that PECO employed in reaching this conclusion is virtually uncontested in this proceeding. The OCA fails to even address the Company's analysis, while the Trial Staff registered only six relatively minor objections, two of which were explicitly withdrawn (PECO Initial Brief, pp. 4-171 to 4-174). Even if one were to accept the validity of the Trial Staff's remaining objections, which PECO does not, the estimated present value of delay would be reduced by only $92 million, leaving the net benefit for Limerick 1 and 50% of common plant at $373 million when compared to the OCA's proposed schedule (PECO Initial Brief, pp. 4-173 to 4-174). Further, even if the items challenged by Trial Staff concerning the benefits to PECO customers from the end of period effects are removed from the analysis (items three (3) and four (4) of the above Table), items which Trial Staff has since conceded are appropriate factors, the estimated present value of delay nevertheless totals $235 million (PECO Initial Brief, pp. 4-171 to 172). Thus, the only substantive challenge to PECO's quantification analysis fails to shake the strong conclusion that ratepayers will bear no costs attributable to the 1976 and 1978 decisions.

It is important to note that the Recommended Decision errs to the extent it adopts the OCA analysis for its construction prudence disallowance on the basis of vague notions concerning what PECO's excess capacity would have been in the absence of the delay decisions (R.D., p. 65). The Recommended Decision expressly finds no current excess capacity. Further, neither the Recommended Decision nor the 1982 decision finds that there was, or would be, excess capacity in November 1983, when, according to the

OCA, Limerick 1 could have been in commercial operation. Hence, excess capacity can provide no basis for any rate base disallowance for construction delay, or otherwise.

Moreover, because the Recommended Decision recognizes that the record in this proceeding cannot support a finding that PECO's decision to build Limerick 1 was imprudent, Commission precedent would demand that any burden of prudent excess capacity should be shared between ratepayers and the utility. The Recommended Decision virtually ignores that policy in adopting the vast bulk of the OCA's proposed disallowance, which was quantified on grounds of imprudence, and placing the entire burden on PECO's shareholders.

In summary, because the quantification adopted in the Recommended Decision considers only the increased capital costs allegedly caused by delay, while ignoring other offsetting cost and benefit effects, though the ALJ expressly recognizes that these "offsetting" matters should be considered as a part of the quantification analysis, its disallowance of $554.9 million should be rejected. The Company's delay analysis, which properly weighs all of the impacts of delay on the level of Company revenue requirements borne by ratepayers, is the only complete and proper delay cost analysis supported by the record. This analysis firmly demonstrates that, under the applicable circumstances, even if the completion of Limerick 1's construction had been imprudently delayed by as much as 27 months, the Company's customers would not have been adversely affected.

IV. THE RECOMMENDED DECISION'S PROPOSED 12% FAIR RATE OF RETURN IS UNREASONABLY LOW AND SHOULD BE REJECTED.

The Recommended Decision adopts two significant adjustments to the Company's claimed 12.77% fair rate of return. First, the ALJ reduces the Company's claimed embedded cost of debt by .24% by failing to reflect the refunding of the Limerick Revolving Credit Agreement. Second, the ALJ reduces the Company's claimed cost of common equity from 15.9% to 14.25%. These adjustments are in error and should

be rejected. As explained below, the Recommended Decision's embedded debt cost of debt should be increased by .14% to reflect the actual costs of refunding the Limerick Revolving Credit Agreement, and the Recommended Decision's proposed common equity cost opportunity rate should be increased to at least 15.65%.

A. The Recommended Decision's Proposed Embedded Cost Of Debt Erroneously Fails To Reflect The Refunding Of The Limerick Revolving Credit Agreement.

PECO's claimed 10.86% embedded cost of long-term debt included the then anticipated refunding of the $550 million Limerick Revolving Credit Agreement and replacement of this short-term debt with long-term debentures. The projected cost of these debentures was 11.75%, with an effective yield of 11.88% (PECO Initial Brief, pp. 7-52 to 7-57). Refunding of the Limerick Credit Agreement is consistent with the general principle that long-lived assets such as Limerick should be financed with long-term debt. Moreover, as explained in the Company's Initial Brief (pp. 7-56 to 7-57), the Limerick Credit Agreement expires in 1988 and will have to be refinanced at that time regardless of market conditions. The Company currently had the opportunity to lock in relatively low long-term interest rates and therefore determined, in an exercise of management judgment and discretion, to refund the Limerick Credit Agreement now rather than risk increases in interest rates over the next two years.

The ALJ and GSA Witness Winter, who opposed the refunding, agree that replacing the short-term Limerick Credit Agreement with long-term debt is reasonable and desirable. As the ALJ stated: "The Company's position is sound" (R.D., p. 93). However, the ALJ expressed a concern over the 200 basis point difference between the short-term cost of the Limerick Credit Agreement (9.75%) and the estimated 11.88% effective cost of the debentures to replace the credit agreement. As the ALJ stated: "If the cost rate difference between the Company's and that of the GSA were smaller, then the conservative approach would be to accept the fixed cost of the debentures.

However, since in this proceeding the cost rate difference is over 200 basis points and interest cost rates have not shown a trend upward, we find the GSA position to be reasonable" (R.D., p. 93).

This comparison of short-term and long-term money costs is inappropriate. Short-term rates are extremely volatile, and where a utility can lock-in a reasonable long-term interest rate and avoid the risk associated with short-term volatility, it is clearly prudent to do so even where the long-term rate is somewhat higher than the short-term rate, particularly where the long-term financing is supporting long-lived assets.

In any event, there is no longer any need to speculate about the cost of refunding the Limerick Credit Agreement. Since the record closed, the Company has in fact refunded $450 million of the $550 million credit agreement with long-term debt having a weighted composite effective yield of 11.12%. Thus, the actual differential in cost rates was approximately 150 basis points, which is clearly a reasonable premium to pay to lock-in long-term interest rate protection. The Company, therefore, proposes that its embedded cost of debt claim in this proceeding be based upon the actual cost of refunding the Limerick Credit Agreement. This reduces the Company's claim from 10.86% to 10.76%. This approach is consistent with the ALJ's reasoning, is consistent with the Commission's registration of securities certificates for the new long-term debt (Docket No. S-860106 (Feb. 20, 1986)), and is consistent with the Commission's repeatedly stated desire to employ the most recent available data in establishing a fair rate of return.

B. The Recommended Decision's Proposed 14.25% Common Equity Cost Rate Is Clearly Inadequate And Should Be Rejected.

The Recommended Decision's proposed 14.25% equity cost rate is based upon the average of a 14.09% DCF calculation and a 14.41% equity risk premium calculation (R.D., pp. 103, 106). As explained below, significant errors in the ALJ's analysis have

produced a result which is substantially below that allowed in recent Commission rate orders and which totally fails to reflect the undisputed higher than average risk of PECO and its concomitant higher than average cost of common equity. As set forth below, the minimum reasonable cost to attract common equity capital based upon the record and the most current available market data is 15.65%.

The Recommended Decision's 14.09% DCF calculation is based upon a dividend yield of 13.0% and a 1.5% dividend growth rate (R.D., pp. 101-102). The Recommended Decision then reduces this 14.5% result by .41% to reflect a perceived increase in PECO's stock price since the record closed, thereby producing a 14.09% result (R.D., p. 103). There are two central errors in this analysis.

First, the 1.5% growth rate is too low. This 1.5% figure is essentially the midpoint of Trial Staff's proposed growth rate. As explained in the Company's Initial Brief (pp. 7-71 to 7-72), this growth rate is in error because it relies solely on forecasted growth rates and completely ignores PECO's historic dividend and earnings growth. There is no evidence in the record that investors completely ignore historic data in making investment decisions or that investors rely solely on investment firm forecasts. In addition, it is agreed by all parties that the growth rate varies with the level of the dividend yield. Trial Staff's growth rate of 1.5% is based upon stock price and investor expectations in the Fall of 1985 (TS Ex. ARO-1, Schedule 5).

The Recommended Decision supports its 1.5% growth rate as the average of the GSA growth rate (1.29%) and the Company's growth rate (1.7%) (R.D., p. 102). This average ignores the fact that the Company's witness, Mr. Brennan, updated his growth rate to 2.4% to reflect changes in PECO's stock price during the course of this proceeding. This growth rate of 2.4% is a more accurate reflection of current market conditions and is the Company's claim in this case.

The Recommended Decision rejects Mr. Brennan's 2.4% growth rate based solely on the allegation that he provided no quantification for this result (R.D., p. 102).

This is simply wrong. Mr. Brennan fully explained and quantified his proposed 2.4% growth rate in his rebuttal testimony at pp. 17-18 (PECO St. 28B). As explained therein, PECO's stock price has recently increased by 26%, which was far greater than the 12.9% increase experienced by electric utilities in general. Thus, it is clear that PECO's stock price increase resulted not only from a general decline in money cost rates but also from an increase in the investor-expected PECO growth rate. Employing a 2.4% growth rate with the ALJ's 13% dividend yield produces an indicated equity cost rate based on DCF analysis of 15.4%, which, after the ALJ's negative .41% adjustment, produces an indicated equity cost rate of 15.0%.

Second, the Recommended Decision's .41% reduction to the DCF calculation also is clearly in error. This adjustment is based on a perceived increase in the price of PECO stock and corresponding decline in dividend yield after the record closed. Specifically, relying on an April 11, 1986 stock price of $19.88 the ALJ cites a "current" dividend yield of 11.07% (R.D., p. 103). This April 11, 1986 stock price is clearly an aberration which does not reflect either recent past PECO stock prices or PECO's current stock price. PECO's current stock price ($17.50 on May 21, 1986) and average stock price thus far for the month of May 1986 ($17.86) are well below the $19.88 relied on by the ALJ and also well below the $18.50 January 27, 1986 price relied on by Mr. Brennan in his rebuttal testimony (PECO St. 28B, p. 17). As there has been no upward change in PECO's stock price since the record closed, the Recommended Decision's reliance on an aberrant $19.88 stock price and 11.07% "current" dividend yield, and the corresponding negative .41% adjustment are in error. Indeed, since the Company's stock price has fallen since the record closed, the Recommended Decision's theory would require a positive adjustment to increase the allowed cost of common equity. Correcting for these two errors produces an indicated DCF cost of equity of 15.4%.

Similarly, the Recommended Decision's equity risk premium result of 14.41% is understated. This result is based upon a bond yield of 11.34% and an equity risk

premium of 3.07% (R.D., p. 106). The 11.34% bond yield is the Company's 11.75% claim minus the erroneous .41% adjustment discussed above. Correction for this error alone increases the result to 14.82%.

The ALJ's risk premium also is understated. As explained in the Recommended Decision, the 3.07% figure is simply the average of the highest and lowest risk premium presented in the record (R.D., p. 106). This is clearly not a reasonable basis for establishing the cost of common equity. The low end range of this average is Trial Staff's 1.6% risk premium which is based solely upon Trial Staff's purported analysis of the average Commission-allowed common equity cost rate less bond yields in past PECO rate proceedings. As explained in the Company's Initial Brief (pp. 7-13 to 7-15), Trial Staff's analysis is riddled with glaring errors which render it meaningless. For example, Trial Staff's analysis assumes there is a constant relationship between the cost of equity and cost of debt, when it is well established and accepted by all witnesses that the equity risk premium varies with the level of bond interest rates. Second, and most importantly, the risk premium considered appropriate by Trial Staff in this case is 3.8%, not 1.6% as cited by the ALJ (TS St. ARO-2, pp. 3-4). Simply substituting a 3.8% risk premium for the erroneous 1.6% figure produces an average of 4.15%, which when added to an 11.75% bond yield produces an indicated equity cost rate of 15.9%.

Thus, corrected for the errors set forth above, the indicated equity cost rate is 15.65% (i.e., the average of a 15.4% DCF methodology and a 15.9% equity risk premium. Moreover, even accepting the ALJ's method of averaging high and low growth rates and equity risk premiums, and simply correcting for the erroneous .41% negative adjustment, failure to even consider PECO's 2.4% DCF growth rate, and the erroneous

use of 1.6% as Trial Staff's equity risk premium, produces an indicated equity cost rate of at least 15.0%.16/

The unreasonableness of the ALJ's 14.25% recommendation can be further demonstrated by comparing it to recent Commission rate orders. In its four 1986 rate orders the Commission has adopted common equity cost rates of 14.85%-15.5%. Pa. P.U.C. v. Philadelphia Suburban Water Co., Docket No. R-850174 (April 18, 1986) (15.0%); Pa. P.U.C. v. Continental Telephone Co., Docket No. R-850044 (Feb. 6, 1986) (14.85%); Pa. P.U.C. v. Quaker State Telephone Co., Docket No. R-850045 (Feb. 6, 1986) (15.5%); Pa. P.U.C. v. Western Pa. Water Co., Docket No. R-842632 (Jan. 29, 1986) (15.5%). In addition, the most recent quarterly update of the generic rate of return by the Federal Energy Regulatory Commission found an indicated equity cost rate of 14.36% for the average risk electric utility (see PECO Initial Brief, pp. 7-82 to 7-83; PECO Reply Brief, p. 7-19).

All parties to this proceeding agree and it cannot be reasonably disputed that PECO is an above average risk utility. It therefore has a higher cost of attracting capital than the average risk electric utility, and this must be reflected by the Commission in its common equity cost rate finding. For example, a recently issued study by the National Association of Regulatory Utility Commissioners which compared the relative financial performance of 112 major electric utilities for the period of 1972-84, ranked Philadelphia Electric Company 110 out of 112 for the 13-year period 1972-84, 107th for the five-year period 1980-84, and 109th for the 1983-84 period.17/ There can be no reasonable dispute that PECO is currently one of the most risky electric utility investments. To establish a cost of equity for Philadelphia Electric Company at a level

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16/ DCF: 13.0% (ALJ dividend yield) + 1.85% (average of high (2.4%) and low (1.29%) growth rates) = 14.85%. Risk spread: 11.75% (ALJ bond yield) + 3.35% (average of high (4.5%) and low (2.2% by GSA) equity risk premium) = 15.1%. 14.85% + 15.1% = 29.95% ÷ 2 = 14.975% = 15.0%.

17/ NARUC, Electric Utility Performance Study, 1972-84, p. 13 (May 16, 1986).

which is well below that recently found reasonable by the Commission for water and telephone utilities and below that found reasonable by the FERC for an average risk electric utility is unjustified and unsupportable, and should be rejected.

V. OTHER EXCEPTIONS

A. Limerick Common Plant

The Recommended Decision (R.D., pp. 19-25) adopts an adjustment proposed by several parties to disallow a current return on 50% of the Company's investment in Limerick common plant based on the Commission's past policy of allowing a current return on only 50% of the common plant of a dual-unit facility when the first plant is placed in service.[18/] PECO excepts on the ground that the Recommended Decision improperly ignores the unrebutted evidence which the Company has presented on this issue which demonstrates that Limerick common plant is used and useful and should be included in rate base.

It is well established that a previously articulated Commission policy cannot serve as the sole basis for determination of a particular issue. As the Pennsylvania Superior Court stated in Aizen v. Pa. P.U.C., 163 Pa. Super. 305, 60 A.2d 443, 449 (1948):

> "The commission on matters within its administrative discretion, may adopt and follow a policy, but the exercise of such discretion is not without some limitation. Its findings and orders must be based upon the evidence in the case before it. 'The commission's power to act by way of order requires findings of fact, based on the evidence, necessary to support the order.' [citation omitted]. A previously adopted policy may not furnish the sole basis for the commission's action in a particular case. Policy cannot be made a substitute for

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18/ The Recommended Decision reduces the Company's rate base claim to reflect the disallowance of 50% of common plant by $639,512,000 (R.D., p. 25), based on PECO's original claim as filed in PECO Exhibit TPH-2. The final accounting exhibit (PECO Exhibit TPH-2A) revised the original figure downward by $15,306,000 to reflect the elimination of Bradshaw Reservoir. Thus, the correct disallowance for 50% of common plant would be $631,859,000 ($639,512,000 - $7,653,000). As a result of this error, the adjustments to depreciation expense and reserve, tax, and normalization are also overstated by $220,000 (PECO Ex. TPH-2A, pp. C-2, D-26).

evidence in a proceeding before it." (emphasis added)

Accord Butler Township Water Co. v. Pa. P.U.C., 81 Pa. Cmwlth. 40, 473 A.2d 219, 221 (1984) ("The declaration of a policy based on general conclusions may not be substituted for an evaluation of the evidence in each case."); T.W. Phillips Gas & Oil Co. v. Pa. P.U.C., 81 Pa. Cmwlth. 205, 474 A.2d 355, 366 (1984) (Butler Township cited as controlling on this issue).

The Recommended Decision's refusal to include 100% of Limerick common plant in rate base directly contravenes these appellate precedents by disregarding the Company's unrebutted evidence in this proceeding that (1) the use of common plant at Limerick produces a substantial cost savings to PECO ratepayers (PECO Initial Brief, p. 7-5); (2) 100% of common plant is required for the actual operation of Limerick 1 or for the efficient completion of the Limerick station (PECO Initial Brief, pp. 7-5 to 7-7); (3) the inclusion of 100% of common plant in rate base will significantly reduce the final cost of Limerick station to the benefit of ratepayers (PECO Initial Brief, p. 7-7); and (4) 92% of the costs of Limerick common plant would have been required solely for Limerick 1 and is currently providing actual utility service to PECO ratepayers (PECO Initial Brief, p. 7-7). Neither the Recommended Decision nor any other party to this case has addressed the Company's evidence which is based on a rigorous and detailed analysis. The sole reliance on past Commission policy cannot be substituted for fair and considered evaluation of the Company's evidence. The Company's claim should therefore be approved.

Finally, the Recommended Decision's assumption that the $3.2 billion cost containment cap which the Commission has established on the construction of Limerick 2 includes 50% of Limerick common plant is simply incorrect. The Limerick 2 cap is based directly on a PECO cost forecast and does not include common plant. Thus, contrary to the Recommended Decision's suggestion, the inclusion of 100% of common plant in rate base at this time does not permit the Company to "renege, in part," on the Limerick 2 cost containment agreement.

B. Bechtel Construction Errors

The Recommended Decision adopts Trial Staff's proposed disallowance of $13,278,000 associated with potential claims against Bechtel Power Corporation and backcharges against various contractors and suppliers (R.D., pp. 38-40). PECO excepts.

In making this adjustment, the Recommended Decision relies on the understanding that these costs represent "contractor errors." However, as explained in the Company's Initial Brief (pp. 3-77 to 3-78), $400,000 of these costs are actually backcharges against various contractors and suppliers and not potential claims against Bechtel. In addition, this $400,000 is not even claimed in this proceeding (PECO St. 1A, pp. 21-22). These unresolved backcharges will be subject to future negotiation to determine whether the Company receives any funds as a result of these claims. Any unrecovered funds are appropriate for rate base inclusion, since these expenditures were required for the proper operation and licensing of the Limerick plant. Thus, $400,000 of the ALJ's adjustment is by definition not properly included in this disallowance.

As to the remainder of this disallowance (i.e., nearly $13 million), these costs do not represent "contractor errors." First, these are only potential claims, and Trial Staff performed no analysis to establish that these costs actually resulted from contractor error. Indeed, a thorough Company review has concluded that approximately one-third of these items are associated with uncontrollable regulatory changes and thus not properly excludable from rate base. In addition, a majority of these costs are not recoverable under existing vendor contracts. Mr. Boyer summarized the errors in this Trial Staff adjustment as follows (PECO St. 1A, pp. 20-21):

> "Mr. Gruber does not recognize that these are potential claims. This list was developed as a management tool primarily to keep track of areas where Bechtel's performance was thought to be less than perfect, so that examples would be available to PECO for purposes of contract and fee negotiations with Bechtel. The list has, in fact, been used in this regard and has enabled us to negotiate a lower fee structure. As such, project costs already reflect consideration of these items. Secondly, Mr. Gruber does not recognize that some problems are expected to occur as part of the

normal engineering and construction activities on any project. As such, these costs are an integral part of the total project's cost. To claim that they are not 'used and useful' is to assert that Limerick should have been designed and constructed to a standard of absolute perfection, which is obviously not achievable."

The ALJ's disallowance of these costs is directly contrary to this Commission's determination in Pa. P.U.C. v. Pennsylvania Power & Light Co., Docket No. R-822169 (August 22, 1983). In addressing Trial Staff's proposal to deduct from PP&L's rate base the cost of alleged contractor errors, the ALJ stated: "I believe that any such adjustment at this time would be premature. PP&L has not recovered from Bechtel on any of these notices of alleged deficiencies." (R.D. p. 72). The Commission later approved this determination (Order pp. 26-27). Thus, potential claims against contractors are not deductible from rate base under Commission policy, and the ALJ's adjustment is in error.

C. CPR Audit Adjustment: Entry No. 9

Contrary to Commission determinations in PECO rate orders since 1980, the Recommended Decision (R.D., pp. 43-45) adopts a Staff-proposed adjustment of $15,334,430 to the Company's rate base claim based on Adjusting Entry No. 9 in the Bureau of Audits' 1985 audit of PECO's continuing property records. This Adjusting Entry proposes two accounting reclassifications which reclassify certain costs for projects at Salem and Peach Bottom Stations from capital to expense accounts. The Company excepts to these proposed adjustments.

As fully explained in the Company's Briefs (PECO Initial Brief, pp. 7-16 to 7-22; PECO Reply Brief, pp. 7-4 to 7-6), the Bureau of Audits is in error as to the proper accounting treatment for these items which were properly classified by PECO since 1980 as capital items under the guidelines of the Uniform System of Accounts. There is no reasonable basis to change this practice now. Moreover, even if the applicable accounting rules set forth in the Uniform Systems of Accounts are viewed as ambiguous and open to differing interpretations, it is important to note that there is no dispute as to

the prudency and reasonableness of the costs incurred on these projects, and there should be no dispute that PECO should be allowed to recover these costs. Thus, if these costs are to be expensed rather than capitalized and recovered in rate base, then the Commission should approve recovery of these costs as an expense allowance in order to permit recovery of these admittedly prudent and reasonable expenditures.

The Recommended Decision rejects the Company's alternative proposal of an expense recovery on the ground that current recovery of these previously incurred expenses would constitute retroactive ratemaking. This argument is clearly in error. If the proposed accounting changes are approved, these costs will be recorded as current expenses on PECO's 1986 income statement, and this case will be PECO's first opportunity to claim these costs as an expense. Recovery of currently recorded expenses is clearly not retroactive ratemaking. Indeed, if retroactivity is relevant to this issue at all, it is the Staff's proposal to disallow all recovery of these expenditures based on a retroactive accounting change which is inappropriate. The issue presented is one of fairness and equity which cannot be resolved by a mere reference to "retroactive ratemaking." These costs were prudently incurred and reasonable in amount and should be recovered in one form or another regardless of any accounting dispute. The simplest and fairest approach is to continue to include these projects in rate base as the Commission has done since 1980. Alternatively, an additional expense allowance of $15,334,430 should be approved.

D. Taxes

1. Normalization of Construction Overheads

As explained in the Company's Brief (PECO Initial Brief, pp. 7-135 to 7-139), normalization of the federal and state tax reductions attributable to pension costs and payroll and realty taxes related to construction work in progress (CWIP) allows the Company to provide these tax benefits to the ratepayers who will pay the underlying cost

which gives rise to the tax deduction. The underlying costs are not paid by current ratepayers, but are recorded as CWIP and will be paid by future ratepayers when the plant is placed in service. Normalization reflects this fact by recognizing the tax deduction associated with these costs in the same period as the payment of the underlying expense by ratepayers. This procedure has been approved by the Commission in the Company's last four rate proceedings.

In contrast, adoption of the Recommended Decision would deny future ratepayers the tax benefits associated with the expenses they will pay when the plant is in service, and provide these tax benefits to current ratepayers who will pay none of the underlying expenses. This is an illogical and inequitable result and should be rejected.

The Recommended Decision's reliance on the Supreme Court's decision in Barasch v. Pa. P.U.C., 507 Pa. 496, 492 A.2d 94 (1985), is misplaced. Nothing in the Barasch decision requires the flow through of these tax benefits. That case dealt with normalization of accelerated depreciation under federal income tax law as it applies to plant which is in service and included in a utility's rates. This is clearly distinguishable and inapposite to the issue presented in the instant case which deals with CWIP, which, in accordance with Section 1315 of the Public Utility Code, 66 Pa.C.S. §1315, may not be rejected in rates.

Finally, the Recommended Decision erroneously accepts Staff's proposal that the accumulated deferred tax balances resulting from normalization of these overheads in accordance with Commission Orders in PECO's last four rate proceedings be flowed through to current ratepayers over a five-year period. As set forth in the Company's Brief (PECO Initial Brief, p. 7-139), this adjustment retroactively changes these prior Commission's Orders. If the Commission desires to change its policy on this issue, it should do so on a prospective basis only and not seek to change prior Commission-made rates.

2. Deferred State Income Taxes

In accordance with recent Commission Orders, the Company did not in this case seek to normalize the current state income tax reductions associated with accelerated depreciation. However, the Recommended Decision adopts an adjustment requiring the Company to flow through to ratepayers over five years taxes previously deferred pursuant to prior Commission orders allowing normalization of state income taxes (PECO Initial Brief, P. 7-140). As with the previously deferred taxes associated with construction overheads, this adjustment effectively reverses these prior Commission Orders, is not required by the Barasch case, which is silent on the question of retroactive application, and represents a change in Commission policy which should only be made prospectively (PECO Initial Brief, p. 7-140; PECO Reply Brief, p. 7-36).

3. Consolidated Tax Savings

The Recommended Decision (p. 143-44) adopts an OCA-proposed adjustment to reduce PECO's claimed tax expense to reflect the tax savings resulting from the filing of a consolidated tax return. As explained in PECO's Briefs (PECO Initial Brief, pp. 7-141 to 7-143; PECO Reply Brief, p. 7-36), the tax losses which the Recommended Decision allocates to PECO are related solely to the losses of Eastern Pennsylvania Exploration Company, a gas exploration and drilling company, and have been reflected in PECO's gas operations in the Company's last gas proceeding at Docket No. R-832410. Indeed, the consolidated tax savings adjustment in that case ($432,000) exceeds the OCA's calculation of total PECO consolidated tax savings in this case ($387,000). The allocation of these tax savings to gas operations is consistent with the Company's allocation practice, repeatedly approved by the Commission, of segregating its gas, electric, and steam operations. The Recommended Decision's additional consolidated tax savings adjustment of $342,000 is inconsistent with this Commission-approved practice and should be rejected.

4. Salem 2 Tax Benefits

For the reasons set forth in its Initial Brief (pp. 7-143 to 7-145), the Company excepts to the Recommended Decision's adjustment relating to the Salem 2 tax benefits.

E. Other Exceptions

1. Land Held for Future Use

The Recommended Decision (R.D., pp. 27-28) disallows $1,258,000 of the Company's claim for land held for future use by removing 50% of the cost of the land for the Bradshaw Reservoir. The Company excepts.

The fact that the Bradshaw Reservoir will be part of common plant when completed is irrelevant to a determination whether the land upon which the reservoir is constructed is properly included in the Company's claim for land held for future use. The claim for Bradshaw Reservoir is a claim for land, not for plant or CWIP. Thus, irrespective whether 50% or 100% of Limerick common plant is permitted in rate base, the rules for land held for future use apply to the Company's claim for the Bradshaw Reservoir land. Since it is undisputed that the Bradshaw Reservoir land meets all Commission requirements for the inclusion of land held for future use in rate base, the Company's claim should be approved. This result is also consistent with Commission precedent. In Pa. P.U.C. v. Duquesne Light Co., 54 Pa. P.U.C. 695, 43 PUR4th 27 (1981), the Commission deducted from its disallowance of 50% of common plant the portion represented by land. 43 PUR4th at 47.

2. Salem 1 Management Evaluation

The Recommended Decision (R.D., pp. 118-21) adopts adjustments proposed by Trial Staff and OCA to disallow the costs for the Salem 1 Management Evaluation Program. The Company excepts for the reasons set forth in the Company's Briefs (PECO Initial Brief, pp. 7-98 to 7-100; PECO Reply Brief, pp. 7-24 to 7-26).

3. Limerick 2 Investigation Costs

The Company has claimed a five-year amortization of the costs it incurred in the Limerick 2 Show Cause Investigation. The Recommended Decision disallows the Company's amortization claim, adopting an OCA adjustment to capitalize these costs over the life of Limerick 2 on the ground that "[i]t would be inequitable to ask current ratepayers to subsidize costs of a plant now but which may only serve future ratepayers several years later" (R.D., pp. 127-28). The Company excepts. The issue here is not whether ratepayers should or should not subsidize the costs of Limerick 2 but whether PECO should be allowed to recover the reasonable expenses (which have not been challenged as imprudent) it incurred as a result of an investigation ordered by the Commission and in which the Company was required to participate and the ultimate outcome of which was a determination that the completion of Limerick 2 is in the public interest. The Company's claim, therefore, should be allowed.

4. Decommissioning

The Recommended Decision adopts (1) a Trial Staff proposal to amortize the Company's reserve decommissioning deficiency over the life of the plants, rather than over five years as the Company proposed (R.D., pp. 137-38), and (2) Trial Staff and OCA proposals to eliminate the costs of decommissioning Peach Bottom Unit 1 (R.D., pp. 122-24). PECO excepts to these adjustments, for the reasons fully set forth in the Company's Briefs (PECO Initial Brief, pp. 7-127 to 7-134; PECO Reply Brief, pp. 7-33 to 7-35).19/

19/ In PECO Statement 20B, the Company submitted a revised page D-15 to PECO Exhibit TPH-2A to correct the Company's decommissioning claim to reflect the appropriate amortization period for Salem 2 from 27 years to 23.78 years (PECO St. 20B, pp. 6-8). No party challenged this adjustment, and, on cross-examination, Staff Witness Mayer admitted that 23.78 years was the correct amortization period for Salem 2. Thus, the Company's decommissioning claim should be increased by $220,000.

5. Keystone Alliance Adjustment

The Recommended Decision (R.D., pp. 130-31) disallows $4,382,623 ($2,174,672 for PECO's expense claim in this proceeding; $2,207,951 of refunds at Docket Nos. R-842590 and R-822291) as a result of the Commission's decisions in Keystone Alliance v. Philadelphia Electric Co., Docket No. C-78080459. PECO excepts for the reasons stated as follows. First, as set forth in the Company's Brief (PECO Initial Brief, p. 7-115), the retroactive disallowance of these expenses, approved by the Commission in PECO's prior two rate cases, is contrary to law since it violates the doctrine of Commission-made rates. Second, even assuming for purposes of argument that these adjustments are appropriate, the quantification of the adjustments recommended by the ALJ contains several significant and obvious errors. These errors are explained in detail in the Company's Briefs (PECO Initial Brief, pp. 7-116 to 7-119; PECO Reply Brief, p. 7-32). Correction of these errors yields a maximum adjustment of $2.6 million (PECO Initial Brief, p. 7-116).

6. Transmission Line CWIP Refund

Based on the Commission's Tentative Order, entered April 2, 1986, at Docket No. R-822291, the Recommended Decision (R.D., pp. 139-40) conditionally adopts an OCA suggestion that the proposed tentative refund contained in the April 2 Order be implemented in this proceeding. The Company excepts on two grounds. First, a refund, whether conditional or not, is inappropriate and premature. The Commission's April 2 Tentative Order was issued as a result of a remand from the Commonwealth Court on an appeal in a completely separate proceeding. The Company filed Exceptions to the Tentative Order on May 2, 1986, which argued that the Commission should reaffirm its prior finding and that no refund is factually or legally appropriate. The Commission has not yet ruled on these exceptions nor entered a final Order in this case. Second, the Recommended Decision's calculation of the amount of the refund is in error since it assumes that the OCA's computation of $5,493,807 is correct. In Reply Exceptions, filed

by the OCA on May 12, 1986, the OCA, agreeing with PECO, notes that "the Commission should adopt an $880,000 addition to the Company's plant in service claim (and a corresponding $65,000 addition to its depreciation expense) in R-850152." (OCA Reply Exceptions, p. 9). These offsets and others proposed by the Company reduce the amount of the refund to $2,937,000 which, refunding this amount over a two-year period, produces a $1,468,500 adjustment to rates.

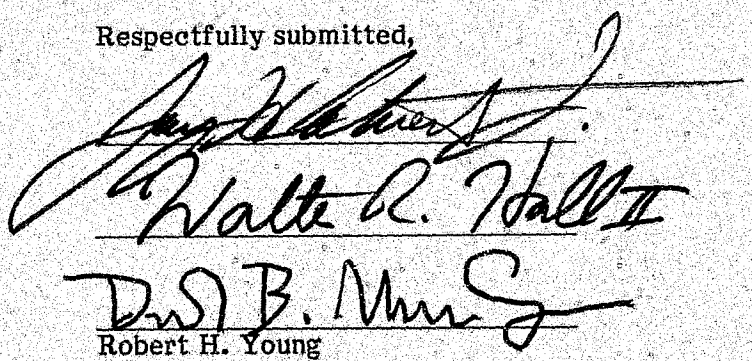
F. Exceptions To ALJ Evidentiary Rulings

For the reasons set forth in its pleadings and in order to preserve its rights on appeal, the Company excepts to the ALJ's rulings on the following issues: (1) the Company's Motion in Limine/Motion to Strike the OCA's evidence on the Mark II issue on the basis of collateral estoppel; (2) Trial Staff's Motion to Strike Company evidence with respect to a cap on gain or loss on the 80%/20% ECR; and (3) the Company's Motions to Strike the testimony of City of Philadelphia Witness Schinnar.

VI. CONCLUSION

For the reasons set forth above, it is clear that the Recommended Decision, if adopted by the Commission, would deny the Company the just and reasonable rates to which it is entitled. The Recommended Decision, therefore, should be modified in the manner described herein, and the Commission should approve the full amount of the increase requested in Supplement No. 15.

Respectfully submitted,



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APPENDIX A

Derivation of Cost Savings for Limerick 1 and 50% of Common Based on a January 31, 1984 Fuel Load

The Company determined that approximately $170.4 million out of the total cost for Limerick 1 and 50% of common plant could have been saved if the Company would have achieved fuel load nine months sooner than the actual date of October 26, 1984, or on January 31, 1984. A breakdown of the components of this cost savings (including AFUDC) is as follows:

Direct Cost	$116.6 million
PECO Indirect Cost	9.0 million
Bechtel Indirect Cost	44.8 million
TOTAL	$170.4 million

The methodology used to derive this cost savings is identical to that used by OCA Witness O'Brien in OCA Statements 1, 1A, and 1B and adopted by the ALJ. This consistency was assured through the use of a computer disk obtained from the OCA containing the program/spreadsheet which was used for Witness O'Brien's calculations, including the derivation of the $386.8 million in direct costs and AFUDC adopted by the ALJ. Detailed calculations supporting the above figures are contained in the attached Schedules 1 through 4 and are summarized below.

Calculation of these cost savings began with the PECO annual direct cash expenditures for Limerick 1 and 50% of common plant tabulated in OCA Statement 1B, Exhibit JJO'B-30.2, which OKA adjusted to reflect their proposed disallowance of PECO and Bechtel indirect costs. As shown on Schedule 1, the Handy Whitman Index of Public Utility Nuclear Construction Costs for the North Atlantic Region was used to deescalate PECO's annual direct construction expenditures to 1971 dollars, as was done by Witness O'Brien. Deescalated direct costs expended after January 31, 1984 were then reallocated to two periods (i.e. January 1, 1975 to January 31, 1984 and the period immediately following January 31, 1984), again following Witness O'Brien's methodology.

Upon completing the reallocation of post-January 31, 1984 expenditures, the resulting direct expenditures were escalated to nominal dollars by use of the Handy Whitman Indices. As indicated in Schedule 1, the difference between total actual and nominal directs is $45.6 million.

Schedule 2 presents the calculation of AFUDC savings associated with a January 31, 1984 fuel load. AFUDC accurals were calculated by using the OCA-supplied computer disk which was used to calculate Witness O'Brien's proposed adjustment, and are based on the AFUDC rates provided by PECO to OCA as tabulated in OCA Statement 1B, Exhibit JJO'B-30.2 and OCA's AFUDC accrual formula as described in OCA Statement 1, Exhibit JJO'B-17.5. The total direct cost savings including AFUDC associated with a January 31, 1984 fuel load are $116.6 million, as shown on Schedule 2.

PECO indirect expenditures in the amount of $27.5 million (including AFUDC) were disallowed from rate base by the ALJ (R.D., p. 70). This figure was spread uniformly over the 27-month period from July 31, 1982 (OCA's proposed fuel load date) to October 26, 1984 to derive a monthly PECO indirect expenditure level. For the postulated January 31, 1984 fuel load, the pro rated portion of the $22.5 million indirects, i.e. excluding AFUDC, for the period from February 1, 1984 to October 26, 1984 was determined to be $7.4 million and its associated AFUDC was calculated at $1.6 million for a total savings of $9.0 million, as shown on Schedule 3.

Finally, Bechtel indirect expenditures in the amount of $140.6 million (including AFUDC, or $112.2 million excluding AFUDC as shown in Exhibit JJO'B-26) were disallowed from rate base by the ALJ (R.D., p. 70). These expenditures were also assumed to be uniformly expended over a period of 27 months from July 31, 1982 until October 26, 1984. For the postulated January 31, 1984 fuel load, the pro rated portion of the $112.2 million for the nine-month period February 1, 1984 to October 26, 1984 amounted to $36.9 million with AFUDC of $8.4 million for a total exclusion of $44.8 million. This calculation is shown on Schedule 4.

