



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
P. O. BOX 3265, HARRISBURG, Pa. 17120

June 27, 1986

IN REPLY PLEASE
REFER TO OUR FILE

R-850152

To All Parties of Record

Pennsylvania Public Utility Commission, et/al
v.
Philadelphia Electric Company

To Whom It May Concern:

This is to advise you that the Commission at Public Meeting held June 26, 1986 adopted an Opinion and Order in connection with the above entitled proceeding.

A copy of the Opinion and Order is enclosed for your records.

Very truly yours,

Jerry Rich, Secretary

DOCKETED
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Mr. Patrick/Tariff Section
Copy of Opinion and Order To: See attached list.

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PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17120

Public Meeting held June 26, 1986

Commissioners Present:

Linda C. Taliaferro, Chairman
Frank Fischl
Bill Shane, dissenting (opinion attached)

Pennsylvania Public Utility
Commission, et al.
v.
Philadelphia Electric Company

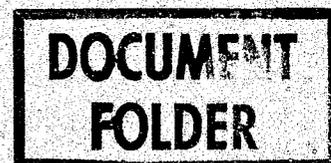
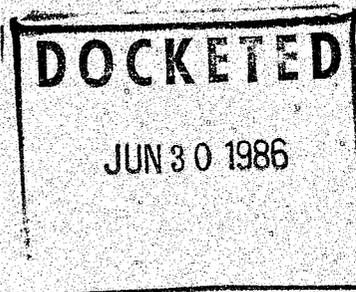
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OPINION AND ORDER

BY THE COMMISSION:

I. INTRODUCTION AND HISTORY OF THE PROCEEDING

On September 27, 1985, Philadelphia Electric Company ("PECO" or "Company") filed Supplement No. 15 to its Tariff Electric - Pa. P.U.C. No. 26 to become effective November 27, 1985. The Supplement was designed to produce an annual base rate increase of \$681,760,000, based upon an adjusted level of operations using a historic test year ended June 30, 1985, and a future test year ending June 30, 1986.

The proposed net increase of \$681.8 million is comprised of two components - an \$893 million increase in rates to reflect additional plant in service and increased operating expenses, and a \$207.5 million rate decrease to reflect the reduction in energy costs occasioned by the operations of Limerick Unit No. 1 ("Limerick 1"), if operated at a certain capacity level. Limerick 1 is one unit of a nuclear electric generation station composed of Limerick 1 and Limerick 2. Limerick 1 went into actual commercial operation in February 1986. Limerick 2 is still under construction. A common plant will be utilized by both units.

By Order entered November 1, 1985, we allowed Supplement No. 15 to be suspended by operation of law, pursuant to Section 1308 of the Public Utility Code, 66 Pa. C.S. §1308, until June 27, 1986, and instituted an investigation, at Docket No. R-850152, into the lawfulness, justness and reasonableness of the proposed rates and of existing rates. The matter was assigned to Administrative Law Judge ("ALJ") Joseph P. Matuschak.

A total of 14 Complaints were filed against the proposed rates and consolidated with the Commission's investigation. Commission Prosecutory Staff ("Staff" or "Trial Staff") filed its Notice of Appearance and Intent to Participate on November 5, 1985. Petitions to intervene were received on behalf of the Governor's Energy Council, Occidental Chemical Corporation, and Scott Paper Company. A prehearing conference attended by all active parties was held before the ALJ on December 3, 1985.

Four public-input sessions were held in the Company's service territory. In addition, a total of thirty-three days of evidentiary hearings were held in Philadelphia and Harrisburg, producing 5,200 pages of transcript and 217 exhibits.

An extensive discovery period was conducted in this proceeding. In total, approximately 1,380 data requests and interrogatories were propounded to PECO. Over 100 written statements comprising direct, rebuttal, surrebuttal testimony and exhibits prepared by thirty-eight witnesses were submitted by PECO during the course of this proceeding. Opposing parties submitted 76 written statements and exhibits presented by 41 witnesses. The record was officially closed on March 17, 1986.

Briefs and Reply Briefs were submitted by PECO Trial Staff, David M. Barasch, Consumer Advocate ("OCA"), City of Philadelphia, Philadelphia Area Industrial Energy Users Group ("PAIEUG"), Governor's Energy Council ("GEC"), Utility Users Committee and University of Pennsylvania ("UUC/UP"), Pennsylvania Business Utility Users Group ("PBUUG"), Consumer Education and Protective Association ("CEPA"), United States General Service Administration ("GSA"), National Railroad Passenger Corporation ("AMTRAK"), Southeastern Pennsylvania Transportation Authority ("SEPTA"), and United States Steel Corporation ("U.S. Steel").

On May 13, 1986, the ALJ's Recommended Decision was issued. The ALJ concluded that PECO is entitled to an opportunity to earn income available for return of \$695,663,000, applicable to its electric operations. Accordingly, ALJ Matuschak recommended that PECO be authorized to establish rates designed to produce \$2,859,968,000 in annual electric operating revenues, thereby resulting in an increase in annual operating revenues of \$357,975,000.^{1/} It was further recommended that the increase be phased-in over a three-year period, with approximately one-third thereof to be recovered in each of the three years, with deferred amounts to be recovered in the fourth, fifth and sixth years. The ALJ's recommended increase amounted to 14.3% over present rates, with the annual phase-in approximately 4.8% in each of the three years.

Exceptions to Administrative Law Judge Matuschak's Recommended Decision were filed by the Company, Staff, OCA, U.S. Steel, Action Alliance, Amtrak, GEC, PAIEUG, City. Reply Exceptions were filed by the Company, OCA, Staff, UUC/UP, GEC, USS, PFMA, SEPTA, GSA, City, PAIEUG.

After reviewing the testimony, exhibits, briefs and exceptions filed in this proceeding, we find that the Company is entitled to an annual increase in base rates of approximately \$350,797,000,^{2/} which will be phased in over a three year period.

^{1/} Later revised by the ALJ to \$301,648,000, to reflect a correction. Later revised by Trial Staff in its Exceptions \$270,660,000.

^{2/} The amount of the increase has been reduced by \$211,214,000 to reflect the projected full cost savings resulting from the operation of Limerick Unit I.

II. RATE BASE

PECO claims \$6,943,888,000 as its measure of value or rate base in this case based upon the original cost of its investment in utility plant, less depreciation, at the end of the future test year. Various adjustments, either in the form of additions such as cash working capital and materials and supplies, or in the form of deductions such as deferred taxes, have been incorporated in the Company's calculations to arrive at the final claim.

Numerous issues have been raised concerning the various elements of the Company's claim and they will be considered separately below.

The ALJ has recommended that the Commission approve original cost as the appropriate basis for determining the fair value of PECO's rate base here and we agree (R.D. page 18).

A. Salem 1 - Imprudence Findings

The Commission has made an adjustment to disallow a portion of the cost associated with the construction of Salem Nuclear Generating Station No. 1 in every PECO rate case since R.I.D. 438 wherein the Commission made its initial finding of imprudence on the part of the Company.

PECO has failed to make an appropriate rate base reduction in this proceeding to reflect the Commission's original findings.

ALJ Matuschak recommends that PECO's claimed rate base be reduced by \$4,380,000 on this account as is proposed by both Trial Staff and OCA. (R.D. pp. 18-19).

No exceptions have been filed by the Company in opposition to this adjustment. Accordingly, we adopt the reasoning and recommendation of the ALJ on this matter.

B. Limerick Common Plant

A key issue in this proceeding concerns the appropriate percentage of Limerick common plant to be included in the Company's rate base.