Actual Fuel load: 26-Oct-04
Prudent Fuel load: 31-Jan-04 = 269 days before actual

Year	Actual Nominal Directs	North Atlantic Handy-Whitman Index	Deflator to 1971	Actual Real Directs
1971	26.5	88	1.000	26.5
1972	28.6	95	0.926	26.4
1973	50.1	100	0.880	44.1
1974	61.3	114	0.772	47.3
1975	70.2	127	0.693	48.6
1976	92.3	136	0.647	59.7
1977	99.0	146	0.603	59.7
1978	78.0	155	0.568	44.3
1979	97.5	170	0.518	50.4
1980	147.9	184	0.478	70.7
1981	182.3	200	0.440	80.2
1982	234.6	217	0.406	95.1
1983	250.6	227	0.380	97.1
1984	260.6	235	0.374	97.6
1985	116.0	242	0.364	42.2
1986	8.0	253	0.340	2.8 15-Feb-06 CO
	1803.3			892.9

DIFFERENCE IN TOTAL NOMINAL DIRECTS: $45.6

Pattern of Actual Real Directs Over "Stretchout" Period
(109 Months Preceding Actual Fuel Load)

Months in Year	Real Directs Over Period: Annual	Share of Period	Actual Between 31-JAN-84 and 26-Oct-84	Reallocated to 109 Months Preceding Actual Fuel Load
27-Sep to 31-Dec	12.7	1.9%		1.4
ALL	59.7	9.2%		6.6
ALL	59.7	9.2%		6.6
ALL	44.3	6.8%		4.9
ALL	50.4	7.8%		5.6
ALL	70.7	10.9%		7.8
ALL	80.2	12.3%		8.9
ALL	95.1	14.6%		10.5
ALL	97.1	14.9%		10.7
01-Jan to 26-Oct	80.0	12.3%	71.7	8.8
	650.0	100.0%	71.7	71.7

Pattern of Reallocated Real Directs When Shifted to 109 Months Preceding Prudent Fuel Load

Months in Year	Annual	Remaining Real Directs to Reallocate Before/After Prudent Fuel Load	Revised Directs After Reallocation: Real	Nominal
			26.5	26.5
01-Jan to 31-Dec	6.3		26.4	28.6
ALL	6.6		44.1	50.1
ALL	5.3		47.3	61.3
ALL	5.4		54.9	79.2
ALL	7.2		66.3	102.5
ALL	8.6		65.0	107.3
ALL	10.1		49.7	87.5
ALL	10.7		57.7	111.4
ALL	9.3		79.3	165.8
01-Jan to 31-Jan	2.3	25.9	90.3	205.2
		42.2	105.8	260.9
		2.8	106.5	274.7
	71.7	70.8	892.9	1757.7

Actual Fuel load: 26-Oct-04
Prudent Fuel load: 31-Jan-04

SCHEDULE 1

SCHEDULE 2

	ANNUAL DIRECTS						AFUDC		AFUDC ACCRUALS					Cumulative Totals	
	OKA			PECO			AFUDC Rates		OKA			PECO		OKA	PECO
Year	Annual	Semi	Cum	Annual	Semi	Cum	Nominal	Effectiv	Semi	Annual	Cum	Annual	Cum		
1971				26.5	26.5		8.00%	8.00%	1.1	1.1	1.1	1.3	1.3	27.6	27.8
1972				28.6	28.6	55.05	8.00%	8.00%	3.5	3.5	4.6	3.4	4.7	59.6	59.7
1973				50.1	25.1	105.15	8.00%	4.00%	2.9	6.8	11.4	5.9	10.6	87.6	115.7
					25.1		7.50%	3.75%	3.8					116.5	
1974				61.3	30.7	166.45	7.50%	3.75%	5.0	11.4	22.8	9.7	20.3	152.2	186.7
					30.7		7.50%	3.75%	6.4					189.3	
1975	79.2	39.6	245.7	70.2		236.6	8.00%	4.00%	8.4	19.1	39.4	16.2	36.5	234.7	273.1
		39.6					8.25%	4.13%	10.7					283.0	
1976	102.5	51.3	348.2	92.3		328.9	8.20%	4.10%	13.0	29.1	68.5	22.2	58.7	349.3	387.6
		51.3					8.40%	4.20%	16.1					416.6	
1977	107.8	53.9	456.0	99.0		427.9	8.60%	4.30%	19.5	42.5	111.0	29.7	88.4	490.0	516.3
		53.9					8.70%	4.35%	23.0					566.9	
1978	87.5	43.8	543.5	78.0		505.9	7.10%	3.55%	21.3	45.6	156.6	40.1	128.5	631.9	634.4
		43.8					7.30%	3.65%	24.3					700.0	
1979	111.4	55.7	654.9	97.5		603.4	7.40%	3.70%	27.4	58.4	215.0	51.8	180.3	783.1	783.6
		55.7					7.50%	3.75%	31.0					869.8	
1980	165.8	82.9	820.7	147.9		751.3	7.50%	3.75%	34.8	77.9	292.9	69.4	249.6	987.6	1000.9
		82.9					8.20%	4.10%	43.1					1113.5	
1981	205.2	102.6	1025.9	182.3		933.6	8.30%	4.15%	49.4	110.0	402.9	92.2	341.8	1265.5	1275.4
		102.6					9.00%	4.50%	60.6					1428.7	
1982	260.9	130.5	1286.8	234.6		1168.2	9.10%	4.55%	69.6	150.2	553.1	129.2	471.0	1628.7	1639.2
		130.5					9.30%	4.65%	80.6					1839.8	
1983	274.7	137.4	1561.5	250.6		1418.8	9.30%	4.65%	90.9	192.6	745.7	164.5	635.5	2068.0	2054.3
		137.4					9.30%	4.65%	101.7					2307.1	
1984	160.0	80.0	1721.5	260.6		1679.4	9.40%	4.70%	113.0	235.2	980.9	208.3	843.8	2500.1	2523.2
		80.0					9.40%	4.70%	122.3					2702.3	
1985	36.4	36.4	1757.9	116.0		1795.3	9.50%	3.67%	101.7	101.7	1082.6	250.3	1094.1	2840.4	2869.4
									0.0						
1986				8.0		1803.3						59.6	1153.7		2957.0
DIFFERENCE IN TOTAL MCG:				$116.6					Per DR-Staff-LIM-14						3784.2

Allocation of Annual Expenditures
And Derivation of AFUDC Accruals
Associated with PECO Indirects
Incurred Between February 1984 and October 1984, Inclusive

BASED ON LIMERICK 1 AND 50% OF COMMON

PECO INDIRECT COST DISALLOWED BY ALJ: $27.5m (including AFUDC).

ESTIMATED DISALLOWANCE EXCLUDING AFUDC: $22.5m (7/31/82-10/26/84).

1/31/84-10/26/84 PRO-RATED PECO INDIRECTS: $7.4m

DERIVATION OF AFUDC ACCRUALS

YEAR	PECO INDIRECTS Annual	Semi	Cum	Semi	Effective	Semi	Annual	Cum	TOTAL
1984	7.4	4.2	4.2	9.40%	3.90%	0.1	0.3	0.1	4.3
		3.2	7.4	9.40%	4.70%	0.2		0.3	7.7
1985				9.50%	4.75%	0.4	0.8	0.7	8.1
				9.50%	4.75%	0.4		1.1	8.5
1986				9.60%	4.80%	0.4	0.5	1.5	8.9
				9.60%	1.21%	0.1		1.6	9.0
TOTAL MIXED-CURRENT GROSS:									$9.0

SCHEDULE 3

Allocation of Annual Expenditures
And Derivation of AFUDC Accruals
Associated with Bechtel Indirects
Incurred Between February 1984 and October 1984, Inclusive

BASED ON LIMERICK 1 AND 50% OF COMMON

BECHTEL INDIRECT COST DISALLOWED BY ALJ: $112.2m (excluding AFUDC) (7/31/82-10/26/84).

1/31/84-10/26/84 PRO-RATED BECHTEL INDIRECTS: $36.8m

DERIVATION OF AFUDC ACCRUALS

BECHTEL INDIRECTS										
YEAR	Annual	Semi	Cum	Semi	Effective	Semi	Annual	Cum	TOTAL
1984	36.8	20.8	36.8	9.40%	3.90%	0.4	1.6	0.4	21.3
		15.9		9.40%	4.70%	1.2		1.6	38.3
1985				9.50%	4.75%	1.9	3.8	3.4	40.2
				9.50%	4.75%	2.0		5.4	42.2
1986				9.60%	4.80%	2.1	2.6	7.5	44.2
				9.60%	1.21%	0.5		8.0	44.8

TOTAL MIXED-CURRENT GROSS: $44.8

SCHEDULE 4

ORIGINAL

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(717) 783-9981

May 23, 1986

RECEIVED

MAY 23 1986

SECRETARY'S OFFICE
Public Utility Commission

Secretary Jerry Rich
Pennsylvania Public Utility Commission
North Office Building
New Filing Section, Room B-16
Harrisburg, PA 17120

Re: Pennsylvania Public Utility Commission
v. Philadelphia Electric Company,
Docket No. R-850152

Dear Secretary Rich:

Enclosed for filing with the Commission is the original and nine copies of the Exceptions of the Governor's Energy Council to the Recommended Decision in the above-captioned proceeding.

I hereby certify that we are today serving copies of this document on all active parties.

Sincerely,

Roger E. Clark /TJM

Roger E. Clark
Chief Counsel

Enclosures

cc: The Honorable Joseph P. Matuschak
All Active Parties

DOCUMENT FOLDER

CERTIFICATE OF SERVICE

I hereby certify that I have this 23rd day of May, 1986, served a copy of the Exceptions of the Governor's Energy Council in Docket No. R-850152 upon the following by first class mail (postage prepaid) or hand delivery.

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Dated: May 23, 1986

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Chief Counsel

ORIGINAL

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

RECEIVED

MAY 23 1986

SECRETARY'S OFFICE
Public Utility Commission

Pennsylvania Public Utility Commission	)	
v.	)	R - 850152
Philadelphia Electric Company	)	

DOCKETED

MAY 27 1986

EXCEPTIONS OF THE GOVERNOR'S ENERGY COUNCIL

TO THE RECOMMENDED DECISION OF

ADMINISTRATIVE LAW JUDGE JOSEPH P. MATUSCHAK

DOCUMENT

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May 23, 1986

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I. Introduction.

In these exceptions, the Governor's Energy Council identifies several aspects of the Recommended Decision of Administrative Law Judge Joseph P. Matuschak which the Commission is asked to change. Possibly the greatest shortcoming of the Recommended Decision is the absence of any recommendations for performance based regulation. Nothing is recommended to further ensure that the Company's ratepayers are offered reliable, efficient service at a reasonable price. The Recommended Decision either rejects or ignores a number of proposals offered by the parties to provide incentives for good performance and to make the Company share in the risk of poor performance. None of the recent performance based regulatory initiatives which this Commission has supported in other cases are present in this Recommended Decision. It is this aspect of the Recommended Decision which is most in need of correction.

These exceptions also address the phase-in plan recommended in the ALJ's decision. There are several flaws in the plan which the GEC asks the Commission to correct.

The GEC also does not believe that the Recommended Decision made all of the proper adjustments to the Company's revenue request. The Commission is urged to reassess and adopt the adjustments for excess capacity and the Mark II containment costs which were proposed by the Office of Consumer Advocate and the

GEC. These exceptions also discuss the need for a revision in the Company's figures for oil prices to assure the 80/20 Energy Cost Rate performs the task it was designed to do.

II. The Recommended Decision incorrectly rejected the GEC's proposal for a nuclear performance standard.

Performance based regulation, with its themes that a regulated utility's earnings should be based in some measure on the utility's performance and that risks should be shared between shareholders and ratepayers, is being increasingly recognized and implemented by both this Commission and others throughout the country. Despite this fact, the Recommended Decision contains nothing to implement this regulatory philosophy.

In this proceeding, the GEC presented an extensive performance proposal for the Company's nuclear generating units. The GEC proposed that the Commission set a performance standard for the Company's five nuclear units, and that there be both positive and negative incentives for the Company to meet this standard. The GEC also recommended provisions to control operations and maintenance costs and capital additions. See GEC St. 1-A.

The Recommended Decision devoted but two sentences to this proposal. The first sentence was a five line summary of the proposal, and the second sentence read:

> Because this proposal seeks to modify the

> Commission's ECR 8 order, and is seriously flawed in other respects, we reject the GEC proposal.

R.D. 185. These two findings, that the GEC's nuclear performance proposal was an improper modification of the ECR 8 order and that the proposal is seriously flawed, will be addressed in turn.

a. The GEC's proposed nuclear performance standard is consistent with the Commission's ECR 8 order.

One of the procedural issues in this proceeding involved the propriety of proposing modifications to this Commission's Order dated October 30, 1985 in Docket No. M-840375 which created the 80/20 Energy Cost Rate for the Company (referred to as the "ECR 8 order"). Several Company witnesses proposed a cap to the Company's liability for additional energy costs in the event of poor performance by the Company's generating units or other events which would cause the Company's energy costs to exceed the ECR projections. The Trial Staff's moved to strike this testimony, and the ALJ ruled that this proposal for a cap was an improper attempt to modify the ECR 8 order. See ALJ's ruling dated March 10, 1986.

While there was no motion to strike the nuclear performance testimony of GEC witness Dr. John W. Wilson, the GEC recognizes that the ALJ's ruling applies to portions of Dr. Wilson's testimony. Dr. Wilson's early testimony suggesting use of the ECR to implement a performance standard is admittedly covered

under the terms of the March 10 ruling. There is, however, no basis for the ALJ's conclusion that the ECR 8 order ruled out all testimony about the need for and the desirability of a performance standard for the Company's nuclear units. Dr. Wilson's suggestions for a performance standard are not inextricably linked to the ECR mechanism, but can be implemented in other ways. See Tr. 3961-3963. His performance proposal was not an attempt to modify the 80/20 ECR, but rather a proposal to add an additional and separate performance standard for the operation of the Company's nuclear units, just as the Commission did in the case of Limerick Unit 2.

The GEC believes that 80/20 ECR was not intended by this Commission to be the exclusive regulatory incentive for good plant performance by the Company. This is apparent from the fact that this Commission established for the same utility both the 80/20 ECR and a separate performance standard for Limerick Unit 2 (I-840381, Opinion and Order entered December 5, 1985, pages 87-89).

The GEC urges the Commission to dismiss the ALJ's finding that the ECR 8 order precludes further consideration of performance, to address the merits of the GEC's proposal, and to adopt the GEC's nuclear performance proposal in its final order.

b. The GEC's proposed nuclear performance standard effectively provides incentives for good performance and a sharing of the risks of poor performance.

The Recommended Decision stated that the GEC's nuclear performance proposal was "seriously flawed in other respects." R.D. 185. However, the ALJ provided no substantive analysis to support this conclusion. In fact, the GEC demonstrated that the capacity factor numbers used in the performance standard were reasonable, that there was no reason that the incentives in the performance plan should be symmetric, that the proposal does not expose the Company to unreasonable risk, and that the performance standard is needed despite the existence of the 80/20 Energy Cost Rate. See GEC Initial Brief, 28-33, and Reply Brief, 1-4.

Because the ALJ failed to support his rejection of the GEC performance proposal, the Commission and the parties can only guess in which respects the ALJ believed the GEC's performance proposal was "seriously flawed." However, since the Company was the only party to challenge the GEC's performance proposal, it is assumed that the "flaws" to which the ALJ refers were those raised by the Company. The Company's objections were fully addressed by the GEC in its briefs and are without merit. See GEC Initial Brief, 28-33, and Reply Brief, 1-4.

The GEC also notes that the GEC's performance proposal in this case is consistent with the Commission's current proposal for the Energy Cost Rate in Docket No. M-820324.

The GEC requests the Commission to review the evidence in

the record and to conclude that the GEC's nuclear performance proposal is both sound and necessary.[1]

III. The Recommended Decision incorrectly approved certain portions of the Company's phase-in plan.

The Recommended Decision adopts a three year phase-in plan with a three-year recovery period, with no recovery of carrying charges on the deferred amounts. R.D. 175. In so ruling, the ALJ adopted the Company's phase-in plan with the exception of the size of the rate increase to be recovered. There remain, however, certain serious flaws in the Company's phase-in proposal which were made part of the phase-in plan adopted in the Recommended Decision and which the GEC asks the Commission to correct.

---

[1]It is worth noting that the Company presented a counter proposal for performance if the Commission concluded that a nuclear performance standard should be established. The Company proposed three changes to the GEC proposal: expand the performance range to 55% to 70% (instead of 60% to 70%), make the Company liable for half of the additional fuel and energy costs caused by poor performance (instead of all of the costs), and establish a cap on the total amount of both the positive and negative incentives (instead of no caps). The GEC believes that each of these changes would undermine the protection of the ratepayers and the incentives for good performance, and thus challenged these modifications. GEC's Initial Brief, 27-28. The ALJ made no mention of this counter-proposal by the Company.

a. The Company's plan over collects because it fails to recognize the falling revenue requirements of Limerick Unit No. 1.

As the GEC stated in its Initial Brief, the Company's phase-in plan produces excess recovery because it fails to recognize the substantial annual reductions in revenue requirements due to depreciation of Limerick Unit 1 and the common plant. See GEC's Initial Brief, pages 37-38, and the testimony of GEC witness Dr. Wilson (GEC Statement No. 1-B), and PAIEUG witness Falkenberg (PAIEUG Falkenburg Direct, 6-9). The size of the decline in the revenue requirements due to depreciation is somewhat less under the Recommended Decision than under the Company's initial request, but the principle is unchanged. Because the ALJ did not modify this aspect of the Company's phase-in plan, there will still be an overcollection of revenues under the phase-in plan adopted in the Recommended Decision.

It should be noted that none of the Company's witnesses challenged this point in the phase-in testimony of these witnesses, nor was this issue addressed in the Recommended Decision. A modification of the phase-in plan to address this problem is needed.

b. The guarantee of recovery of the deferred amounts is unreasonable.

Under the phase-in plan proposed by the Company and adopted by the ALJ, there is a unique and improper treatment of the

revenues deferred in the first two years of the plan. The deferred revenues would be calculated by customer class and would be recovered by customer class. Unlike other debts or property which is amortized with the opportunity but not the guarantee of total recovery, the deferred revenues become what City witness Gregory A. Palast described as "customer class debts." Because the Company is guaranteed recovery of the deferred amounts, and the amount of revenues accrued and deferred depends on the level of sales, the phase-in period may extend beyond the expected six years. See Tr. 624-625. Therefore, each class would be liable for its class debt, regardless of any actions it might take to reduce its consumption. Indeed, a customer class which strives to reduce its energy use during the early years of the approved phase-in plan would find itself strapped with the highest levels of deferred recovery surcharges during the latter years of the plan. City St. 2, 66-70.

These arguments were raised by the GEC and other parties in this proceeding, but no mention of this issue appears in the Recommended Decision. A modification of this aspect of the phase-in plan is needed.

IV. The Recommended Decision incorrectly rejected sinking fund depreciation for use in a phase-in plan.

The Company stated that it was proposing a phase-in for the rates to "minimize the financial impact on our customers and the

economy of our service territory." PECO St. 3, 5. Several other parties, including the GEC, agreed that reducing the negative economics impacts of a rate increase was an important component of this proceeding and there were several alternative phase-in plans proposed. There are several findings in the Recommended Decision regarding the GEC's phase-in proposal and the sinking fund proposals of other witnesses which indicate misconceptions about the proposal or a misunderstanding of the issues. These findings will be addressed in turn.

a. The GEC's sinking fund proposal is consistent with FASB 71 and GAAP.

The Recommended Decision states that the GEC's phase-in proposal of a phase-in and deferral with a sinking fund would "not be in compliance with FASB 71" (Financial Accounting Standards Board Statement 71) and is "not in accordance with generally accepted accounting principles." R.D. 173. The GEC disagrees with both of these conclusions.

The public release of the Exposure Draft of FASB Statement 71 during the course of this proceeding demonstrated the changes occurring in the regulatory system and thus the accounting profession. As Company witness William H. Hieronymus noted during cross examination:

> ... one of the things which has developed has been that as the capital cost of plant has gotten to be so high [that] the regulatory system is struggling with how to deal with the rate impacts under conventional regula-

> tory precedence, and the ways that those are being dealt with are changing.

Tr. 737. As the regulatory system develops new methods of dealing with very expensive plants, the accounting profession will likewise undergo certain changes in its rules and principles, as the Exposure Draft of FASB 71 indicates.

The conclusion that the GEC's sinking fund proposal violates FASB 71 is inappropriate and incorrect for several reasons. First, that conclusion is based on the Exposure Draft of FASB 71, and as the Company's witnesses admitted, until the Financial Accounting Standards Board takes final action, all discussion about FASB 71 is conjecture. Tr. 605. It should also be noted that the Company's witnesses have carefully qualified their statements in this issue with the use of words such as "may." See GEC St. 1-D, 19.

Second, other witnesses in this proceeding testified that sinking fund depreciation is not prohibited by the Exposure Draft of FASB 71. The GEC submits that the record does not support rejection of sinking fund proposals on this basis.

The ALJ's conclusion that generally accepted accounting principles are violated by the sinking fund proposals is also incorrect. The generally accepted accounting practices (GAAP) have been and will continue to change to recognize the changing regulatory treatment of new large and expensive generating units. The testimony of the Company's witnesses about GAAP treatment of sinking fund was countered by other party witnesses who testified that GAAP did not prohibit the use of a sinking fund. Indeed, a

significant piece of evidence which was ignored by the ALJ was the report of the auditing firm for Pennsylvania Power & Light stating that utility's financial statement, which included sinking fund depreciation, was prepared in accordance with generally accepted accounting practices. PAIEUG Falkenburg Surrebuttal, 3 and Ex. 2. As with the Company's FASB argument, the GEC submits that the record does not support rejection of the sinking fund proposals on the basis of an alleged violation of generally accepted accounting principles.

b. Sinking fund depreciation is not unprecedented.

The ALJ found that the sinking fund depreciation method was "unprecedented for investor-owned electric utilities." R.D. 173. This conclusion appears based on a 1968 report cited by Company witness Alfred Wroblewski which showed that 92% of the "major privately-owned utilities" reporting to FERC used straight-line depreciation. PECO St. 21-A, 5. The GEC suggests that there is little probative value in knowing what depreciation methodology utilities used in reporting to FERC almost twenty years ago, before the dramatic increase in capital costs of central station generating units and before the regulatory response to those cost increases. When the regulatory system is making major changes in the rate-basing new plants, it should not be a convincing argument to simply reject a concept because it is not the way depreciation has been treated in the past.

The GEC also notes that the ALJ had to go no farther than

Pennsylvania Power & Light to find an investor-owned utility which uses sinking fund depreciation for a generating unit. GEC's witness Dr. Wilson spoke of other investor-owned utilities which have used sinking fund depreciation. GEC St. 1-D, 19.

c. The GEC's sinking fund proposal allows for adequate cash flow and does not expose the Company to unreasonable financial risks.

The ALJ concludes that the GEC's phase-in proposal would "seriously affect the Company's cash flow" and would impose a "substantial risk of non-recovery" on the Company. R.D. 173. The GEC disputes both of these conclusions.

With respect to the cash flow issue, the GEC suggests that the issue is not whether short-term cash flow is reduced, but whether that reduction of short-term cash flow is just and reasonable. One of the key features of sinking fund depreciation is to defer recovery until a later date to better match the timing of cost recovery for the plant with the benefits produced by the plant.

Several witnesses, including Dr. Wilson, addressed the desirability of timing the cost recovery to match the benefits of the plant. Paul Chernick, a witness for the Utility Users Group/University of Pennsylvania testified that Limerick Unit 1 does not have positive present value benefits for the ratepayers until well into the next century. UUC/UP St. 1, 32. Quick recovery of the costs of the plant, when its benefits will not be

realized until long in the future, is inconsistent with the principle of matching annual costs with benefits.

The claim that the alternative phase-in proposals impair the Company's cash flow is not a meaningful complaint. The issue is whether the alternative proposals so reduce the Company's cash flow as to seriously impair the Company's ability and cost of obtaining capital by adversely affecting its financial indicators and thus down-grading its ratings in the financial markets. While it is true that short-term cash flow is reduced under the sinking fund proposal, City witness Gregory Palast noted the Company's cash flow and entire economic situation will be greatly improved upon the inclusion of Limerick Unit 1 into rate base. City St. 2, 11.

As to the risk of non-recovery, the Company produced no evidence to support its witnesses' assertion that such a risk exists. Specifically, the Company introduced no evidence to quantify the alleged risk of non-recovery, or to show what the financial impacts would be if the financial markets perceived such a risk to exist. Since the design of a phase-in plan is a ratemaking issue, the Commission is not under an obligation to make the plan risk free, but only to assure that the plan is just and reasonable.

d. The GEC's sinking fund proposal will not require larger rate increases in the future.

The ALJ asserts that the GEC's phase-in proposal would

"require larger rate increases to future ratepayers" and would raise the revenue requirement of Limerick by over $6 billion over its life. The GEC contends that these statements are misleading and inaccurate.

It is true that the sinking fund proposal defers more of the recovery of the plant's cost to the future. As was noted above, this is a strength of the proposal because the recovery more closely matches the timing of the benefits from the unit. The Recommended Decision did not mention that the sinking fund proposal results in a reduction in the rate increases to the current ratepayers, ie. those who will enjoy substantially few of the plant's benefits.

The ALJ's conclusion regarding the increase in revenue requirement is inaccurate because it is based on the nominal dollars, not the present value of the revenue collections. Any plan which defers collections and allows interest on the deferred amounts will raise the nominal amount of those collections. Had the ALJ correctly considered the time value of money, he would not have criticized the proposal on this basis.

V. The Recommended Decision incorrectly failed to make an adjustment in the Company's revenue request to reflect the Company's excess capacity.

The GEC supported the excess capacity adjustment recommended by the Office of Consumer Advocate. The GEC's view of the excess

capacity argument is that utilities should be required to provide service through the least cost mix of supply options. This least cost mix should include company owned generating stations, conservation and load management programs, and customer-owned generation. The massive retirements of less-expensive generating plant by the Company in the recent past and in the near future appear to the GEC to be contrary to this principle of least-cost supply.

The GEC also notes that if the Commission sanctions the uneconomic retirement of units by not making the warranted adjustments for excess capacity in this case, the implications could be far reaching. Such action could be interpreted to suggest that a utility should not maintain their economical units, but could retire them before new large units enter service and thus avoid a penalty for excess capacity.

The Recommended Decision did not address any of these concerns, and the GEC urges the Commission to adopt the excess capacity adjustment presented by the OCA.

VI. The Recommended Decision incorrectly failed to make an adjustment in the Company's revenue request to reflect the Mark II redesign work.

The GEC supported the disallowance recommended by the Office of Consumer Advocate of the costs incurred by the Company in the correction of the Mark II reactor containment design. The Recommended Decision found that there was no imprudence either by

General Electric or the Company in connection with the design, redesign and rework of relating to the Mark II containment and denied the OCA's proposed disallowance. R.D. 85.

Despite his ruling that the Mark II conclusions reached in Pa. P.U.C. v. Pennsylvania Power and Light Co., R-822169, 55 PUR 4th 185 (1983), do not control this proceeding, the ALJ cites extensively from the order in that case. The Mark II discussion in the Recommended Decision is little more than quotes from the PP&L order and quotes from various Company witnesses.

The GEC continues to believe that it is improper for the Company to seek recovery of the Mark II costs from the ratepayers without first seeking recovery from General Electric, as have several other utilities with similar Mark II problems. The GEC urges the Commission to adopt the Mark II adjustment as presented by the OCA.

VII. The Recommended Decision incorrectly approved unreasonable oil price assumptions for the Energy Cost Rate.

The Recommended Decision essentially accepted without change the Company's proposal for the Energy Cost Rate. As the ALJ noted in the decision, the task of this proceeding with respect to the ECR was:

> ... to ensure that the correct "ingredients" were included in PECO's ECR, for without proper ingredients the Commission's 80%/20% provision could be meaningless, could be manipulated, and would fail to establish the effect intended.

R.D. 184 (quoting from the mimeo decision dated March 10, 1986 on Trial Staff's motion to strike). The GEC asserts that the ALJ's acceptance of the Company's ECR proposal will in fact undermine the intent of the ECR 8 order.

The most serious problem with the ECR "ingredients" approved in the Recommended Decision involves the forecasted price for oil. Until pressed by the parties to perform a revised production cost run, the Company was using a projected oil price of $27.108 per barrel of No. 6 (0.5% sulphur) oil. See OCA Ex. 88 and Tr. 4511-4512. This was the figure being used, despite the fact that the Company had been purchasing oil for as low as $17.00 a barrel. Tr. 4357. The process of establishing a revised oil price forecast consisted of John J. Carroll asking Paul X. English whether he (English) could support a $24.00 a barrel figure. Tr. 4533-4534. There was no other evidence offered by the Company to support this revised forecast, and no opportunity for the other parties to respond to this revised forecast.

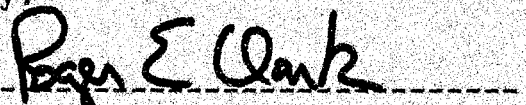
As an indication of the significance of this issue, the reduction in approximately $3 in the oil price used in PECO Ex. JJC-2 (the production cost run for the ECR fuel levels) and PECO Ex. JJC-3 (the production cost run using the revised oil price) produced a $9.6 million reduction in the projected fuel costs.

The GEC urges the Commission to adjust significantly downward the oil price forecast used by the Company for the ECR calculations, taking into account the current market situation.

VIII. Conclusion.

As indicated above, the GEC requests this Commission to make substantial changes in the Recommended Decision. This case is an important opportunity for the Commission to reaffirm its support for performance based regulation and to further implement these important principles. The ratepayers of the Philadelphia Electric Company and the entire southeastern region need an electric utility which operates efficiently and this Commission can provide meaningful incentives to assure that efficiency exists. The ratepayers and the region also need protection from the Company's mistakes and poor performance, and this Commission can provide that protection through a sharing of risks. The Recommend Decision does neither of these important tasks, but the opportunity remains for the Commission correct this and to incorporate performance based regulation in the final order of this proceeding. Such action would be in the best interests of all concerned.

Respectfully submitted,
Governor's Energy Council
by:



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MAY 23 1986

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Jerry Rich, Secretary
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P.O. Box 3265
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Re: Pennsylvania Public Utility Commission v. Philadelphia Electric Company, Docket No. R-850152

Dear Secretary Rich:

Enclosed for filing please find an original and nine (9) copies of the Office of Consumer Advocate's Exceptions in the above-captioned proceeding. As per attached Certificate of Service, copies have been served upon all parties of record.

Sincerely,

Scott J. Rubin
Assistant Consumer Advocate

Enclosure
2098X

cc: All parties of record

CERTIFICATE OF SERVICE

Re: Pennsylvania Public Utility Commission
v.
Philadelphia Electric Company
Docket No. R-850152

I hereby certify that I am this 23rd day of May, 1986, serving either in person or by overnight delivery (to be received this day) the foregoing document, Exceptions, in the above-captioned proceeding.

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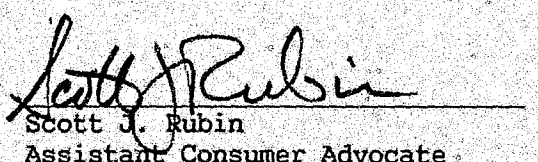

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ORIGINAL

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
	:	
v.	:	Docket No. R-850152
	:	
PHILADELPHIA ELECTRIC COMPANY	:	

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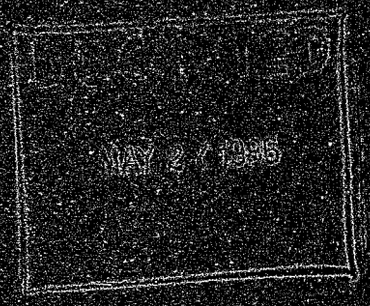
SECRETARY'S OFFICE
Public Utility Commission

OFFICE OF CONSUMER ADVOCATE'S
EXCEPTIONS



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DATED: May 28, 1986

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I. INTRODUCTION

The Office of Consumer Advocate (OCA) excepts to several aspects of the May 13, 1986, Recommended Decision (R.D.) of Administrative Law Judge (ALJ) Joseph P. Matuschak at Docket R-850152 with respect to the proposed base rate increase of the Philadelphia Electric Company (PECO or the Company).

By way of introduction, the OCA wishes to call the Commission's attention to three major issues, each of which is discussed in detail in the Exceptions below.

First, the OCA strongly excepts to the ALJ's recommendation to reject the OCA's proposed excess capacity adjustment under which PECO would be denied an equity return on 450 megawatts of unneeded and uneconomical Limerick 1 capacity. The evidence in this proceeding demonstrates that a substantial portion of Limerick 1 is not needed to serve PECO customers and that the economic costs of Limerick 1 vastly exceed any capacity and energy benefits that will be produced by that unit now and for the foreseeable future.

Specifically, the ALJ's decision would permit PECO to completely avoid an excess capacity adjustment on Limerick 1 by prematurely retiring -- at ratepayer expense -- 458 megawatts of combustion turbine peaking capacity which would have been available to meet PECO's customer demands through the year 1996. Such a replacement of low cost capacity with new base load capacity might be justified if it reduced overall system costs. Here, however, the undisputed evidence demonstrates that the replacement of the 458 megawatts of combustion turbines with an equivalent amount of capacity from Limerick 1 will cost ratepayers an additional $1.5 billion over the next ten years.

Moreover, while the Company contended, and the ALJ appeared to agree, that PECO now needs all 1055 megawatts of nuclear baseload capacity at Limerick 1, no explanation has been given as to why PECO recently attempted to sell through 1996 its 471 megawatt share of much cheaper nuclear baseload capacity at Salem 2. Clearly, as demonstrated by the Company's own actions and the evidence of this case discussed below, at least 450 megawatts of Limerick 1 capacity is not needed either to meet the Company's peak capacity or baseload energy needs.

As set forth more fully in Section II of these Exceptions, the OCA submits that at least 450 megawatts of Limerick 1 represent excess capacity. Consistent with this Commission's policy that the costs of excess capacity should not be borne in full by ratepayers, the OCA respectfully urges this Commission to deny an equity return to PECO on this unneeded and uneconomical capacity.

Second, the OCA excepts to the ALJ's recommended finding that ratepayers should be required to pay the full cost of correcting errors in the original design of Limerick 1's Mark II containment structure. The OCA presented detailed expert testimony which demonstrated that these costs were not prudently incurred and thus should not be charged to ratepayers. This issue is discussed in greater detail in Section III.C. of these Exceptions.

Third, the OCA would direct this Commission's attention to an error in the ALJ's computation of the OCA proposed adjustment to the cost of Limerick 1 resulting from the imprudent delays in the construction of the unit in 1976 and 1978. As pointed out in Section III.A. of these Exceptions, based upon the ALJ's own findings, the appropriate level of this adjustment should be $596.9 million rather than the $554.9 million calculated by the ALJ.

II. EXCESS CAPACITY

A. Introduction

At pages 71 through 77 of his Recommended Decision, the ALJ rejected the OCA's proposal to find that 450 megawatts of Limerick 1 represent excess capacity on PECO's system. The OCA strongly excepts to the ALJ's recommendation on this issue.

The OCA submits that the effect of the ALJ's decision would be to permit a utility to completely avoid an excess capacity adjustment by prematurely retiring the cheapest capacity on its system -- at ratepayer expense -- and then claiming that an enormously uneconomical new plant is "needed" to meet a capacity shortfall created by the utility's own actions. This result is absurd, and makes a mockery of the Commission's excess capacity standard.

Thus, the ALJ's Recommended Decision would permit PECO to prematurely retire 458 megawatts of 15-year-old combustion turbine (CT) capacity in order to "make room" for Limerick 1, even though those turbines were originally scheduled to remain in service until 1996, and even though there is no physical or technological reason for them to be retired at this time. Further, PECO is not even absorbing the $40 million cost of this premature retirement. Instead, PECO's ratepayers have fully paid this amount since, from 1982 to 1986, PECO has included in its rates the costs associated with cancelling the lease for these CTs. Thus, if the ALJ's decision were adopted, not only would PECO avoid an excess capacity adjustment to its $3000 per kilowatt nuclear plant, it would avoid any excess capacity penalty, even though it clearly has at least 450 megawatts of capacity in excess of its needs.

In addition to prematurely retiring this CT capacity, PECO has attempted to manipulate its capacity in yet another way to avoid a Limerick excess capacity adjustment. Shortly before Limerick 1 was completed, PECO attempted to sell through the year 1996 its 471-megawatt share of Salem 2 (which cost roughly one-third as much per kilowatt as Limerick 1). Thus, though PECO now claims that it needs all 1055 megawatts of additional Limerick baseload capacity at this time, it was apparently willing to sell off 471 megawatts of substantially cheaper -- but equally valuable in terms of energy savings -- baseload capacity at Salem 2 through the year 1996.

The OCA submits that it is highly inequitable to allow PECO to completely avoid an excess capacity adjustment in this case. PECO has clearly had to retire inexpensive CT capacity in order to make room for all of Limerick 1's capacity. While PECO has advanced various reasons for engaging in such a strategy, it never mentioned the cost to ratepayers. In testimony which is unrebutted and uncontested (though never mentioned by the ALJ), the OCA has demonstrated that the replacement of 458 megawatts of CT capacity with a like amount of Limerick capacity will cost ratepayers more than $1.5 billion over the next decade (and this assumes that Limerick will produce all of the energy savings benefits which PECO projects). OCA St. 5, Sch. 2.