PECO claims that 100% of the Limerick common plant is used and useful in providing service now that Limerick 1 is in commercial operation, and should therefore be included in rate base. The Company seeks to bolster its claim with the following arguments:

1. The use of common plant at Limerick was a prudent and reasonable decision which will produce substantial cost savings to PECO ratepayers;
2. The construction and completion of the common plant was required both for the operation of Limerick 1 and for the efficient and cost effective completion of the plant; and
3. The inclusion of 100% of common plant in rate base will reduce the total cost of Limerick station.

(PECO St. 1, pp. 26-27)

Most of the other parties to this proceeding, including Trial Staff and the OCA, contend that only 50% of the Limerick common plant should be allowed in rate base. Their position is based primarily upon past Commission practice which, for approximately the last ten years, has been to reject all claims for inclusion of 100% of common plant when only one unit of multiple-unit generating stations is in service.

The ALJ agrees and recommends that 50% or \$639,512,000 of PECO's claim for Limerick common plant be deducted from its rate base claim.

In its Exceptions, the Company vehemently objects to the ALJ's treatment of this issue. However, PECO offers no new reasons why the Commission should reverse its policy here except to state that "It is well established that a previously articulated Commission policy cannot serve as the sole basis for determination of a particular issue" (PECO Exceptions, p. 60).

The Company has either failed to see or has chosen to ignore the additional reasoning offered by the ALJ as a basis for his recommendation. The ALJ's decision was based, to a large extent, on Commission policy but he carefully considered that policy as it applies to the facts in this case. His decision was also based, in part, upon a recognition of the benefits and risks to be shared by different generations of ratepayers. The ALJ states that:

By dividing the common plant between two units, the Commission effectively divides the risks, costs, and benefits. Such division is both fair and appropriate and should be applied in this case.

(R.D., p. 23)

ALJ Matuschak also observes that the Commission has, on occasion, applied different ratemaking treatments to the separate units of multi-unit generating stations. This demonstrates the wisdom of dividing the common plant responsibility equally between the units so as to not disadvantage an individual unit or the customers whose rates support that unit (R.D., p. 24).

We agree with the reasoning and recommendation of the ALJ on this issue. We wish to note, parenthetically, that on issues such as this, which present no unique features to distinguish it from cited precedent, the Commission sees no problem with relying primarily on policy for its determination.

We do find, however, that the amount of the ALJ's recommended disallowance is in error. In this regard, we grant the Company's exception and determine that the adjustment should be based upon its final accounting exhibit (PECO Exceptions, p. 60).

Accordingly we will allow only 50% of the Company's final claim for Limerick common plant and will reduce claimed rate base by the amount of \$631,859,000.

C. Land Held for Future Use

PECO has included a balance of \$8,651,000 in its claimed rate base for land held for future use.

The OCA contends that all land which is not used and useful in providing utility service must be excluded from the Company's rate base as provided in Section 1315 of the Public Utility Code, 66 Pa. C.S. §1315.

ALJ Matuschak recommends that most of the Company claim be allowed on the basis that the Commission expressly rejected the OCA's position in PECO's last two rate proceedings at Docket No.s R-822291 and R-842590, and has repeatedly rejected it in other recent rate cases (R.D., p. 26). However, the ALJ does make one adjustment to the Company's claim. He finds that \$2,515,000 of the land held for future use is attributable to Limerick common plant and, consistent with his recommendation on that issue, 50% of that total, or \$1,258,000 should be deducted from rate base.

We agree with the ALJ's recommendation that the OCA's position regarding the applicability of Section 1315 to the issue of land held for future use should, once again, be rejected. We note that the OCA offers no new or persuasive reasoning in its Exceptions, the purpose of which appears to be the preservation of its position on this issue.

We do not, however, adopt the ALJ's recommended adjustment of \$1,258,000 for land associated with Limerick common plant. We agree with PECO's position that, since its claim here is for land, not plant or CWIP, the rules for land held for future use apply (PECO Exceptions, p. 67). There is really nothing to distinguish the claim in this instance from other land which is being held for a future substation or generating facility.

D. Normalized Outage Adjustment

Trial Staff contends that the common equity return associated with 3.21% of the Company's installed generating plant should be disallowed on the basis that its forced outage rate exceeds the average for the PJM Interexchange, of which PECO is a member, by that percentage.

ALJ Matuschak recommends rejection of Trial Staff's proposal finding that:

Staff has presented no evidence to support the contention that PECO's outage rate is excessive. Showing that PECO's forced outage rate exceeds that of a comparison group of other PJM utilities -- without more -- does not demonstrate that PECO's outage rate is unreasonable or the result of imprudence.

(R.D., p. 28)

In its Exceptions (p. 39), Trial Staff asserts that the ALJ failed to grasp the basis for its adjustment. According to Trial Staff, the issue here is one of operating efficiency and an appropriate performance standard to apply to the Company.

We find that ALJ Matuschak has not failed to grasp the basis for Trial Staff's adjustment. Rather, the ALJ has correctly determined that something more is needed, other than Trial Staff's bold assertion that the PJM average is the correct standard by which to gauge PECO's performance.

Trial Staff seems to suggest that it would not be necessary for the Commission to find PECO's forced outage rate excessive or the results of imprudence in order to adopt its proposed adjustment. We cannot agree.

Accordingly we adopt the recommendation of the ALJ on this issue.

E. Materials and Supplies

Several issues were developed on the record in this proceeding relating to elements of PECO's claim for materials and supplies.

1. Coal Inventory

Two disputes emerged regarding the Company's claimed coal stocks. The first pertains to the level of the coal inventory itself. The other issue relates to the value, or price per ton, which PECO has assigned to its inventory.

Trial Staff contends that the level of the coal inventory should be reduced from the claimed 60-day supply to a 50-day supply. The basis for Trial Staff's position is

that, with Limerick 1 in service, Philadelphia area coal-fired generation will account for a relatively small percentage of PECO's total generating capacity. They also assert that a lower inventory level is in line with other Pennsylvania electric utility companies.

ALJ Matuschak recommends rejection of the Trial Staff's position, finding that the Company's claim reflects a recognition of the reduced importance of Philadelphia area coal resulting from lower burn rates at the Company's coal-fired stations (R.D., p. 32). He also notes that the methodology employed by PECO, to determine an appropriate inventory level, is conservative when compared to the historic method used by another utility company which Trial Staff offers as an example in support of its position. The ALJ agrees with PECO's contention that:

If it had used the historic method for establishing its burn rate and employed the 50 day inventory recommended by [Trial Staff] witness Prowell, the Company's inventory claim in this case would increase to 237,000 tons or 33,000 tons more than PECO's actual claim.

(R.D., p. 33)

In its Exceptions, Trial Staff reiterates the arguments already considered by the ALJ and fails to persuade us that its position should prevail on this issue. In particular we note that Trial Staff fails to address ALJ Matuschak's finding regarding the conservative nature of the method which the Company employed in developing its claim.

We too reject Trial Staff's proposed adjustment and adopt the recommendation of the ALJ on this issue.

The second issue relating to PECO's coal inventory concerns the OCA's allegation that the Company has priced-out its supply at an excessive rate.

The Company has assigned a cost of \$34.47 per ton to coal used at its Keystone Station (PECO Ex. TPH-2A). The OCA contends that PECO's price is overstated in that it has not been revised to reflect current information. The Company never paid more than \$32 per ton for coal at Keystone in any month during 1985, and, in fact, the price was below \$30 near the end of that year. In view of this, the OCA proposes that coal stocks for the Keystone Station be priced out at \$32 which would reduce PECO's coal inventory claim by \$300,000 (OCA St. 4, pp. 17-18).

ALJ Matuschak finds the OCA's proposed adjustment to be proper, noting that the Company offered no rebuttal.

The Company does not except to the ALJ's recommendation which we agree is appropriate. Accordingly we will reduce the Company's claimed rate base by \$300,000.

2. Oil Inventory

Included in PECO's rate base claim is the amount of \$19,264,000 which is the projected cost of its oil inventory based upon first quarter 1985 price data.

The OCA contends that the Company's claim should be reduced by at least \$1,111,000 to reflect a more realistic price level in view of recent developments in the oil market.

PECO did not revise its projection during this proceeding, and the ALJ has determined that an even greater reduction than that proposed by the OCA is appropriate (R.D., p. 36).

We agree with the ALJ and note that PECO has not excepted to the recommendation here. Accordingly, we find that rate base should be reduced by \$1,784,000.

3. Limerick Materials and Supplies

The Company has included in its rate base claim, the cost of materials and supplies for the Limerick Nuclear Generating Station purchased on its behalf by Bechtel Construction Inc. ("Bechtel")

Trial Staff has proposed a reduction of \$2,431,000, or 28% of the amount claimed, on the basis that the amounts billed to PECO by Bechtel include a 28% profit markup, and further, that the materials and supplies in question represent one-time or non-recurring charges.

ALJ Matuschak recommends rejection of the Trial Staff proposal, finding that it is based upon a misunderstanding of the arrangement between PECO and Bechtel. He concludes that the 28% surcharge applies only to the labor costs associated with the transaction and not to the direct cost of materials. He also finds that the surcharge is not a profit markup, as Staff asserts, but rather that it represents costs associated with payroll taxes and fringe benefits, etc. Finally the ALJ determines that Trial Staff's concern that these procurement activities are non-recurring is unfounded. He notes that the purchase of operational spare parts and materials for Limerick is an activity which should continue over the life of that plant (R.D., pp. 37-38).

Trial Staff offers no novel or persuasive arguments on this issue in its Exceptions. We find that PECO has met the burden of proving the reasonableness of its claim here and we adopt as our own the reasoning and recommendation of the ALJ on the issue of Limerick Materials and Supplies.

F. Bechtel Construction Errors

Trial Staff has recommended an adjustment to PECO's rate base claim to disallow \$13,278,000 as the cost associated with various construction errors committed by Bechtel at the Limerick Nuclear Generating Station. Trial Staff's proposed adjustment consists of \$8,890,000 in direct costs and \$4,388,000 in AFUDC (Trial Staff St. MJG-1, p. 5).

ALJ Matuschak recommends adoption of Trial Staff's position, finding that to allow the cost of Bechtel's errors in rate base would be inappropriate. The ALJ states:

To do so, would result in double counting for the work allowing a return on both the correct and incorrect construction, resulting in ratepayers providing a return on portions of the plant twice.

(R.D., p. 40)

In its Exceptions (pp. 62-63), PECO asserts that the ALJ erred by adopting the Trial Staff position on this issue. According to the Company, approximately \$400,000 of the recommended disallowance represents backcharges against various contractors and vendors and are not claims against Bechtel. As to the remaining \$12.9 million, the Company contends that these costs represent only potential claims against Bechtel, and that a thorough review of the charges indicates that one-third are associated with uncontrollable regulatory changes. Finally, PECO argues that, "potential claims against contractors are not deductible from rate base under Commission policy," and cites our determination in Pa. P.U.C. v. Pennsylvania Power & Light Co., Docket No. R-822169 (August 22, 1983) for support.

We agree with the Company's position insofar as we find that the adjustment proposed by Trial Staff and adopted by the ALJ would be premature at this time. Potential

claims against contractors are not properly excluded from rate base. However, we do not rule out a future adjustment on this issue if PECO's claim is realized or if we determine that the Company has not vigorously pursued its claim.

G. Audit Adjustments

In 1985 the Commission's Bureau of Audits completed an audit of PECO's plant in service for the period 1979-1983 which resulted in fourteen proposed adjustments to the Company's continuing property records (CPR). The Company has agreed to eleven of the proposed adjustments; however, the remaining three entries have become issues in this proceeding.

1. CPR Audit Entry No. 4

In 1973, the installation of the Company's current computer system, known as the System Automatic Monitoring and Control (SAMAC) Project was completed. According to PECO, the SAMAC facility was a "state of the art" system at the time of its installation (PECO St. 18C, p. 25).

Trial Staff contends that \$801,000 of PECO's investment in SAMAC represents additional costs beyond the original contract amount and should be disallowed. According to Trial Staff, the Company should have taken formal action to recover this amount, and, by not doing so, it failed to adequately protect the interests of its customers (Trial Staff St. JPP-1, p. 11, Exceptions p. 34).

The Company asserts that a portion of the amount in dispute resulted from its own request for additional service. As for the balance, PECO argues that it did not pursue a legal remedy because it could not justify the expense involved (PECO St. 18C, p. 24).

ALJ Matuschak agrees with PECO and recommends rejection of Trial Staff's proposed adjustment. He concludes that "Some management discretion must be allowed in such circumstances", and he finds that the Company has provided a reasonable explanation of the additional charges associated with the SAMAC project (R.D., p. 42). The ALJ also criticizes the Trial Staff's adjustment as being outdated. The SAMAC system is approximately thirteen years old and the ALJ states that its cost "apparently had been approved and reapproved in prior Commission audits" (R.D., p. 42).

We agree with the ALJ's recommendation here and find that the Company has met its burden of proof regarding the additional SAMAC expenditures.

2. CPR Audit Entry No. 13

This issue relates to the \$121,381 capitalized cost of designing the above ground portion of a proposed 13 kv distribution line.

Trial Staff proposes that this expenditure be deducted from PECO's claimed rate base since the line was subsequently installed all underground. ALJ Matuschak accepts the Company's explanation regarding the reasonableness of this charge, and he recommends rejection of Trial Staff's proposal.

We find the ALJ's recommendation to be sound, and, as no exceptions have been filed by Trial Staff on this issue, we adopt his reasoning and conclusion here.

3. CPR Audit Entry No. 9

This issue relates to \$15,596,177 in claimed capital costs at PECO's nuclear generating stations, which Trial Staff contends should be reclassified to various

income, expense, and deferred accounts. The Company has agreed with the reclassification of \$261,747 out of this total, but does not agree with the proposed reclassification of the balance of \$15,334,430.

The Company characterizes this issue as essentially an accounting dispute and asserts that, even if Trial Staff's proposal is approved, the Company should be permitted to recover these costs through an expense amortization (PECO Initial Brief, p. 7-21).

The ALJ, after reviewing Trial Staff's arguments concerning the applicability of certain provisions of the Uniform System of Accounts, concludes that the proposed reclassifications are appropriate. The ALJ also rejects PECO's contention that, in the alternative these costs should be recovered through amortization, on the basis that such action would constitute retroactive ratemaking (R.D. pp. 44-45).

We cannot agree with the recommendation of the ALJ on this issue. We agree with PECO that the Uniform System of Accounts is open to differing interpretations in this instance. Most importantly, however, we agree with the Company that fairness dictates that recovery of these costs should be permitted in one form or another; that is, either through capitalization or through amortization. We find the Company's arguments that the Commission has allowed these costs in rate base since 1980, and that no party disputes the prudence and reasonableness of the charges themselves to be very persuasive (PECO Exceptions, p. 64). Accordingly, we determine that the simplest and fairest resolution to this issue is to make no adjustment to the Company's claimed rate base for CPR Audit Entry No. 9, and, accordingly, we adopt the Company's exception in this regard.