Moreover, the evidence presented by the OCA and other parties demonstrates that Limerick 1's costs will certainly exceed the plant's total capacity and energy benefits for many years to come, and that, on a cumulative basis, Limerick 1's benefits will likely never exceed its costs.

The OCA submits that it would be inequitable and indefensible to permit a utility to force ratepayers to suffer all the consequences of such an unnecessary and uneconomic transaction. This Commission must recognize, as it has with Pennsylvania Power and Light Company and other utilities, that a utility cannot require ratepayers to pay the full costs of adding unneeded, uneconomic capacity to its system.

Consistent with this Commission's decision in the PP&L Susquehanna 2 case discussed below, the OCA has proposed the disallowance of the equity return on 450 megawatts of Limerick 1 capacity. The OCA submits that this represents the minimum adjustment necessary to permit a reasonable sharing of the costs of excess capacity between ratepayers and investors.

The following sections demonstrate that the ALJ's reasons for rejecting this adjustment are invalid and contrary to the evidence of record in this proceeding. For a more detailed discussion of these issues, the Commission is referred to Section IV of the OCA's Main and Reply Briefs.

B. The ALJ Completely Ignored PECO's Attempts To Sell 471 Megawatts Of Baseload Nuclear Capacity At Salem 2.

The ALJ's discussion of excess capacity never mentions that, shortly before Limerick 1 was completed, PECO attempted to sell its 471-megawatt share of Salem 2 through 1996. Neither the ALJ nor the Company has explained why PECO now needs 1055 megawatts of new baseload capacity when it was willing to sell 471 megawatts of much cheaper baseload capacity for the next decade.

In fact, PECO's witness on this issue, Mr. Rush, was questioned on this very point and could not explain this obvious inconsistency. The following colloquy ensued on cross-examination between Mr. Rush and counsel for the OCA:

Q. Mr. Rush, if you will permit me to briefly summarize another aspect of your testimony, is it correct that your position is that the company needs more base load capacity than it presently has without Limerick 1?

A. That's correct.

Q. On page 21 of your testimony [PECO St. 14] you state that even with the full 1,055 megawatts of Limerick 1, the company has less than the optimal level of base load capacity, is that your understanding?

A. Based on an approximate 60 percent mix, yes.

Q. Mr. Rush, if that is true, can you tell me why in 1984 the company attempted to sell its 471 megawatt share of Salem Unit 2 through May of 1996?

A. I was not part of those negotiations, but I would assume they were financially related, if you will. I suspect in that case probably Mr. Paquette is the better one to answer that question.

Q. Are you stating that you are not aware of why the company was willing to sell 471 megawatts of base load capacity a year before -- well, roughly a year ago, a year-and-a-half ago?

A. My judgment, my understanding is that it was a decision based on financial needs, which I would still uncouple from the system needs, which is where I try and focus: do we need more base load capacity? It does not particularly change my position, no.

* * *

Q. Am I correct that this [OCA Exhibit 39; IR-OCA-5-6] states that the company was willing, in the spring of 1984, to lease its share of Salem 2 through May 31 of 1996?

A. That's right.

Q. Again, these are the negotiations we were just speaking about, and you said you were not a party to those; is that right?

A. I was not personally involved in those, no.

Q. If we look at the second document which is part of OCA Exhibit 39 that is labeled IR-OCA-1-49, again, am I correct that this shows that in the spring of 1984 the company had tried to negotiate a long-term lease of Salem 2, but was not successful in those efforts; is that correct?

A. That's the thrust of this; yes.

Q. Mr. Rush, would I be correct that the cost of Salem 2 and half of the Salem common facilities is roughly $1,000 per kilowatt?

A. That sounds essentially correct, yes.

Q. And the cost of Limerick 1 and half of its common facilities is approximately $3,000 per kilowatt; is that about right?

A. It sounds about right.

Tr. 800-02. What the Company still has not explained, of course, is why its customers now need every megawatt of Limerick's $3000 per kilowatt baseload capacity when they apparently could have done without 471 megawatts of equally valuable (but two-thirds less costly) capacity at Salem 2.

Further, while Mr. Rush claimed that the decision to sell Salem 2's capacity was a financial one, PECO's financial witness, Mr. Paquette, testified that such a decision would not have been considered if it would have jeopardized the reliability of PECO's system. Mr. Paquette stated:

> [O]ffers to sell or share base load capacity considered both the requirements for Philadelphia Electric Company System as well as the derived financial benefits that would have accrued to the Company and our customers....

PECO St. 3C at 6 (emphasis added).*

The OCA submits, therefore, that PECO's willingness to sell its 471-megawatt share of baseload nuclear capacity at Salem 2 through 1996 supports the OCA's contention that at least 450 megawatts of Limerick 1's capacity are not needed by the Company now or in the reasonably near future. Neither the Company nor the ALJ has adequately explained why 450 megawatts of baseload nuclear capacity are needed now, when PECO was willing to sell this capacity (and more) through 1996.

C. The ALJ Erred By Finding That PECO Needs More Baseload Capacity.

The ALJ found, at page 73, that PECO needs additional baseload nuclear capacity (and thus, by implication, Limerick 1). First, as we noted above, the ALJ never reconciled this statement with the Company's apparent ability to do without the capacity from Salem 2.

In addition, the ALJ did not consider why additional baseload capacity might be needed. The OCA's system reliability expert, Peter J. Lanzalotta (a registered, professional electrical engineer with system planning experience; OCA St. 5 at 2-3), testified that the Company's "optimal generation mix" argument was highly misleading. Specifically, PECO witness Rush failed to take into account economics in determining what system was "optimal." Mr. Lanzalotta stated as follows that this is an egregious error:

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* The OCA would note that this same argument applies to PECO's attempts in the early 1980s to sell a total of 500 megawatts from Limerick 1 and 2. Thus, while the ALJ believes that these sales were financially motivated (R.D. 76), Mr. Paquette clearly indicated that system reliability was fully considered.

> The optimal generation mix is that mix which will allow PECO to provide reliable service at the lowest cost. It is this combination of reliable service at minimum cost which makes a particular mix of generation optimal. If Limerick 1 is not needed for reliability reasons or if it causes an increase in costs over some equally reliable alternative, then including Limerick 1 in PECO's generation mix cannot result in the optimal mix.

OCA St. 5 at 15 (emphasis added).

Thus, as Mr. Lanzalotta noted, the addition of more baseload capacity (as a replacement for low-cost peaking capacity) is only justified if it reduces overall system costs. The addition of 450 megawatts of Limerick 1 (instead of keeping the CTs, as discussed below), however, has the effect of increasing total system costs by more than $1.5 billion over the next decade. OCA St. 5, Sch. 2. This is true even under the Company's own overly optimistic assumptions about the costs and benefits associated with Limerick 1.

The OCA submits, therefore, that there is no record support for the ALJ's conclusion that PECO needs more baseload capacity at this time. PECO's willingness to sell Salem 2, and the clear economic disadvantages of Limerick 1, demonstrate that PECO does not need 1055 megawatts of additional baseload capacity at this time in order to optimize its system.

D. The ALJ Erred By Finding That PECO Will Only Have A 28 Percent Reserve Margin With The Addition Of Limerick 1.

At page 74, the ALJ found that PECO's reserve margin with Limerick 1 is only 28 percent. The OCA strongly excepts to this recommended finding.

The 28 percent figure which the ALJ adopted assumes that it is appropriate for PECO to ignore the 458 megawatts of CT capacity which it has available to it (and for which ratepayers have already paid). The

OCA submits that it is grossly inequitable to require ratepayers to pay for this CT capacity (the $40 million which ratepayers have paid for cancelling the lease on these CTs could be used to pay nearly all of the lease cost for keeping the CTs in service for the next decade; OCA Exh. 38) and then to permit PECO to ignore it in determining its available capacity.

Thus, if these 15-year-old CTs were deemed available to PECO through 1990, PECO's reserve margins would be as follows:

Year	--PECO Projection-- Capacity	Load	Capacity with 458 MW CT	Percent Reserve	Excess Capacity Over 25% Reserve
1986	7858	6160	8316	35%	616
1987	7858	6180	8316	35%	591
1988	7858	6200	8316	34%	566
1989	7846	6220	8304	34%	529
1990	7846	6240	8304	33%	504

See PECO St. 14, Sch. 7 (revised).*

As this table illustrates, just by giving ratepayers credit for the capacity for which they have already paid, PECO's reserve margin exceeds 33 percent in each of the next five years, giving the Company a minimum of 500 megawatts of excess capacity over PECO's 25 percent reserve margin at least through 1990. The OCA submits, therefore, that the ALJ's finding that PECO has a 28 percent reserve margin is erroneous. The OCA further submits that it is emininently reasonable to find that PECO has at least 450 megawatts of excess capacity now and for the reasonably foreseeable future.

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* In addition to assuming that these CTs are available to meet PECO's load, OCA witness Lanzalotta also noted that Southwark 1 and 2, totaling 336 megawatts of capacity, could remain in service until 1988, as PECO had originally projected. OCA St. 5 at 8-9. The inclusion of Southwark 1 and 2 would give PECO more than 950 megawatts of excess capacity at the present time. The above table, however, does not include any capacity from the Southwark units.

E. The ALJ Erred In Finding That The 458 Megawatts Of Combustion Turbines Should Not Be Included As Useful Capacity.

At page 75, the ALJ rejected the OCA's contention that the 458 megawatts of 15-year-old CT capacity are still useful to PECO and, therefore, should be included in the Company's reserve calcuations. Once again, the OCA strongly excepts to this finding.

PECO's own witness, Mr. Rush, agreed, in the following colloquy, that these CTs are being retired solely for economic reasons; not because they are incapable of providing service:

> Q. Mr. Rush, looking back at Schedule 7 in your testimony, you characterize the retirements of these combustion turbines as being what you call here "economic retirement;" is that correct?
>
> A. That's correct.
>
> Q. Does this mean that the units are being retired for economic reasons and not because they can no longer physically be operated?
>
> A. That's correct.

Tr. 799.

In fact, this "economic" retirement is costing PECO's ratepayers approximately $40 million in lease-cancellation payments. Tr. 797. And this amount is being paid just for the privilege of eliminating these 458 megawatts of 15-year-old capacity. Id. Moreover, as we noted above, over the next decade, ratepayers will pay $1.5 billion more in order to replace this capacity with an equivalent amount of capacity from Limerick 1. See OCA St. 5, Sch. 2.

Since 1982, PECO's ratepayers have been paying the lease-cancellation costs on the CTS. As a result, PECO has already collected from ratepayers nearly the full $40 million. Tr. 797-98. PECO may use

these funds either (1) to pay for the privilege of prematurely retiring 458 megawatts of capacity or, (2) to pay nearly all of the lease costs to keep this capacity on line for 11 more years.

In addition to the lease costs, if PECO were to keep the CTs, it would have to pay operating and maintenance costs. PECO indicated, however, that these costs would amount to just $2 million to $5 million per year. OCA Exh. 38; Tr. 799.

Obviously, this premature retirement is not "economic." Rather, as PECO stated in an interrogatory answer:

> The addition of Limerick 1 is allowing PECO to retire 458 MW of CT capacity before the end of their nominal lives.

OCA St. 5 at 7 (emphasis added). That is, but for the addition of the multi-billion-dollar Limerick 1, PECO would not be retiring this inexpensive CT capacity. Yet, the total annual cost of retaining the CT's represents little more than rounding error in comparison to the costs of an equivalent amount of capacity in Limerick 1.

The OCA submits that it is inappropriate to justify the need for Limerick 1's capacity based upon a retirement which only took place because of the addition of Limerick 1. As OCA witness Lanzalotta explained:

> If a utility has excess capacity, it will always have the ability to mothball or prematurely retire certain generating units. The fact that such retirements are possible does not prove the need for a new generating unit. ... I question the line of reasoning wherein the presence of Limerick is used to justify the advancement of generating unit retirements and then the capacity supply situation which results from these same generating unit retirement advancements is used as justification of the need for the Limerick 1 capacity.

OCA St. 5A at 4 (emphasis added).

Similarly, PAIEUG witness Falkenberg stated:

> [T]his capacity did not need to be removed from service and was in fact only removed because the addition of the Limerick generating plant resulted in PECO having excess levels of reserves. By removing this capacity from service PECO has reduced its reserve margins computed on the basis of active capacity. However, the amount of capacity which the Company could have made available to serve load, had it so desired, includes the capacity which was retired by the Company in order to reduce the excess level of capacity reserves accompanying the Limerick Unit 1 generating unit into service. Clearly the fact that PECO was able to take out of service over 900 MW of capacity when the Limerick 1 unit entered service indicates that little (if any) of the Limerick unit capacity was needed to serve customer load.

OCA Exh. 87 (Set II, Q. 9) (emphasis added).*

If PECO's position were accepted by this Commission, the result would be that a utility could always justify the need for new, expensive generating capacity by prematurely retiring the cheapest capacity on its system. Thus, in the present case, PECO attempts to justify Limerick 1 at a cost well in excess of $3000 per kilowatt (Tr. 802) by the premature retirement of CTs which cost just a small fraction of that amount (see OCA St. 5 at 24). As OCA witness Lanzalotta stated:

> The addition of Limerick 1 is not justified on the basis of replacing relatively serviceable generating capacity, that is largely paid for, with very expensive generating capacity which requires a large increase in rates.

OCA St. 5A at 4 (emphasis added).

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* The 900 megawatts of retirements referred to by Mr. Falkenberg consist of 458 megawatts of CTs, 338 megawatts at Southwark 1 and 2 (plus a diesel unit), and 166 megawatts at Richmond 9--totaling 962 megawatts. PECO St. 14, Sch. 7.

F. The ALJ Erred In Finding That The Commission's Approval Of The Retirement Of The CTs Required That These Units Not Be Considered In An Excess Capacity Determination.

The ALJ concluded that, since the Commision had already approved the retirement of the CTs, it was inappropriate to now include that capacity in an excess capacity analysis. R.D. 76.

Initially, the OCA would note that the Commission's approval of the retirement of the CTs did not determine the ratemaking effect of the retirements and did not prejudge the excess capacity issue. In its Order approving the retirement of the CTs, the Commission explicitly stated:

> It is not our intention to prejudge any rate case proceeding and we do not believe such is the case here. ... [O]ur ruling does not foreclose the OCA or any other party from presenting their positions and arguments in the PE rate case proceeding.

Petition of Philadelphia Electric Company, P-850055 (January 21, 1986), Order at 2.*

In addition, this Commission has recently noted that the approval of changes in the operations of plants should not be used as a basis for determining whether a utility has excess capacity. Thus, in approving a Petition of Duquesne Light Company to "mothball" certain units at the Brunot Island station, the Commission stated:

> a. That approval hereof does not constitute precedent for excess capacity issues in future rate proceedings;
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> b. That approval hereof is not res judicata of any ratemaking issues nor grounds for collateral estoppel of the use of the Brunot Island generating capacity for excess capacity adjustments and/or for determinations of the inclusion of Perry Unit No. 1

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* The OCA would also note that it has filed a Petition for Reconsideration on this matter. To the OCA's knowledge, this Petition has not yet been ruled upon by the Commission.

and/or Beaver Valley Unit No. 2 in the Company's rate base;

c. That no party is precluded or foreclosed from presenting any position or arguments relative to the subject units in the next or any future Duquesne rate cases; and

d. That the approval contained herein is strictly limited to technical approval under the requirements of 52 Pa. Code §57.51 and does not address nor purport to address any rate treatment or ratemaking issues.

Petition of Duquesne Light Company, P-860103 (May 2, 1986), Order at 1-2.

Furthermore, the OCA would urge this Commission to consider the reasons behind the policy of not making plant retirement approvals binding on the determination of excess capacity. As the OCA noted above, if the Commission were to permit a utility to retire its cheapest plant to make room for extremely expensive capacity, a utility would be effectively relieved of its obligation to provide reliable service at a reasonable cost. Every utility would be permitted to do what PECO is attempting to do here: retire inexpensive capacity, charge the cost of the retirement to ratepayers, add an expensive unit to rates, and charge the cost of that expensive unit to ratepayers. The OCA submits that it is precisely this result which the Commission must attempt to avoid in its excess capacity decisions.

Similar results recently were reached by the Missouri and Kansas Commissions in considering the ratemaking treatment for the Wolf Creek nuclear unit. In Kansas City Power & Light Co., Case No. EO-85-185 (Mo. P.S.C. May 5, 1986), the Missouri Public Service Commission based its excess capacity determination on the utility's capacity including certain fossil-fueled units which the utility had placed on inactive

reserve. Id., Report and Order at 163-65. Specifically, the Missouri Commission noted that these units (Hawthorn 1 through 4), which had 40-year nominal lives but were between 27 and 33 years old, were on inactive reserve solely because of the utility's failure to properly operate and maintain the units. Id. at 163-64. Further, and most importantly for our purposes here, the Missouri Commission held that the utility (KCPL) should not be permitted to profit from its failure to keep these units in service (or to rehabilitate them, if necessary). The Missouri Commission concluded as follows:

> Based upon the evidence, the Commission finds that the Hawthorn units would be available to meet KCPL's load without the need for rehabilitation if it were not for KCPL's poor O&M and improper cycling practices. Wolf Creek displaces Hawthorn 1 - 4 capacity at a much higher cost per kw than the cost per kw associated with the full rehabilitation of the units. The units would be available for operation on natural gas, if timely remedial action had been taken to correct their physical condition.
>
> Accordingly, the Commission determines that Hawthorn 1 - 4 should be accredited at [Mr.] Miliaras' near term rating of 300 megawatts.

Id. at 164 (emphasis added).

Thus, in making its excess capacity determination, the Missouri Commission found that the addition of a nuclear plant should not be used as an excuse for retiring still-useful capacity, particularly where the new capacity was more expensive than the existing capacity. See also Re Wolf Creek Nuclear Generating Facility, 70 PUR 4th 475 (Kansas S.C.C. 1985), where the Kansas State Corporation Commission found that it was appropriate to include as available capacity certain combustion turbines which the utility had attempted to remove from service. Id. at 514.

Under the ALJ's recommendation, PECO would be permitted to discard still-useful capacity just to make room for a new, extremely expensive nuclear unit. As we have already demonstrated, there is no question that PECO's CTs could be retained in service at a small fraction of the cost of adding an equivalent amount of Limerick 1 capacity. Moreover, the addition of Limerick 1 makes PECO's system less economical for current ratepayers.

In previous decisions, this Commission has recognized that excess capacity exists where the utility would be able to meet its reserve obligations without the capacity at issue. If that situation exists, the utility is only permitted to include the unit in rates if it provides an economic benefit to ratepayers. See Pa. PUC v. Pennsylvania Power Company, 52 Pa. PUC 459, 27 PUR 4th 426 (1978); Pa. PUC v. Philadelphia Electric Co., 54 Pa. PUC 220, 37 PUR 4th 381 (1980); Pa. PUC v. Pennsylvania Power and Light Co., 57 Pa. PUC 559, 575, 55 PUR 4th 185, 199-200 (1983); Pa. PUC v. Pennsylvania Power Co., 58 Pa. PUC 305, 311-12, 60 PUR 4th 593, 599-600 (1984); Pa. PUC v. Pennsylvania Power and Light Co., R-842651 (April 26, 1985).

In this case, we have already shown that there is no question that PECO could meet its reserve obligations without 450 megawatts of Limerick 1's capacity. In fact, PECO's own witness, Mr. Rush, stated in an interrogatory answer that:

> The addition of Limerick 1 is allowing PECO to retire 458 MW of CT capacity before the end of their nominal lives.

OCA St. 5 at 7 (emphasis added). Further, as we noted above, Mr. Rush stated that the CTs are still perfectly capable of operating. Thus,

without 450 megawatts of Limerick 1's capacity, PECO would still meet its reserve obligations.

In addition, as shown in the next section, the economics of Limerick 1 are horrendous. It will be many years, if ever, before the annual or cumulative benefits of Limerick 1 exceed the plant's economic costs.

G. The ALJ Failed To Consider That Limerick 1 Is An Enormously Uneconomic Plant Addition For Current And Future Ratepayers.

In its decision in Pa. PUC v. Pennsylvania Power and Light Co., R-842651 (April 26, 1985) (SSES 2), this Commission set forth the standard to be applied to excess capacity determinations. Stated in its simplest form, the Commission there held that in order to show that a plant is "useful," the utility must show (1) that the plant is needed for system reliability or, (2) that it will provide an immediate (or near-term) net economic benefit. See id. at 17-19; OCA M.B. at IV-7 to IV-9. The Commission then went on to hold that PP&L would not be permitted to earn a return on its equity investment in Susquehanna 2 until it could show either a physical need for the capacity or a current economic benefit to ratepayers. Thus, the Commission stated:

> [W]e have made continuation of our excess capacity adjustment contingent on either one of two alternatives: if the Company can show that SSES 2's net economic benefits have begun to outweigh its net costs, or that its capacity is no longer excess relative to system reliability, then the Company may take appropriate steps to seek a modification of this adjustment.

SSES 2 at 22 (emphasis added).

In the present case, as discussed in the previous sections, we have demonstrated that at least 450 megawatts of Limerick 1 are not

needed for reliability at the present time. In addition, as we discuss in the remainder of this section, Limerick 1 does not provide an economic benefit for ratepayers. In fact, it appears that both in the near-term and over its expected life, Limerick will be an uneconomic addition to PECO's system.

Specifically, four parties to this proceeding (PECO, PAIEUG, UUC/UP, and the OCA) analyzed the economic benefits which ratepayers are expected to receive from Limerick 1. All of those parties (including PECO) agreed that it would be at least 9 years before ratepayers received a current benefit from Limerick 1 (that is, until the costs in a given year were less than the benefits received in that year) and at least 20 years before ratepayers received a cumulative present value benefit from having Limerick 1 in rates. Further, every party other than PECO found that ratepayers would never receive such a cumulative benefit from having Limerick 1 included in rates. See OCA Main Brief at IV-23 to IV-44. The following table summarizes the parties' analyses on this issue.

Party	Year in Which Current Benefits Consistently Exceed Current Costs	Year in Which Cumulative Benefits Exceed Cumulative Costs	Cumulative Net Benefit (Cost) (billion 1985$)
PECO	1994	2006	$3.8
PAIEUG	1995	Never	($1.2)
OCA	2001	Never	($2.6)
UUC/UP	Never	Never	($4.8)

See GEC Exh. 3 (for PECO); PAIEUG St. 1; OCA St. 6; UUC/UP St. 1.

PECO's witness, Dr. Hieronymus, attempted to place all of these analyses in perspective, by stating:

> Thus, while I continue to believe that the forecasts which I sponsored are quite reasonable, I recognize

> that the magnitude, and even the existence, of a net life cycle benefit is uncertain. However, whatever uncertainty inheres in PECO's forecast of net gain is at least as present in the intervenors' forecast of net loss.

PECO St. 15A at 21 (emphasis added).

The OCA agrees that there is a great deal of uncertainty in any 40-year forecast of costs and benefits. The OCA submits, however, that the Company's assumptions regarding the future costs and benefits of Limerick 1 are consistently over-optimistic in favor of Limerick. See OCA M.B. at IV-26 to IV-44 and OCA R.B. at IV-16 to IV-20. Moreover, as this Commission held in the SSES 2 case, the presence or absence of a benefit after a 40-year period is not determinative in this proceeding. Rather, what is important, under the standard the Commission used in evaluating PP&L's Susquehanna unit 2, is whether Limerick 1 will provide a benefit to ratepayers in the reasonably near future. All of the analysts in the present case, including PECO's witness Dr. Hieronymus, agreed that it likely will be nearly a decade (or more) before Limerick's benefits exceed its costs in any given year. Further, if the present value of all of the costs and benefits over Limerick's life is analyzed, it is likely that Limerick will never provide a net benefit to ratepayers.

The OCA submits, therefore, that under any of these analyses, Limerick 1 as a whole fails this Commission's standard of "usefulness," in that Limerick 1 does not provide an immediate or near-term economic benefit to ratepayers. Since, at the earliest, Limerick 1 will not provide a current benefit until 1994, and since at least a portion of Limerick's capacity is not needed for reliability purposes at this time, the OCA submits that ratepayers should not be required to fully support in rates all of Limerick 1 at the present time. Moreover, because the

economic costs of Limerick 1 are so enormous in the early years, the Commission should be particularly careful not to include a full return on unneeded capacity in rates.

The economic analyses of the parties are discussed in detail at pages IV-26 through IV-44 of the OCA's Main Brief and pages IV-16 through IV-20 of the OCA's Reply Brief.

H. Conclusion

The OCA submits, therefore, that PECO would be able to provide reliable, and far more economical, service without 450 megawatts of Limerick 1 capacity. Under this Commission's criteria for analyzing excess capacity, an adjustment is required in order to prevent ratepayers from having to support in rates the full cost of capacity which is not providing used and useful service.

The OCA submits that its recommendation to disallow an equity return on the 450 megawatts of Limerick 1 (which adjustment is similar to that adopted by the Commission for all of PP&L's Susquehanna unit 2) is reasonable and represents the minimum adjustment necessary to permit a fair sharing of the costs of excess capacity between ratepayers and shareholders. The OCA submits, therefore, that the ALJ's recommendation should be rejected and the OCA's excess capacity adjustment should be adopted.*

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* As the OCA noted in its Main Brief, the quantification of the effect of disallowing an equity return on 450 megawatts of Limerick depends upon the cost of equity, the capital structure, and the rate base value assigned to Limerick. See OCA Main Brief at IV-49 to IV-50. Based on the OCA's proposed 14 percent return on equity and the OCA's Limerick 1 rate base valuation, this results in an adjustment to income available for return of $54.335 million and thus a decrease in PECO's revenue requirement of approximately $110.4 million. See OCA St. 7A, Rev. Sch. TEK-8.

III. LIMERICK 1 CONSTRUCTION COST

A. The Correct Adjustment To The Cost Of Limerick For The 1976 And 1978 Delays, Based Upon The ALJ's Findings, Is $596.9 Million.

Based on the testimony of OCA's expert construction management witness, the ALJ developed an adjustment of $554.9 million as the quantification of the cost of delays in the construction of Limerick 1 in 1976 and 1978. R.D. at 71. Accepting all of the ALJ's findings, the actual calculation presented is in error. The correct cost of the delays, based upon the ALJ's own findings, is $596.9 million.

The OCA's construction delay adjustment, which the ALJ adopted, consists of three parts: Direct Costs (i.e., costs associated with escalation and AFUDC due to the extended construction schedule), Bechtel Indirect Costs, and PECO Indirect Costs. OCA M.B. at III-30 to III-37. These components are adjusted to account for the effects of including only 50% of Common Facilities in rates. OCA M.B. at III-30. Due to the manner in which the OCA's adjustment is computed, these costs are also affected by disallowance of Mark II related costs associated with the OCA's Mark II imprudence adjustment. OCA M.B. at III-109. The ALJ adopted the OCA's 50% of Common Facilities adjustment but not the Mark II adjustment. R.D. at 70-71. The total cost calculated by the OCA due to the construction delays for Limerick 1 and 50% of Common Facilities and excluding the effects of a Mark II adjustment was $652.4 million. R.D. at 70, OCA M.B. at III-30, OCA St. 1B at 35.*

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* The OCA's proposed Mark II disallowance included certain delay costs as they related to this aspect of the Limerick construction project. Thus, in order to avoid a double count, the OCA's delay adjustment would be reduced if, but only if, the Mark II adjustment were granted. If, as the ALJ recommended, the Mark II disallowance is not adopted, then the higher overall delay adjustment should be utilized. See OCA M.B. at III-2, III-109.

The ALJ adopted the OCA's delay quantification, but reduced one element of the OCA's adjustment--PECO Indirect Costs--by $55.5 million (from $83.0 to $27.5 million). R.D. at 70. Thus, based on the ALJ's findings, the correct delay quantification adjustment should be $596.9 million ($652.4 - $55.5 = $596.9 million).

A second way to compute the $596.9 million adjustment can be seen in the ALJ's discussion at page 71 of the Decision. The ALJ shows his cost quantification calculation at paragraph 1 on page 71. Rather than subtracting the effect of his adjustment to PECO Indirect Costs of $55.5 million, the ALJ attempted to sum the different elements of the total quantification. The error in the ALJ's computation at page 71 of the Decision was the result of his use of the figure $386.8 million for the cost of imprudent direct delay costs (escalation and AFUDC). This figure includes the effects of the OCA's Mark II adjustment, which the ALJ rejected. The proper figure for imprudent direct delay costs excluding the Mark II effects is $428.8 million, as can be seen from a comparison of paragraphs 2 and 3 on page 70 of the R.D. Substituting the proper figure of $428.8 million for the improper $386.8 million in paragraph 1 on page 71, gives the following result:

$428.8 + $140.6 + $27.5 = $596.9 million.

Thus, if the Commission affirms the ALJ's findings on construction costs in all respects, the proper disallowance is $596.9 million.

B. The ALJ Improperly Adopted The Company's Calculation Of PECO Indirect Costs Associated With The Delayed Construction Schedule.

The OCA excepts to the ALJ's adoption of the Company's calculation that PECO Indirect Costs associated with the 27-month delay are only $27.5 million. R.D. at 70-71. The proper quantification of

PECO Indirect Costs for Limerick 1 and 50% of Common Facilities is $83.0 million. OCA M.B. at III-32. Adding this to the overall delay adjustment recommended by the ALJ (as corrected) raises the total from $596.9 million to $652.4 million.

PECO Indirect Costs are the costs required by the Company to support construction as it proceeds over time. OCA St. 1 at 29-30, OCA M.B. at III-31. OCA witness O'Brien identified PECO Indirect Costs due to the 27-month delay. For Limerick 1 and 100% of Common, PECO Indirect Costs totaled $101.5 million, including AFUDC. For Limerick 1 and 50% of Common, the PECO Indirect Costs total $83.0 million, including AFUDC. OCA St. 1A at 6-7. The analysis of PECO Indirect Costs was based upon a review of PECO expenditures in a number of areas. These included insurance, construction supervision, power, public notification, engineering, legal, training, plant/start-up staff, and maintenance. Mr. O'Brien quantified the PECO Indirect Costs which would not have been incurred had Limerick 1 been completed 27 months earlier.

Mr. O'Brien explained the derivation of his PECO Indirect Costs estimate as follows:

> Except for Taxes and Overheads which were given annually, I calculated that approximately 44.5% or $77.7 million, of the indirect expenditures identified above were spent between July 1982 and October 1984 and thus could have been avoided. The basis for this calculation was my assumption that these expenditures were made at the same annual rate as the Direct Costs, i.e., 7.5% for the later half of 1982, 18% during 1983, and 19% in 1984. Thus, a total of $81 million ($77.7 million in indirects and $3.4 million in taxes and overheads) were expended between July '82 and October '84. With AFUDC added, the identified avoidable expenditure for Indirects/Overheads was $101.5 million.

OCA St. 1 at 32, as corrected at OCA St. 1A at 6-7, OCA M.B. at III-32-33.

Mr. O'Brien specifically addressed the arguments presented by PECO and adopted by the ALJ regarding the proper calculation of PECO Indirect Costs. Mr. O'Brien stated as follows:

> [T]he plant operating staff is usually deeply involved in startup and testing activities as part of their training. The Staff is generally brought to the plant when it is about 50% complete. This completion point was recorded in Limerick Forecasts beginning in 1979; at which point Bechtel was projecting an October, 1982, fuel load date. It is not very likely that the plant operation staff was reassigned elsewhere or laid-off when the fuel load date was officially slipped until October, 1984. It is very likely that this large group remained at the plant and continued doing something for that additional two years at considerable cost. Likewise, Plant/Start-up Staff and Maintenance costs were also accumulated during the delayed startup phase. Excess power costs were incurred during the 27 month delay period.

OCA St. 1B at 34-35 (emphasis added).

The OCA submits that the Company's calculation of PECO Indirect Costs, as adopted by the ALJ, is inaccurate and should be rejected. The proper figure for PECO Indirect Costs for Limerick 1 and 50% of common is $83.0 million.

C. The ALJ's Holding On Mark II Ignores The Substantial New Information Presented In This Proceeding On GE Imprudence.

The OCA excepts to the ALJ's holding that costs incurred by PECO to correct for the errors by General Electric in the design of Limerick's Mark II type reactor containment, amounting to $194.0 million, can be charged to ratepayers. See generally, OCA M.B. III-84 to III-109.

There is no dispute in this case that PECO incurred costs to correct for design errors by GE. Those errors resulted in extensive redesign and rework at Limerick 1. The OCA submits that the costs of the errors are not properly chargeable to ratepayers.

The OCA recognizes that in Pa. PUC v. Pennsylvania Power and Light Co., 57 Pa. PUC 559 (1983), the Commission did not disallow Mark II costs incurred at Susquehanna 1. The OCA submits, however, that based upon the evidence in this proceeding, including the additional information which has become available since the PP&L case, a finding of GE's imprudence in the design of the Mark II is fully supported by the record.

In this case, the OCA presented expert testimony by Dr. Stephen H. Hanauer, who formerly served as the Director-Division of Safety Technology at the Nuclear Regulatory Commission. OCA St. 2, Sch. SHH-1. For the reasons set forth in his extensive testimony and in Section III.G. of the OCA's Main Brief, Dr. Hanauer concluded that:

> General Electric, in developing the pressure suppression containment concepts and basic designs, imprudently failed to adequately measure, predict, or specify the loads and forces to which this type of containment would be subjected in the quenching process, both from loss-of-coolant accidents and from safety/relief valve operation during normal operation and anticipated transients. The technology was available in the 1960's to make such measurements and specifications.
>
> The omitted loads and forces were known to General Electric people, but the errors were not reported or correctly evaluated by General Electric, the plant owners or the regulatory authorities until actual plant damage occurred during transients, and additional tests confirmed that the problem would exist for both safety/relief valve discharge and accident circumstances.

OCA St. 2A at 6-7 (emphasis added).

The Company failed to demonstrate that Dr. Hanauer's conclusions were not correct, and, indeed, evidence obtained from General Electric late in the proceeding confirmed his contention that the Mark II containment errors were imprudent.

The law in Pennsylvania is that imprudently incurred costs may not be charged to ratepayers. The fact that, as with Mark II, the imprudence was on the part of an agent or contractor of the utility is irrelevant. The most recent and comprehensive discussion of this Commission's standard for review of imprudently incurred utility costs can be found in Re Salem Nuclear Generating Station, 70 PUR 4th 568 (1985) (PECO ECR 8).

In PECO ECR 8, the Commission reviewed extended outages at PECO's baseload nuclear plants. The Commission found, inter alia, that two outages at PECO's Salem Unit 1 were extended due to imprudent actions by PECO or its agents, Public Service Electric and Gas Company (PSE&G) and Westinghouse. The first PECO ECR 8 outage involved maintenance and operating related activities. The second outage resulted from the failure of the Unit's generator due to a manufacturing defect. With respect to both outages, PECO argued that it properly selected PSE&G and Westinghouse to construct, operate and maintain Salem. PECO therefore asserted that it could not be held liable for the mistakes of PSE&G or Westinghouse. In rejecting PECO's position on this issue the Commission quoted with approval from the ALJ's Recommended Decision as follows:

> [T]he question thus becomes whether PECO is entitled to recover replacement power costs where the failure was the apparent result of a manufacturing error. PECO quite naturally argues that the errors of an independent expert are not properly imputed to the utility in determining the recovery of replacement power costs. In support of its argument, PECO cites us to Pennsylvania P.U.C. v. Pennsylvania Power & Light Co., 55 PUR 4th 185 (1983), together with two cites from other jurisdictions; Re Boston Edison Co., DPU Docket 1009-G (July 27, 1982, and Central Maine Power Co., Docket No. U. #3360 (August 27, 1980). We disagree with PECO's assessment and adopt the position

set forth by Staff and the OCA to the effect that prior Commission action supports holding PECO liable.

* * *

> The Staff and the OCA submit and we agree that the rule applied by the Commission in the Met-Ed case is the appropriate one for the present case. It must be recognized that the basic question is who should pay for the cost of the improper design and manufacture of the Salem 1 generator. The cost is represented by replacement power costs in this ECR. Including those costs in PECO's ECR means that all ratepayers are charged for Westinghouse's actions. This insulates both PECO and Westinghouse from responsibility for the generator failure. Conversely, denying ECR recovery places the costs on the party most capable of pursuing legal remedies and negotiating future contractual protections, PECO. Only PECO can structure its operations in such a fashion as to minimize the costs of contractor error or pursue damages should errors occur.

70 PUR 4th at 606 (emphasis added). The Commission Order further stated as follows:

> Prior decisions of this Commission, cited in the first part of this Opinion and Order, clearly indicate that this Commission does not share PECO's views concerning a utilities' responsibilities for contractor errors. We continue of the view that a utility such as PECO which selected the contractor through its agent, PSE&G, should bear the risk of contractor performance failures.

70 PUR 4th at 597 (emphasis added; footnote omitted). The present case poses issues similar to those litigated in PECO ECR 8 and should similarly result in a finding of imprudence.

The OCA submits that the forces on the Mark II containment which ultimately required extensive redesign and rework were very much evident as early as the late 1950's, but that GE did not acknowledge the significance of these forces until 1975. GE completely failed to analyze the significance of these forces for either loss-of-coolant accidents, or

more importantly, safety-relief valve discharges. In the late 1950's, GE did perform certain tests on the Mark II pressure suppression containment system. These tests, however, were inadequate in that they ignored readily apparent forces in the containment. OCA St. 2A at 6-7.