H. Mark II

One of the more controversial and complex issues in this proceeding relates to the OCA's proposed rate base adjustment of \$194.1 million for alleged imprudence on the part of General Electric ("GE") in the design of the Limerick 1 containment. This particular GE containment design is known as Mark II, and due to certain problems, the owners of nuclear plants of that design, including PECO, have had to incur substantial costs to correct those problems. The OCA contends that the problems relating to Mark II are the result of GE's imprudent failure to adequately analyze its design and determine the forces that would occur in the Mark II containment. The OCA maintains that the costs incurred by PECO due to the Mark II design flaws should not be passed on to ratepayers. The OCA's position and proposed adjustment has been supported by the GEC in this proceeding.

ALJ Matuschak offers a thorough and accurate review of this issue, both in terms of previous regulatory activities relating to it, and, in terms of the up-to-date testimony and evidence produced on the record here. We adopt as our own the ALJ's analysis and find that no useful purpose would be served in attempting to paraphrase or summarize his effort.

The identical issue of alleged GE imprudence in design of the Mark II containment was decided by the Commission in Pa. P.U.C. v. Pennsylvania Power & Light Co. (PP&L), R-822169, 57 Pa. P.U.C. 559 (1983). In its Final Order entered August 22, 1983, the Commission ruled that the OCA failed to establish imprudence on the part of GE with respect to its Mark II containment, and rejected the OCA's proposed adjustment to the costs of the Susquehanna 1 nuclear unit.

In this proceeding the OCA has made substantively identical allegations as in the PP&L case.

ALJ Matuschak recommends that the position and proposed adjustment of the OCA be rejected in this proceeding, and we agree. The ALJ recommendation is based, in part, upon our holding in the PP&L case. However, we also find, contrary to the OCA's exceptions (pp. 25-36), that the ALJ carefully considered the alleged "substantial new information presented in this proceeding" in reaching his determination on this issue. We quote with approval, the following analysis of the evidence by the alj in tis proceeding, regarding thi issue:

OCA witness Dr. Hanauer contended that GE and/or PECO should have recognized the significance of the hydrodynamic loads connected with Mark II affecting Limerick containment. However, Dr. Hanauer admits that, despite his position as Chairmain of the Advisory Committee on Reactor Standards (ARCS) of AEC, when that body reviewed the Mark II containment for the first time in approving the construction of the Shoreham plant, and despite having available to the ACRS and/or the AEC Staff virtually all of the results of the tests presented in this record and referenced for both Mark I and Mark II licensing, he did not recognize the significance of these loads. (Tr. 2771).

PECO submitted the bulk of its evidence on this issue through the following witnesses:

Dr. Salomon Levy, founder and President of S. Levy Inc., an engineering/ management consulting firm which, among many other activities assists industry and government in various areas of nuclear power regulation and operation. For 24 years prior to 1977 he was employed by the General Electric Company where he had a direct management role in th adequacy and the development of the Mark II containment design.

Dr. Roger J. Mattson, Vice-President of Nuclear Safety and Operation Services for International Energy Associates, limited, with 17 years of experience in the development and implementation of nuclear power safety development. He served with the AEC and NRC from 1967 through early 1984 as a senior NRC Staff Licensing manager.

H. William Vollmer, Supervising Engineer of Structural Branch of Engineering Research Department of PECO.

The testimony of all three experts of PECO and of Dr. Hanauer, support the Commission's determination. This concept was explained by Drs. Mattson and Levy.

One conclusion that seems inescapable is that the problem of characterizing the new hydrodynamic loads was extremely complex. While it is true, as Dr. Hanauer states, that no new laws of nature were discovered that showed the need for new design loads, it is abundantly clear that the ways in which the laws of nature would be manifest in the hydrodynamic behavior of pressure suppression containment was unsuspected and unknown until they were illuminated by operating experience and advancing knowledge. The Mark II program can be seen as a classic example of an improved understanding first clarifying the questions before supplying the answers. It confirms for me that these phenomena and their potential effects were not known in the 1950s and 1960s so as to justify Dr. Hanauer's view that neglecting to include them in the design basis was a technical error.
(PECO St. 9A, p. 14).

* * *

The characterization and significance of the hydrodynamic loads referenced by Dr. Hanauer were not known by the utilities, vendors or the AEC until after Limerick licensing and construction was initiated. Immediately following recognition of the significance of these

loads, an intensive effort was begun to characterize and design for them. However, because of the complexity of the matter and substantial lack of information respecting the nature or effects of these loads, this program required a full seven years to be successfully completed. Indeed, the length and complexity of this program, its many iterations of testing and evaluation, clearly establish the error of Dr. Hanauer's position. Certainly, if the loads had been so obvious that their non-recognition prior to the 1974-1975 time period could constitute "technical error", then it would not have taken seven years for the combined resources of the NRC, the BWR utilities, GE and many other domestic and foreign contractors to define their nature and develop design solutions. (PECO St. 34, p. 5).

Dr. Hanauer has expressly recognized the complexity of the Mark II resolution effort and the lengthy process of redesign and rework necessitated by repeated changes in the NRC load definition requirements. (OCA St. 2, p. 5):

The utilities owning Mark II plants undertook a long and expensive program of theoretical and experimental work to develop acceptable load definitions. These were finally accepted by the NRC in 1981 and 1982, although some load specifications were provisionally approved as early as 1978. Each Mark II owner had to apply the revised load definitions to reanalyze its plant and make necessary modifications.

The NRC/AEC played a role in the development of Mark II, first without accounting for the hydrodynamic loads, and later by a very stringent accounting of these loads. As PECO witness, Dr. Mattson stated:

Simply said, the government approved the development work and, along with others, shares in any imperfections.

The AEC and NRC had been approving the Mark I and Mark II designs, and it was not until 1974 or 1975 that the NRC concluded that further testing of the hydrodynamic forces should be made. It is apparent from the record that a state-of-the art problems were involved, which problems could not be resolved without computer application.

(R.D. pp. 82-85).

The ALJ stated:

We must conclude and find that by virtue of the overwhelming evidence in this record, both as to quantity and quality, there was no imprudency either by GE or PECO in connection with the design, redesign and rework relating to the Mark II containment as affecting Limerick 1.

(R.D., p. 85).

We agree with and adopt as our own the reasoning and conclusions of the ALJ.

ALJ Matuschak emphasizes that his recommendation regarding the Mark II design issue is based solely upon the record in this proceeding. He notes that legal action alleging errors in the design of Mark II containment have been taken by certain utility companies in other jurisdictions. In this regard the ALJ recommends that:

Both PECO and the Commission monitor such civil actions, and upon their resolution, determine whether further action should be taken either by the Commission or PECO as the result thereof.

(R.D. p. 85).

We consider this advice to be sound, and it is, therefore, adopted.

I. 1976 and 1978 Decisions to Delay Construction of Limerick 1

PECO received its permit in 1974 to begin construction of the Limerick Nuclear Generating Station, which consists of two 1055 MW turbine generator units, each served by its own boiling water reactor (BWR) system (PECO St. 1). The Company made a decision in 1976 to delay completion of the first unit, or Limerick 1, from April 1981 to April 1983. In 1978 PECO decided to further delay construction of Limerick 1 from 1983 to 1985.