As noted by OCA witness Hanauer:

> The original design considered the mechanical loads associated with accidents in the drywell, including pressure and temperature increases, earthquake loads, the load from the jet of water coming out of the downcomer, and the usual dead loads, hydrostatic loads and test loads required for the design of any structure. However, the design did not include any allowance for the large dynamic loads from the quenching process which had now been shown to occur for both safety/relief valve events and accidents in the drywell.
>
> * * *
>
> The basic problem with the Mark II containment was the inadequate load specification provided in its original design. Had the containment and the equipment in it been built as originally specified, there is a substantial probability that safety/relief valve actuations would have caused damage. The safety/relief valve quenchers, the suppression chamber, and the equipment in the drywell were inadequately designed to withstand the shaking caused by the quenching process.

OCA St. 2 at 13-14 (emphasis added).

It is PECO's position that it was not aware of the problems with the Mark II design until 1975. The forces in the Mark II which GE had failed to adequately consider in designing the containment did not, however, first reveal themselves in 1975. They had been known since the first early tests. As Dr. Hanauer stated:

> No new laws of nature were discovered that showed the need for new design loads. The forces generated during quenching have been known for a long time. During some of the GE pressure suppression tests in

> the early 1960's, noises were heard indicating large pressure pulses, which would lead to large potential forces. The technology for measuring pressures and forces was available then, and could and should have been employed at the tests.
>
> * * *
>
> Sufficient theoretical and experimental work should have been done to enable developing an acceptable Mark II design in the first place. GE's failure to do so was unreasonable and imprudent.

OCA St. 2 at 14, 20 (emphasis added).

Due to the errors by GE in specifying the forces which could be exerted on the Mark II containment, the design of Limerick's containment structures, systems and components, and also other equipment subject to shaking because of its attachment or proximity to the containment, had to be re-analyzed and, where necessary, redesigned and reworked. OCA St. 2 at 18.

Through proprietary GE documents, which were not available in the PP&L case, and which the OCA received on March 13, 1986, four days before the close of the record in this case, information on the early GE containment tests was revealed. These documents provided dramatic evidence of the existence of substantial forces which could affect GE's containment design. The existence of these documents was discovered by the OCA through a review of the pleadings filed by the owners of the Zimmer Nuclear Generating Station in their lawsuit against GE. These utilities (as well as the owners of another Mark II plant in Washington State), rather than defending GE, have sued GE for its alleged negligence and misrepresentations in the design and sale of the Mark II containment.

In a GE proprietary document dated April 2, 1959, the following discussion of the results of one series of tests was reported:*

> During a run with a four-inch single vertical injector, closed tank, six-inch depth of submergence, and maximum flow rate at 58,000 pounds per hour, the tank was quiet during the first 16 minutes of operation. At this point the pressure in the tank rose to about six inches of mercury due to the accumulated condensate, and the tank commenced shaking. Two minutes later the tank began to shudder and then bang severely. This banging literally sounded like rapid fire from a rifle. After five minutes of this the vibration was severe enough to shake open the safety relief valve, and the run was secured. It was concluded from this run that the pool vibration phenomena was temperature-sensitive, and that the frequency and magnitude of the vibration should be investigated.

Tr. 4976-4977 (emphasis added).

The report also stated:

> During the operation of the six-inch injector anchored to the tank wall and specifically during the run where the mass flow rate was being reduced following the heating of the pool, the facility became so rough that the tank appeared to be bouncing on its foundation. Personnel in the control room of the power station recorded a mild earthquake which timewise coincided with this run.

Tr. 4978 (emphasis added).

Finally, the report stated:

> It was observed during the entire series of tests in this group that as the pool temperature reached 120 degrees to 130 degrees Fahrenheit, the roughness commenced and increased in intensity with the increase in temperature. The operation of the facility was smooth in all cases as long as the pool temperature remained below 120 degrees Fahrenheit. The intensity of the vibration increased with increased steam flow rates under all conditions.

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* Portions of proprietary documents were read into the record by agreement of the Company.

Tr. 4979 (emphasis added). This information clearly shows the presence of the forces which later came to cause the Mark II rework.

The Company incorrectly asserted that the information reported in the above GE proprietary document was based upon tests which were only preliminary, small scale, and which could not be relied upon. Tr. 4988, 5008. PECO asserted that the early tests were only to establish the feasibility of the pressure suppression concept. PECO St. 34 at 10. OCA witness Dr. Hanauer explained during cross-examination that the tests had a much broader purpose. Thus, he stated as follows:

> Q. Would you agree with me, Dr. Hanauer, that the tests which occurred in these non-nuclear facilities were viewed by the industry as establishing the feasibility of use of a pressure suppression containment concept?
>
> A. No. I think that's incomplete. They were certainly viewed that way but there were other things in addition that the tests were to do.
>
> Q. And what were those things, in your opinion, sir?
>
> A. They were intended to supply the data which were required to design these pressure suppression containments. So establishing the feasibility was not the end but only the beginning of their purpose.

Tr. 2765-2766 (emphasis added).

GE, however, apparently did little further analysis of the forces being manifested in these early tests until the 1970's. Rather, GE failed to analyze the forces until after construction of the Mark II plants had begun. This is particularly true for the safety relief valve forces. The Company stated that the early tests were only designed to measure steam condensation for loss-of-coolant accidents. PECO St. 34 at 11. GE, thus, incorrectly assumed that safety relief valve forces would

be accounted for by the accident analyses. This is best demonstrated from the following cross-examination of PECO witness Dr. Levy:

> Q. For those plants that you cite that in their initial designs did not pipe the safety relief valve discharges into the pressure pool, did the analyses done by the NRC and by General Electric ever consider the effects of safety relief valve discharges on the loading in the suppression pool?
>
> A. As I pointed out in my testimony, when these plants were being designed the relief valve loads were not considered because they were considered to be insignificant compared to the loss of coolant accident loads, and at that time we were not required to add the loss of coolant accident loads to the relief valve loads.
>
> Q. And when you say they were not considered significant, have you provided any documents or analyses in which discussion is contained that specifically shows tests to support the position that the safety relief valve loads were not significant?
>
> A. I cannot recall any such document having been generated.

Tr. 4970-4971.

General Electric's failure to analyze the forces from safety relief valve discharges is particularly striking when one considers a 1970 internal GE report on this very subject. In a GE document entitled "Pressure Suppression Pool Investigation Report No. 1", dated July 1, 1970, there was a discussion of both the late 1950's tests and also a series of tests performed in 1969. That document stated as follows:

> Pressure fluctuations and vibrations in the suppression pool and vent piping are of interest in order to develop background to explain the severe jumping and banging of the suppression tank which was observed during certain of the Humboldt Bay initial condensing test runs of the Moss Landing facility in 1958, and during certain blowdown tests run recently in the small test stand. It was concluded from the Moss Landing results that the phenomena were

temperature and flow-dependent and were felt to result from hitting the natural frequency of the tank. It appears that the more violent action is associated with flows which result in near sonic conditions at the pipe exit. Although these pressure fluctuations and vibrations are not expected in the conditions associated with drywell to wetwell vent flow following the LOCA, it is desirable to define the relationships which caused them in order to adequately answer questions should they arise.

Tr. 4982 (emphasis added).

Discussing certain tests performed in 1969, the 1970 GE document stated as follows:

> During the early high pressure blowdown tests performed in the small test stand in 1969 it was noted that the suppression tank appeared to jump as the test was initiated and that a loud vibration-like noise occurred during much of the blowdown period. These events were similar to those recorded during initial condensing tests conducted at the Moss Landing facility in 1958, and further investigation seems justified.
>
> * * *
>
> A possible area of concern could be the automatic or manual depressurization of the pressure vessel through the relief valves which are piped directly to the suppression pool. This action could produce an initial shock by the mechanism postulated and result in a shock wave in the pool.

Tr. 4983-4984 (emphasis added).

Finally, the 1970 GE report made the following suggestion:

> Both the tank vibration and the chugging apparently occur at mass velocities which could be involved in reactor containment design ... and both could have serious design implications.

Tr. 4987-4988 (emphasis added).

This 1970 GE document recognized that both the tests from the 1950's and the test from 1969 exhibited forces called hydrodynamic

loads. Further, it stated that these forces needed to be analyzed. Finally, it noted a serious design concern for safety-relief valve discharges. There was nothing particularly new or important noted by the authors of the 1970 report that occurred since the 1958 tests to prompt the concerns noted in the report. The 1969 tests simply exhibited the same forces as the 1958 tests. Rather, the report noted forces which were known to GE personnel and were considered of serious concern.

The concerns expressed in the 1970 GE report were evidently not presented to the utility industry or the NRC. PECO witness Dr. Levy did not know whether the 1970 GE report was provided to the NRC. Tr. 4997. PECO witness Vollmer did not find a copy in PECO's file. Tr. 4953.

The ALJ found that GE was prudent because the NRC approved the Mark II design. R.D. at 84. This position should be rejected. As OCA witness Dr. Hanauer stated,

> The NRC's sole role in the Mark II was its safety regulatory responsibility. This means that a utility proposing to build and operate a nuclear power plant that has a Mark II containment must convince the NRC of its safety acceptability. As part of its licensing review, NRC evaluates the conformance of the Mark II containment to the NRC regulatory requirements.
>
> NRC played no role in the development by GE of the Mark II concept and load definitions. The first proposed Mark II was reviewed extensively by the NRC in connection with the application for a Construction Permit for Shoreham. Years later, the NRC Operating License reviews for all the Mark II plants included reviews of containment design in the light of the problems identified in the interim.

OCA St. 2 at 19 (emphasis added).

Moreover, the reviews performed by the AEC for the original Mark I designs were limited. Thus, Dr. Hanauer stated during cross-examination as follows:

Q. And did not that determination involve a review of the specific designs of the containments, the loads employed as the basis of that design, by the Atomic Energy Commission and the Nuclear Regulatory Commission?

A. Probably not. The review at the time the construction permits were granted were performed by what was then a small staff and they reviewed the concepts and some technical data to a greater or lesser extent in their reviews of these different plants. But to say that they had reviewed the design is certainly not correct. The design consists of thousands of drawings and calculations which underlie these drawings and neither the AEC nor the NRC ever purported to review the details of the design.

Tr. 2768-2769 (emphasis added).

It was GE that conceived the idea for the Mark II pressure suppression design. It was GE that performed the inadequate tests and then sold the flawed design to the utilities. The OCA submits that PECO cannot simply pass these imprudent costs on to ratepayers. Other utilities that purchased the Mark II containment have sued GE; PECO has effectively sued its ratepayers. PECO, however, has the burden of proof to show that the Mark II errors and resulting costs were prudently incurred. The OCA submits that PECO has not met this burden. Moreover, as set forth above, since this Commission's decision in the PP&L Susquehanna 1 rate case on this issue, extensive new information has become available regarding what GE actually knew in the 1950's and 1960's. For all of the above-stated reasons, the ALJ's holding on the Mark II issue should be reversed.*

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* If the Mark II adjustment is adopted, the total combined construction disallowance, for Limerick 1 and 50% of Common Facilities, is $804.4 million. OCA M.B. at III-2, III-109.

IV. RATE BASE

A. OCA Requests That Its Adjustment To PECO's Cash Working Capital To Reflect The Statutory Schedule Of Federal Income Tax Payments Be Adopted By The Commission.

The ALJ addressed the issue of cash working capital at R.D. 86. He did not state the basis for his final recommendation, and in particular neither adopted nor rejected OCA's and Trial Staff's recommended adjustment to the Company's cash working capital claim associated with federal income tax payments. It appears, however that the ALJ's final recommendation did not reflect this adjustment.

In OCA's Main Brief at VI-9 through VI-12 and in OCA's Reply Brief at VI-1 through VI-2, OCA argued that PECO's cash working capital should reflect the legally required schedule for such federal income tax payments, rather than a premature payment schedule claimed by the Company. OCA demonstrated that the Internal Revenue Code explicitly provides a method by which the Company can take advantage of the statutory payment schedule, calculate estimated payments, and be certain that it will incur no penalty if its final tax liability for the year in question exceeds the estimated liability on which the Company based its payments. Accordingly, OCA and Trial Staff submitted that the Company's claim must be reduced to reflect this statutory schedule. Since PECO does not need to make its tax payments on the schedule it claims, its cash working capital allowance should instead reflect the more efficient schedule that is legally available to the Company.*

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* Throughout the hearings, PECO insisted that a tax penalty could not be avoided except by making payments earlier than required by statute. On Reply Brief, however, after OCA cited specific provisions of the Internal Revenue Code that would assure PECO that it would not be

OCA respectfully requests that the Commission review the record, the Briefs, and the ALJ's recommendation on this issue, and allow the Company only such cash working capital as properly reflects this adjustment to PECO's claim. The effect of this adjustment is to increase from 47.0 days to 59.0 days the lag in payment of federal income taxes which should be used in calculating the cash working capital allowance. OCA R.B. at VI-2.

B. The ALJ Erred In Permitting PECO To Include Land Held For Future Use in Rate Base.

The ALJ recommended that the Company be allowed to include $7.393 million in rate base for land held for future use. OCA respectfully excepts to this recommendation. As OCA urged in its Main Brief at VI-7 through VI-8, such land does not provide current service to ratepayers and therefore should not be included in current rates. While OCA acknowledges that the Commission has in the past allowed such claims, OCA requests that the Commission reconsider this policy. Further, OCA submits that Section 1315 of the Public Utility Code, 66 Pa.C.S. §1315, prohibits inclusion of such land in rate base until it becomes

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(footnote continued)

penalized, the Company alleged that using this Internal Revenue Code method might mean higher payments than the Company now makes, because its first quarter "taxable revenue" was higher than average. PECO R.B. at 7-9 through 7-10. This claim, made for the first time in reply brief, had no evidentiary support in the record. Accordingly, OCA submits that it must be ignored as it is without any evidentiary basis. Further, this unsupported claim is inconsistent with the Company's filing in this case. From PECO's filing, it appears that PECO's electric revenues are lower in the first quarter than in an average quarter of the taxable year. Likewise, PECO's first quarter expenses, which would offset that revenue in any tax calculation, appear to be higher than its average quarterly expenses. See PECO Exh. 1, II-E-1.

used and useful in service to ratepayers. The Pennsylvania Supreme Court has granted allocatur in an OCA appeal from a Commonwealth Court decision, Cohen v. Pa. PUC, ---Pa. Commw. ---, 494 A.2d 58 (1985), which had upheld the Commission's past rejection of this OCA position. Order entered April 29, 1986, at Allocatur Docket No. 619 W.D. 1985, sub nom Barasch v. Pa. PUC. During the pendency of this appeal, OCA continues to maintain that Section 1315 forbids inclusion of land held for future use in rate base, and requests that this Commission deny the Company's claim.

V. RATE OF RETURN

A. Introduction

OCA excepts to the ALJ's recommendation that PECO be allowed a return on equity of 14.25 percent. R.D. 107. OCA submits that, as shown in Section VII of its Main Brief and Section VII of its Reply Brief, PECO's fair rate of return on equity is no higher than 14.00 percent. The ALJ erred in allowing PECO a higher rate. In addition, as will be shown herein, the ALJ erred in failing to consider important elements of the analysis presented by OCA's expert rate of return witness, James A. Rothschild.

B. The ALJ Erred By Ignoring OCA's PECO-Specific Discounted Cash Flow Analysis.

The ALJ used a recommended growth rate of 1.5 percent in his discounted cash flow (DCF) analysis, based on the average of a range of 1.29-1.70 percent. R.D. 102. However, in setting this range, the ALJ failed to take into account OCA witness Rothschild's surrebuttal testimony that a DCF analysis based on PECO-specific data indicated a growth rate between .20 and 1.20 percent. OCA St. 3A, Sch. 2. Based in part on this analysis, Mr. Rothschild testified to an overall market-indicated PECO cost of equity of 14.00 percent. Id. at 3. The ALJ appears to have disregarded this OCA testimony, for he stated that he excluded OCA's growth rate analysis, like OCA's dividend yield analysis, because "it was based upon non-nuclear construction electric companies which do not represent a similar risk group to PECO." R.D. 102. The fact is, however, that while OCA did present a non-nuclear comparison group analysis, OCA also presented a PECO-specific analysis. See OCA M.B. at VII-5. It appears that the ALJ, simply overlooked that

analysis. If the .70 percent midpoint of OCA witness Rothschild's growth rate range had been fairly reflected in the calculation of a PECO growth rate for DCF purposes, a lower recommended rate of return might well have resulted. OCA therefore requests that the Commission review the ALJ's recommended result of a DCF analysis, and give fair consideration to the testimony of the OCA witness on this issue.

C. The ALJ Erred In His Calculation Of A Risk Premium To Be Used in A Risk Premium Analysis.

The ALJ performed a risk premium analysis using a risk premium of 3.07 percent based upon taking the midpoint of the range of 1.64 percent to 4.50 percent between the positions of parties. R.D. 106. As stated below, the OCA argued that a risk premium analysis is inappropriate in this case. However, to the extent such an analysis is used, the OCA submits that the risk premium selected by the ALJ is clearly too high. OCA witness Rothschild pointed out that the Federal Energy Regulatory Commission has found that a reasonable risk premium for electric utility stock in excess of the cost of electric utility bonds is 2.00 percent. See OCA M.B. at VIII-25. The ALJ erred in allowing the excessive 4.50 percent risk spread premium asserted by PECO witness Brennan to constitute one endpoint of the range from which he took the midpoint. OCA submits that, if a risk premium analysis is even considered by this Commission, a spread of 2 percent is the maximum that should be allowed. This would result in a PECO-specific cost of equity of not more than 13.34 percent using the risk premium method and 11.34 percent bond yield found by the ALJ at R.D. 105.

D. OCA Submits That Under Current Circumstances, A Risk Premium Analysis Is Unreliable And Should Not Be Used.

Beyond the fact that the ALJ allowed an excessive risk premium, OCA submits it was an error for the ALJ to give any weight to a risk premium analysis. As explained by OCA witness Rothschild, a risk premium analysis is only reliable when the relationship between debt and equity costs is relatively stable. OCA St. 3 at 54-58. In recent history, this basic required condition for risk premium analysis has been lacking, as OCA demonstrated. See OCA M.B. at VII-22 through VII-26. The ALJ himself noted that:

> The determination of the risk spread premium for common equity is subjective in the extreme, as the range of positions in this proceeding shows.

R.D. 106. OCA submits that this wide variation confirms that risk premium analyses cannot be relied on under current conditions. Accordingly, OCA requests that the Commission reject that portion of the ALJ's recommendation which depends on this method, and instead allow PECO a rate of return based on the more reliable DCF calculations discussed above. Even without correcting the ALJ's discounted cash flow calculation as suggested above, this would result in a cost of equity of no more than 14.09 percent.

E. OCA Submits That The Increased Cost Of Capital To PECO Which Results From Construction Of Limerick 2 Should Not Be Charged To Current Ratepayers.

In his Recommended Decision, the ALJ noted that OCA had argued that the increase in PECO's cost of equity due to Limerick 2 construction should not be reflected in current rates. R.D. 96-100. The OCA submits that Limerick 2 construction does result in an increase in PECO's cost of equity. As the ALJ pointed out, the Commission itself recognized the

possibility of such an increase in its decision in the Limerick 2 investigation. R.D. 98. PECO's Vice-President, Mr. Paquette, has testified that such an increase would result if Limerick 2 construction continued under a cost containment plan. Id.; see Limerick Unit No. 2 Nuclear Generating Station Investigation, I-840381, Order entered December 5, 1985, at 78. The same point was made by Commissioner Shane in his dissent from the Decision in the Limerick 2 investigation, where he stated:

> [T]he higher cost of capital which will accompany the completion of Limerick 2 will have the effect of increasing rates.

Id., Dissent of Commissioner Shane at 2.

It should also be noted that the propriety of requiring current ratepayers to pay increased capital costs because of the risks of construction has already been questioned by a member of this Commisssion. Thus, in the last PECO base rate case, Commissioner Shane stated:

> I question the Commission's traditional allowance of higher equity returns to companies which are percieved by the investment community to be riskier because of their protracted construction programs with seemingly boundless funding requirements.

Pa. PUC v. Philadelphia Electric Co., 58 Pa. PUC 743, 847 (1985) (Dissenting Opinion of Commissioner Shane). Commissioner Shane then stated that he agreed with an adjustment of 80 basis points to PECO's rate of return on equity to exclude Limerick 2 risk. Id.

As estimated by OCA witness Rothschild in his initial direct testimony, construction of Limerick 2 results in PECO's cost of equity being 75 basis points higher than that experienced by a comparison group

of electric utility companies not engaged in nuclear construction. See OCA St. 3 at 4; OCA M.B. at VII-11. OCA submits that it is inequitable for this added risk to be charged to current ratepayers who receive no service from Limerick 2. As suggested by OCA witness Rothschild, if Limerick 2 risk is to be recognized, it should be included in the Company's AFUDC rate for Limerick 2, not in current rates. The fair rate of return which is set in this case, and which the Company is given an opportunity to collect from current ratepayers, should not include costs caused by Limerick 2.

When PECO chose to go forward with the construction of Limerick 2, it did so at its own risk. The increased cost of capital which results from this risk should not be charged to current ratepayers. Instead, as the Commission stated in its decision in the Limerick 2 investigation:

> [PECO] should be willing to accept various of the risks which are inherent in continuing construction of Limerick Unit No. 2, and not seek to absolve itself of certain risks and, thereby, to place them on the ratepayers.

Limerick Unit No. 2 Nuclear Generating Station Investigation, I-840381, Order entered December 5, 1985, at 85. OCA submits that this stated Commission policy supports the OCA's position that any increase in PECO's cost of equity due to Limerick 2 construction should not be reflected in current rates.

In his initial direct testimony, OCA witness Rothschild had testified to an estimated 14.75 market-derived cost of equity for PECO. He then recommended that 75 basis points be subtracted from that PECO-specific cost of equity to exclude Limerick 2 construction risk from

current rates, and stated that 14.00 would be a fair rate of return based on exclusion of the Limerick 2 risk. OCA St. 3 at 3-4. However, after Mr. Rothschild's direct testimony was filed, the financial markets for PECO and many other electric utilities experienced a dramatic improvement. On surrebuttal, therefore, Mr. Rothschild testified that, in light of that improvement in PECO's position, PECO's full market-indicated cost of equity was no more than 14.00 percent, even if Limerick 2 risk were included. OCA St. 3A at 3.

Thus, at the conclusion of the hearings in this case, Mr. Rothschild's recommendation was that a 14.00 percent return on equity would fully compensate PECO for its cost of equity, including risk resulting from Limerick 2. OCA did not present a revised estimate of a fair rate of return for PECO with Limerick 2 risk excluded. However, OCA continues to maintain that current ratepayers should not bear any increased capital costs which result from the construction of Limerick 2.

OCA therefore requests that, even if the Commission agrees with the ALJ that PECO's market-based cost of equity is somewhat higher than 14.00 percent, the Company should be allowed no more than 14.00 percent as a fair rate of return from current ratepayers. OCA excepts to the ALJ's decision not to adjust PECO's excessive rate of return so as to ensure that current ratepayers do not pay for the costs of constructing Limerick 2.

VI. REVENUES AND EXPENSES

A. The ALJ Erred In Accepting PECO's Sales Projection, Since PECO's Weather-Adjusted Actual Sales Prove That Projection Was Understated.

The ALJ erred in recommending denial of OCA's adjustment to the Company's pro forma revenue. R.D. 109-112. The OCA demonstrated that PECO's projection of weather-normalized sales and revenues was understated. Specifically, the use of PECO's weather-adjusted actual experience during the first five months of the future test year resulted in an $11.0 million increase in pro forma revenue, and a $3.607 million increase in income available for return, over PECO's weather-normalized projection. OCA St. 4 at 41. PECO's pro forma revenue must be adjusted by this amount.

OCA submits that there is no justification for continued reliance on PECO's weather-normalized projection of sales and revenue for a five-month period, when the actual weather-adjusted sales and revenue are known for that period. In place of PECO's twelve-month projection, therefore, OCA has proposed use of PECO's actual weather-adjusted sales for five months, and use of PECO's projection for the remaining seven months of the test year. OCA submits that its adjustment should be adopted. See OCA M.B. at VIII-2 through VIII-4.

By relying upon a twelve-month projection and ignoring five months of known data, the ALJ failed to reflect a known variation from the Company's test year budget. Further, the ALJ erred in basing his acceptance of PECO's revenue projection on the Company's statement that non-weather-adjusted sales were below budget. PECO St. 18C at 33. Such unadjusted sales place too much weight on the peculiarities of a single

year's weather. The purpose of weather-normalization is to produce sales and revenue estimates reflecting the normal weather which can be expected to occur while rates are in effect. The Company itself supplied the weather-adjustment of its actual sales data on which OCA based its adjustment, and that analysis showed sales exceeding those claimed by the Company. See OCA Exh. 30.

Further, the ALJ's own statement earlier in his decision, explaining the proper use of test year data, demonstrates why his action on this issue was in error. The ALJ stated as follows:

> The use of a "test year" in a rate proceeding provides a basis to examine as accurately as possible a utility's rate base, revenues and expenses for the future period in which any modified rates will be in effect.
>
> * * *
>
> Test year revenue and expense data, however, may not always provide a suitable basis for determining rates, because of abnormal operating conditions, such as unusual weather conditions, strikes, a typical equipment outage or expenses, etc., the test year revenue or expenses, or both, may not reliably reflect normal conditions. In such cases, where the test results are unrepresentative, appropriate adjustments must be made to correct the defects.

R.D. 10 (emphasis added). Thus, as the ALJ stated, test year weather conditions which differ from normal weather should not be the basis for ratemaking judgments. Instead, it should be assumed that weather during the period in which rates will be in effect will be normal, as shown by weather-normalized sales and revenue figures. In spite of this clear principle, the ALJ improperly assumed that the unadjusted actual sales cited by PECO will be repeated when the new rates are in effect.

OCA therefore requests that this Commission grant the OCA's adjustment, which is fully set forth in OCA's Main Brief at VIII-2 through VIII-4 and OCA's Reply Brief at VIII-1 through VIII-2.

B. The ALJ Erred In Failing To Address OCA's Proposed Adjustment To The Inflation Portion Of PECO's Outage Expense Claim.

OCA excepts to the ALJ's recommendation that the Company's outage expense claim be allowed in full. See R.D. 113-114. The ALJ failed to address OCA's recommended adjustment which corrected an improper inflation calculation in that outage expense claim. This OCA adjustment should be distinguished from the inflation-related adjustments proposed by Trial Staff and GSA; OCA used a different methodology and adjusted only one Company claim. The ALJ stated reasons for rejecting these other adjustments, but provided no discussion or reason for rejecting OCA's separate inflation adjustment to outage expense.

In its claim, PECO applied inflation factors of 5.25 percent for 1985 and 6.4 percent for 1986 to its nuclear and fossil plant outage expenses as shown at PECO Exh. TPH-2A, D-10, D-10a, and D-10b. OCA showed that these inflation factors were clearly excessive. Moreover, contrary to past Commission orders, the Company had made use of a claimed "PECO specific inflation factor." Although the ALJ mentioned in the introduction to his discussion of inflation that OCA had proposed an inflation adjustment (R.D. 113), he thereafter failed to discuss OCA's adjustment or offer any reason to deny it. In light of the ALJ's failure to address OCA's adjustment, OCA respectfully requests that the Commission review the record and briefs on this matter and grant the OCA's $646,000 expense adjustment. See OCA M.B. at VIII-4 through VIII-9; OCA R.B. at VIII-2 through VIII-3.

As noted above, the ALJ did address Trial Staff and GSA inflation adjustments to total operating and maintenance expenses. However, OCA's adjustment differed significantly from those proposals, and the ALJ's arguments against those proposals do not justify denying OCA's adjustment.

First, the ALJ asserted that Trial Staff and GSA's adjustments were based upon "erroneous and improper application to the Company's claim." R.D. 113. However, even PECO never made such a contention regarding the OCA adjustment. Instead, unlike other parties, OCA recommended an inflation adjustment only to outage expense, which the Company itself stated had been calculated using an inflation factor. See PECO Exh. TPH-2, D-10a; OCA St. 4 at 43.

Second, PECO's "extensive re-analysis" of the application of inflation factors, mentioned by the ALJ at R.D. 114, did not apply to the OCA's adjustment. Instead, as stated by PECO witness Carroll, that reanalysis was meant to show the proper way to make the Trial Staff and GSA adjustments. PECO St. 22B at 2-10. Mr. Carroll did suggest a "recalculation" of the OCA adjustment as well, but did so in a separate section of his rebuttal testimony. PECO St. 22B at 19.

Finally, PECO's outage expense claim, even as "recalculated" by Mr. Carroll, is contrary to this Commission's well-established policy on inflation factor calculations. The Company's claim does not rely on a gross national product implicit price deflator (GNP-IPD) as called for by past Commission rulings, but on the notion of a "PECO specific wage inflator" which this Commission has firmly rejected. In fact, in his recalculation, Mr. Carroll gave even more weight to this PECO wage

inflator than it received in the Company's original claim. See OCA M.B. at VIII-8. In the last PECO rate case, the Commission ruled as follows:

> As accurately noted by the ALJ and Staff, we have [previously] accepted the use of an inflation factor based on the GNP Implicit Price Deflator, thereby rejecting the use by PECO of a calculated or derived inflation factor. Se e.g. Pa. PUC v. Philadelphia Electric Company (Gas Division), R-832410 (April 27, 1984) mimeo, P. 51-52; Pa. PUC v. Philadelphia Electric Company (Electric Division), R-822291 (November 23, 1983). Nothing in the record before us would justify going against estabished Commission precedent in this matter.

Pa. PUC v. Philadelphia Electric Co., 58 Pa. PUC 743, 792-793 (1985). OCA submits that granting PECO's claim would result in a reversal of this clear Commission precedent. Nothing in the current record warrants such a reversal.

Instead, OCA's adjustment carries out past Commission policy and should be adopted. In light of the ALJ's failure to discuss this adjustment, OCA respectfully requests that the Commission review the record on this issue and adopt the OCA's adjustment.

C. The ALJ Erred In Recommending That PECO Be Allowed To Amortize Its Investments In Certain Failed Uranium Ventures.

OCA excepts to ALJ Matuschak's recommendation that the Company be permitted to amortize its Sequoyah, Lee, and Homestake uranium mining ventures. R.D. 121-122. These three projects were recently the basis of a Commission order directing refunds to ratepayers of the return paid on these investments under past rates. Pa. PUC v. Philadelphia Electric Co., C-850128, Order entered April 18, 1986. OCA submits that the Company's speculative investment in these mines never benefitted ratepayers. Since the Company has now abandoned those investments, the mines never will benefit ratepayers. OCA submits that ratepayers ought

not to be asked to reimburse PECO for these speculative investments. See OCA M.B. at VIII-14 through VIII-16.

OCA recognizes that in the past, the Commission has directed a "sharing" of the costs of certain similar ventures between the utility company and the ratepayers. However, OCA submits that such a cost-sharing should not be applied in this case. These speculative Company ventures have been abandoned without ever benefitting ratepayers, and OCA believes it would be inequitable to ask the ratepayers to pay for such a non-service-providing investment.

OCA therefore requests that the Commission deny PECO's request for an amortization of remaining costs of its failed investment in the Sequoyah, Lee, and Homestake mining ventures. This OCA adjustment results in an expense reduction of $2,445,000. OCA St. 7A, Rev. Sch. TEK-3.

D. The ALJ Erred In Recommending That PECO Be Allowed To Amortize Its Ten-Year-Old Investment In The Heaton-Byberry Line.

OCA excepts to the ALJ's recommendation that PECO be allowed an amortization of its investment in the Heaton-Byberry line. R.D. 125-126. The Heaton-Byberry transmission line project was suspended in 1976, and no work has been done on this project since. OCA submits that it is improper to allow the Company to reach back ten full years and seek to amortize such an investment. See OCA M.B. at VIII-16 through VIII-17. OCA therefore requests that the Commission adopt this $89,000 expense reduction adjustment. OCA St. 4A, Sch. 10; OCA St. 4 at 37.

VII. GUARANTEE OF LIMERICK 1 ENERGY SAVINGS

At pages 178 through 181 of his Recommended Decision, the ALJ rejected the OCA's proposal that PECO be required to guarantee the $207 million in energy savings which PECO projected would accrue from having Limerick 1 in operation. In so recommending, the ALJ found that "energy savings guarantee proposals are inconsistent with fundamental ratemaking principles." R.D. 178. The OCA excepts to this recommendation. See Section V of the OCA's Main and Reply Briefs.

The primary reason for the OCA's proposal to guarantee PECO's level of projected energy savings is that Limerick 1 may not be able to operate during some or all of the summer months of 1986 and 1987. This uncertainty over the plant's ability to be "used" is caused by the current lack of a firm supply of cooling water for the plant. In making his recommendation, the ALJ failed to discuss this potential problem with Limerick's ability to operate.

Initially, PECO witness Boyer stated that, as of January 1, 1986, PECO did not have a firm supply of cooling water for Limerick 1 for either the summer of 1986 or the summer of 1987. Tr. 1035-36.

Just before the close of the record in this case, Mr. Boyer described an agreement between PECO and the Tamaqua Borough Authority, which he asserted would provide enough water for Limerick 1 to operate for up to 57 days. Tr. 4801-02. This agreement, however, had not yet been approved by the Delaware River Basin Commission (DRBC) (Tr. 4803) and was also subject to an as-yet uncompleted dam inspection by the Department of Environmental Resources (Tr. 4804). Further, even if that agreement is approved by the relevant governmental agencies, the

Authority would, in Mr. Boyer's words, "have the right to terminate the agreement if DRBC imposes water restrictions or if there is any potential disturbance to the earth embankment of the dam." Tr. 4802. Even this new agreement, therefore, does not eliminate all of the uncertainty regarding Limerick's cooling water supply.

In short, at least as of the close of the record in this case, there was still considerable uncertainty about the Company's ability to obtain cooling water for Limerick during the summer months of 1986 and 1987. Further, given the conditions apparently contained in PECO's agreement with the Tamaqua Borough Authority, the OCA submits that there is still considerable doubt over the Company's ability to obtain cooling water for Limerick 1 during all of the summer months of 1986 and 1987. Of course, in the absence of cooling water, the plant cannot operate. Ratepayers thus are being asked to bear the risk that Limerick 1 will not operate during the summer months when energy costs are the highest, even though, as of the end of June, 1986, all or a part of Limerick 1's multi-billion dollar cost is likely to be reflected in their rates.

OCA witness Knudsen summarized these concerns as follows:

> Not unlike the last PECO base rate case in which I urged the Commission to guarantee Salem Unit #2 fuel savings, the question of the future performance of Limerick Unit #1 is equally in doubt, particularly over the summer periods. In addition to the usual concerns that surround the startup and ongoing operation of nuclear plants, there are serious questions regarding whether there will be sufficient water and whether the unit can operate at its full capacity rating. These risks should not be the burden of customers. Management selected the large nuclear centralized generating station as its preferred means of supplying energy. The customers have a right to assume that these plants will operate at a reasonable level of availability.

OCA St. 7 at 27-28 (emphasis added).

As Mr. Knudsen noted, this situation is similar to that which existed with Salem 2 in PECO's last base rate case, Pa. PUC v. Philadelphia Electric Co., 58 Pa. PUC 743 (1985). In that proceeding, the Commission adopted an OCA proposal -- to which the Company had agreed -- to guarantee the level of energy savings which PECO projected would accrue from having Salem 2 in operation. In the present case, while the ALJ found that energy savings guarantees were inconsistent with "fundamental ratemaking principles," he failed to discuss this Commission's Salem 2 guarantee.

The OCA submits that the problems with Limerick 1 are comparable to those which existed with Salem 2 last year. In both instances, there is a significant risk that the plant may not be able to operate as expected because of a problem with a non-nuclear aspect of the plant. Thus, as was the case with Salem 2, the OCA is recommending an interim energy savings guarantee to relieve ratepayers of this risk.

Further, the OCA would emphasize that this guarantee is necessary in order to prevent a potentially significant future increase in PECO's ECR which would be in addition to the base rate increase of which ratepayers were notified in this case. Clearly, if PECO does not have cooling water for Limerick during the summer months, the ECR could increase substantially.

The OCA submits, therefore, that an energy savings guarantee is needed in order to (1) prevent ratepayers from paying even more for Limerick through an ECR increase, and (2) protect ratepayers from bearing the risk of PECO being without adequate cooling water supplies for 1986 and 1987.

Because PECO has proposed to reflect this level of energy savings in its base rates, the adoption of the OCA's proposal would not affect the level of base rates proposed by either the Company or the OCA in this case. This would, however, have the effect of prohibiting PECO from adjusting its Energy Cost Rate in the future to recover the difference between the projected and actual fuel savings generated by Limerick 1.

VIII. THE ALJ FAILED TO ADDRESS THE ISSUE OF THE PROPER OIL PRICES TO BE USED IN THE DEVELOPMENT OF A NEW ECR.

The OCA excepts to the ALJ's failure to address the issue of the proper price of oil which PECO should incorporate in the development of a new ECR. The proper price of oil is particularly important in this case due to the advent of the 80%/20% ECR which is being established for the first time. The ALJ's discussion of the ECR does not address the issue of oil prices at all. As the ALJ himself stated, however, in a ruling regarding a Staff Motion to Strike portions of Company testimony:

> As we view it, the Commission directed us to ensure that the correct "ingredients" were included in PECO's ECR, for without proper ingredients the Commission's 80%/20% provision would be meaningless, could be manipulated, and would fail to establish the effect intended.