At the conclusion of an investigation at Docket No. I-80100341, we determined that PECO's delay decisions in 1976 and 1978 were imprudent and unreasonable, but did not find it appropriate to attempt to quantify the ratemaking impact of those decision at that time. In our Final Order relative to that investigation, we stated:

. . . we are of the opinion that PECO management did not exercise judgment sufficient to meet our reasonable man standard in delaying construction at Limerick in 1976 and 1978. Having so found, we are requested by staff and OCA to quantify the cost of the delay to ratepayers. We are of the opinion that to do so at this time is inappropriate. We have not been presented, in this proceeding, with a claim for recovery of any of the costs associated with the construction of the plants. Consequently, we can make no adjustment to any claim. . .

(56 Pa. P.U.C. at 61).

In this proceeding, in a Bench Ruling made December 20, 1985, upon a motion by Trial Staff, ALJ Matuschak held . . . "that Staff's motion that we determine that the Commission's prior findings at I-80100341 that Philadelphia Electric Company's decisions in 1976 and 1978 to delay Limerick construction were unreasonable are conclusive upon the parties in this proceeding is hereby granted." (Tr. 1384).

On January 21, 1986, we affirmed the ALJ's Bench Ruling on interlocutory review. As a consequence, the issue in this proceeding is not the prudence or reasonableness of the Company's actions, but rather to determine if the decisions, made in 1976 and 1978 to delay completion of Limerick 1, resulted in an unreasonable escalation in the cost of that unit. If we find that unreasonable costs were incurred as a result of the construction delays, we then have the task of quantifying the impact of those imprudent management actions upon the Company's customers.

The Company's position is that there are no additional costs for Limerick 1 which are attributable to the 1978 and 1978 "deferral announcements" (PECO Initial Brief, p. 4-178).

The Trial Staff and the OCA insist that there are significant and excessive costs which relate directly to PECO's decisions to delay Limerick 1 construction, and they have attempted to quantify, through differing techniques, an appropriate adjustment to the Company's claim. Other parties have adopted one or the other, and, in some instances both, of the positions advanced by Trial Staff or the OCA (R.D., p. 53).

We do not find it necessary to provide a complete description of the various parties positions on this issue. We find that ALJ Matuschak has provided a comprehensive and accurate review in this area and, to that extent we adopt his account as our own (R.D., pp. 45-71). We will, of course, touch on those elements which we consider key to our discussion and final determination.

PECO issued its initial Capital Authorization for Limerick in December 1970. At that time the estimated direct cost for Limerick 1 and common plant was approximately \$344 million (PECO Initial Brief, pp. 3-20 and 3-22). The

final cost of Limerick 1 and common plant as claimed in this proceeding is \$3.8 billion.

The Company maintains that the escalation in the cost of Limerick 1 was due primarily to external forces, such as NRC requirements, beyond the Company's control, and had virtually nothing to do with the decisions to delay construction. In fact, PECO, in an effort to minimize the importance of those two events, insists upon characterizing the action taken in 1976 and 1978 as "deferral announcements" rather than actual construction delays. According to PECO, it tried hard but failed to maintain a construction pace and funding level which would permit completion of Limerick 1 in 1983 even after the deferral announcements were made.

The main thrust of PECO's position is that forces other than the decisions of 1976 and 1978, conspired to delay completion of Limerick 1. Chief among these were changes and new requirements mandated by the NRC, but other elements, such as "estimate refinement" and "unanticipated escalation" also contributed to the problem (PECO Initial Brief pp. 3-27 and 3-28).

In summary, the Company contends that its deferral announcements were not really decisions to delay construction, and, in any event, Limerick 1 could not have been completed before February 1986.

ALJ Matuschak rejects PECO's arguments as unpersuasive and not supported by the evidence of record. He is not convinced that PECO's deferral announcements had no impact on Limerick 1 construction. The ALJ states:

We are not convinced that such "deferral announcements" were mere harmless press releases for public and investor consumption, with no intention to actually delay construction of Limerick 1; PECO's

subsequent reduced financial commitments to Limerick 1 construction show otherwise.

(R.D., p. 50)

The ALJ observes that PECO lowered its five-year construction program in 1976 by \$150 million per year, on average, and that it reduced its direct expenditures from budgeted amounts by approximately \$50 million for the period 1978-1980.

ALJ Matuschak also rejects PECO's arguments that the delay decisions did not cause any escalation in the cost of Limerick 1 since the real reasons for the increased cost were factors, such as NRC requirements, which were beyond the Company's control. The ALJ cites the testimony of a PECO Senior Vice President, in this proceeding and in earlier proceedings and presentations before the Commission, which serves to illustrate the Company's concern that delays, in and of themselves, can affect the cost and economics of Limerick (R.D., pp. 54-55). As for the impact of revisions and approvals mandated by the NRC, the ALJ states:

It may be true that regulatory approvals as granted would have prevented earlier completion of Limerick 1 construction, if one takes the dates of such approvals as a given. But there is no reason to conclude that regulatory approvals would not have been implemented in timely fashion had construction been completed without delay.

(R.D., p. 59)

The ALJ concludes that the record does not support the Company's position on this issue and he finds that the decisions of 1976 and 1978 to delay completion of Limerick 1, in fact, significantly increased the cost of that plant.

We agree completely with the reasoning and conclusion of ALJ Matuschak on this issue. The Company would have us believe that its deferral announcements of 1976 and 1978 had virtually nothing to do with the approximate four year delay in the completion of Limerick 1. Such an argument is preposterous on its face and would require a great deal of proof to sustain. The Company has failed to supply that proof. PECO's contention that other factors, in particular NRC mandated revisions and approvals, served to prolong the Limerick construction schedule, has some merit. However, the Company's attempt to pin the entire balance for the delay on such factors, in view of the public announcements to delay completion of the plant, cannot be accepted. On this point, we mention with approval the OCA's comparison of the Limerick 1 construction schedule with the schedule followed by Pennsylvania Power & Light Company in building the Susquehanna 1 nuclear unit. Regarding PECO's claim that it could not have completed Limerick 1 at an earlier date the OCA states:

Indeed, PECO's neighbor utility, PP&L, did just that at Susquehanna 1. In fact, as the OCA noted in its Main Brief, Limerick 1 construction was actually ahead of Susquehanna 1 during the early years of its schedule. OCA M.B. at III-52. It was only after PECO began stretching out the Limerick schedule that Susquehanna construction caught up with Limerick and finished earlier and at a substantially lower cost.

As the evidence in this case shows, Susquehanna is very similar to Limerick. Both plants are GE BWR Mark II designs, of approximately 1055 MW, with cooling towers, built by Bechtel, located in Pennsylvania, subject to the same PUC regulation, in the same NRC Region, in the same craft labor and wage market, and subject to the same NRC regulations. TR. 1146-1150. Susquehanna

entered commercial operation on June 8, 1983, more than 5 months before the OCA's suggested commercial operation date for Limerick 1, of November 20, 1983 and more than 32 months before Limerick 1's actual commercial operation date of February, 1986.

(OCA Reply Exceptions, p. 7)

In summary, we find that PECO has failed to demonstrate that its decisions of 1976 and 1978 to delay completion of Limerick 1 did not escalate the cost of that unit. We conclude that those decisions did, in fact, raise the final cost of Limerick 1 to an unreasonable level, and our task now is to quantify the impact of those decisions.

We noted earlier that both Trial Staff and the OCA have attempted, through different methods, to calculate the additional costs of Limerick 1 caused by the imprudent delay decisions of 1976 and 1978.

Adoption of Trial Staff's position would result in a rate base disallowance of \$1.12 billion. ALJ Matuschak describes Trial Staff's proposal as follows:

Staff's delay and calculation is based on a comparison of actual to-date project expenditures as of October 31, 1984, when fuel load commenced, to its own computation of project costs if the unit had been both completed and in service in April 1981.

. . . Trial Staff took the cost of the unit as actually built -- including all actual quantities of material 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 1984 plant, which incorporates all NRC-mandated design changes, at a 1981 cost level.

(R.D., pp. 59-60)

According to the ALJ, the Trial Staff's analysis is seriously flawed in that it assumes a hypothetical in-service date of April 1981 for Limerick 1, and "fails to establish any causal relationship between the imprudent deferral decisions and the costs which it seeks this Commission to disallow" (R.D., pp. 62-63).

The ALJ recommends that Trial Staff's proposal be rejected and we agree. Something more than a simple mathematical calculation is needed here. Resolution of this issue requires an analysis of the Limerick 1 construction schedule to determine, as accurately as possible, the direct cost impact of the 1976 and 1978 delay decisions. We cannot assume, as Trial Staff's method does, that Limerick 1 would have or could have been completed in April 1981, if the Company had not made imprudent construction deferrals.

The OCA determined the cost of the imprudent construction delays to be \$652.4 million for Limerick 1 and 50% of common plant.^{3/} The ALJ does not recommend adoption of the full amount of the OCA's proposed adjustment, but he does endorse the technique by which it was developed and which he describes as follows:

^{3/} The ALJ incorrectly states that the OCA's proposed adjustment is \$610.4 (R.D., p. 70). However, the OCA points out that this figure includes the effects of its Mark II adjustment, which the ALJ has rejected. The correct figure, excluding the Mark II effects, is \$652.4 million (OCA Exceptions, p. 23).

The delay analysis presented by the OCA witness is based upon a specific critical path schedule analysis of Limerick 1. In developing this reconstruction, certain facts or conclusions were accepted by the OCA. First, the analysis started with the Commission's finding in the Limerick Investigation that the 1974 delay in construction of the plant was reasonable. (OCA St. 1, at 11). Second, the analysis accepted that certain engineering or design constraints to construction completion, such as the resolution of the Mark II redesign, had to be recognized. Finally, the impact of NRC regulatory requirements which could delay fuel load and commercial operation was reviewed.

* * *

A critical path analysis, as presented by Mr. O'Brien, focuses on those activities which limit or determine the progress toward completion of a job. These activities are important to or affect the construction schedule and, therefore, the duration of a project.

(R.D., pp. 66-68)

The OCA analysis indicates that, but for the 1976 and 1978 delays in construction, Limerick 1 could have loaded fuel in July 1982, and entered commercial service by November 1983. This would have been 27 months earlier than the actual in-service date.

According to ALJ Matuschak, the calculation of OCA's proposed disallowance was achieved in the following manner:

The quantification of the costs of delay has two components. The first component is identification of actual work as expenditures that would not have occurred if commercial operation had occurred 27 months earlier. These costs are the result of what is commonly

called Indirect Costs. Indirect Costs are the costs required to support construction as it proceeds over time. For Limerick 1, these costs are incurred by both PECO and Bechtel.

* * *

The second component of the costs of the 27-month delay is the increased escalation and AFUDC which incurred due to the longer period over which construction continued.

(R.D., p. 69)

The results of the OCA's calculation is a proposed disallowance of \$223.6 million in indirect costs for both PECO and Bechtel, and direct costs associated with cost escalation and AFUDC in the amount of \$428.8 million, for a total rate base adjustment of \$652.4 million.

ALJ Matuschak finds that the OCA has overstated the indirect costs which PECO could have avoided by \$55.5 million. He agrees with the Company that these charges are associated with startup and operating activities and would have been incurred regardless of when the plant was completed. As a consequence, the ALJ reduces the OCA's proposed adjustment and would recommend that \$596.9 million be deducted from PECO's claimed rate base to account for the imprudent construction delays of 1976 and 1978.^{4/}

^{4/} The ALJ actually recommended a disallowance of \$554.9 million. However, as noted earlier, the OCA proposal on which the ALJ bases his recommendation includes the impact of the OCA's Mark II adjustment which the ALJ has rejected.

PECO offers three significant arguments in opposition to the OCA's quantification of the impact of the imprudent Limerick 1 delays as recommended for adoption by the ALJ.

First, the Company contends that OCA's calculation fails to factor in the additional revenue that would have been necessary to satisfy the financing requirements of the OCA's proposed construction schedule. PECO estimates the capitalized value of the additional revenue requirement to be \$200 million (PECO Exceptions, pp. 17-18).

We find the Company's reasoning too speculative on this point. We agree with the OCA's rebuttal arguments that:

PECO's analysis, however, improperly assumed that had Limerick 1's construction schedule been advanced, PECO would not have made any other changes to its operating or construction budgets or priorities.

* * *

Obviously, if PECO assumed that all additional earlier Limerick 1 financing was incremental to other concurrent actual financing, the Company's total financing costs would increase. There is no dispute that PECO was having some financial difficulties in the late 1970's, due primarily to its ambitious multi-plant construction projects and particularly to simultaneous construction of Limerick 1 and 2. PECO's hypothetical assumptions, however, are completely unrealistic. The OCA submits that PECO could have reordered its financing priorities had it desired to complete Limerick 1 on a timely schedule.

(OCA Reply Exceptions, pp. 33-34)

PECO also asserts that the OCA failed to include in its calculation the additional PURTA taxes associated with the base cost of capitalized overheads and taxes actually incurred during the years 1975 through 1983. According to the Company, correction of this "error" would reduce the recommended disallowance by \$38.9 million (PECO Exceptions, p. 20).

Our review of the evidence indicates that PECO is correct on this issue. It appears that the OCA has included only the incremental capitalized PURTA taxes resulting from the additional direct costs in its calculation, thereby reflecting only a portion of the PURTA taxes which would have been incurred. We will adjust our final disallowance accordingly.

PECO also contends that the OCA's quantification assumes that certain NRC safety design requirements could be postponed until after Limerick 1 was placed in service, but that it fails to incorporate the increased cost associated with implementing such design features in a plant which is in commercial operation. The Company, argues that:

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 scheduled 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....

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 Exceptions, pp. 18-19).

We find the Company's reasoning and analysis to be persuasive on this point. We agree that the OCA should have attempted to calculate the cost impact of post-commercial design changes at Limerick 1. In addition, we note that the OCA has not attempted to rebut the Company's position here in its Reply Exceptions. Accordingly, we find it appropriate to adjust the ALJ's recommended disallowance downward by \$189 million, which represents a capital cost effect of replacement power in the amount of \$89 million, and \$100 million for additional expenditures relating to design and equipment changes.

In summary, we agree with ALJ Matuschak that, although it is flawed, the OCA's quantification regarding the imprudent construction delays provides the best estimate of the cost impact of those delays. We assess the value of

the OCA's errors to be \$228 million in addition to the \$55.5 million correction recommended by the ALJ. We will therefore reduce the overall adjustment to be deducted from PECO's claimed rate base to \$368.9 million.

J. Excess Capacity

A number of parties to this proceeding contend that, with commercial operation of Limerick 1, PECO has more generating capacity than it requires, and they urge the Commission to make various adjustments to disallow such excess capacity. The OCA, with support from GEC, would have the Commission deny an equity return on at least 450 mw of generating capacity. UUC/UP recommends a rate base reduction in the approximate amount of \$3.5 billion. Finally, PAIEUG would disallow 962 mw of generation as excess capacity (R.D., p. 71).