ALJ Ruling of March 10, 1986, Mimeo at 9.

The Company's claim for energy costs to be collected under the new 80%/20% ECR methodology was based upon an outdated oil price forecast from May of 1985. Tr. 4509; see OCA Exh. 14, 15. These prices were set, for example, at over $27/bbl. for No. 6 0.5% sulfur oil, and $32/bbl. for No. 2 oil. OCA Exh. 88. The OCA submits that the oil prices which PECO has included in its energy cost rate projection are highly inflated compared to current oil markets and current prices, including prices which the Company is now paying for its own oil. If these prices are not adjusted, the Company will receive a totally unjustified windfall through the operation of its ECR by retaining 20% of the difference between the actual and projected cost of oil.

The OCA submits that no PECO witness has supported these high prices as representative of what PECO actually expects to pay for oil

over the coming ECR year. In fact, the two witnesses that PECO presented for oil price forecasting both testified that current oil prices are below $20/bbl. On March 11, 1986, PECO's Manager of its Fuel Procurement Department, Paul English, testified that the Company had paid $17 a barrel for residual (or No. 6) oil in March, 1986. Tr. 4357. Mr. English's prediction for oil prices for the remainder of 1986 was that "for '86 I see a slight upkick, but certainly nothing phenomenal." Tr. 4358. He amplified this projection by stating that the price "may be in the $17 to $20 range, it would be fairly flat." Tr. 4358. For 1987, Mr. English stated that "I think you will see an increase that will move up into the $20s." Tr. 4359.

PECO's other oil price forecasting witness, Dr. William Hogan, also confirmed that current oil prices are well below $20 a barrel. In fact, Dr. Hogan testified that the most recent spot price for crude oil as of the day he testified was "$13, $12, something like that." Tr. 4395. As Mr. English noted, residual oil prices are generally comparable to crude oil prices but tend to lag crude prices on the way down and then lag them on the way back up. Tr. 4356.

The development of an accurate oil price forecast is essential to the reasonableness of the Company's energy cost rate projection. With the establishment of the 80%/20% ECR in which 20% of energy costs are not reconciled, it is crucial that the ingredients of the cost projection not bias the results in favor of either the Company or the ratepayers. The purpose is not to create a built-in windfall or penalty. Rather, the ingredients must be based upon the most reasonable information available to the Commission.

Due to the importance of this issue and the unprecedented drops in world oil prices that were occurring almost daily during the proceeding, the OCA made a transcript request of the Company on March 12, 1986, to prepare a production cost run for use in the development of an ECR which reflected current oil prices. Tr. 4524. The Company objected to the OCA's request initially, but after discussion, stated it would rerun its production cost model at oil prices of $24 and $23 per barrel for residual oil. Tr. 4534. This production cost run produced total annual energy costs of $448,780,713 for the year ending 6/30/87, or approximately $10 million less than the prior analysis which used slightly higher oil prices. PECO St. 22D, Sch. 3, page 2 of 4 revised. It is not at all clear, however, whether PECO has proposed to use the output of this later production cost run as the basis for its energy cost rate price in this case as compared to its earlier $27/$26 per barrel analysis. Further, these oil prices are still substantially above the current and reasonably anticipated market prices for residual oil.

The OCA recommends that the Commission should not allow the first 80/20 ECR in the state to be implemented with biased oil prices. As of the close of the record, PECO had most recently paid $17 per barrel for residual oil. No Company witness has testified that oil prices are expected to be significantly higher than this amount in the next 12 months. The OCA therefore suggests that the Commission should require PECO to present as part of its compliance filing in this case an energy cost rate based upon a price of no more than $17 per barrel for residual oil. This represents the most recent actual data as of the close of the record. Certainly the results of the Company's initial production cost

run must be rejected for setting the energy cost rate in this case.

The ALJ's decision completely ignores the issue of oil prices in his discussion of the ECR. The only discussion of oil prices by the ALJ is in the section of the Decision discussing oil inventory balances. R.D. at 36. The ALJ there adopts the $23-24/bbl. oil prices for inventory valuation purposes as of June 30, 1986. Such prices are unrepresentative of an average cost of oil for the entire ECR year, however. The PUC is well aware of the price of oil on the market. World oil prices are nowhere near the $23-24/bbl used by PECO. They are, rather, much closer to $17-20/bbl. While the ALJ rejected $17/bbl. as a "spot" price, it is certainly more representative of current and projected world oil markets than the price asserted by the Company.

The OCA therefore submits that the PUC must clarify what oil prices are to be incorporated in PECO's ECR. Further, the OCA submits that the proper oil prices to be used are in the $17-20/bbl. range, rather than $23-24/bbl or $26-27/bbl.

IX. RATE STRUCTURE

A. The ALJ's Adoption Of PECO's Cost Of Service Study Should Be Reversed.

The OCA excepts to the ALJ's total adoption of the rate structure presentation of PECO. In particular, the OCA excepts to the cost of service study of PECO which was adopted by the ALJ with only minimal discussion.

The OCA submits that the Company's approach in its cost of service study to the classification of power production investment and expenses fails to consider all of the relevant factors which caused the Company to design and build its system and, in particular, Limerick 1. Specifically, the Company's cost of service study ignores the fact that a baseload power plant is designed to meet not only coincident peak loads, but also to generate energy throughout the year. While the OCA agrees that the total number of megawatts of capacity on the PECO system is designed to meet peak demands, the generation mix built to supply those megawatts will vary in cost depending upon year-round energy usage on the system.

The costs incurred to construct Limerick 1 are substantial. These costs were not incurred solely to meet demands during 4 coincident summer peak hours. OCA witness Mr. Oliver discussed these costs as follows:

Q. What portion of PECO's generating unit investment costs can be attributed directly to the Company's efforts to achieve lower production costs?

A. The portion of investment that is incurred to gain lower energy costs will vary by plant. For a new base load generator, such as Limerick Unit 1, however, the portion of total investment that is incurred in an

attempt to achieve energy cost savings may exceed 90 percent. For example, Appendix A of the Company's Petition in this case shows a total rate base cost of Limerick Unit 1, including common plant, of $3,710,373,000. This represents a cost of more than $3,500 per kW of installed generating capacity. By comparison, if PECO was only concerned with having sufficient capacity available to meet peak requirements on a few high load days each year, it could have installed an equivalent amount of combustion turbine capacity at a cost of approximately $267 per kW. (OCA Statement 6, page 43) Thus, in building Limerick 1, the Company has incurred more than thirteen times the investment cost necessary to obtain a sufficient amount of capacity to meet coincident peak requirements, and this calculation does not address the retirement of existing generating units. We must, therefore, conclude that for each kW of Limerick capacity, at least $3,233 (i.e., more than 92 percent) were incurred to obtain lower production costs.

OCA St. 8 at 23 (emphasis added).

The use by PECO of the 4CP method for classification and allocation of power production and transmission investment completely fails to account for the reasons the substantial investment in Limerick 1 was incurred. The 4CP looks at only one part of the process, coincident peak demand, and uses it to try to explain total investment. That is a feat beyond its limited capability. The OCA submits that it must therefore be rejected as the basis for classifying and allocating total power production and transmission investment.

The OCA presented a cost of service study based on a Peak and Average Method. This method properly reflects the reasons utilities invest in power production and transmission plant. The Peak and Average accomplishes this allocation by weighting both peak demand usage and annual energy. It is appropriate to apply such a weighting to power production investment costs because, in fact, the utilities must consider both aspects in doing generation planning. As OCA witness Oliver stated:

> PECO's generation planning must consider both reliability and economics of the capacity that it builds and maintains to serve its customers. PECO's concerns with respect to reliability are primarily a function of the amount of capacity installed and available at any point in time. The Company's decisions with respect to the type(s) of capacity on which it will rely are based on joint consideration of (1) the frequency and duration of system loads and (2) the costs and operating characteristics of alternative generating technologies.

OCA St. 8 at 11 (emphasis in original).

The ALJ's discussion of cost of service in this case contradicts his own discussion of cost of service principles from a 1983 Metropolitan Edison Company case. In the case of Pa. PUC v. Metropolitan Edison Co., 56 PUR 4th 230 (1983), the Commission adopted ALJ Matuschak's Recommended Decision in which he approved Met-Ed's 55% demand/45% energy allocation for TMI-1. ALJ Matuschak there stated as follows:

> Bethlehem Steel Corporation and some other industrials, relying on the testimony of their witness Eisdorfer, contend that the TMI-1 investment should be allocated on a demand basis.
>
> Bethlehem's argument is premised on the untenable assertion provided by witness Eisdorfer that TMI-1 was constructed almost exclusively for capacity reasons. Mr. Eisdorfer admitted, however, that the planning of a particular base load unit does consider lower cost energy as a significant consideration. This was the case concerning Met-Ed's decision to construct TMI-1. As Met-Ed witness Carter expressly noted, it was not only capacity but the total cost for meeting the system generation requirements that was considered during the planning of TMI-1.
>
> Thus, the 45% energy-related allocation proposed for TMI-1 properly allocates those portions of the capital costs incurred in order to provide a least cost system. The industrial customers of Met-Ed are the principal beneficiaries of lower energy costs, and hence it was not improper to allocate on energy part of the cost of TMI-1, which created those savings.

R.D. at 116-117 (emphasis added).

Similarly, in the present case, the Commission must recognize that the Company's sole reliance on coincident peak data is outmoded and not relevant to cost causation analysis.

The ALJ cited PECO's assertion that the Company's cost of service methodology is proper because it allocates production plant on a demand basis and energy savings on an energy usage basis. R.D. at 150. This, in fact, is precisely the problem. The costs are not allocated to the same customers who derive the energy savings. There is a clear mismatch of costs and benefits. It is precisely this mismatch that the OCA's proposed cost of service methodology attempts to correct.

B. The Company's Method For Classifying Distribution System Costs Must Be Changed.

The OCA also excepts to the ALJ's adoption of PECO's approach to the classification of distribution system costs. The Company's approach to distribution system costs improperly classifies substantial investment as Customer related which is more properly classified as Demand related. See OCA M.B. at IX-17 to IX-21.

The error in the Company's predominant minimum size approach to classifying distribution system costs is that the facilities it identifies as customer related can carry significant demands. Further, as the demands on the Company's system grow, the predominant minimum size also could possibly grow. This growth, however, only serves to indicate that there is a significant demand component which the Company measures as customer related. OCA witness Mr. Oliver noted the problems inherent in PECO's approach as follows:

Q. Does PECO's predominant minimum system approach actually identify just the customer-related portions of distribution system costs?

A. No, it does not. As Mr. Sundermeir stated under cross-examination, certain portions of the Company's predominant minimum system specification, such as customer service drops, actually contain sufficient load carrying capabilities to meet the maximum demands of most residential customers. (Tr. 1813) Furthermore, Mr. Sundermeir also stated that the "predominant" minimum size equipment for the PECO system may change over time as the demands on the system increase. (Tr. 1826-27) Thus, increases in customer demands can result in an increase in the portion of distribution costs that PECO classifies as customer-related costs.

For example, Mr. Sundermeir stated under cross-examination that in some prior time period the "predominant minimum size" transformer for PECO may have been 10 kVa. (Tr. 1826-27) Today PECO's "predominant minimum size" transformer is considered to be 25 kVa. In the future, according to Mr. Sundermeir, the Company's "predominant minimum size" transformer may be even larger if increasing demands on the system caused the Company to install proportionately more transformers over 25 kVa in size. (Tr. 1827)

OCA St. 8 at 20-21 (emphasis added).

The OCA recommends that the Commission order PECO to undertake a study similar to the one required of PP&L in its rate case at Docket R-822169. In that case the Commission ordered PP&L to re-examine its methods for determining customer class responsibilities for distribution costs. In its subsequent rate case, PP&L presented a Modified Zero Intercept Method in place of its minimum system measure. OCA St. 8 at 20-21. In so doing, it joined both Duquesne Light Company and Pennsylvania Power Company in the use of the modified zero intercept method.

C. Essential Use Rates Should Be Adopted By The Commission.

The OCA excepts to the ALJ's rejection of essential use rates as proposed by OCA and CEPA. The OCA proposed essential use blocks for residential customers in order to hold down overall cost increases for basic electricity consumption requirements. See OCA M.B. at III-30 to III-42. The primary thrust of the OCA's essential use proposal is to limit rate increases for basic use blocks to no more than the rate of inflation. This would serve to hold electric costs to low-income consumers at a more stable percentage of real monthly income, rather than allowing electric costs to increase at a pace greater than other consumer costs.

The ALJ's discussion of essential use rates ignored substantial evidence on the relationship between income and usage. The Commission has, in the past, questioned whether essential use tariffs will actually benefit low-income customers. The testimony in this proceeding shows that low-income customers, on average, use substantially less electricity than customers of all income levels combined and also much less than high-income customers. CEPA St. 1 at 25.

CEPA witness George Grier presented evidence that customers with incomes under 125 percent of the poverty line use an average of 4.4 thousand Kwh annually as compared to 6.1 thousand Kwh for customers of all income levels. Moreover, customers with 1981 family incomes of $35,000 or more consume an average of 8.6 thousand Kwh per year, almost twice that of low income consumers. CEPA St. 1 at 26. Mr. Grier also reported that "83.1 percent of households under 150 percent of poverty in Rate Class R use less than 500 Kilowatt hours." Tr. 3727 (emphasis

added). Moreover, Mr. Grier noted a strong correlation between high income and high electricity usage. CEPA St. 1 at 29-30. Mr. Grier also testified that low-income customers have considerably fewer air-conditioners than wealthy customers. Thus, low-income customers contribute much less to summer peak demands and also have lower consumption levels. CEPA St. 1 at 30-31.

Implementation of essential use rates, as proposed by Mr. Oliver, would be accomplished through a targeted application of Commission-ordered reductions in the Company's overall rate increase request. Specifically, as the revenues allocated to the residential class are reduced, the OCA proposes that those reductions would be applied first to the essential use blocks. The goal is to attempt to keep the increase to essential use blocks as close to the rate of inflation as possible. Under this method, reductions in the initial essential use block would be implemented until the increase in that block was no greater than the rate of general inflation. Under this approach no customer would receive an increase greater than that proposed by PECO, and customers who stay within or near their essential use allowance could receive substantial benefits. Thus, some rate relief will be provided to those uses of electricity which are most inelastic and thus least amenable to conservation efforts. Further, all customers receive the initial benefit of a rate reduction in the first block since all customers use the basic use blocks. OCA St. 8 at 42.

For low income customers with usage levels above the break even points, the OCA submits that PECO should implement, or greatly expand current programs to promote conservation. Through efforts such as

weatherization and appliance efficiency programs, low-income customers who cannot afford conservation investments, could be assisted in reducing consumption to the levels of the lower use blocks.

The Company has taken the position that the problems of low-income consumers should be addressed only through targeted programs and not rate design. Tr. 1775. The OCA submits, however, that PECO's current programs to help low-income customers are inadequate. Mr. Grier discussed each of the programs available to low-income customers in his Direct Testimony. CEPA St. 1 at 31-37. His conclusion was that the programs serve far too few customers to be of much benefit to the large majority of low-income customers. Id. at 31. By Mr. Grier's calculation, only 15,000 customers were served by energy and utility assistance programs in 1985. Id. at 36. Further, of this amount, the predominant aid was from the Low-Income Home Energy Assistance Program (LIHEAP), a government grant program which served 10,800 PECO customers. Id. at 32. PECO's own programs served only two percent of the total number of low-income ratepayers. Id. at 36. One need only compare the total customers assisted, 15,000, to the number of customers for whom service was terminated by PECO in 1984 of 31,758, to see that PECO's programs are not meeting the need which exists. CEPA St. 1 at 37.

The ALJ's overall increase and phase-in, if adopted, would provide the Commission with the opportunity to establish inflation based essential use rates without imposing substantial additional costs on higher use customers.

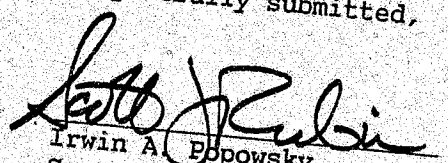
Further, to the extent the Commission modifies the ALJ's revenue requirement findings, or his recommended phase-in plan, the OCA submits

that the essential needs of low-income customers have to be considered. Any substantial increases in electric costs for essential needs of such customers will be a significant burden and must be avoided.

X. CONCLUSION

For the reasons set forth above, the Office of Consumer Advocate excepts to the Recommended Decision of the Administrative Law Judge and requests that the Commission render a final order in accordance with the above Exceptions and the recommendations contained in the Main Brief of the Office of Consumer Advocate.

Respectfully submitted,



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May 23, 1986

Re: Pennsylvania Public Utility Commission, et al.
v. Philadelphia Electric Company
Docket No. R-850152

RECEIVED
MAY 23 1986
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Public Utility Commission

Jerry Rich, Secretary
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Room B-18 - New Filing Section
P. O. Box 3265
Harrisburg, PA 17120

Dear Secretary Rich:

Enclosed for filing with the Commission please find the original and nine (9) copies of the Exceptions On Behalf Of Philadelphia Area Industrial Energy Users Group (PAIEUG) To The Recommended Decision of Administrative Law Judge Joseph P. Matuschak in the above-captioned Docket. All parties of record have been provided with copies as evidenced by the attached Certificate of Service.

Very truly yours,

McNEES, WALLACE & NURICK

By David M. Kleppinger
David M. Kleppinger

DOCUMENT
FOLDER

DMK/jf
Enclosures
cc: All Parties of Record (w/encl.)

CERTIFICATE OF SERVICE

Pennsylvania Public Utility Commission, et. al., :
v. :
Philadelphia Electric Company : Docket No. R-850152
:

I hereby certify that I have served a copy of the foregoing document on all known parties of record to this proceeding, all by first class mail (unless otherwise indicated) properly addressed as follows:

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Dated this 23rd day of MAY, 1986, at

Harrisburg, PA

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MAY 23 1986

SECRETARY'S OFFICE
Public Utility Commission

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION, et al.	:	
v.	:	Docket No. R-850152
PHILADELPHIA ELECTRIC COMPANY	:	

EXCEPTIONS OF PHILADELPHIA AREA INDUSTRIAL ENERGY USERS GROUP* TO THE RECOMMENDED DECISION OF ADMINISTRATIVE LAW JUDGE JOSEPH P. MATUSCHAK

DOCKETED

MAY 27 1986

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LIQUID AIR CORPORATION
LUKENS STEEL COMPANY
NABISCO, INC.
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Dated: May 23, 1986

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION, et al.	:	
v.	:	Docket No. R-850152
PHILADELPHIA ELECTRIC COMPANY	:	

EXCEPTIONS OF
PHILADELPHIA AREA INDUSTRIAL ENERGY CONSUMERS
TO THE RECOMMENDED DECISION OF
ADMINISTRATIVE LAW JUDGE JOSEPH P. MATUSCHAK

I
INTRODUCTION

The complete position of the Philadelphia Area Indutrial Energy Users Group (PAIEUG) concerning revenue requirements, phase-in, and rate structure/rate design issues is contained in the extensive Main Brief and Reply Brief previously filed on behalf of PAIEUG. These Briefs are incorporated herein by reference and we encourage the Commission to closely review those Briefs for a complete version of the PAIEUG position.

These Exceptions will only address those portions of the Administrative Law Judge's Recommended Decision with which PAIEUG strongly disagrees. In the revenue requirement/phase-in portion of the proceeding, PAIEUG specifically excepts to the following recommendations by ALJ Matuschak:

(1) That PECo not be required to guarantee either the 65% projected capacity factor for Limerick Unit I or the $207 million in fuel savings projected for Limerick I in the test year.

(2) That the PECo system contains no excess generating capacity.

(3) That the PAIEUG phase-in proposal and sinking fund depreciation methodology are inconsistent with established ratemaking principles.

These three specific Exceptions will be developed more fully below.

In the area of rate structure/rate design, PAIEUG specifically excepts to the following recommendations by ALJ Matuschak:

(1) That the rate increase be distributed to customer classes on an equal percentage basis including fuel-related revenues.

(2) That the PAIEUG weather adjustment to the 4CP cost-of-service study is inappropriate.

(3) That the PAIEUG Rate HT rate design is in error.

(4) That the PAIEUG recommendations concerning Rate HT High Voltage Discounts and Curtailment Rider credit were not addressed in the Recommended Decision.

Once again, these specific Exceptions will be developed more fully below.

II

REVENUE REQUIREMENT/PHASE-IN EXCEPTIONS

A. THE ALJ ERRED BY FAILING TO REQUIRE PECO TO EITHER GUARANTEE THE 65% PROJECTED CAPACITY FACTOR FOR LIMERICK UNIT I OR THE $207 MILLION PROJECTED FUEL SAVINGS FOR LIMERICK UNIT I IN THE TEST YEAR.

In his Recommended Decision, ALJ Matuschak rejected several parties' (including PAIEUG) recommendation that PECo be forced to guarantee its projected fuel savings from Limerick I in the test year or to guarantee the projected capacity factor for Limerick I. ALJ Rec.Dec.pp.178-180. While the ALJ contends that energy savings guarantees are inconsistent with fundamental ratemaking principles and have been rejected by the Commission in the last two Pennsylvania Power & Light Comany base rate proceedings, he totally ignores the Commission's most recent decision concerning PECo wherein the Commission required a guarantee of the projected fuel savings in the future test year for Salem Unit II. Pennsylvania Public Utility Commission, et al., v. Philadelphia Electric Company, 58 PaPUC 743, 778 (1985).

Furthermore, the ALJ ignored the fact that in the two Pennsylvania Power & Light Company cases cited in support of his Recommendation, the Commission adopted substantial excess capacity adjustments addressing the addition of Susquehanna Units I and II to PP&L's rate base. ALJ Matuschak has made no such excess capacity adjustment for PECo, so PECo ratepayers will be forced to bear the full cost of Limerick Unit I regardless of its

production levels. This contrasts with PP&L ratepayers who had 945MW deemed as excess capacity in Pennsylvania Public Utility Commission v. Pennsylvania Power & Light Company, 57 PaPUC 559 (1983) and who had an equity return denied on Susquehanna Unit II in Pennsylvania Public Utility Commission v. Pennsylvania Power & Light Company, Docket No. R-842651 (April 26, 1985).

PECo ratepayers will have no such protection concerning an excess capacity adjustment or an equity return adjustment and will be forced to bear all rate base costs of Limerick I as approved by the Commission. Given the fact that PECo ratepayers will carry the entire cost of Limerick I, equity and the balancing of risks between shareholders and ratepayers require that a fuel savings guarantee or performance level guarantee be ordered.

ALJ Matuschak recognized that if any performance standard for Limerick I were to be applied, it should relate to the operation of the plant and not to a dollar level of energy savings. ALJ Rec.Dec. p.179. This position by ALJ Matuschak is entirely consistent with the PAIEUG recommendation that the most appropriate manner by which the interests of ratepayers and shareholders can be balanced is through a guarantee of the 65% capacity factor projected for Limerick Unit I in the future test. See PAIEUG Main Brief, pp.25-26; PAIEUG Stmt. No. 1, p.21. As noted by PAIEUG witness Falkenberg, recent history at the Salem and Beach Bottom Nuclear Generating Stations has indicated that 65% capacity factors are seldom

attained in the early years of nuclear plant operation, so PECo's presentation to its ratepayers that $207 million in fuel savings will materialize with a 65% capacity factor represents an unduly optimistic picture. Id. PAIEUG sees no reason to await a later date and determine whether any adjustment or penalty should be applied as is recommended by ALJ Matuschak. PECo is making a proposal in this proceeding that it will be able to operate Limerick Unit I at a 65% capacity factor and it should be held to that estimate.

Therefore, PAIEUG specifically excepts to the ALJ Recommendation which refuses to apply a 65% capacity factor requirement on PECo's operation of Limerick Unit I in the future test year.

B. THE ALJ ERRED BY FINDING THAT THE RECORD DOES NOT SUBSTANTIATE EXCESS CAPACITY ON THE PECO SYSTEM.

ALJ Matuschak made no adjustment for excess capacity because his review of the record allegedly failed to substantiate any PECo excess capacity. ALJ Rec.Dec.pp.71-77. In his discussion of this issue, ALJ Matuschak ignored the standard ratemaking principle of total cost minimization on a utility's generating system. He accepted, without criticism, PECo's assertions that numerous retired combustion turbines and steam units at Richmond and Southwark no longer served any useful purpose.

These findings ignored the economic analyses performed by the Office of Consumer Advocate and PAIEUG which supported the continuation of these units in service as a method of minimizing total costs on the PECo system.

The ALJ glosses over the fact that PECo plans to remove 1,585 MW of capacity from service over the next nine years, and, that in 1985 and 1986 alone, PECo will remove 962 MW of oil fired capacity. PAIEUG Stmt. No. 1, p.24. Merely because PECo has decided to retire these units as a result of the addition of Limerick Unit I to rate base does not necessarily lead to the conclusion that Limerick I is now needed capacity. Id.p.25. Therefore, PAIEUG concluded that the current installed reserve margin on the PECo system is 43.2% and not the 28% cited by PECo and ALJ Matuschak. PECo's reserve margin without Limerick Unit I would still be 26.1% absent the numerous retirements planned for 1985 and 1986. Id.p.22. Comparable reserve margin levels were sufficient for the Commission to apply significant excess capacity adjustments to Pennsylvania Power & Light Company and consistency would require *some* adjustment for the excess capacity on the PECo system in this proceeding.

While PAIEUG did not sponsor a specific excess capacity adjustment, we do not believe that the Commission can ultimately find that no excess capacity exists on the PECo system as recommended by ALJ Matuschak. Therefore, PAIEUG specifically excepts to the ALJ's finding that no excess capacity exists on the system. This ALJ finding ignores substantial evidence presented by PAIEUG and the Office of Consumer Advocate as well as

the Utility Users Committee/University of Pennsylvania and is directly contrary to prior Commission findings of excess capacity in the PP&L proceeding.

C. THE ALJ ERRED BY REJECTING THE PAIEUG PHASE-IN PLAN WHICH INCORPORATED SINKING FUND DEPRECIATION AND SIX-YEAR AVERAGE REVENUE REQUIREMENTS FOR LIMERICK UNIT I.

1. The incorporation of a six-year average revenue requirement for Limerick Unit I into the ALJ's recommended phase-in plan would ease the burden on ratepayers and has been fully supported by PAIEUG witness Falkenberg and PECo witness Hieronymus.

The purpose of the PAIEUG proposal for a six-year average revenue requirement calculation for Limerick Unit I is necessary due to the fact that the ALJ's adoption of the PECo phase-in plan could easily result in the overcollection of Limerick revenue requirements during the phase-in. PECo's own witness, Dr. Hieronymus, testified that Limerick revenue requirements will decline from $857 million in 1986 to $764 million in 1991. PAIEUG Stmt. No. 1A.p.4. This decline in Limerick revenue requirements is unaccounted for in the PECo and ALJ recommended phase-in plans.

ALJ Matuschak ignores the testimony of PAIEUG witness Falkenberg wherein two examples were cited supporting a six-year average revenue requirement for Limerick I. PECo itself has prepared a rate base adjustment for nuclear fuel assemblies based on a two year average of the cost of those assemblies, and, PECo has estimated the fuel cost savings

attributable to Limerick at $207 million based on a two year average calculation. PAIEUG Stmt. No. 1,p.9. Such averaging techniques are common place in regulatory ratemaking philosophy and thus, the PAIEUG modification to the phase-in plan to incorporate a six-year average revenue requirement for Limerick I is not "fundamentally inconsistent with established ratemaking principles." ALJ Rec.Dec.p.174. Therefore, PAIEUG specifically excepts to the ALJ's rejection of the six-year average revenue requirement for Limerick I as a portion of the PECo and ALJ recommended phase-in plan.

2. Sinking fund depreciation methodologies have previously been accepted by this Commission and should be incorporated into the phase-in plan.

ALJ Matuschak incorrectly concluded that the "used and useful" nature of the new plant in the PP&L proceeding which justified sinking fund depreciation is not present in this proceeding. ALJ Rec.Dec.p.174. As discussed above in the PAIEUG exception regarding excess capacity, PECo is clearly in a comparable excess capacity situation to that of PP&L. Therefore, the ALJ's justification for denial of a PP&L-style sinking fund depreciation on this basis is without support in the record evidence.

The ALJ apparently compares the PAIEUG sinking fund proposal to that of the Governor's Energy Council witness John W. Wilson. The ALJ commented that Mr. Wilson's method is unprecedented for investor-owned electric utilities and is not in accordance with generally accepted accounting principles. These two criticisms simply do not apply to the PAIEUG sinking

fund proposal and do not support the ALJ's rejection thereof. First, the PAIEUG sinking fund method has been previously adopted by the Commission in the last two PP&L proceedings. Pennsylvania Public Utility Commission v. Pennsylvania Power & Light Company, 55 PUR 4th 185, 229-230, (1983); 67 PUR 4th 30, 48 (1985). Secondly, PAIEUG witness Falkenberg testified that the auditor's opinion to the PP&L 1984 Annual Report stated that the PP&L financial statements were prepared in accordance with "generally accepted accounting principles". These financial statements included the PP&L-style of sinking fund depreciation methodology and were not qualified by PP&L's auditor, Deloitte, Haskins & Sells. PAIEUG Stmt. No. 1A,p.3; Falkenberg Rebutal Exhibit No.2. Therefore, neither of these criticisms apply to the PAIEUG sinking fund depreciation proposal and we urge the Commission to recognize the ALJ error and incorporate a sinking fund depreciation methodology into the phase-in plan.

III

RATE STRUCTURE/RATE DESIGN EXCEPTIONS

A. THE ALJ ERRED BY REFUSING TO DISTRIBUTE THE PROPOSED INCREASE AMONG CUSTOMER CLASSES BASED ON AN EQUAL PERCENTAGE BASIS EXCLUDING FUEL-RELATED REVENUES.

The ALJ rejected the PAIEUG proposed distribution of the increase and adopted the Company's methodology by alleging the Company method is fully consistent with the cost-of-service study, the desire to promote conservation and off-peak usage, and with prior Commission rate orders. ALJ Rec.Dec.p.159. Even a cursory review of the PAIEUG Main Brief on this point reveals that the ALJ is simply wrong on all counts.

Without undue repetition, the Commission must note that in each of the last three base rate proceedings filed by PECo, the Commission has ordered a distribution of the proposed increase among customer classes in proportion to the revenue of that class excluding all fuel-related revenues. This essentially constitutes the PAIEUG proposal in this proceeding and is thoroughly consistent with prior Commission rate orders at Docket Nos. R-842590, R-822291, R-811626. The PAIEUG Main Brief at pp.36-43 addresses these precedents in detail and cites considerable testimony by PECo in those proceedings which supported the PAIEUG proposal in this proceeding. For the ALJ to state that the Company's methodology is

"fully consistent" with prior Commission orders is clearly incorrect and his blanket adoption of the Company method must be rejected by the Commission and replaced with the PAIEUG proposal.

ALJ Matuschak's contention that the Company method is fully consistent with its cost-of-service study is misleading in light of the fact that the cost-of-service study presented by PECo prejudices Rate HT customers by utilizing abnormal load data from the 1984 summer period. These defects in the Company's cost-of-service study will be addressed below and are fully explained in the PAIEUG Main Brief at pp.50-56. These criticisms of the cost study will convince the Commission that the Company's proposed distribution of the increase is not "fully consistent" with the cost-of-service study as referenced by the ALJ.

The ALJ also notes that the Company method is fully consistent with the desire to promote conservation and off-peak usage. What the ALJ overlooks in his simplistic analysis is that the Company method allocates approximately $55 million in additional revenue increase to Rate HT than what the PAIEUG proposal would require. Such an unjustified additional rate increase to the HT class will contribute to a narrowing of the benefits of off-peak usage versus on-peak usage and discourage Rate HT customers from utilizing energy more efficiently and thus preventing, not promoting, conservation.

Finally, the ALJ apparently rejects the PAIEUG proposal on the basis that residential customers will suffer an increase of 35% versus the 28% proposed by PECo. ALJ Rec.Dec.p.159. First, the proposed increase to the residential class under the PECo method is not 28% as cited by the ALJ but 29.6%. See, PECo Exh. TPH-2,p.A-5. While PAIEUG recognizes that its proposed distribution of the increase would have resulted in a 35% increase to the residential class, this assumed that PECo would receive 100% of its requested rate increase. Realistically, PAIEUG recognized that a 100% award by the Commission was extremely unlikely, and the ALJ has concluded that an increase of only 45% of that requested by PECo is warranted. Therefore, the system average increase will be 12.06% compared to the PECo proposal of 28.2%. Based on this level of rate relief granted by ALJ Matuschak, the PAIEUG distribution of that increase would not result in an exorbitant increase to the residential class in excess of the 12.06% system average increase. Therefore, this ALJ criticism of the PAIEUG proposal is no longer accurate or appropriate.

Having eliminated the four criticisms of the PAIEUG proposal as discussed by ALJ Matuschak, PAIEUG strongly recommends that the Commission is now bound by the last three PECo base rate decisions in which the PAIEUG recommended proposal of the increase as presented in this proceeding was adopted.

B. THE ALJ ERRED BY REJECTING THE PAIEUG WEATHER ADJUSTMENT TO THE COMPANY COST-OF-SERVICE STUDY DATA.

ALJ Matuschak rejected the PAIEUG weather adjustment to the Company's cost-of-service study by stating:

> (1) That the adjustment was based on a misconception of the Company's methodology;
>
> (2) That the adjustment was incomplete;
>
> (3) That the adjustment is inconsistent with prior Commission precedent; and,
>
> (4) That the adjustment was inconsistent with cost-of-service study presentation by PAIEUG witnesses in prior proceedings.
>
> ALJ Rec.Dec. p.155.

PAIEUG maintained that none of these criticisms are correct and urge the Commission to adopt PAIEUG weather adjustment as set forth in the testimony of Dr. Melvin P. Bloom at PAIEUG Stmt. No.2,p.7.

The ALJ fails to develop what the alleged PAIEUG "misconception" of the Company's methodology actually is. PAIEUG has been a fully active participant in each PECo base rate proceeding for the last twelve years and considerable analysis of the PECo cost-of-service study has been performed annually by PAIEUG consultants Drazen-Brubaker & Associates, Inc. In several proceedings, PAIEUG has supported the Company's method and fully understands the concepts contained therein. In this proceeding, PAIEUG

simply compared the results of the Company's study to studies from prior cases and noted a gross distortion in the class rate-of-return levels. Therefore, rather than accept the Company methodology without detailed further analysis (as ALJ Matuschak has apparently done), PAIEUG identified the reasons for the distorted class rate-of-return levels.

Secondly, ALJ Matuschak argues that the PAIEUG adjustment is incomplete. While his Recommended Decision does not discuss why he believes the adjustment is incomplete, it would appear that the ALJ has once again accepted PECo's unsubstantiated criticism that the 1984 sales data should also be weather adjusted if PAIEUG adjusts the 1984 peak load data. This criticism does not mean that the PAIEUG adjustment is incomplete, but actually supports the complete adoption of the PAIEUG peak load data adjustment. As discussed in the PAIEUG Reply Brief, at pp.12-13, any weather adjustment to the 1984 sales data would only continue the distorted effects of the abnormal cool weather in the 1984 summer. A critical factor in the cost-of-service study analysis is the load factor of the individual customer classes. If both peak load data and 1984 sales data are weather adjusted, these load factors remain at the abnormal levels found in the PECo cost-of-service study. Therefore, the only appropriate method for adjusting for the abnormal weather is to return the 1984 peak day data to normal weatherized levels.

As for the ALJ criticism that the PAIEUG adjustment is inconsistent with prior Commission precedent and PAIEUG witnesses in prior proceedings, the ALJ apparently ignores the fact that prior Commission adoption of PECo cost-of-serice studies as well as PAIEUG adoption of those studies never included abnormally cool weather which distorted the class rate-of-return levels as significantly as the PECo cost study in this proceeding. These historical rate-of-return levels are more fully addressed in PAIEUG Main Brief at pp.51-54 and will not be reiterated here. However, to state, as the ALJ has, that the PAIEUG position is now inconsistent totally ignores the reason behind the PAIEUG adjustment and fails to recognize the justifications for the PAIEUG support of prior PECo cost-of-service studies.

Therefore, PAIEUG urges the Commission to adopt the cost-of-service study as shown at PAIEUG Stmt. No.2, Exh. MPB-3, Sch.2,p.1,2. The Commission will find that the results of the PAIEUG cost-of-service study are thoroughly consistent with the historic rate-of-return relationships in prior PECo cost-of-service studies as shown at PAIEUG Stmt. No.2, Exh. MPB-1.

As an aside, the ALJ failed to address a further adjustment to the cost-of-service study sponsored by PAIEUG. This adjustment removed curtailable loads from the peak load data. Obviously, if PECo can curtail these loads at the time of the system peak, such loads should not

contribute to a class's peak load cost responsibility. This adjustment to the cost study is discussed by PAIEUG in its Main Brief at pp.53-54 and has not been seriously challenged by any party to the proceeding.

C. THE ALJ ERRED BY REJECTING THE PAIEUG PROPOSED RATE HT RATE DESIGN BY BASING HIS REJECTION ON AN ALLEGED CALCULATION ERROR.