The central premise for these Complainants' position on the issue of excess capacity is that certain fossil fuel units have been, or are about to be retired prematurely by the Company. They assert that if it were not for the placing in service of Limerick 1, these units, or some portion of them, could have been retained for a longer period. The identification and generating capacity of the units in question are, Southwark 1 and 2 at 338 mw, Richmond 9 at 166 mw, and leased combustion turbines (CTs) at 458 mw. The OCA's position and proposed adjustment is predicated upon the leased CTs.

The thrust of all of the Complainants' arguments is that PECO had to accelerate the retirement of all or part of these fossil fuel units in order to justify the introduction of Limerick 1 capacity into its system. PAIEUG and

UUC/UP would add back all 962 mw of capacity which these units represent, and OCA would add the 458 mw of CT generation, to PECO's system for the purpose of analyzing the Company's capacity requirements.

ALJ Matuschak recommends that we reject the position of the Complainants finding that:

PECO has provided independent system planning considerations that support the retirement of the units singled out by complainants. Richmond Unit 9 and Southwark Units 1 and 2 are old and inefficient to operate. The 458 CTs no longer serve any useful purpose. The Richmond 9 unit and the Southwark Units 1 and 2 have been retired primarily because they are old and inefficient steam units. (PECO St. 14, p. 23). PECO routinely has been projecting a 35-year nominal life for most of its fossil-fueled steam units. Richmond 9 was 35 years old when retired and the Southwark units were about 38 years old when retired.

(R.D., p. 75).

We agree with the ALJ's reasoning and conclusion regarding the Southwark and Richmond units. We find that, while the Company may have been able to prolong the life of these stations for a year or two, the actual age of those units indicates that their retirements were not imprudently accelerated by PECO.

We also agree with the ALJ's finding relative to the 458 mw of CT generation. However, in view of the extensive exceptions filed by the OCA on this issue, we consider it appropriate to expand upon the ALJ's reasoning.

In brief, the OCA argues that adoption of the ALJ's recommendation would permit PECO to retire 458 mw of

CT capacity approximately 10 years before it was originally scheduled to be retired in order to "make room" for Limerick 1. According to the OCA, the end result would be to allow PECO, or any utility, to avoid an excess capacity adjustment simply by accelerating the retirement of the cheapest capacity on its system at the customer's expense (OCA Exceptions, p. 3).

We find that the OCA has largely ignored the purpose which the CT capacity was intended to serve on PECO's system and, as a result, has misconstrued and overstated the value of that capacity. We note with approval the rebuttal of the Company in its Reply Exceptions (pp. 26-27) wherein it states:

Thus, the CTs in question were never intended to remain in service until a date certain. They were always intended to be a stop gap, interim solution to severe capacity shortages until new baseload capacity could be built. Limerick 1 is that baseload capacity. These facts have consistently been recognized and approved by the Commission.

* * *

The CTs in question were obtained at the direction of the Commission, were reviewed regularly as Limerick 1 was being constructed and finally were retired with the permission of this Commission. In light of this regulatory history, it is simply inaccurate to suggest that PECO is retiring the units in question solely to avoid an excess capacity adjustment.

The ALJ has concluded that, with Limerick on line, PECO has a reserve margin of 28% over peak requirements. He notes that this is 3% greater than the Company's planning objective of 25%, but since base load capacity is not added megawatt by megawatt a "reasonable increase in reserve capacity must be allowed before excess capacity comes into

play" (R.D. page 74). The ALJ finds that the record in this case fails to substantiate any PECO excess capacity.

We agree with and adopt ALJ Matuschak's recommendation on this issue. Accordingly, we will not make any of the adjustments proposed by the various Complainants here.

The OCA and UUC/UP have complained in their Exceptions that the Recommended Decision has ignored their Limerick life cycle analyses which purport to show that the unit will produce no positive benefit over its useful life (OCA Exceptions, p. 18, UUC/UP Exceptions, p. 9).

We find, however, that such analyses are of limited value in light of our determination that the record evidence will not support a finding of excess capacity. A nuclear plant life cycle analysis must be based, in part, upon assumptions and speculative projections which can be the subject of wide disagreement. We are inclined to agree with PECO that such studies are not directly relevant to our inquiry here, since we have already determined that the Limerick 1 capacity is needed (PECO Reply Exceptions, p. 31).

K. Cash Working Capital

The ALJ recommends that the Company's cash working capital requirement be increased by approximately \$5 million. However, the ALJ did not address various specific issues which were raised on the record relative to PECO's cash working capital claim.

1. Uncollectible Accounts

Trial Staff contends that uncollectible accounts do not create a need for additional funds, and, therefore, they should be eliminated from the revenue lag used to determine PECO's cash working capital requirement. In

addition, Trial Staff asserts that the attempt to reflect uncollectible accounts in the revenue lag has been rejected by the Commission in previous PECO rate proceedings (Trial Staff Exceptions, p. 24).

It is PECO's position that, in its last rate case at Docket No. R-842590, the Commission directed that uncollectible account expense be removed from the expense base to which the revenue lag is applied. The Company contends that it has made the appropriate adjustment in this case, but concedes that it has included uncollectible accounts in the development of the revenue lag study. According to PECO, this action is justified because such accounts do, in fact, create an additional need for funds. The Company's reasoning on this point is as follows:

[U]ncollectible accounts expense does create an additional need for funds for the Company. The Company books revenue at the time a bill is sent to the customer. The revenue lag adjustment compensates the Company for carrying the revenue on the books until payment from the customer is received. In the case of uncollectibles, the Company never receives payment from the customer. Instead, the Company charges off the uncollectible amount against expense Account 904 - Uncollectible Accounts. As I stated at transcript pages 184-185, it takes the Company approximately 231 days to declare an account uncollectible, only after which time the amount is charged to Account 904.

In the case of an uncollectible account, the Company provides service to a customer and is subjected to a 231 day period in which no revenue is collected. When the revenue is finally written off (after 231 days), the Company is entitled to a recovery of the cost to carry that

uncollectible revenue as well as a recovery of the uncollectible revenue itself.

(PECO St. 20A, p. 12).

We find PECO's arguments persuasive on this issue. If uncollectible accounts were to be eliminated from the revenue lag study the Company would be unable to recover the carrying costs attributable to those accounts.

We reject the Trial Staff's proposed adjustment.

2. Federal Taxes

The Company has performed a separate lead/lag study to determine the cash working capital required to cover its various tax liabilities including, of course, Federal Income taxes (PECO Main Brief, p. 7-43).

Both the Trial Staff and OCA propose that the lag days associated with Federal Income taxes should be based upon the statutory payment schedule and not the actual payment schedule which PECO uses for the purposes of its study. They argue, in essence, that the Company's practice of paying more in taxes each quarter than is required by law, is a poor business practice which operates to the detriment of PECO's customers who provide a return on capital (Exceptions, Trial Staff, pp. 25-27, OCA pp. 37-38).

PECO asserts that its practice regarding the payment of federal income taxes is prudent, and provides the following reasons for support:

Since it is impossible to foresee with total accuracy the actual tax liability which PECO will incur for the year at the time quarterly tax payments are due, the Company, in order to avoid tax penalties for underpayment, pays more

than the statutory 22.5% each quarter. The Company's payment schedule used in its tax lag study is three quarterly payments of 25% with a 15% last quarter payment. This reflects a prudent use of cash to avoid tax penalties.

(PECO St. 23A, p. 8).

We have endorsed the Company's payment schedule in previous rate proceedings, and we find that no compelling reasons have been advanced by either Trial Staff or the OCA which would persuade us to change our position in this case. We continue to consider the Company's practice to be prudent and in the best interest of its customers.