PAIEUG witness Pollock proposed a slight modification of the PECo Rate HT rate design proposal which would result in a reduction of the HT tail block from the 3.75¢/kwh PECo proposal to 3.18¢/kwh. This PAIEUG recommendation by witness Jeffry Pollock is totally independent of the alleged calculation error cited by ALJ Matuschak. Mr. Pollock accepted the PECo correction to his testimony which simply modified a percentage increase calculation to the demand cost recovery contained in the HT tail block. This calculation did not at all impact the PAIEUG position that demand cost recovery in the tail block energy charge of Rate HT should be minimized. Whether the percentage increase to the demand cost recovery in the HT tail block is 100% as originally calculated by Mr. Pollock or 60% as calculated by PECo, the criticism of the HT rate design as proposed by PECo is still appropriate. TR 3684.

The rejection by the ALJ of the PAIEUG rate design proposal based on these calculations is simply inappropriate. The viable basis for the PAIEUG proposal is that the tail block energy charge on the HT rate schedule should minimize demand cost recovery. The PAIEUG proposal

accomplishes this result while the PECo proposal as accepted by the ALJ would increase the demand cost recovery by approximately 60%. Such increases in the demand cost recovery of the HT tail block are analogous to the proposals by the Utility Users Committee/University of Pennsylvania and the Pennsylvania Business Utility Users Group which have been vehemently opposed by PECo and also rejected by the ALJ. Therefore, the only Rate HT rate design proposal remaining which accomplishes the recognized goal of minimizing demand cost recovery in the HT tail block is that presented by PAIEUG witness Pollock.

D. THE ALJ ERRED BY NOT SPECIFICALLY ADOPTING THE PAIEUG RECOMMENDATION FOR INCREASING THE RATE HT HIGH VOLTAGE DISCOUNT AND THE HT CURTAILMENT RIDER CREDIT.

The ALJ's Recommended Decision is devoid of any treatment of two rate design recommendations made by PAIEUG in its Main Brief at pp.47-49. The first recommendation would require PECo to provide an additional high voltage discount to customers taking service at 66,000 volts and higher by adding 1% of the base capacity and energy charges to the credit. No party to the proceeding has strongly opposed this recommendation and we urge the Commission to adopt the PAIEUG proposal on which the ALJ Recommended Decision is silent.

The second PAIEUG recommendation is to increase the Rate HT Curtailment Rider credit from the current level of $2.00/KW to $3.70/KW. Once again, no party to the proceeding strongly opposed this recommendation and we urge the Commission to adopt the PAIEUG proposal on which the ALJ Recommended Decision has no comment.

IV

CONCLUSION

PAIEUG has attempted to limit its Exceptions to the specific points on which PAIEUG disagrees with the ALJ's Recommended Decision. However, the complete position of PAIEUG on both revenue requirements and rate structure/rate design is set forth more fully in its Main Brief and Reply Brief and we urge the Commission to closely review those documents as a direct representation of the desires of twelve major industrial customers of PECo.

Respectfully submitted,

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Mr. Jerry Rich, Secretary
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Re: Pennsylvania Public Utility Commission v.
Philadelphia Electric Company, Docket No. R-850152

Dear Mr. Rich:

Enclosed for filing with the Commission is an original and nine (9) copies of the Exceptions to the Recommended Decision of Administrative Law Judge, Joseph P. Matuschak dated May 13, 1986 submitted jointly on behalf of the Southeastern Pennsylvania Transportation Authority ("SEPTA") and the National Railroad Passenger Corporation ("Amtrak").

Very truly yours,

J. Thomas Morris

JTM:heg
Enclosures

cc: Honorable Joseph P. Matuschak (w/encl.)
All parties (w/encl.)

FOLDER

CERTIFICATE OF SERVICE

I hereby certify that I am, this 23rd day of May, 1986, serving by special messenger (except where noted below), the Exception of the Southeastern Pennsylvania Transportation Authority and the National Railroad Passenger Corporation, upon the persons listed below:

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MAY 23 1986

SECRETARY'S OFFICE
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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

NATIONAL RAILROAD PASSENGER CORPORATION	:	COMPLAINT DOCKET
	:	
	:	NO. R-850152C-007
v.	:	
	:	
PHILADELPHIA ELECTRIC COMPANY	:	

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY	:	COMPLAINT DOCKET
	:	
	:	NO. R-850152C-008
v.	:	
	:	
PHILADELPHIA ELECTRIC COMPANY	:	

DOCKETED

MAY 27 1986

EXCEPTION OF THE NATIONAL RAILROAD PASSENGER CORPORATION AND THE SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY TO THE RECOMMENDED DECISION OF THE ADMINISTRATIVE LAW JUDGE DATED MAY 13, 1986

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May 23, 1986

FILED

I. Introduction

In accordance with the Commission's order in PECO's last rate case, Docket No. R-842590, PECO's present rate filing includes separate cost of service studies for SEPTA and Amtrak.[1] These cost of service studies demonstrate that the cost of serving SEPTA and Amtrak is significantly less than the average cost of serving members of the High Tension ("HT") class under which the Railroads currently receive service. See Main Brief of SEPTA and Amtrak at pp. 2, 10.

In the present proceeding, PECO has proposed and recommends removal of SEPTA and Amtrak from the HT class and has proposed two new rates: EP-S ("Electric Propulsion-SEPTA") and EP-A ("Electric Propulsion-Amtrak"). The Recommended Decision dated May 13, 1986 of Administrative Law Judge Joseph P. Matuschak, at pp. 163-165 (hereafter "R.D. at ____"), approves PECO's proposal to establish two new rates EP-S and EP-A which are based on the cost of serving SEPTA and Amtrak with the system average rate of return.

Although SEPTA and Amtrak support the removal of the Railroads from the HT class (and no party has opposed such removal), SEPTA and Amtrak except to the ALJ's recommendation that there be two separate rates for the Railroads rather than a single Electric Propulsion rate for the Railroads.

---

[1] Throughout this Exception and the supporting reasons, "SEPTA" is used to designate the Southeastern Pennsylvania Transportation Authority and "Amtrak" is used to designate the National Railroad Passenger Corporation. Additionally, SEPTA and Amtrak are, from time to time, collectively referred to as the "Railroads".

Additionally, in the current proceeding, SEPTA and Amtrak presented evidence regarding the unique circumstances under which power is sold by PECO to Amtrak at delivery points at Thorndale, Pennsylvania and Perryville, Maryland (SEPTA/Amtrak St. No. 1 at pp. 6-7). Although SEPTA and Amtrak disagree with the ALJ's discussion of such evidence (R.D. at p. 164), it is also true that the Railroads did not request any specific relief on the basis of such evidence (SEPTA/Amtrak St. No. 1 at p. 27; Main Brief of SEPTA and Amtrak at p. 11, note 3). Therefore, SEPTA and Amtrak are not filing any exception to that aspect of the ALJ's discussion.

II. The Recommended Decision Errs In Approving Two Separate Rates For The Railroads Instead Of A Single Electric Propulsion Rate

SEPTA and Amtrak fully support the ALJ's recommendation to remove the Railroads from the HT Class. However, the ALJ's recommendation that there be two separate rate classes is without support in the record and is contrary to sound rate making principles.

The sole support offered in the Recommended Decision is that PECO "believes that its proposal to establish two separate rates will more precisely track the cost of service of these two customers and reflect differences in their load characteristics" (R.D. at 164). Neither PECO nor the ALJ, however, point to any evidence in the record of any significant differences in either the cost of service or the load profiles of the Railroads that would warrant the establishment of two separate classes.

On the contrary, PECO's own cost of service study demonstrates that the Railroads exhibit uniquely similar cost characteristics consisting of demand costs which are low compared to the average demand costs for members of the HT Class and high customer costs per delivery point as compared to average HT Class customer costs (SEPTA/Amtrak St. No. 1 at pp. 8-9, 20; Reply Brief of SEPTA and Amtrak at p. 2).

SEPTA and Amtrak exhibit uniquely similar load patterns consisting of distinct daily twin peaks with high peaks relative to most other customers in both the morning and evening (SEPTA/Amtrak

St. No. 1 at p. 18). Unlike the PECO system, which peaks in the summer, SEPTA and Amtrak are generally winter peaking customers (Id.). The load characteristics of the Railroads are not only similar, but SEPTA's load requirements actually comprise a part of Amtrak's load profile by reason of the significant sharing of rail facilities and electric supply which occurs between SEPTA and Amtrak. In fact, Amtrak redelivers 20-25% of the power it purchases from PECO to SEPTA (Id. at p. 7). To a significant extent, therefore, the Railroads function as a single customer of PECO and it is unreasonable to impose two separate tariffs.

Simply stated, the Recommmended Decision totally ignores the overwhelming similarities between SEPTA and Amtrak -- including their similar load profiles, cost characteristics, identical end-use, joint use of rail facilities and significant sharing of energy costs (SEPTA/Amtrak St. No. 1 at p. 22).

Rate making theory generally prescribes the grouping of customers with similar end-use, load and cost characteristics into separate rate classes (SEPTA/Amtrak St. No. 1 at p. 22). While these considerations strongly support the ALJ's removal of SEPTA and Amtrak from the HT class, they do not support the creation of two separate classes for the Railroads. Such unnecessary proliferation of highly similar customer classes is unreasonble and contrary to sound rate making principles. On the other hand, consolidation of the Rates EP-S and EP-A into a single Electric Propulsion Rate would properly reflect the homogeneous characteristics of the Railroads

and avoid unnecessary duplication of rate classes. Moreover, such consolidation, as proposed by the Railroads, would not affect PECO's revenue requirements or the rates charged to any other customers (SEPTA/Amtrak St. No. 1 at p. 23).

In summary, there is no identifiable benefit in creating two separate rate classes for the Railroads. Nor would consolidation of Rates EP-S and EP-A cause any adverse impact on PECO or other customers. Moreover, the parties principally affected by the new rates -- SEPTA and Amtrak -- have amply demonstrated their greatly similar end-use, load and cost characteristics. Accordingly, these overwhelming similarities warrant a single traction power rate class applicable to the Railroads, and the Recommended Decision should be modified accordingly.

III. Conclusion

For the reasons set forth above, the Commission should modify the Recommended Decision by directing the consolidation of the rates EP-S and EP-A into a single Electric Propulsion rate.

Respectfully submitted,

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May 23, 1986

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In re: Pennsylvania Public Utility Commission
v.
Philadelphia Electric Company
R-850152

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Dear Secretary Rich:

Enclosed please find an original and nine copies of the Trial Staff's exceptions to the Recommended Decision of Judge Matuschak for filing in the above captioned matter. By Secretarial letter dated May 14, 1986, a waiver of the page limitations of 52 Pa. Code §5.533(d) was previously granted. Note however that the enclosed Staff exceptions exceed the 80 page limitation. As noted on page 80, the 11 page balance of the document are not exceptions but identify computation errors in the Recommended Decision. The Director of the Office of Special Assistants has been informed of the length of this document and has indicated that it is consistent with the waiver of page limitation granted May 14, since the exception portion is within the 80 page limit.

Thank you for your cooperation in this matter.

Very truly yours,

Daniel P. Delaney
Deputy Chief Counsel

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MAY 23 1986
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Public Utility Commiss

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION

V.

PHILADELPHIA ELECTRIC COMPANY

Docket No. R-850152

EXCEPTIONS OF COMMISSION TRIAL STAFF TO THE RECOMMENDED DECISION OF THE ADMINISTRATIVE LAW JUDGE DATED May 13, 1986

DOCKETED
MAY 27 1986

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Dated: May 23, 1986

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I. INTRODUCTION

On May 14, 1986, the Administrative Law Judge issued his Recommended Decision in the instant proceeding. This decision concluded that respondent Philadelphia Electric Company had met its burden of establishing that the annual level of revenues, based on a future test year ending June 30, 1986, should be increased by $357,975,000, exclusive of state tax surcharge and net energy clause revenues. He directed that this increase was to phased-in equally over a three-year period, with the deferred amounts to be recovered in the fourth through sixth years.

By letter dated May 15, 1986, Chief Administrative Law Judge William H. Smith informed the parties that Tables I through III of the Recommended Decision were in error; the revised revenue increase amount was $301,648,000.1/

Commission Trial Staff's positions on the issues raised during the course of this proceeding were extensively set out through testimony of its witnesses as well as in its Main and Reply Briefs. The specific exceptions Staff has to the Recommended Decision are discussed below.

1/ As discussed in Section VII infra, the revised Tables themselves contain a number of computational errors. The corrected revenue increase ordered by the Administrative Law Judge is $270,660,000.

In addition, Staff would like to make two general comments with respect to the Recommended Decision. First, at p. 6 of the Decision the ALJ states explicitly that in his opinion, even if an adjustment has merit, it will be evaluated "in its relation to its overall effect upon the financial stability of the Company ... Singularly, an adjustment may pose no problem, in combination with other adjustments, it may tilt the scales into an excessive burden upon the Company ..." This adoption of "below the line" ratemaking has been rejected previously by the Commission and recently rejected explicitly by the Pennsylvania Supreme Court. In Pennsylvania Electric Co. v. PaPUC, ____ Pa. ____, 502 A.2d 130 (1985), the Court stated:

> We find no authority, in Hope or in other decisions, indicating that broad public interests are to yield to the interests of investors whenever the financial integrity of a utility company is imperiled.
>
> In cases where the balancing of consumer interests against the interests of investors causes rates to be set at a "just and reasonable" level which is insufficient to ensure the continued financial integrity of the utility, it may simply be said that the utility has encountered one of the risks that imperil any business enterprise, namely the risk of financial failure. The express language of the Hope decision weighs against regarding utilities as a protected class of business enterprises which are to be relieved of such normal business risks ....
>
> ... Since the risk of non-profitability remains upon regulated utility companies, it follows that the consequence of that lack of profitability, to wit diminished financial integrity, also rests upon

> utility companies. Indeed, the Hope decision accorded implicit recognition to the fact that, in determining "just and reasonable" rates, there may be circumstances in which investor interests in the financial integrity of the enterprise may fail to be fulfilled ...
>
> If the impact of diminished financial integrity were shifted from utility companies to the consumers, as would be the case if the utilities were regarded as having a constitutionally guaranteed right to rates which would preserve their financial integrity, elevating their rates above those levels that would otherwise be regarded as providing a "just and reasonable" return on assets utilized in the public service, the result would effectively circumvent the longstanding principle, discussed supra, that property included in a rate base must be "used and useful" in the public service. Specifically, rate bases which had been determined through the exclusion of non-useful property would be rendered superfluous because the resulting rates would have to be adjusted upwards, whenever the financial integrity of the enterprise was in peril, and the effect upon rates would be the same as if portions of the non-useful property, such as the Three Mile Island nuclear reactors, had not been excluded from the rate base in the first instance.

Slip Opinion, pp. J-88-9 through J-88-11, citations omitted.

See also ALJ Klovekorn's Recommended Decision in a prior PECO rate proceeding at R-842590:

> Contrary to the position apparently advanced by the company, this Commission is not authorized to set rates solely to permit the company to achieve some financial goal. This Commission, being the only protection the public has from utility rate requests [citation omitted] has a mandate to scrutinize such requests to insure that only legitimate expenses

> are passed on to the ratepayer and that ratepayers only pay for investment actually used in the production of electricity [citation omitted].

Recommended Decision dated November 20, 1984, pp. 9-10.

In accord, see PUC v. Bell Telephone Company of Pa., R-842779, where the Commission permitted a revenue increase of $36.8 million out of the $238.6 million requested.

Staff respectfully submits that ALJ Klovekorn, and the Pennsylvania Supreme Court, have correctly described the ratemaking process. The decision to permit or reject each claim advanced by the company must be evaluated on its own terms, not decided on the basis of some predetermined revenue target. In light of the ALJ's statements in the instant proceeding, Staff urges the Commission to carefully review each issue in this case to ensure that no meritorious adjustments were rejected solely because of their "overall effect upon the financial stability of the Company." This approach, which would nullify an otherwise appropriate ratemaking determination whenever necessary to preserve the financial integrity of the utility (and thereby shift the risk of financial failure from investors to consumers and thus guarantee a fair return to investors) must be rejected in toto by the Commission.

The second comment Staff has goes also to the overall approach take by the ALJ in producing his Recommended Decision. Understandably, in light of the nature of this very contested proceeding and the magnitude of the Limerick

claim, the ALJ, as he himself admits, was not able to address every issue. For example, issues such as the Commission-mandated revision to PECO's ECR and the claim for cash working capital were summarily dismissed with no discussion at all. While the specific exceptions Staff has are noted below, it is important that the Commission recognize that its order must contain sufficiently detailed findings of fact and conclusions of law in order to be sustained on appeal. 66 Pa. C.S. §703(e). In light of the scant attention the ALJ was able to devote to these non-Limerick issues, Staff respectfully requests that the Commission make its own de novo determinations based on its independent review of the record and pleadings.

II. RATE BASE

A. The ALJ's Rejection of Staff's Limerick Construction Adjustment Is Based on Several Fundamental Misunderstandings (RD, pp. 59-63).

Staff excepts to the Administrative Law Judge's rejection of the Limerick construction adjustment presented by Staff witnesses Rosenthal and Dougherty (RD, pp. 59-63). The ALJ made the following errors:

(1) He mischaracterized Staff's adjustment;

(2) He rejected Staff's methodology for a completely irrelevant reason; and

(3) He applied an incorrect legal standard.

As correctly noted in the Recommended Decision, the Commission in its previous order (the "Limerick 1 Order") had determined that PECO had imprudently delayed construction of Limerick #1. The issue in the instant proceeding was to quantify the costs associated with those unreasonable delays in order to remove them from the company's claimed $3.8 billion investment (RD, pp. 45-50). Both Staff and OCA, employing completely different methodologies, presented recommended adjustments to accomplish this.

1. The ALJ mischaracterized Staff's methodology.

It is obvious from reading the Recommended Decision that the ALJ completely failed to understand the basis for Staff's recommendation; in fact, it is obvious that (due to

the unusual time constraints of this proceeding) he did not at all read Staff's Reply Brief. Thus, his description (at p. 59) of Staff's methodology was taken without attribution from the company's Main Brief (at p. 4-80) without regard to Staff's discussion in its Reply Brief, and contains the same error made by the company.

The ALJ (and the company) stated:

> Staff's delay [cost] calculation is based on a comparison of actual to date project expenditures as of October 31, 1984, when fuel load commenced, to its computation of project costs if the unit had been both completed and in-service in April 1981.

As Staff explained in its Reply Brief, at p. 44, the staff auditors did not compare actual October 31, 1984 project to date expenditures with Staff's "own computation of project costs" had the April 30, 1981 in-service date been achieved. Instead, Staff compared the actual project to date costs as of April 30, 1981 and October 31, 1984 and de-escalated the difference based on the actual cost increase percentages throughout that period. Staff did not compute the cost of Limerick pursuant to an April 1981 in-service date; the result of Staff's calculations is the actual plant completed in 1986 at 1981 prices.

Staff respectfully submits that the ALJ's above misstatement, and the discussion below, clearly reveal that he did not understand Staff's adjustment; therefore, Staff's recommendation has not been adequately considered. Staff urges the Commission to carefully read Staff's Main and

Reply Briefs; the question of the appropriate Limerick adjustment is a complex one and cannot be discussed accurately within the abbreviated Exception period.

2. The ALJ rejected Staff's adjustment for an irrelevant reason.

The main reason the ALJ rejected Staff's adjustment was his finding that:

> Trial Staff's quantification analysis is grounded on the assumption that Limerick would have been simultaneously completed and in service in April 1981, absent the 1976 and 1978 deferral decisions. (T.S. St. DPD-1, pp. 2-3).
>
> While such an approach, in view of PECO's burden in this proceeding, may have been acceptable as a starting point, Trial Staff could not properly persist in blindly refusing to go forward to meet PECO's evidence tending to show the impossibility of the April 30, 1981 in-service date.
> RD, pp. 60-61.

As explained in Staff's Main (pp.) and Reply (pp.) Briefs, IT IS NOT NECESSARY IN STAFF'S METHODOLOGY TO DETERMINE A HYPOTHETICAL IN-SERVICE DATE BECAUSE STAFF'S ANALYSIS INCORPORATES ALL DESIGN CHANGES AND CONTRACTOR OVERRUNS BY RECOGNIZING ALL ACTUAL QUANTITIES OF LABOR AND MATERIALS. To put it another way, it is not necessary to determine a later in-service date because Staff gives the company credit for the unit as actually built.

It is not now and never has been Staff's position that Limerick could have been completed and in service on April 30, 1981. The ALJ seems unable or unwilling to understand that there are alternate methodologies which can be

used to quantify the delays. Staff did not go back and attempt to recast what the completion date would have been had the two construction delays not occurred. Instead, Staff simply identified the escalation in costs that occurred due to inflation during the delay period. No adjustment was made for rework, faulty workmanship, contract overruns, etc., because Staff felt it would be speculative to attempt to disaggregate the costs caused by increased regulatory requirements and those costs caused by management inefficiencies. The delay period was defined as the company's own in-service date at the time of the imprudent delay through actual fuel load, which was begun in October 1984. The result is that what is recognized for ratemaking purposes is the actual, as-built 1986 plant, which incorporates all labor and material quantities actually utilized and which reflects all NRC-mandated changes.

Staff respectfully submits that PECO was able to establish no reason why April 30, 1981 should not be considered the start of the delay period. The company does not, and indeed, cannot challenge the fact that in 1976 the completion date for Limerick Unit 1 was delayed from April 1981 to April 1983. See, Limerick #1 order, p. 11; Staff Stmt. RAR-2, p. 2; Exh. RAR-2A, Schedule 2. To put it another way, the Commission found the decision in 1974 to delay completion until April 1981 was reasonable; that was the last delay decision that the Commission found prudent.

In addition, it is inconsistent and illogical for the ALJ to reject Staff's testimony because of its purported reliance on a "hypothetical" in-service date while accepting the OCA's adjustment, which is based on a computer-simulated completion date.

Therefore, the ALJ's rejection of Staff's adjustment is based on a completely irrelevant consideration.

3. The ALJ applied an incorrect legal standard.

Citing the Commission's ECR #8 order, the ALJ seems to reject Staff's Limerick adjustment because there is not a sufficient causal connection between the delays found imprudent by the Commission and the adjustment recommended by Staff (R.D., p. 61, 63). Staff respectfully submits that the ALJ has applied an incorrect legal standard.

First, the ALJ completely ignores a Commonwealth Court decision rendered during the briefing period of this proceeding, although he was provided with a copy. In Duquesne Light Company v. Pennsylvania Public Utility Commission, _____ Pa. Commonwealth Ct. _____, _____ A.2d _____ (No. 69 C.D. 1985, Opinion issued April 16, 1986), the Court stated:

> Recovery of costs which are found to be the result of managerial imprudence may properly be denied. However, it does not necessarily follow that recovery of costs prudently incurred will always be allowed. The Commission on many occasions has disallowed recovery of costs even though

there was no finding that the utility in question had imprudently incurred the costs. (Slip Opinion at pp. 6-7, citations omitted, emphasis supplied).

Thus, it simply is not correct that a utility is entitled to recover all costs except those directly caused by imprudence.

Second, the nature of the ratemaking process does not require that there must be a real and proximate causal relation between some injury and the alleged imprudence. As recognized by the ALJ, the burden is on the company to establish the prudency of its Limerick claim. It simply is not the case that once "imprudency" is established, the next step is to determine whether there was "injury" which was "directly and proximately" caused by the "alleged imprudence." There is no injury at issue in this case: this is a Section 1308 rate proceeding in which the focus is on whether PECO acted prudently in incurring the subject costs. The nature of the ratemaking process as involving the appropriate balancing of ratepayer and investor interests recently was described in detail by the Pennsylvania Supreme Court in Pennsylvania Electric Company v. Pennsylvania Public Utility Commission, _____ Pa. _____, 562 A.2d 130 (1985). Thus, "just and reasonable rates" are those which appropriately balance investor/ratepayer interests, rather than being rates which permit a utility to recover all claimed expenses except those resulting from imprudence which results in "real and proximate causation."

This fact, that a causal connection is not relevant to a proceeding in which the burden is on the utility to establish the prudency and reasonableness of its actions, also has been recognized by the Commission, as well as by the Pennsylvania Supreme Court. In Re: Beaver Valley I Generating Station, 57 Pa. P.U.C. 371 (1981),[2/] a causal connection requirement was explicitly rejected by the Commission:

> Were the burden of proof upon the Commission or some other party in this proceeding, we believe that it would require that the evidence establish imprudent conduct on the part of Duquesne in advance of the NRC Show Cause Order and a causal connection between the imprudent conduct and the issuance of the NRC Show Cause Order.

57 Pa. P.U.C. at 381 (emphasis supplied).

The Commission went on to reject that standard, including the causal connection, and in fact recognized that this connection is not relevant in the type of the proceedings, such as the case at bar, in which the burden on the utility to establish the prudency of its claimed costs:

> The fact that a failure to Duquesne to meet its burden of proof and demonstrate prudence (lack of imprudence) on its part places upon it the consequences of the NRC Show Cause Order, when there may have, in fact, been no connection between the two,

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2/ Remanded on other issues, Duquesne Light Co. v. Pennsylvania Public Utility Commission, ___ Pa. Commonwealth Ct. ___, ___ A.2d ___ (Nos. 3102, 1853 C.D. 1981, 1983, Opinion issued March 26, 1986).

> is not an infrequent result of the imposition of the burden of proof upon one party or another.

57 Pa. P.U.C. at 382 (emphasis supplied).

Causal connection requirement is necessary in tort actions because a plaintiff who has suffered injury must relate that specific injury to a defendant's negligent conduct. Here, as described above, the Commission's focus is on establishing just and reasonable rates. The fact that the Commission has chosen to apply a reasonableness standard to evaluate the utility's actions does not transform this proceeding into a common law negligence action.

To accept the requirement that a utility's action must be causally connected to increased costs would greatly restrict the exercise of Commission authority over utilities. Imprudency findings would become meaningless if a utility knew it could evade the responsibility for its own actions simply by pointing to some factor - which in this case, is explicitly outside the company's control - which may have overlapping cost effect.

Finally, and most importantly, Staff's adjustment is cost-based. There is no dispute that the in-service date projected by the company was April 1981; there is no dispute that construction was completed in October 1984. Therefore, that is the delay period which should be used to quantify the Commission's Limerick #1 order. Nor does the company disagree that the escalation in costs identified by Staff as occurring during that delay period actually took place (Tr. 5079-80).

The fact is that, because of its reliance on actual data taken directly from PECO's books of account, Staff's adjustment is more directly connected to the effects of delay than OCA's simulated, hypothetical construction schedule. In addition, Staff's adjustment affects primarily the AFUDC component of PECO's claimed investment. Since the most direct effect of the imprudent delays was to inflate the AFUDC accrual, Staff's recommendation is even more appropriate.

Therefore, Staff respectfully submits that for the reasons explained above and at pp. 112-127 of its Main Brief, its Limerick adjustment is based on a reasonable and accurate quantification of construction costs caused by PECO's imprudent delays.

4. Staff's recommendation should be adopted by the Commission.

In order to derive its adjustment, Staff took the cost of the unit as actually built - including all actual quantities of materials and labor manhours - and priced it to remove the escalation in costs caused by inflation during the delay period. In other words, Staff recommends that the Commission recognize the 1986 plant, which incorporates all NRC-mandated design changes, at a 1981 cost level.

Appendix A appended to Staff's Main Brief described the methodology used to identify the inflation-caused escalation of the cost of Limerick #1 and the common plant which resulted

from the company's failure to meet its 1975 schedule. This quantification forms the basis of the Limerick adjustment presented by Staff witness Robert Rosenthal in his direct and surrebuttal testimony (Staff Sts. RAR-1 and RAR-2).

The quantification analysis itself was conducted under the direction of Audit Supervisor Dennis P. Dougherty, who has substantial expertise and experience in the auditing of public utilities (Staff St. DPD-1, Appendix A; Tr. 2662-64). As explained by both Mr. Rosenthal (Staff St. RAR-2, p. 2) and Mr. Dougherty (Staff St. DPD-1, p. 2), Staff made no attempt to reconstruct a hypothetical construction schedule, evaluate construction practices or estimate overruns caused by faulty construction. Instead, Staff assumed that all labor hours and quantities of materials were reasonable and essential to the construction of the plant. What Staff did was to adjust the costs associated with the labor, materials and carrying charges during the delay period. The result is that pursuant to Staff's proposal PECO would be permitted to recover all costs (direct and AFUDC) incurred through April 30, 1981, all de-escalated costs incurred thereafter through October 31, 1984 (and associated AFUDC), and all unadjusted direct costs incurred subsequent to October 31, 1984.

The advantages of this approach are obvious. First, it gives effect to the Commission's imprudency findings, thus preventing the Commission's investigation and order from becoming meaningless exercises of no impact. Second,

it looks at the actual costs and schedule that occurred, making it unnecessary to base the adjustment on assumptions and suppositions as to what would have happened during the construction period. Therefore, it is not necessary for the Commission to evaluate the hypothetical effects of factors such as regulatory constraints or to rely on computer simulations. In addition, it avoids the necessity of determining the reasonableness and impact of specific items such as the Mark II modifications or NRC-mandated changes. Third, this approach results in a recommendation that properly balances the interests of both ratepayers and shareholders. The shareholders receive a return on and a return of their investment in the plant while the ratepayers are not forced to pay costs incurred because of delays found unreasonable by the Commission.[3/]

In this connection, the intemperate language contained in the Recommended Decision deserves comment. The ALJ used terms such as "not meaningful" (p. 63), "simplistic" (p. 62), "blindly refusing to go forward" (p. 61), before arriving at his conclusion that Staff's recommendation is "unfair, improper and without any legal or rational support" (p. 63). These characterizations are incorrect and inappropriate.

3/ The conservative nature of Staff's recommendation is discussed in detail in Staff's Main Brief at pp. 140-143. Staff identified the delay period that resulted from the company's failure to meet its own projected in-service date and recommended that only the escalated costs caused by inflation during that period (and, of course, associated AFUDC) be disallowed.

Staff carefully reviewed the issues in this proceeding and the resources available to it for litigation. The decision was made not to duplicate the analysis done by the OCA but to present a completely different approach for the Commission's consideration in order to allow it the maximum possible degree of discretion. The two witnesses who presented Staff's recommendation are among the most knowledgeable and experienced witnesses who appeared; even the company, with the millions of dollars it spent to purchase its case, was unable to present anyone with the regulatory expertise of Messrs. Rosenthal and Dougherty in their respective areas.

The fact remains that the company had originally intended Limerick 1 to be in service by April 1981; in 1976 and 1978 PECO decided to delay construction. Those decisions were determined by the Commission to have been imprudently made. As the plant was not actually completed until October 1984, and in operation in February 1986, the company was successful in its objective of delaying construction.

As the ALJ found, there can be no dispute that the construction delays resulted in increased costs. This result is inevitable given the inflationary economy during this period and the compounding effect of AFUDC.

Staff did not deem it appropriate to develop a speculative schedule as to when Limerick would have been completed but for the two imprudent decisions and the delay that resulted therefrom. Staff instead worked directly from the company's ledgers, using in its analysis the actual

duration of the construction and the actual quantities of materials and labor. The result is that not even the company challenged the accuracy of Staff's quantification. Indeed, PECO witness Clarey agreed that the costs which formed the basis of Staff's adjustment were taken directly from the company's books and that the escalation identified by Staff as having occurred during the delay period actually occurred (Tr. 5079-80).

Staff's adjustment is not meritless as described by the ALJ. As discussed above, and in Staff's Briefs, it is reasonable, gives effect to the Commission's prior findings, is accurate and appropriately balances the interests of the company's ratepayers and shareholders. Therefore, it should be adopted by the Commission.

In Staff's opinion, the evidence of record is overwhelming that the claimed cost of Limerick #1 is excessive, and that a substantial adjustment must be made in order to produce just and reasonable rates. Staff believes its methodology is the most reasonable and appropriate way to quantify the effects of the 1976 and 1978 delays already found imprudent by the Commission. Should the Commission choose not to adopt Staff's recommendation, Staff therefore urges the Commission to adopt the OCA's proposal, as did the ALJ.

B. The Administrative Law Judge Rejection Of Staff's Adjustment To PECO's Coal Inventory Claim Should Be Reversed.

The Administrative Law Judge rejected Trial Staff's recommendation that PECO reduce its coal inventory level from a 60-day supply to a 50-day supply in recognition of the diminished percentage of generating capacity that Philadelphia area coal units represent on the PECO system. The Judge concluded that the Company's claim for the 60-day level of inventory was reasonable.

Staff submits that the record in the proceeding clearly supports a further reduction to PECO coal inventory claim based upon a reduction in the number of inventory days. Staff fully acknowledges that the Company has to a limited extent recognized the diminished reliance upon the Philadelphia area coal units through a reduced burn rate. Staff, however, submits that the reduced burn rate and the resulting reduction to PECO's claim for coal inventory does not tell the entire story. The reduced importance of the Philadelphia area coal fired units impacts inventory for the units in two separate and distinct ways. The first impact is in the burn rate of the units and the second is in the number of inventory days for which a coal supply should be maintained. PECO has accounted for the former but neglects the latter.

With Limerick Unit No. 1 in service, Philadelphia area coal-fired generation will represent only about ten percent

of PECO's generating capacity. (Trial Staff Statement TUP-1, p. 3). As such, the need for a 60-day inventory supply is also reduced. Staff witness Prowell has recommended a 50 day inventory supply in recognition of this changed condition and in recognition of coal-inventory levels maintained by other utilities in Pennsylvania for ratemaking purposes. Mr. Prowell's proposed adjustment is based upon PECO's inventory needs on a normalized basis and is consistent with standard ratemaking principles. The ALJ, however, gives inappropriate ratemaking recognition to potential extraordinary events (strikes) which are not part of the normal test year.

It is Staff's contention that Mr. Prowell's proposed adjustment adheres to standard ratemaking practice and that it recognizes a change in existing conditions brought about by the operation of Limerick Unit No. 1. Staff maintains that a 50 day coal inventory level is a more reasonable and justifiable level under current conditions and that it is consistent with levels maintained by other Pennsylvania utilities for rate case purposes.

The Recommended Decision on this issue should be reversed and PECO's coal inventory claim should be reduced by $1,623,500.

C. Staff's Adjustment To PECO's Claim For Limerick Materials And Supplies Should Be Adopted By The Commission.

Trial Staff proposed that PECO's claim for Limerick materials and supplies should be reduced in order to reflect the disallowance of the 28% markup by Bechtel on those items purchased by Bechtel on behalf of PECO. The basis for the proposed disallowance is the non-recurring, abnormal circumstances of the claim. As Staff pointed out in its Main Brief, p. 219-221, an internal audit report by PECO reveals that PECO requested Bechtel to make certain purchases of Limerick materials and supplies on a temporary basis. As stated in the audit report:

> According to terms of the agreement, Bechtel is to pay for the ordered materials and, in turn, PECO will be billed at their cost, plus the associated cost of labor with a 28 percent markup.
>
> (Staff Exhibit No. TVP-1B, p. 3).

It is Staff's contention that the language of the report is clear and that Bechtel has applied a 28 percent markup, over and above any labor costs, and that the markup was a temporary, abnormal event which did not reflect the standard purchasing practices of PECO. As such, Staff maintains that it should not be treated as a normal test year cost.

The Administrative Law Judge rejected Staff's arguments and concluded that the 28% markup was applicable only to the cost of labor associated with procurement activities and was not added to the direct cost of the material. The Judge concluded that the 28% markup was not additional profit to Bechtel.

Staff submits that the Judge's conclusion ignores the clear language of PECO's audit report which refers to associated labor costs with a 28% markup. Associated labor costs clearly would include items other than wages. The 28% markup by Bechtel would obviously represent an amount in excess of all such labor costs.

The issue presented is one of burden of proof. Even if the language in the report is considered to be ambiguous, it was incumbent upon PECO to provide support for its contention that the 28% markup did not constitute profit. This could easily have been done by presenting further documentation, either through the original agreement or through subsequent billings by Bechtel which set forth the specific costs incurred. This was not done by PECO. Instead PECO presented an accounting witness who had no association with the agreement or the purchases and who could only testify as to his understanding of the activities involved without the presentation of any supporting documentation.

Staff submits that the evidence presented by PECO was inadequate to meet the statutory burden of proof and the decision of the ALJ should be reversed. PECO's claim for Limerick materials and supplies should be reduced by $2,431,000.

D. The Recommended Decision Inadequately Addresses The Cash Working Capital Issues.

The Administrative Law Judge addresses cash working capital at page 86 of the Recommended Decision. Unfortunately, the comments contained therein do not address any of the specific issues raised during the proceedings and do not contain any findings which provide the parties with any insight into how the final amount of the claim allowed was determined. This lack of findings or discussion make it impossible for the parties to except to the Recommended Decision and necessitate a restatement of the matters contained in the briefs.

In addition, for purposes of appeal, there can be no reliance upon the Recommended Decision on the issues of cash working capital. The Commission's order must provide all findings and discussion on these issues in order to meet the requirements of Section 703(e) of the Public Utility Code, 66 Pa. C.S. §703(e). Section 703(e) provides in pertinent part:

> (e) Decisions by commission -- After the conclusion of the hearing, the commission shall make and file its findings in sufficient detail to enable the court on appeal, to determine the controverted question presented by the proceeding, and whether proper weight was given to the evidence ....

The ALJ's Recommended Decision lacks of sufficient basis on which the Commission can render a decision. As such adoption of the ALJ's decision will not provide any basis for defense on appeal.

Staff has proposed several adjustments to PECO's cash working capital claim. Staff's positions on these matters are set forth in its Main Brief (pages 31-40), and Reply Brief (pages 21-23) and will not be repeated in their entirety in these exceptions. The issues raised by Staff address the company's inclusion of uncollectible accounts expense, PECO's treatment of taxes in its lead/lag study, and late payment charges.

1. Uncollectible Accounts

Staff witness Hosler proposed an adjustment which would eliminate uncollectible accounts from the Company's revenue lag used to determine the cash working capital requirement. Mr. Hosler testified:

> Q. Why have you eliminated uncollectible accounts from the revenue lag days as in the Company's request?
>
> A. Uncollectible accounts do not create an additional need for funds by the Company. All of the Company's operating expenses required to serve customers, including expenses to serve those customers which ultimately do not pay, are included in the composition of the Commission's approved rates ....

(Trial Staff Statement DPH-1, p. 9)

As Staff stated in the Main Brief (p. 32), this is not the first time this issue has been raised. PECO has attempted to reflect uncollectible accounts in its revenue lag determination in prior cases; however, in each case the Commission rejected PECO's arguments. Pennsylvania Public Utility Commission v. Philadelphia Electric Company, 58 PUC 743 (1985), Pennsylvania Public Utility Commission v.

Philadelphia Electric Company - Gas Division, R-832410 (1984). PECO has advanced no reason why the Commission should depart from its well-considered practice.

Staff's proposed adjustment is proper and is consistent with past Commission decisions and should be adopted by the Commission.

2. Taxes

a. Federal Taxes

The statutory payment schedule for payment of federal taxes for PECO requires that federal income taxes be prepaid at 90 percent of the actual tax liability for the tax year. Pursuant to this requirement four prepayments at 22.5 percent of the liability may be made during the tax year with the remaining ten percent to be paid by March 15 of the year.

PECO does not follow this tax payment schedule but has opted to increase the level of prepayments to three 25 percent payments with the fourth payment set at fifteen percent. (PECO stmt. 23B, p. 4). PECO's concern about utilizing the statutory payment schedule instead of its own early prepayment method is based upon its interest in avoiding a penalty situation. (Id. p. 5). While the concern for potential penalties seems genuine, the reality is that PECO has not been even close to a penalty situation for years and, in fact, has been able to forego some of the prepayments by its early prepayment schedule. (Id., p. 4-5).

Trial Staff witness, Dennis Hosler, has employed the statutory scheme for prepayment of federal income taxes and has recalculated PECO's lag for payment of taxes on this basis. (Trial Staff Stmt. DPH-1, p. 14). The basis for Staff's adjustment is the recognition of the need to balance the interests of ratepayers and stockholders. PECO's early payment schedule for federal income taxes creates a greater cash working capital requirement on the Company than would be otherwise needed under the statutory schedule. This additional prepayment places a greater burden on PECO's ratepayers who provide a return on capital. This becomes an unreasonable burden when one considers that PECO has overestimated its projected tax liability to such an extent that entire prepayments are made unnecessary because the earlier prepayments were overstated. (PECO Exhibit I, Volume II, Item II-D-23b). On the surface, such a result appears reasonable; however, it is questionable whether early and excessive prepayments under PECO's payment schedule constitute good business practice. The real life effect is to drain away funds prior to the Company's need to expend this cash. Thus, the effect on ratepayers is to require extra funds at an early stage and to compel a return on these funds which is not yet needed for tax purposes. It is evident that ratepayer interest is clearly not a concern on PECO's part.

The adjustment proposed by Staff reflects a balancing of interests. The Staff's position includes an adherence to the statutory schedule and a relief from the burden PECO's

schedule places on ratepayers. Trial Staff's adjustment to the lag for federal income taxes should be adopted and an appropriate reduction to PECO's cash working capital claim should be made.

(b) Ad Valorum Taxes

Trial Staff witness, Dennis Hosler, has proposed an adjustment to PECO's cash working capital claim which would reflect the fact that the amount of the prepayment of these taxes are normally based upon actual prior year tax liabilities rather than projected tax liabilities for the current tax year as reflected in the methodology employed by PECO. Staff's adjustment is intended to reflect the timing differentials between the Company's before the fact (prepayments) and after the fact (with tax return) tax payments amounts expected to occur in its actual tax payment pattern versus that reflected in Company's claim.

With regard to the Public Utility Realty Taxes (PURTA), the Company is required to prepay 90 percent of this tax during the tax year with final payment due April 15 following the tax year. The prepayment can be based upon either 90 percent of the projected current year's tax liability or 90 percent of the prior year's tax liability which is a known amount. These payments can be distributed over the year in quarterly payments of 22.5% each.

The Company's lag day collection does not reflect the fact that the prepayments are normally based on the prior year's tax liability. The application to the prior year is significant when it is recognized that historically the PURTA tax has shown growth in the amount of tax and prepayments of 22.5 percent are less than 22.5 percent of the actual tax year liability. The balance, being more than 10% of the tax liability, is paid along with the tax return by April 15th following the tax year.

The statute for Capital Stock Tax requires an 85 percent prepayment by April 15th of the tax year with the final payment due April 15 following the tax year. The prepayment amount may be based upon either 85 percent of the projected current year's tax liability or 85 percent of the year preceding the prior year's tax liability which is a known. Again, the Company's computation of the lag days for Capital Stock taxes reflects prepayment based on the future test year amounts and does not reflect the fact that the prepayments are based a prior years actual tax liability.

Staff's recommended CWC calculation represents PECO's experienced payment pattern. PECO's choice to make payments based upon a prior year's actual tax liability during a period of rising tax liability is economically beneficial and also avoids risk of underpayment penalties resulting from payments based on projected tax liabilities. Since the prior year's liability is known, the potential for error is much less.

Trial Staff's adjustment to Ad Valorum taxes is designed to more accurately reflect the estimate of the cash working capital effect of PURTA and the Capital Stock tax. Staff's adjustment does not reflect any modification to PECO's projected total tax liabilities. In each instance, Mr. Hosler has developed a growth rate to apply to the taxes to determine a more accurate estimate of the timing of the payments of PECO's projected future test year liabilities. Although PECO did not agree with the use of a growth rate in either situation, the Company did propose an alternative growth rate of PURTA and the Capital Stock tax. Mr. Hosler has accepted the adjustments to his growth rates and has recalculated his cash working capital adjustments accordingly. (Trial Staff Exhibit DPH-2, Schedule 1).

The purpose of Mr. Hosler's adjustment is to accurately reflect the timing of PECO's payment of its tax liabilities so that a proper cash working capital requirement can be determined. The methodology presented by Staff witness Hosler provides a better estimate of the amount of PECO's tax liabilities which will be prepaid with respect to Ad Valorum taxes and recognizes the timing differential between that reflected in the claim and the actual expected tax payment pattern. On this basis Mr. Hosler's adjustment should be adopted.

(c) Taxes Other Than Income

The principal components of this tax group is the Gross Receipts Tax (GRT) which comprises 87 percent of this category. According to the GRT statutory payment schedule, the Company is required to prepay 90 percent of this tax on April 15. The prepayment can be based upon either 90 percent of the current tax projections or 90 percent of the prior year's tax liability which is a known. In the case of PECO, the Company has been prepaying its GRT on the basis of the prior year's tax liability; however, the rate case claim reflects prepayment at the prior year's liability as adjusted for a full rate increase for the R-842590 rate case and the requested R-850152 rate increase (less ECR roll out effects).

Although PECO attempts to correctly reflect the 90 percent prepayment of the GRT based upon the prior year's tax liability, PECO has over-inflated the prior year's tax liability by including subsequent rate increases. (Trial Staff Stmt. DPH-1, p. 13). Mr. Hosler noted that the effect of PECO's action is to negate the growth in the GRT.

Mr. Hosler calculated the lag for GRT by developing a growth rate from PECO's data for the years ended June 1983 through June 1986 based upon actual unadjusted tax amounts. (Id.) The GRT growth rate was determined to be 7.85% which was then reflected in the lag computation. The result was 13.6 weighted average lead days in payment of taxes other than income. (Trial Staff Exhibit DPH-1, Schedule 4, p. 10).

PECO has argued that historic tax levels which included uncertain rate increases cannot be used to compute a growth rate for GRT. PECO witness, Richard Wright, asserts that "rate increases are far from certain in either level or timing" and that "(i)t is not appropriate to adjust costs for hypithetically increased levels of rates which may or may not occur."

While this may be correct to some extent, the four year data or three growth periods employed by Mr. Hosler serve to modify these effects. In addition, PECO has averaged a rate increase every fifteen months since May 1980 (including June 1986). There is, therefore, some historical basis with respect to timing of rate increases. It is Staff contention that to ignore the rate increases as suggested would result in a growth rate and cash work capital allowance much farther from the Company's actual future needs. Although growth rates are not guaranteed, the results proposed by Staff's calculations provide a much sounder basis for determining the lag for these taxes than that proposed by PECO.

3. Late Payment Charges

Staff has also made a reduction to the Company's revenue lag for late payment charges received from customers. As Mr. Hosler testified:

> A double benefit occurs to the Company due to its use of an excessive number of lag days. First, when a customer pays late, the Company is compensated for the revenue lag by the late payment charges. PECO's current late payment or finance charges are 1.25 percent for residential, small commercial and industrial customers and 2 percent for large commercial and industrial customers. As stated by the Company in response to staff interrogatory IR-Staff-REL-1 (Exhibit DPH-1, Schedule 5, page 3), "late payment charges are a rate for the service of carrying delinquent accounts." The second benefit occurs because the Company is also claiming a CWC allowance for the lag days subsequent to the date the finance charge is applied.

(Trial Staff Statement DPH-1, p. 10-11).

PECO has argued that there is no benefit to the Company as provided by the late penalty charge since these revenues are booked to Account 450 - Forfeited Discounts and are included as part of the "Other Operating Revenue" in its income statement. A similar adjustment was proposed in Pa.P.U.C. v. UGI Corporation, R-832331 and was adopted by the Commission. In that case, the Company raised the same argument as is presented by PECO in the current proceeding. The Commission in UGI stated:

> In our 1978 Order (76 P.R.M.D., Order entered April 21, 1978), we specifically determined that the imposition of a late payment charges was "not for the purpose of producing revenue, but rather to cover carrying and collection costs caused by overdue accounts. (Emphasis supplied). Clearly, we considered two types of cost that a utility incurs when a utility bill is not paid by the due date. As we intended therein, and shall so state now, carrying costs are costs incurred by the

> utility in providing service while payment is overdue. Therefore, we agree with the ALJ that to provide investors with a return for oustanding payment days and still charge the customer involved directly would result in a double recovery for the Company.
>
> Further, we also note, as the OCA did, that the cost of collection is in fact being claimed by UGI as an O&M expense (TR. 1947). It is therefore inconsequential that these revenues are already being used to offset base rate revenue requirements. We do not accept the Company's argument that it would be "doubly penalized" if the proposed adjustment is made.

(R-832331, p. 16).

Staff maintains that the arguments adopted by the Commission in UGI are clearly applicable to this case and that Staff's adjustment should be adopted.

E. Trial Staff Excepts To The Administrative Law Judge's Rejection Of Staff's Accounting Adjustments (Adjusting Entries Nos. 4)

The Administrative Law Judge rejected Staff's proposed adjustment to PECO's rate base claim which would retire from plant in service $801,000 associated the installation of the Company's System Operation Computer and Data Transmission System.

Adjusting Entry 4 represents additional costs incurred by PECO because a contracted vendor supplied the company with poor quality equipment and inadequate design documentation. Trial Staff witness Prego maintained that the company failed to adequately protect its customer's interests and should be denied recovery of the cost of the equipment failures from ratepayers.

Staff contends that Mr. Prego's adjustment accurately reflects the principle that ratepayers should not be compelled to underwrite all construction and operation errors. The control of contractors and the purchase of the products they provide is clearly within the purview of management and when improper workmanship results in additional costs, the first line of recovery should not automatically be the ratepayer. Staff submits that an effort should have been made to recover the subject costs from the contractor and that the Administrative Law Judge should have adopted Staff's adjustment.

III. RATE OF RETURN

A. Common Equity

The presiding Administrative Law Judge discusses the appropriate rate of return for the company in pages 87-108 of his recommended decision. The Presiding Officer concludes at page 106 that the correct common equity cost rate for PECO is 14.25%. Trial Staff does not except to the recommended rate for common equity adopted by Judge Matuschak since it is identical to that proposed in the Staff's updated and rebuttal rate of return testimony (Trial Staff St. ARO-2, p. 6) and the number advocated in the Trial Staff briefs filed in this matter (See T.S. Main Brief p. 12, 17-21; T.S. Reply Brief p. 6-15).

Although Trial Staff would have preferred the adoption of its methodologies and calculations in the determination of PECO's cost of common equity, the Staff does not except to the recommended rate for common equity adopted by the Administrative Law Judge. The Trial Staff does object to portions of the reasoning used by the Presiding Officer in determining his common equity return recommendation. Specifically, the Staff objects to the ALJ's upward adjustment to PECO's dividend yield to reflect projected next period dividend growth rate (R.D. pages 101-2) and also the Presiding Officer's criticism of the Trial Staff's risk spread method (R.D. page 105).

The Staff advocated in this proceeding that no upward adjustment to the dividend yield to reflect next

period dividend growth was appropriate. Trial Staff witness Andrew R. O'Donnell stated in his surrebuttal testimony that the next period dividend growth is zero (Trial Staff St. ARO-2, p. 4). Both the Company's and the Staff's evidence that supports this projection is reviewed and discussed in detail in pages 8-11 of the Trial Staff reply brief. The Trial Staff submits that the Presiding Officer's use of an upward adjustment to PECO's dividend yield to reflect positive projected next period dividend growth is erroneous in this case.

On page 105 of his recommended decision, Judge Matuschak apparently adopts PECO witness Brennan's criticism's of the Trial Staff's risk spread method and accepts Brennan's risk spread methodology, commenting that Trial Staff witness O'Donnell's risk spread analysis is not consistent with Commission precedent. The Trial Staff objects to this discussion by the Presiding Officer. PECO's criticisms of witness O'Donnell's risk spread calculation are answered fully on pages 13-5 of the Trial Staff's reply brief. Witness O'Donnell's cost of common equity recommendation reflected prior Commission criticisms of the risk spread method as being too DCF dependent. Mr. Brennen's failure to heed these prior criticisms of his methodology results in the continuation of the Company's traditional overstatement of its cost of common equity claim (see pages 23 and 25 of the Trial Staff's main brief).

Finally, ALJ Matuschak's statement that witness O'Donnell's risk spread analysis is inconsistent with past Commission orders is simply incorrect. In Pennsylvania Public Utility Commission v. Metropolitan Edison Company (R-842770, p. 89) and Pennsylvania Public Utility Commission v. Pennsylvania Electric Company (R-842771, p. 114), the Commission gave weight to the same risk spread analyses presented by Mr. O'Donnell. Significantly, weight was also given to a similar risk spread analysis presented by the Company witness, Dr. Brigham. Indeed in those cases, the risk spread method was the only one presented by the Companies to estimate their required rates of return on common equity. For these reasons, the Trial Staff objects to ALJ Matuschak's criticisms of its risk spread analysis.

IV. REVENUES AND EXPENSES

A. The Administrative Law Judge's Rejection of Trial Staff's Normalized Outage Adjustment Should Be Reversed.

PECO is a member of the PJM Interchange and is required to maintain a PJM determined reserve capacity margin. The reserve margin established by the PJM for PECO is 25.66% which consists of 22% for the standard PJM requirement, 0.45% for a load drop adjustment and 3.21% for a forced outage adjustment. The forced outage adjustment is based upon that percentage of forced outages experienced by a member company which is greater than the PJM average forced outage rate of the member companies.

Trial Staff witnesses, Michael Gruber, proposed that an adjustment be made to PECO's operating revenues based upon that portion of the forced outage rate which is above the PJM average. Mr. Gruber stated:

> PJM has determined that for PECO to meet its reserve requirement to the power pool, which in turn is acting to insure that PECO and the other member companies are able to meet any deviations in load or emergency situations, it must have an installed reserve of 25.66% for the 1986-87 planning period. As PECO is required by PJM contract to have installed a 25.66% reserve I do not think that an adjustment to overall plant levels is appropriate. Since 3.21% of this generating plant is due to a high forced outage rate, PECO's management should not be allowed to profit from its own inability to operate its plants as effectively as other utilities.

> PECO stockholders who are responsible for PECO's management, not ratepayers should be penalized for the requirement that the Company maintain a higher than otherwise necessary reserve margin.

(Trial Staff Statement MJG-1, p. 3).

Mr. Gruber proposed that the common equity return associated with 3.21% of PECO's installed generating plant be disallowed. It is. Staff's position that the proposed adjustment places the responsibility for the excessive forced outage rate on the group (stockholders) that is best able to compel improved performance through management.

The Administrative Law Judge rejected Trial Staff's adjustment because he believed there was no evidence that the company's outage rate was excessive and that there was no demonstration of imprudence.

Staff's adjustment rests on the conclusion of PJM that PECO's outage rate exceeds the average forced outage rate of PJM companies by 3.21%. The Staff's position is not that PECO should maintain a 0% forced outage rate; however, Staff submits that PECO should be held to the average level of operation efficiency of PJM companies.

With regard to the issue of prudence or imprudence, Staff submits that the Administrative Law Judge failed to grasp the basis for Staff's adjustment. The issue here involves the matter of operating efficiency and a standard to apply to a utility. In this instance, PJM has assessed PECO's forced outage rate based upon the PJM average and has

found that PECO is 3.21% above the average. PECO's argument that the company itself requires a 25% reserve margin misses the point. It is Mr. Gruber's contention that because PECO's forced outage rate, as determined by PJM, is higher than the power pool average, it should be penalized.

Staff submits that PECO should be held to the PJM average rate for forced outages and that ratepayers should not bear the costs of maintaining a higher percentage of plant unable to generate electricity because of PECO's excessive forced outage rate.

The Administrative Law Judge's decision on this issue should be reversed and PECO's revenues should be adjusted by $19,324,000.

B. Trial Staff Does Not Except To The Recommended Decision On The Issue Of The Inflation Factor.

Trial Staff initially proposed that PECO's operating and maintenance expense claim be reduced to reflect a lower inflation factor. Staff's adjustment was originally applied across the board on a number of accounts. The reason for Staff's original proposal was the failure of PECO to provide sufficient information in discovery to determine the elements of its claim to which the factor had been applied.

The company subsequently provided additional information concerning the accounts and revised its claim to reflect the reduced inflation factor. After review of the decision by the ALJ, Staff has concluded that the company's revised claim addresses Staff's concerns and provides a more reasonable claim than was contained in the original filing. Staff, therefore, does not except to this portion of the Recommended Decision.

C. Staff Excepts To The Administrative Law Judge's Rejection Of The Proposed Amortization Of Costs For Replacement Of The Transition Tubes At Eddystone No. 1

Trial Staff witness Weakley proposed that the cost of the replacement of the transition tubes at Eddystone No. 1 be amortized over a ten year period. Mr. Weakley's recommendation recognized the extensive life span of the tubes (22.9 years) and the fact that the benefits of such replacement would be shared by ratepayers for many years. Mr. Weakley's proposed adjustment would spread the costs of the tubes to ratepayers over a greater period of time and would not limit the burden of these costs to current ratepayers. Staff's proposal to amortize this improvement over a ten year period instead of the two year period advocated by PECO recognizes the benefits to subsequent ratepayers and provides a reasonable period of time to recover such expenses.

Staff requests that the Judge's decision on this issue be reversed.

D. Staff Excepts To The ALJ'S Decision On The Decommissioning Accruals For Peach Bottom 1 And 2 And Sale 1 And 2.

Trial Staff takes issue with the Administrative Law Judge's rejection of Staff's proposed extension of the amortization period for the accrual of decommissioning funds. Staff witness Mayer proposed that the accrual of funds be extended to the service life of the plants instead of the license expiration date. Staff's adjustment would apply to Peach Bottom Units 1 and 2 and Salem Units 1 and 2. Mr. Mayer pointed out that the license expiration date will be subject to possible extension upon request of the company. This is particularly relevant in light of the NRC's stated willingness to consider amending pre-1981 licenses in a manner which would change the basis for authorized plant life from the date of construction permit issuance to the date of the operating license. The effect on PECO, if it made such a request of the NRC, would be to extend the licenses of the subject plants and their respective operational life. As to whether or not PECO would seek any license extension, Mr. Mayer testified:

> Q. Can the company operate these units without an NRC license?
>
> A. No, they cannot. However, they could request the NRC to extend the license, and it is the stated policy of Philadelphia Electric that they will do so. If you refer to the testimony filed in the previous case, the Limerick investigation, the company

> stated that it was their intention to extend the life of those units in fact beyond the years I have stated.
>
> (Tr. 2407).

This intention was acknowledged by PECO on cross examination (Tr. 4342).

Staff finds the Judge's decision on this matter to be rather disconcerting. The Judge seems to place considerable reliance upon the fact that OCA does not propose the same adjustment. The implication would seem to be that if the OCA does not join in the Staff's proposed adjustment then the adjustment should be rejected. The lack of opposition to a claim by parties other than Staff does not render such a claim reasonable.

Staff's proposed adjustment recognizes that it is reasonable to assume that a company with a substantial investment in nuclear plants will seek to get as much life out of those units as is practically and legally possible. This is especially true where the avenue for extension is opened by the regulatory agency involved.

Staff's adjustment is reasonable and should be adopted by the Commission.

E. Trial Staff Excepts To The Administrative Law Judge's Decision On The Issue Of Customer Accounts Expense.

Trial Staff witness Laudenslager proposed an adjustment to PECO's customer accounts expense based upon a comparison of PECO's expenses with the expenses of a barometer group. Mr. Laudenslager's barometer group was comprised of five major metropolitan areas located in the northern quadrant of the nation. The group included Chicago, Baltimore, Detroit, Boston and New York City. Staff's analysis included a review of customer accounts 901, 902, 903 and 905. The information on the comparison group was obtained from the Federal Energy Regulatory Commission (FERC) Form 1.

The Uniform System of Accounts has been adopted by FERC and submissions for FERC Form 1 are based upon it. Although some discrepancies may exist on a company to company basis, it is clearly unlikely that such discrepancies would be major in nature. Staff's use of the data in FERC Form 1 was reasonable in that it marks as closely as possible all information from the various utilities.

Staff strongly disagrees with the Judge's assessment of the comparison of the barometer group with PECO. Such methods of comparison are proper and, in fact, are quite reasonable. The selection of the comparison group was based upon the shared characteristics of the metropolitan areas and took into consideration the billing practices and termination conditions operating in the various cities. Staff examined

the issue of economic conditions including termination limitations and found that all members of the group were subject to some type of winter moratorium. In addition Staff witness Laudenslager examined other economic conditions in response to PECO's assertion that it was in a "unique" situation. Mr. Laudenslager testified:

> Q. Would you care to comment regarding Mr. Hill's discussion of PECO's service territory?
>
> A. Mr. Hill compares the level of poor customers encompassed by PECO's service territory in relation to other Pennsylvania utilities as "unique" to other Pennsylvania utilities. My comparison for adjustment purposes is between PECO and other major metropolitan areas who experience the same problems. The fact that PECO has a high proportion of Public Assistance Recipients based upon total in the State is irrelevant. What is relevant and what Mr. Hill did not point out is that the total percentage of poor based upon PECO's Service Territory is comparable to other major cities used in my study.
>
> Q. Did you make any comparisons of PECO's service territory population mix with that of the other utilities mentioned in your testimony?
>
> A. Yes, a comparison was conducted based upon the population mix of children and elderly and also the Social Security Recipients and AFDC Recipients as a percentage of the population. It was found that the percentages of PECO's population mix was not substantially different from the other Metropolitan Areas listed, so in fact, PECO is not "unique". See Schedule 2 of Trial Staff Exhibit No. KIL-2A.

(Trial Staff Statement KIL-2, pp. 3-4).

Staff submits that the issue of economic conditions experienced by the barometer group and PECO was addressed by Mr. Laudenslager and that, contrary to the ALJ's belief, their impact was in fact minimal or nonexistent.

As for the matter of the meter-reading, Staff acknowledged that, of the companies examined, there were some differences with respect to Con-Edison of New York and Boston. However, bimonthly meter-reading was limited to only one area of Con-Edison's territory and some bimonthly meter reading was done by Boston Edison. Mr. Laudenslager considered this in his analysis and concluded that the effect would be minor.

Trial Staff's analysis of PECO's claim provides a reasonable basis for an adjustment to PECO's customer accounts expense. Staff's use of a barometer group which is composed of companies operating in the northern tier of the country and servicing a large urban population provides an excellent comparison of expenses. Although differences may exist between the areas compared and PECO, these differences are minimal in comparison to the shared characteristics. In each case the companies experience some level of winter moratoriums and, for the most part, read meters on a monthly basis.

Staff submits that PECO has not demonstrated the reasonableness of its claim. The excessively high cost on a per customer basis as compared to the average for Chicago, Detroit, Baltimore, Boston and New York has not been justified.

As such, Staff contends that PECO's claim should be reduced by $17,633,000 and the Judge's decision should be reversed.

F. The Administrative Law Judge Erred In Rejecting Trial Staff's Proposed Adjustment To PECO's Claim For Outage Expense.

The Administrative Law Judge's adoption of PECO outage expense claim as reasonable is without justification. PECO's claim was not based on any studied experience levels but was simply an update of a prior claim. Staff's criticism of PECO's claim was set forth clearly in its Main Brief as follows:

> PECO's claim was not based upon an actual review of experience but was determined by looking at the amount of outage expense allowed for nuclear and fossil units by the Commission in the last rate case and adjusting that allowance to reflect intervening inflation. The problem with PECO's method is apparent when one recognizes that an allowance in a prior case does not represent an actual experience. It was incumbent upon PECO to demonstrate that the allowance was achieved; otherwise, the allowance in this proceeding would merely be basing one fiction upon another fiction. If PECO's experience fell below its predictions then any subsequent calculations which were based upon the earlier prediction would be suspect. A normalized expense without any basis in reality clearly lacks credibility.

(M.B., at 86).

Staff's proposed adjustment on the nuclear outage included a review of an historic period as well as budgeted amounts. Mr. Hosler recognized that the use of historic levels, in view of the various operating histories of the units would not provide the total picture. For that reason the additional 3.5 years of budgeted data was also used.

Staff contends that its adjustment to the nuclear units is appropriate and should be adopted.

With respect to the Limerick outage claim, Staff witness Hosler computed the normalized amount of the expense by taking the Company's budget amounts for the first two refueling outages and dividing them by three years. Staff employed PECO's own budgeted amounts for this adjustment rather than rely on Peach Bottom's experiences. Staff contends that it is reasonable to assume that the personnel involved with developing the budget for Limerick expenses should be able to provide a better estimate of the expenses than the historical review of a different unit employed by PECO.

Staff's adjustments provides a more reasonable basis for estimating the outage expenses for Limerick Unit No. 1 and should have been adopted by the ALJ.

With regard to the fossel plant outages, the Administrative Law Judge's rejection of Staff's proposed adjustment to PECO's fossil plant outage expense claim and subsequent adoption of PECO's claim clearly represents the path of least resistance. PECO's insistent use of data from a prior rate case claim as adjusted for inflation provides an easy and comfortable method for determining costs. Unfortunately, the claim had no basis in reality.

Staff has recognized the drawbacks of the use of historic data and has accounted for these problems by eliminating the high and low years of experience from its five

year analysis. In addition, with regard to the new programs introduced by PECO into its maintenance schedule, Staff would note that its method included two years in which most of the new programs had been started.

Staff submits that the Commission must recognize that PECO has not reached its estimated normalized level of outage expense in the last five years. As Mr. Hosler stated:

> If you include the company's future test year budgeted amount (from PECO Exhibit DPH-2, p. D-106) of $18,700,000 there are 6 consecutive years the company has not, or does not expect to reach its proposed normalized level. The Company's method of computing the normalized level of outage expenditure of $22,728,000 resulted in an amount not remotely resembling normal level of expenditures.

(Trial Staff Statement DPH-1, p. 5).

The company clearly has not demonstrated the reasonableness of its claim. Staff's analysis provides a sufficient and reasonable basis for its adjustment which should be adopted in this case.

G. The Administrative Law Judge Erred In Adopting PECO's Wage Expense Claim.

Trial Staff witness Weakley proposed an adjustment to PECO's wage expense claim based upon the variance between PECO's budgeted number of employees for the future test year and PECO's actual level of employees for the first five months of the test year and for the period 1983-1985. Mr. Weakley concluded that PECO on average consistently overstated the number of employees in its budget by 3%. Mr. Weakley proposed an adjustment to PECO's claim based upon this analysis.

PECO's response to Staff consisted principally of a comparison of total payroll dollars in the budget and its actual experience. PECO argued, and the Judge agreed that, on a dollar basis, there was no variance between budget and actual levels of total payroll. The Judge concluded that Staff's adjustment did not reflect the full picture.

Staff submits that it was PECO that did not capture the total picture in its analysis. Included in the "total" payroll dollars is the Company's overtime claim. It is Staff's position that the increased level of overtime is not properly included in the analysis. The comparison should be made between normal work experiences for the respective periods. The overtime expense is not broken down to show how much was required for down time at the various units or for backup work or other unusual events and how much was used to complete standard work load for the Company's normal

operations. There is no reasonable basis for comparing the total payroll claim. Overtime is intended to cover special circumstances and should not be used to establish a level of expense for run of the mill operations.

Staff would argue that the consistent use of overtime, which will involve time and a half or double time costs, to support the normal daily workload of a business is unreasonable. It is clearly more expensive to pay time and a half or double time instead of straight time. Since the additional cost of fringe benefits associated with a PECO employee is approximately 26.2%, the hiring of a new employees represents a better bargain than the additional overtime which is paid to existing employees to meet standard operations. If overtime is not used to pick up the slack for the shortage of regular employees, then there's no basis for its inclusion in the analysis.

Staff contends that PECO's arguments with respect to overtime and the "total" payroll review do not provide an accurate picture of the Company's projected wage expenses. As such, the claim should be reduced as recommended by Mr. Weakley. Staff's proposed adjustment is reasonable and is consistent with prior Commission pronouncements on this issue.

Staff submits that the Judge erred in his decision and that Staff's adjustment should be adopted by this Commission.

V. TAXES

A. The Presiding Officer Erroneously Adopted The Consolidated Tax Adjustment Proposed By The OCA.

On pages 143-4 of his recommended decision, ALJ Matuschak adopted a consolidated tax adjustment proposed by the OCA. The Staff submits that the methodology of this adjustment is flawed and therefore excepts to the consolidated tax savings adjustment of $343,000 contained in the recommended decision.

The OCA methodology which the ALJ adopted should be rejected because it is flawed in that it allocates tax savings (losses) equally between utility and non-utility participants. Staff believes that the OCA methodology results in cross subsidization of the utility sector by the non-regulated sector. Additionally, in this particular case, the OCA methodology will result in allocating a tax savings that cannot be reasonably expected to occur in the future.

It is Staff's belief that the only appropriate method to be used to allocate potential consolidated tax savings is the Pour-over or United Gas Pipeline Method. This Pour-over Method calculates potential savings on an average basis determined from actual tax returns. It then uses the calculated average losses to offset taxable income in the non-regulated sector. This insures that there is no confiscation of non-regulated sector benefits by the utility

sector, unlike the methodology used by the OCA. Once the non-regulated investors have been given the benefit of the full utilization of available losses, the remaining losses are then available to allocate and offset the tax claims of the utilities.

The Pour-over or United Gas Pipeline Method has been utilized extensively by this Commission in recent decisions for American Waterworks (Pennsylvania Public Utility Commission v. Western Pennsylvania Water Co., R-850096); Alltel of Pennsylvania (Pennsylvania Public Utility Commission v. Alltel of Pennsylvania, Inc., R-842710, p. 61); Columbia Gas of Pennsylvania (Pennsylvania Public Utility Commission v. Columbia Gas of Pennsylvania, Inc., R-842493); West Penn Power (Pennsylvania Public Utility Commission v. West Penn Power Company, R-842632, p. 86); Metropolitan Edison (Pennsylvania Public Utility Commission v. Metropolitan Edison Co., R-842770, p. 60); Pennsylvania Electric (Pennsylvania Public Utility Commission v. Pennsylvania Electric Co., (R-842771); and Philadelphia Suburban Water Company (Pennsylvania Public Utility Commission v. Philadephia Suburban Water Co., R-850174, p. 49). If the Consumer Advocate had utilized this methodology and the two-year period originally examined, there would not have been a significant tax savings to allocate. Thus, in this particular case, allocation of a tax savings would not be appropriate because savings cannot be reasonably expected to occur in the immediate future.

B. Tax Treatment Of Tender Or Call Premiums Associated With Refunding High Coupon Bonds.

In November 1985, PECO issued $250 million of 11-3/4%, 29-year and $150 million of 10-7/8%, 10-year First Mortgage Bonds. Proceeds from these issues were used to refund a portion of PECO's 17-5/8%, 18% and 18-3/4% First Mortgage Bonds through tender offers which were completed in December 1985. PECO also proposes to call the balance of its 17-5/8% First Mortgage Bonds on July 1, 1986. These changes have been incorporated into PECO's revised cost of capital calculations (PECO Exhibit JFB-3). The interest savings resulting from refunding high coupon debt with new, lower cost debt issues have been reflected in its revised cost of capital.

In connection with the refunding of these bonds, PECO paid a premium of $44.801 million to entice investors to tender them. There is also a $6.454 million premium associated with the July 1, 1986 call of the remainder of the 17-5/8% bonds. To avoid penalizing stockholders for the premiums it was required to pay to accomplish these transactions, PECO proposes to amortize the premium over 21 years, the composite term of issue for the new bonds (PECO Exhibit JFB-3, Updated Schedule 4, Page 8 of 10, Note 9). PECO has added one year's amortization in the amount of $2.441 million to the interest cost in calculating its embedded cost of debt (PECO Exhibit JFB-3, Updated Schedule 4, Page 5a of 10). In

order to recover the interest expense associated with the premium (since it will not be reflected in rate base), PECO has deducted the premium amount of $51.255 million from long-term debt in its capital structure computation (PECO Exhibit JFB-3, Updated Schedule 3, Page 1 of 2).

Staff essentially agrees with PECO's treatment of the premium with the exception that PECO has not reflected the tax deductibility of the premium in its calculation. During cross-examination, Mr. Paquette agreed that PECO would take the $44.801 million premium associated with the tender offers as a tax deduction on its 1985 income tax return (Tr. p. 4830). Mr. Paquette also agreed that the $6.454 million premium which will be paid to call the remainder of its 17-5/8% bonds on July 1, 1986 will be deducted on its 1986 tax return (Tr. p. 4830). Mr. Paquette further noted that PECO would receive no immediate tax benefit from its deduction since it will not be able to use all of its tax credits and the deduction would have the effect of increasing the tax credits that would be carried forward.

Due to PECO's tax posture, Staff has not proposed a downward adjustment to its cost of capital in this case. However, this rate case is the first of many in which premiums associated with tenders or calls of high coupon bonds will be at issue. Indeed an article in the March 27, 1986 edition of the Wall Street Journal (p. 5, column 1) contains a

prediction that nationwide $1 billion of utility bonds may be subject to a similar redemption. These premiums should be used to calculate the embedded cost of debt and capital structure on a net of tax basis since this method properly reflects a Company's out-of-pocket cost of refunding. In PECO's case, the premium would be reduced to $25.048 million, to reflect its deductibility for state and federal income taxes. Staff requests that the Commission note in its order that PECO's methodology should not be relied on as precedent in any future PECO rate filing or in any other proceeding.

VI. ENERGY COST RATE

A. The ALJ Failed to Adequately Address this Issue.

Staff excepts to the ALJ's rejection of Staff's ECR recommendations (RD, pp. 103-85). As the Recommended Decision contains virtually no discussion of the rationale underlying the ALJ's conclusions, it is difficult for Staff to identify specific exceptions. Generally, the ALJ's decision is incorrect because it fails to give effect to the Commission's ECR #8 order, is in direct violation of the Public Utility Code, establishes a procedure that is difficult to administer and reflects an unrealistic level of projected energy expenses.

It is understandable, given the time constraints and the overwhelming Limerick claim, that the ALJ was unable to read the Reply Briefs or to devote more than minimal attention to the ECR issue. While he devoted several pages of the decision to his ruling granting Staff's Motion to Strike, the judge dismissed Staff's entire ECR presentation in one sentence.

Staff respectfully submits that this issue is too important to be afforded such a cursory review. After Limerick, it is PECO's ECR that will have the greatest and most lasting effect on the company's ratepayers. Therefore, Staff requests that the Commission disregard the ALJ's rejection of Staff's ECR proposals for the reasons set out in Staff's Main (at pp. 233-258) and Reply (at pp. 56-76) Briefs.

1. The unreconciled energy costs should be normalized on the same basis as every other unreconciled expense.

In its ECR #8 order, the Commission, after an unprecedented 2-year investigation, found that PECO was not able to administer its ECR (Order, pp. 159-160). In the strongest possible language the Commission indicated that while it felt complete elimination of the ECR was too extreme a measure, it intended to take a significant action which would provide sufficient incentive for PECO to change its conduct in the future:

> ...We do believe that to proceed with "business as usual" with regard to PECO's ECR would result in a grave injustice to the Company's ratepayers.
>
> We have previously stated that the present ECR mechanism provides no specific incentive for an electric utility to improve its generating plant performance.
>
> * * *
>
> Our resolution of the issues in this proceeding regarding the outages at the various generating plants and our determination of the issues concerning recovery of replacement power costs, of necessity, represent a reactive or "after the fact" investigation of PECO's management of its energy generation. Our new modification of the ECR mechanism for PECO represents an initial movement to an active stance by this Commission regarding the establishment and efficient operation of the ECR mechanism.
>
> * * *

> Although mindful of this on-going generic investigation of the ECR mechanism, we cannot ignore the immediate need to change the ECR mechanism, presently in effect for PECO.

Opinion and Order, pp. 160-62, emphasis supplied.

Clearly, the Commission felt that there was a serious problem with PECO's handling of its ECR, and that is why it took the unusual step of ordering a partial abolition of the ECR. The issue in this proceeding is the manner in which the ECR revision ordered by the Commission will be implemented.

In the ruling issued on March 10, 1986 in response to Staff's Motion to Strike portions of PECO's testimony, the Administrative Law Judge recognized that the Commission had already made the determination in its ECR #8 order that PECO's ECR should be revised so that only 80% of actual experienced energy costs will be subject to reconciliation pursuant to Section 1307 of the Public Utility Code, 66 Pa. C.S. §1307 (RD, p. 184). As properly noted by the Administrative Law Judge, there is primarily one major issue to be addressed in this proceeding: the accuracy and reasonableness of the company's projected energy costs. Related to this are two subsidiary issues. The first is whether the unreconciled 20% should be recovered on a normalized basis through base rates or on an actual, annualized basis in the ECR. The other issue is the appropriate tariff language and initial application of the revised ECR.

With respect to the first issue, it is the company's position that the 20% unreconciled portion of energy costs is to be examined annually in the ECR filings submitted by the company pursuant to the current ECR procedure; at the end of the reconciliation period, 80% of the experienced variation in energy costs would be recovered (Tr. 4551-52; PECO Stmt. 18F). The company's counsel admitted on the record that this position is based on PECO's interpretation of the ECR #8 order (Tr. 2249).

Based on the language contained in the ECR #8 order, as well as the circumstances surrounding the order, it is Staff's position that the only proper and reasonable way to implement the order is by normalizing the 20% of energy costs and including them in base rates. There are numerous reasons why this is so.

First, normalization is the only way to implement the Commission's ECR #8 order so as to provide the incentive the Commission intended in order that PECO will "operate its generating plants in an efficient manner and to minimize fuel costs" (ECR #8 Order, p. 160). As the Commission succinctly declared:

> ALJ Kashi also observed that the ECR mechanism is one tool which the Commission may use to modify a utility's behavior. Our resolution of this matter will provide the Company with an incentive to alter its behavior and make accurate estimates of its projected energy costs as well as to operate its generating plants in an efficient manner.
> ECR #8 Order at p. 161.

In contrast, the company's admitted goal is to make the Commission's ECR #8 Order ineffective by diluting any incentive impact. PECO witness Harris admitted as much:

> It is not my reading of this Commission order that the company is precluded from structuring the proposed fuel clause in a way that it would find beneficial.
> (Tr. 2205, emphasis supplied).

The revised ECR should not be designed to be "beneficial" to the company. That would negate the entire intention behind the Commission's 80/20% split. PECO's obvious goal is to gut the Commission's ECR #8 order - it presented testimony that there should be no 80/20% at all; it suggested that the unreconciled energy costs be capped at $35 million, which is less than half the amount disallowed by the Commission in its ECR #8 order, and two-thirds of the amount suspended for investigation in ECR #9; it proposed that the 20% be established annually, thus negating any normalizing effect; and it suggested tariff language that will allow the company to ignore the 80/20% split in the future. The Commission should reject this self-serving attempt to return to the "business as usual" practices found unacceptable after an intensive 2-year investigation.

Second, since 20% of energy expenses are to be unreconciled, they must be charged pursuant to Section 1308 of the Public Utility Code, 66 Pa. C.S. §1308. By its express language, Section 1307 provides that any rates charged pursuant to a sliding scale of rates (i.e., pursuant

to §1307) must be fully reconciled. Staff Stmt. ECR1, pp. 5-6. In other words, §1307 in its current form simply does not permit partial reconciliation; all actually incurred energy costs will be recovered except for those specifically disallowed on a case-by-case basis. In addition, the Commonwealth Court has held that the Commission may not disallow a predetermined percentage of rate case expense as a policy matter and in the absence of specific findings of unreasonableness.[4/] PECO's ECRF formula does not recognize the 80/20% split; therefore, it is more than likely that if PECO's methodology is accepted by the Commission, and an attempt is made by the Commission to disallow 20% as part of the reconciliation process without a specific imprudency finding, it will be contested by the company and overturned on appeal because of Butler.

The policy of an 80/20% split, especially the tariff formula submitted by PECO which omits any reference to the 80/20%, does not in and of itself establish good reason not to permit reconciliation pursuant to §1307(e). Hearings and imprudency determinations would, under the company's interpretation, be necessary on a case-by-case basis.

Third, if the unreconciled portion is not normalized, then there would be no reason to require the submission of

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4/ Butler Township Water Co. v. P.U.C., 81 Pa. Commonwealth Ct. 40, 473 A.2d 219 (1984).

the prospective and historic data specified in the order. See, Staff Stmt. ECR-2, p. 2.

Fourth, as explained in Staff Stmt. ECR-1, p. 3, the 80/20% split was proposed by Commissioner Shane in a Motion that was properly approved by the full Commission at public meeting. This Motion, attached to Staff Stmt. ECR-1 as Schedule 1 of Exh. ECR-1, states in several places that the unreconciled energy costs are to be recovered in base rates on a normalized basis:

> I propose that the Commission alter PECO's ECR so that 20% of its total expected energy costs be included in base rates and not be subject to reconciliation...(p. 3)
>
> Because the amount of projected energy costs placed in base rates... (p. 3)
>
> PECO's new rider should include the following provisions: "pursuant to the base rate proceeding, 20% of total expected energy costs shall be rolled into base rates" and "energy costs recovered through the base rates will not be subject to reconciliation..." (p. 5)
>
> That rolling 20% of the total expected energy costs into base rates should be sufficient to provide PECO with an incentive....(p. 5).
> (emphasis supplied.)

Fifth, the company's annualization mechanism would result in unnecessary and duplicative proceedings by having projected energy costs reviewed on a before the fact basis in both annual ECR filings and general rate increase proceeding as well as on an after the fact basis in ECR proceedings.

PECO witness Hill agreed that the order requires projected energy costs to be examined in general rate proceedings (Tr. 4551); these projections also would be included in the annual ECR filings (Tr. 4551). This statement alone shows how illogical the company's proposal is. It simply is beyond belief that the Commission would create such a burdensome, duplicative procedure, especially in light of the Commission's knowledge of the frequency of PECO's general rate filings. Mr. Hill described the investigation by the Commission of PECO's projected energy costs as "It could be a review by the Commission Staff, various bureaus. It could be an investigation with a hearing process much like the base rate proceedings." (Tr. 4559). In fact, it was this same witness who in his rebuttal testimony criticized Staff's proposal because, he says, "the company would have to prepare and the Commission would have to review, two separate forecasts of its energy costs -- In my view, this is a needless and unnecessary duplication of effort by the company and Commission." This is exactly the result that would occur if the company's interpretation of the ECR #8 order is adopted.

As explained by Staff witness Rosenthal:

> At page 3 of PECO Stmt. 18F witness Hill misinterprets the Commission's use of the phrase "subsequent Commission proceedings." The Commission's current energy clause procedures do not include before the fact energy cost proceedings. Only after the fact reconciliation (Section 1307(e)) proceeding occurs without a special Commission Order directing investigation of specific energy areas. Of course, the

> Commission can initiate an investigation into any area it deems appropriate. The question at hand is whether in its ECR #8 order the Commission has indicated it wishes to burden itself with annual energy cost hearings to support energy cost projections. The order at p. 163 states that PECO has been "directed to provide such full support for its expected energy costs in all future general rate filings." Under the Company's proposal, the Commission would have hearings for the ECRF annually and again every time (since January 1979, averaging every 15 months) the Company elects to file a rate request. It should be obvious that this was not the Commission's intent.

Staff Stmt. ECR-2, pp. 2-3.

In contrast, Staff's proposal is easy to administer because it incorporates exactly the same procedure - a base energy fuel component coupled with reconciled energy costs pursuant to §1307 - that is currently in effect. It is the company's methodology which would increase the administrative burden on the Commission because it requires extensive ECR prospective reviews annually in addition to reconciliation investigations and base case proceedings.

In his Recommended Decision, the ALJ gave only one reason for rejecting Staff's interpretation of the order:

> This lag in reflecting changes in energy costs is intolerable from both the Company and ratepayer point of view. If adopted, it would expose both the Company and ratepayers to serious risks of very substantial over or under collections. (RD, pp. 184-85).

There are several responses to this statement. First, Staff does not see how normalization is "intolerable"

to utilities or ratepayers; it is how every unreconciled expense is established. See, e.g. PECO v. PUC, _____ Pa. Commonwealth Ct. ____, 502 A.2d 722 (1985). There is no reason to treat these unreconciled energy expenses (which are only 20% of total energy expenses) any differently. By normalizing these expenses and not letting them change annually, the longer effective period will provide a greater degree of stability to PECO ratepayers while also providing a more effective incentive to the company to act more responsibly in its incurrence of energy costs.

Second, the "serious risk of substantial over or under collection" which was of such concern to the ALJ has occurred, even with total reconciliation. It must not be forgotten that the Commission undertook its various investigations into PECO's ECR because for a number of consecutive years PECO had permitted undercollections of more than $100 million to occur. As the ALJ in the ECR #8 investigation found: "PECO has been unable to effectively administer an ECR tariff. PECO's inability has forced the company's ratepayers to endure unusually large fluctuations in the ECR tariff" (R.D., p. 154). The Judge found PECO's behavior with respect to its ECR management to be so egregious he recommended that the company not be permitted to utilize an ECR at all but to recover all energy costs through base rates (R.D., p. 154; finding #16; ordering paragraph #5).

Thus, the risk identified by the ALJ has already occurred, despite the PECO's use of a fully reconciliable, annual ECR.

Third, it must be remembered that what is at issue here are but 20% of PECO's energy costs; the remaining 80% will continue to be recovered annually via the ECR. In addition, given the frequency of PECO's rate filings, the normalization period probably will not be long.

Staff respectfully submits that the ALJ failed to fully consider this issue; his rejection of Staff's methodology is without merit. Staff witnesses Hosler and Rosenthal's recommendation that the unreconciled energy costs be normalized and rolled into base rates should be adopted for the following reasons:

1. It is consistent with the language in the order referring to general rate increases (Staff Main Brief, pp. 233-348; 243; Reply Brief, pp. 66-67);

2. It is consistent with the data requirements contained in the order (Staff MB, pp. 237-38, 243);

3. It is consistent with the Commission's Motion which underlies the order (MB, pp. 243-244);

4. It is in compliance with the Public Utility Code (MB, p. 244; RB, pp. 70-72);

5. It is reasonable and easy to administer (MB, pp. 238-39; RB,)

6. It provides much of the incentive deemed by the Commission necessary to get PECO to "alter its behavior" (MB, pp. 237-42; RB, 66-72) and

7. By virtue of their Commission expertise, the Staff witnesses' testimony should be accorded great weight (MB, p. 246).

The self-serving, alternative proposal advanced by the company and accepted by the ALJ should be rejected for the following reasons:

1. It is inconsistent with the order;

2. It is inconsistent with Commissioner Shane's Motion;

3. It is in violation of the Public Utility Code; and

4. It would result in unnecessary and duplicative proceedings by having projected energy uses reviewed on both a before-the-fact basis in both annual ECR filings and general rate proceedings and on an after-the-fact basis in another annual ECR proceeding.

2. Staff's tariff language should be adopted by the Commission.

Without any discussion whatsoever, the ALJ rejected Staff's proposed tariff language: "In all other respects, we accept the Company's ECRF revised ECR filing." (R.D., p. 185). As Staff does not know why the ALJ rejected Staff's recommendation[5/], the arguments in Staff's Main and Reply Briefs will be summarized here. The Commission should note that this recommendation is separate from the normalization proposal presented by Staff and should be adopted even if the normalization proposal is not.

As discussed in Staff's Main (pp. 249-53) and Reply (pp. 73-76) Briefs, the tariff presented by Staff witness Hosler and Rosenthal should be accepted for the following reasons:

1. Staff's ECRF formula specifically recognizes that 20% of energy costs - whether established on a normalized or annual basis - will no longer be reconciled.

In contrast, the company's suggested tariff does not include the 80/20 split in its ECRF formula. The only reference to the split is contained in the definition of the "E" factor reconciliation. This is confusing and would lead to misunderstandings on the part of persons not familiar with the tariff.

5/ In this connection, it should be noted that in this as well as other areas of the case, the burden of proof remains on the company.

2. Staff's proposed tariff modifies the "B" factor to include via an "R" factor both the amount of the unreconcilable fuel costs ($3.305 mills/Kwh) and the way it is reflected in the formula.

3. Both Staff and the company have presented differing provisions relating to interim revisions. Staff's interim revision tariff:

(a) incorporates the 80/20% split[6/];

(b) expands Commission flexibility by removing the specific threshold amount necessary to trigger the provision; and

(c) is consistent with the tariffs of all other jurisdictional utilities.

In addition, it is Staff's position that:

(a) consistent with the Commission's ECR #8 order, the decision to revise the ECR should be based on the over or under collections expected to occur through the end of the F-factor period, not the E-factor year as suggested by PECO; and

(b) any revisions should be done on a prospective 12-month basis, consistent with the GCR-5 order, in order to minimize seasonal mismatches.

Staff's recommended interim adjustment is as follows:

> However, such rate may be revised on an interim basis subject to approval of the Pennsylvania Public Utility Commission

. . . . . .

6/ If the company's ECRF procedure is adopted by the Commission, the interim revision provision will have to be revised so that there is specific recognition that the unreconciled 20% portion of energy costs must remain unchanged until the next ECRF filing.

upon determination that the then effective rate will result in substantial over or under collection. In such case the "F" factor of the rate may be revised on a prospective twelve-month basis effective for the remainder of the ECRF computation year. Such revision shall become effective 30 days from the date of the revised filing unless otherwise ordered by the Commission.

Staff respectfully submits that its proposed tariff language should be adopted by the Commission even if the company's assertion that the unreconciled costs are to be examined and recovered on an annual basis via the ECR is accepted. Staff's tariff, regardless of the energy costs ultimately established, is reasonable and appropriate because it specifically incorporates the Commission-ordered 80/20% split while at the same time it retains for the Commission the flexibility to deal with interim revisions on a case-by-case basis.

3. A more realistic level of projected energy costs should be established by the Commission

As recognized by the ALJ, the primary ECR issue in this proceeding is the establishment of an appropriate level of projected energy costs. Although both Staff and PECO presented extensive testimony on this issue, this question is nowhere discussed by the ALJ. Staff urges the Commission to carefully review the testimony and evidence in order to arrive at an appropriate energy cost level. The company's energy cost, adopted by the ALJ, is unrealistic, inaccurate and is designed to produce a massive overcollection during the first year, to the detriment of PECO's ratepayers.

Staff proposed adjustment of the base energy component to reflect a more reasonable energy cost projection. The company's rates have been designed to include over $100 million in excess of the reasonable normalized or annual projected energy costs.[7/] Both PECO witnesses Hill and Carroll admitted that the

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7/ For the period ending 6/87:

(a) Company filing	(b) First year forecast actual	(c) First year forecast normalized
$589,255,897[1/]	$458,380,771	$467,688,318
Overcollections:	(a)-(b) $130,875,126	
	(a)-(c) $121,569,579	

1/ 28,298,319 MWH X $20.823/MWH.

$207 million anticipated energy savings resulting from Limerick #1 operations over a two-year period is unrealistic and will not be achieved (Tr. 330, 4564).

As explained in Staff Stmt. ECR-2, pp. , Mr. Rosenthal had accepted the company's revised projected energy cost of 16.527 mills/Kwh as a reasonable normalized level. See, PECO Exh. JJC-2. However, Mr. Rosenthal does not believe that the level of 2-party purchases or fuel price escalation rates advanced by PECO were realistic.

After the record had been closed, PECO late-filed Exh. JJC-3 pursuant to an on-the-record data request. This exhibit was comprised of a PRODCOST run which utilized an oil price of $24 per barrel, and resulted in a projected normalized fuel cost of 16.414 mills/Kwh. Staff recommends that this cost be employed as the normalized energy cost because it is below Philadelphia coal prices, western purchase rates, PJM receipt rate and oil production rates. Thus, there is more of an incentive to optimize the lowest production source and perhaps to lock in current low prices through contracts not only in the year immediately following the conclusion of this case but in the next two years as well.

In addition, adoption of this energy cost is consistent with the ALJ's decision with respect to the oil inventory, where he stated:

> We believe that a more appropriate projection of PECO's oil inventory costs, as set forth in PECO's Exh. JJC-3 may be warranted. Based on

such projections, we have reconstructed PECO's oil inventory costs as follows.... (RD, p. 36)

The following table demonstrates the net effect under the company's and staff's methodologies using the two fuel costs projected by PECO:

Per JJC-2

	Company Year to Year Method		Staff Normalized Method	
Mills per Kwh				
Year Ended	Total Fuel Cost	20%	Total Fuel Cost	20%
6/87	16.198	3.240	16.527	3.305
6/88	17.270	3.454	16.527	3.305
6/89	16.116	3.223	16.527	3.305
Dollars				
6/87	458,380,771	91,676,154	467,606,318	93,537,264
6/88	488,823,617	97,764,723	467,789,413	93,557,883
6/89	461,720,247	92,344,049	473,486,303	94,697,261
		281,784,926		281,792,408
Net benefit to Company for 3-year period				7,482

Per JJC-3

6/87	15.859	3.172	16.414	3.283
6/88	17.270	3.454	16.414	3.283
6/89	16.116	3.223	16.414	3.283
6/87	448,780,783	89,756,157	464,488,608	92,897,722
6/88	448,823,617	97,764,723	464,590,9 [[	92,918,200
6/89	461,720,247	92,344,049	470,248,937	94,049,787
		279,864,929		279,865,709
Net benefit to Company for 3-year period				780

It is especially important that the Commission establish a realistic energy cost level if the company's annualization procedure is adopted. Generally, the projected operational capacity factors included in JJC-2 are reasonable, but historical operational capacity factors have been sub-par. While these good factors are in the normalized value, accepted by Staff, there is no guarantee that the company will continue to develop the future yearly estimates based upon the high capacity factors. Only by looking at the capacity factors in the case at bar can the Commission insure some positive improvement in company operations.

In the face of declining oil prices the company, under both methods, will retain short term gains, but the amount of gain will still be conditioned on its ability to achieve expected capacity factors out of the coal and nuclear units. The incremental cost for lack of production will lessen as oil price declines. However, a longer term view must also be considered in projecting how long oil prices will remain stable at low levels or whether they will rebound to December 1985 levels.

With the in-service of Limerick 1, the exposure of the company to oil price fluctuations is lessened. This exposure, however, will increase with the lengthy outage planned for Peach Bottom 3 in June, 1988. Pressure for efficient maintenance management so that previously experienced management problems do not reoccur can only be exerted under the normalized method. The year-to-year method proposed by

PECO will lessen controlling incentives for efficient maintenance and operation. This methodology provides no incentive for long term improvement in plant performance, operation or cost controls.

In addition, the company's base energy component is unrealistic because it has not been adjusted to reflect in base rates the energy savings associated with Salem 2. If the 3 mills/Kwh associated with this unit are removed, then PECO's base energy component would be very close to Staff's normalized 16.414 mills/Kwh.

Because the company's proposed base energy component does not reflect realistic expected energy savings from Limerick or Salem 2, nor does it recognize the lower oil prices currently in effect and expected at least during the short-term, it is virtually guaranteed that there will be a huge overcollection. If Staff's normalized fuel cost is rejected by the Commission, the Commission should reject PECO's proposal to reduce the current base energy component of approximately 28 mills/kwh to 20 mills/Kwh and instead order a reduction to 15.859 mills/Kwh per PECO Exh. JJC-3. Also, the Commission should direct that the company's July 1, 1986 ECR also reflect a projected energy cost of 15.859 mills/Kwh, in order to avoid the guaranteed overcollection which would result from an ECR which would be lower than the base energy component.

Therefore, Staff respectfully recommends that the Commission adopt the realistic reasonable energy cost contained in PECO Exh. JJC-3 if the company's annualization procedure

is adopted. If the Commission instead accepts Staff's recommendation that the unreconciled 20% of energy costs be recovered on a normalized basis through base rates, then the reasonable, normalized energy cost of 16.414 mills/Kwh developed by Staff witness Rosenthal and based on PECO Exh. JJC-3 should be utilized.

VII. THE RECOMMENDED DECISION CONTAINS SIGNIFICANT COMPUTATIONAL ERRORS WHICH MUST BE CORRECTED IN THE COMMISSION'S ORDER.

In reviewing ALJ Matuschak's recommended decision, the Staff has identified a number of significant computational errors which must be corrected in the Commission's final order and opinion in this matter. In fairness to the Presiding Officer and his support staff, several of these errors can be traced to supporting schedules and tables provided to him by the parties in their briefs and trial exhibits. Attached to these exceptions are tables which summarize the Staff's corrections to the recommended decision. It must be emphasized that these are corrections to adjustments already adopted by the Presiding Officer to which the Trial Staff does not except. The corrections which the Staff believes must be made are explained in the following subsections.

A. The Recommended Decision Contains Significant Tax Computation Errors Which Must Be Corrected By The Commission In Its Final Order.

The Trial Staff adjustments to the Company's tax expense claim in this proceeding were sponsored by Staff Witness Jeffrey M. Heverling in his direct and surrebuttal testimonies (Trial Staff Sts. JMH-1, JMH-2) and the accompanying exhibit to his direct testimony (Trial Staff Ex. JMH-1). These adjustments are discussed in detail on pages 93-105 of the Trial Staff main brief and on pages 31-4 of the Trial Staff reply brief. In many cases, the Presiding Officer

accepted the proposed Trial Staff tax adjustment but adopted another party's methodology in implementing it. In reviewing the recommended decision, the Trial Staff has identified what it believes are significant tax computation errors which should be corrected in the Commission's final order. These errors are identified in the following subsections.

1. Rate base adjustments for Limerick I construction delays and common plant.

In Section VII of his recommended decision, ALJ Matuschak accepted proposed adjustments to the Company's rate base claim based on Limerick I construction delays (p. 21) and permitting only 50% of common plant in the rate base at this time (p. 25). The development of the 50% common plant adjustment should reflect the correct common plant shown in Exhibit TPH-2A, page C-2 (Revised 2/14/86) to produce the correct amount of $631,859,000. Additionally, Staff does not believe that the consolidated plant depreciation factor of 2.72% used by the OCA and the ALJ is proper for use on the 50% of common plant adjustment. Staff believes that the common plant depreciation rate of 2.69% (Exh. TPH-2A, page C-5c) should be used for the ancillary adjustments to depreciation expense and accrued depreciation.

In implementing these adjustments, the ALJ relied upon OCA Statement 7A, revised schedules TEK-4 through TEK-7. These OCA schedules are in error because they included AFUDC in the tax basis used for depreciation. AFUDC must be

subtracted from book basis before tax depreciation and investment tax credits are calculated.

Because of this pervasive error, Staff objects to the Table II amounts in the recommended decision relative to the Limerick I delays and 50% Common Plant adjustments as listed below:

a) the increased current state income tax effect ($9,675,000) of reducing tax depreciation,

b) the increased current federal income tax effect ($59,338,000) of reducing tax depreciation,

c) the reduced federal deferred tax effect ($49,669,000) of reducing tax depreciation,

d) the increase to rate base ($49,669,000) premised upon adjustment of excess tax depreciation, and

e) the increased federal effect ($1,563), resulting from allocation of ITC's.

The correct amounts based upon the ALJ's adjustments for the Limerick I delays and common plant are listed below in a facimile of Table II of the recommended decision:

Recommended Adjustment	Exhibit Reference	Rate Base	State Income Taxes	Federal Income Taxes	Expense Effect Upon Income
		$	$	$	$
Limerick #1 Delay and Common Plant Adjustments:					
a) Reduction of federal deferred taxes		31,106		-31,106	31,106
b) Reduction of tax depreciation for computation of current taxes			6,151	37,727	-48,878
c) Reduction of ITC amortization				2,174	- 2,174
Total for Limerick Delay and Common		31,106	6,151	8,771	-14,922

B. The Presiding Officer erred in his application of the Actual Taxes Paid Doctrine in the Present Case.

Both the Trial Staff and the OCA proposed adjustments to the Company's tax claims in the present case based on the actual taxes paid doctrine as described in Barasch v. Pennsylvania Public Utility Commission, 507 Pa. 496, 492 A.2d 94 (1985). These proposed adjustments are described in detail on pages 96-105 at the Trial Staff main brief and pages 31-4 of the Trial Staff reply brief. The recommended decision discusses these adjustments on pages 141-4. In reviewing the calculations contained in the decision, the Trial Staff believes that the Presiding Officer erred in his application of the actual taxes paid doctrine and that these

errors should be corrected in the Commission's final order in this matter. These errors are explained in the following subsections.

1. Deferred taxes relating to capitalized pensions, taxes, and benefits.

On pages 141-2 of his recommended decision, ALJ Matuschak adopted Trial Staff and OCA tax adjustments concerning the Company's claim for deferred taxes relating to capitalized pensions, taxes and benefits. Staff objects to the income adjustment of $8,141,000 as proposed in the recommended decision. While it is acknowledged that the ALJ adopted the income effect as portrayed in OCA's Main Brief, page VIII-38, Staff is compelled to note that such methodology relative to the tax effect of adjustments to deferred income taxes has never been adopted by this Commission. Staff believes that the appropriate income effect of the cost of service components of this adjustment is $16,208,000. Since such adjustments are classified as deferred income taxes, they are not deductible in the calculation of current income taxes. Accordingly, these types of adjustments flow through to income on a one-for-one basis.

Likewise, Staff objects to the presentation of the cost of service components of this adjustment in Table II of the recommended decision, since they were adopted from OCA's Main Brief, Table II. Specifically, Staff rejects the reduction in the Expense column in the amount of $16,208,000,

the state tax increase of $1,131,000, and the federal tax increase of $6,935,000. The appropriate presentation of the cost of service effects of this adjustment are illustrated below in the facimile of Table II, and are also substantiated in Staff Statement JMH-1 and Exhibit JMH-1.

Recommended Adjustment	Exhibit Reference	Rate Base	State Income Taxes	Federal Income Taxes	Expense Effect Upon Income
		$	$	$	$
Deferred Income Taxes Relating to Capitalized Pensions, Taxes, and Benefits:					
a) Deny annual claim for deferrals relative to capitalized pensions and taxes at 6/30/86 fut. test yr.	JMH-1,SCH2		-1,074	-4,938	-6,012
b) Deny annual claim for deferrals relative to capitalized employee benefits at 6/30/86 fut. test yr.	JMH-1,SCH2		-637	-2,929	-3,566
c) Provide the first year of the five-year amortization of accum. deferred taxes as of the historic test year at 6/30/85	JMH-1,SCH1 JMH-1,SCH4		-1,288	-5,342	-6,630
Totals for Adjustment			-2,999	-13,209	-16,208

Staff also points out that the revenue effect of this adjustment is a reduction of $32,924,352 ($16,208,000 ÷ 49.228%). This calculation is conceptually identical to the two-for-one gross-up which would have been used by the company to determine the dollars to be collected in revenue in order to fund any given amount of deferred taxes which is claimed on a current basis in rates.

2. Accumulated deferred State Income Taxes.

On page 143 of his recommended decision, ALJ Matuschak adopted adjustments proposed by the Trial Staff and OCA to flow back over five years the balance of the state income taxes previously deferred by the Company. In adopting this adjustment, the Presiding Officer accepted the OCA's computation. Staff objects to the annual amortization of $5,658,000, the corresponding income effect of $2,842,000 as indicated at Table II (Revised), and the rate base increase of $7,167,000.

First, while Staff disagrees with OCA's amortization and rate base adjustments as adopted in this Decision, it notes that in the event these adjustment amounts are accepted, the resultant income effect on Table II is incorrect for the same reasons as detailed above in the prior subsection. Accordingly, should this adjustment for amortization be accepted by the Commission, the correct income effect would be a one-for-one, or $5,658,000, with a resultant revenue effect of $11,493,459 ($5,658,000 ÷ 49.228%).

Secondly, Staff believes that the amortization amount of $5,648,000 is inappropriate and should be rejected for Staff's proposed amortization adjustment of $7,832,000. OCA's adjustment adopted in this Decision is inappropriate for the following reasons:

1) OCA has included in its proposed amortization, all state deferred taxes, including those deferrals attributable to pollution control facilities amounting to $382,000 (OCA Statement 4, Schedule 5).

Staff believes that this portion of accumulated deferred tax should not be included in this adjustment because it is already being flowed back to ratepayers over a substantially short tax life.

2) Included in the $48,818,000 at OCA Statement 4, Schedule 5 are the accumulated state deferred tax balances relative to capitalized pensions and taxes ($6,099,000) and capitalized employee benefits ($2,050,000) for which a separate five-year amortization has been adopted (See Staff Exhibit JMH-1, Schedule 4). Accordingly, it would be appropriate to reduce the $48,818,000 by the accumulated deferrals of $6,099,000 and $2,050,000 before calculation of annual amortization.

3) OCA's proposal has decreased the potential amount subject to amortization by a factor which attempts to restate all previously collected federal deferred tax at 46%. This adjustment amounts to $19,402,000 (OCA Statement 4, Schedule 5) and serves to negate the lower effective federal deferral which resulted from reducing the basis for federal deferrals by the amount of the state deferred tax claims.

Staff acknowledges that this adjustment was suggested by PECO as the total amount necessary to restate accumulated federal deferred income taxes to 46%. (See Staff Exhibit JMH-1, Schedule 4, footnote a.) However, it should be noted that it is only necessary to restate federal deferrals on an annual basis, computed on the annual amortization of state deferred income taxes times 46%. The footnote provided by PECO has confused the analysis of this issue and has erroneously served to reduce state deferrals subject to amortization as detailed on OCA Statement 4, Schedule 5.

Staff believes that the appropriate amount for amortization is only the accumulated state deferred tax

relative to liberalized depreciation, adjusted only for the present amortization of excess collections due to change in the state tax rate from 10.5% to 9.5% because such is already being amortized over three years. Staff's amortization is detailed at Staff Exhibit JMH-1, Schedule 5. Likewise, the correct adjustment to the federal reserve ($3,603,000) is identified.

Thirdly, Staff is unable to determine the basis or calculation of the rate base adjustment of $7,167,000 relative to this issue. Logic would dictate that the appropriate rate base adjustment for this issue would be an increase of $3,055,000 if the OCA proposal at Statement 4, Schedule 5 is adopted, or an increase of $4,229,000 if Staff's adjustment is adopted. Staff believes that rate base should be adjusted as follows according to Staff Exhibit JMH-1, Schedule 5 and Staff Statement JMH-1: (a) increase rate base by $7,832,000 due to annual amortization of state deferred tax and (b) decrease rate base by $3,603,000 due to partial restatement of federal reserve to 46%.

Finally, as previously stated, Staff believes that the Table II presentation for this adjustment is inappropriate. Staff rejects the reduction in the expense column in the amount of $5,658,000, the state tax increase of $395,000, and the federal tax increase of $2,421,000. Accordingly, presented below in the facsimile Table II is the correct rate base, cost of service, income and revenue effects for the OCA position and the Staff position.

Recommended Adjustment	Exhibit Reference	Rate Base	State Income Taxes	Federal Income Taxes	Expense Effect Upon Income
		$	$	$	$
Accumulated State Deferred Income Taxes:					
OCA Position:					
a) Provide the first year of the five-year amortization of accumulated deferred taxes:	OCA 4 Sch 5	5,658	-5,658		5,658
b) Required adjustment to federal reserve at 46% of state deferred	OCA 4 Sch 5	-2,603		2,603	-2,603
Totals for Adjustment - OCA		3,055	-5,658	2,603	3,055
Staff Position:					
a) Provide the first year of the five-year amortization of accumulated deferred taxes:	STMT JMH-1	7,832	-7,832		7,832
b) Required adjustment to federal reserve at 46% of state deferred	STMT JMH-1	-3,603		3,603	-3,603
Totals for Adjustment - Staff		4,229	-7,832	3,603	4,229

C. Depreciation Expense must be reduced to Reflect Construction Errors by Bechtel.

On page 40 of the recommended decision, ALJ Matuschak adopted a staff adjustment to reduce PECO's rate base by $13,278,000 because of Bechtel construction errors. As noted on page 38 of the decision, the acceptance of this adjustment requires a corresponding adjustment of $364,000 to depreciation expense. The recommended decision does not make this corresponding adjustment which must be reflected in the Commission's order and opinion.

VIII. CONCLUSION

For the reasons stated herein, the Commission should adopt each of the above exceptions.

Respectfully submitted,

Marlane R. Chestnut
Assistant Counsel

Veronica A. Smith
Assistant Counsel

Daniel P. Delaney
Deputy Chief Counsel

For the Trial Staff of the Pennsylvania Public Utility Commission

Dated: May 23, 1986

PHILADELPHIA ELECTRIC COMPANY
R-850152

SUMMARY OF CORRECTIONS
$(000's)

	ALJ Recommendation $	Corrected Calculation $	Corrections $
RATE BASE			
Common Plant	(639,512)	(631,859) (a)	7,653
Depreciation Reserve	12,105	11,937 (b)	(168)
Excess Tax Depreciation	49,669	31,106	(18,563)
Acc. Def. State Taxes	7,167	3,055	(4,112)
Total	68,941	46,098	(15,190)
EXPENSE			
Actual Taxes Paid	(16,208)	-	16,208
Acc. Def. State Taxes	(5,658)	-	5,658
Total	(21,866)	-	21,866
DEPRECIATION	(32,488)	(32,090) (c)	398
STATE INCOME TAX			
Tax Depreciation	9,675	6,151	(3,524)
Actual Taxes Paid	1,131	(2,998)	(4,129)
Acc. Def. State Taxes	395	(5,658)	(6,053)
Interest Expense	4,896	4,954*	58*
Total	16,097	2,449	(13,648)*
FEDERAL INCOME TAX			
Tax Depreciation	59,338	37,727	(21,611)
Excess Tax Depreciation	(49,669)	(31,106)	18,563
Allocation of ITC	1,563	2,174	611
Actual Taxes Paid	6,935	(13,210)	(20,145)
Acc. Def. State Taxes	2,421	2,603	182
Interest Expense	30,032	30,383*	351*
Total	50,620	28,571	(22,049)

*Calculated on Staff corrected rate base of $5,782,560.

(a) TPH-2A, C-2

(b) Combined common plant adjustment and Limerick delay adjustment.
$6,333 - Common Plant)
$5,604 - Limerick Delay) TPH-2A, C-2c

(c) Combined common plant adjustment and Limerick delay adjustment.
2.69% (TPH-2A, C-5c) x $631,859 = $16,997
2.72% (TPH-2A, C-5c - combined common & Limerick) x $554,900 = $15,093

PHILADELPHIA ELECTRIC COMPANY
R-850152

CORRECTIONS TO REVISED ALJ RECOMMENDATION
INCOME SUMMARY
$(000's)

	Revised ALJ Recommendation $	Corrections $	Total $	Additional Revenue Reduction $	Corrected ALJ Recommendation $
Operating Revenue	2,803,641	-	2,803,641	(30,988)	2,772,653
Deductions					
O&M Expenses	1,402,002	21,866	1,423,868	-	1,423,868
Depreciation	228,675	398	229,073	-	229,073
Taxes					
Income	383,938	(35,697)	348,241	(15,113)	333,128
Other	93,297	-	93,297	(620)	92,677
Total Deductions	2,107,912	(13,433)	2,094,479	(15,733)	2,078,746
Net Income	695,730	13,433	709,162	(15,255)	693,907
Rate Base	5,797,750	(15,190)			5,782,560
ALJ Rate of Return	12.00%				12.00%

Table II

CERTIFICATE OF SERVICE

I hereby certify that I am serving the foregoing document(s), either personally or by first class mail, upon the persons addressed below:

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Pennsylvania Public Utility Commission

Dated: May 23, 1986

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
P. O. BOX 3265, HARRISBURG, Pa. 17120

May 29, 1986

IN REPLY PLEASE
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Jerry Rich, Secretary
Pennsylvania Public Utility Commission
New Filing Section
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Harrisburg, PA 17120

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SECRETARY'S OFFICE
Public Utility Commission

DOCKETED
MAY 30 1986

In Re: Pennsylvania Public Utility Commission
v.
Philadelphia Electric Company
Docket No. R-850152

DOCUMENT FOLDER

Dear Secretary Rich:

Upon review of Staff's exceptions filed on May 23, 1986, there are two minor errors which should be corrected. First, on page 83, the expense effect upon income associated with the reduction of tax depreciation for computation of current taxes should be--43,878 (not -48,878 as indicated). Second, on page 85 the expense effects upon income associated with adjustment C and total of $6,630 and $16,208 should be positive values, rather than the negative values indicated.

Thank you for your cooperation in this matter.

Very truly yours,

Daniel P. Delaney
Deputy Chief Counsel

DPD:cew(38)

xc: Service list.