3. Taxes-Other Than Income

Trial Staff has proposed two adjustments to the calculation of PECO's overall tax lag by using a compound growth factor in the development of the weighted tax days for payment of the gross receipts tax, the capital stock tax, and public utility realty taxes (Trial Staff Main Brief, pp. 36-40).

The Company's position as regards Trial Staff's proposal is set forth in its Initial Brief (pp. 7-46 to 7-47) as follows:

There is no sound conceptual basis for the use of a growth factor in the development of lag days associated with the payment of these taxes. The use of a growth factor assumes a continuous, ongoing growth over time, similar to the growth of funds invested in a savings account. This, however, is completely unrealistic in this instance. Many discrete accounting events, such as the implementation of rate increases or changes in the tax rates, have a significant effect on taxes and vitiate the use of a compound growth factor as providing any meaningful tax results.

The Company also contends that Trial Staff's application of the growth factor is in error, and that the correct calculation would produce an increase of \$31.3 million over Trial Staff's proposal.

We find that the Company's claim has been developed consistent with the method accepted by the Commission in previous PECO rate proceedings, and the Company has presented sound arguments against use of a compound growth factor.

Trial Staff's proposed adjustments appear to be flawed in both theory and application and they are rejected.

4. Late Payment Charges

Trial Staff has proposed a reduction to the Company's revenue lag for late payment charges received from customers. According to Trial Staff, approval of the Company's claim would permit a double benefit. First, it would allow recovery of the charges themselves, and second, it would permit PECO to use an excessive number of lag days in its cash working capital calculation (Trial Staff Exceptions, pp. 31-32).

The Company contends that it does not receive a double benefit from its calculation of revenue lag. PECO describes its treatment of late payment charges as follows:

...There are two ways by which the Company can recover the costs imposed by late paying customers--in the late payment charge or in the cash working capital claim (Tr. 2437). The Company has chosen the latter approach and therefore flows through to ratepayers all revenue recovered in the late payment charge. Late payment charges therefore provide no benefit to the Company. These revenues are booked to Account 450 - Forfeited Discounts and are included as part of the "Other Operating Revenue" in PECO's income statement.

We agree with the Company's position on this issue. We also find that the precedent cited by Trial Staff for support in its Exceptions (pp. 32-33), namely, Pa. P.U.C. v. U.G.I. Corporation, R-832331, is distinguishable and therefore not applicable to the PECO claim here.

III. REVENUES

A. Pro Forma Revenues

In its Main Brief (p. 7-88), the Company described the development of pro forma revenues as follows:

The development of pro forma revenues begins with the statement of revenues taken from PECO's 1985 and 1986 Budgets. In accordance with previously approved rate case treatment, these figures have been adjusted to (1) eliminate revenues and associated tax expenses recovered under the State Tax Adjustment Clause, and (2) eliminate energy clause revenues and associated costs (PECO St. 18, pp. 19, 24; PECO Ex. TPH-2A, pp. D-1 & D-4). In addition, future test year revenues and expense levels have been adjusted for the anticipated growth/decline in the number of customers and in usage by existing customers to reflect sales levels at June 30, 1986. This adjustment increases pro forma operating revenues by \$38,771,000, which, after adjustment for associated energy costs of \$13,805,000 and gross receipts tax of \$775,000, yields additional after tax income for return of \$12,152,000 (PECO Ex. TPH-2A, p. D-3). This adjustment was calculated in accordance with the methodology approved by the Commission in many prior PECO rate proceedings.

The Company's revised claim for pro forma revenue at present rates is \$2,501,993,000 (PECO Ex. TPH-2A, p. A-1 Revised).^{5/}

Based upon a computed difference between PECO's projection of weather-normalized sales and revenues and PECO's actual sales and revenues for the first five months

^{5/} At pro forma proposed rates, the Company's revised claim is \$3,183,753.

of the future test year, the OCA has proposed to increase the Company's pro forma sales and to correspondingly increase pro forma revenues by approximately \$11 million, resulting in an ultimate increase to operating income of approximately \$3.6 million (OCA St. 4A, Sch. 11; OCA St. 7A, Rev. Sch. TEK-3).

According to the OCA witness Bleiweis, the Company's actual weather-adjusted sales for the first five months of the future test year have exceeded the Company's budgeted weather-adjusted sales for the same period. Specifically, OCA witness Bleiweis asserts:

As shown on [my] Schedule 11, for the first five months of the future test year, actual weather adjusted sales have exceeded the budget by approximately 128,000 megawatt hours. Valuing this variance at the average revenue per kilowatt hour by revenue class results in additional weather-adjusted revenues of approximately \$11.0 million.

OCA St. 4 at 40.

In response, the Company first argues that it is inappropriate, for calculating a revenue adjustment, to compare actual sales on a weather-adjusted basis to budgeted sales on a weather-adjusted basis. According to PECO, the OCA's weather adjustment to actual sales hypothetically imputes sales and revenues which the Company will never receive. PECO submits that a weather adjustment to actual sales does not represent sales actually made by the Company, nor does it produce any revenue for the Company.

The Company's second argument is that non-weather-adjusted actual sales and revenues have been below budgeted levels for the first six months of the future test year. The Company's witness Hill asserts that actual sales for the first six months have been slightly below budget estimates

while actual base revenues were substantially (i.e., \$16.2 million) below budget. Thus, Mr. Hill contends that the OCA's adjustment would not only disallow recovery of the \$16.2 million, but would impute hypothetical revenues of \$11 million, thereby overstating revenues by \$27 million.

The Company's third argument is that the OCA's adjustment incorrectly assumes that an increase in the Company's sales over the budgeted levels results in a commensurate increase in the Company's revenues. According to Witness Hill, sales can increase for many reasons which may or may not affect total revenues.^{6/} Finally, the Company contends that the OCA's adjustment is incomplete as it looks only at actual versus budgeted sales and does not consider actual versus budgeted expenses which evinces a \$21.8 million deficiency in operating income for the first six months of the future test year.

Relying on the Company's arguments, the ALJ recommended that the OCA's proposed adjustment to PECO's claimed level of sales, and to the revenue to be derived from those sales, be rejected.

In its exception to the ALJ's recommendation, the OCA first emphasizes that there is no justification for the continued reliance on PECO's weather-normalized projection of sales and revenues for a five-month period, when the actual weather-adjusted sales and revenues are known for that period. Second, the OCA contends that the ALJ, by

^{6/} For example, Witness Hill asserts that sales can increase because of abnormally warmer or cooler weather, variations in customer use patterns, and/or general improvement in the economy. (PECO St. 18C, p. 36).

relying upon a twelve-month projection and ignoring five-months of known data, failed to reflect a known variation from the Company's test year budget.

Finally, the OCA asserts that 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.^{7/}

We agree with the ALJ's recommendation that the OCA's proposed adjustment should be rejected. The sole basis for the OCA's \$11 million adjustment is the computed difference between weather-normalized actual and budgeted sales for the first five months of the future test year. It is undisputed that weather-normalized actual sales have exceeded budgeted levels for this period. However, we find the Company's argument relating to actual sales being below budgeted levels by 22,844 mwh for the first six months of the future test year and the Company's argument relating to actual revenues being below budgeted levels by \$16.2 million to be more persuasive than the OCA's argument. Moreover, we are of the view that it is inappropriate to make an adjustment to increase the Company's pro forma revenues by \$11 million when presented with evidence which clearly shows that PECO will in all likelihood never receive the OCA proposed \$11 million revenue increase.

We shall reject the OCA's proposed \$11 million adjustment, as recommended by the ALJ, and deny the OCA's exception.

^{7/} The OCA notes that the Company itself supplied the weather-adjustment of actual sales data on which the OCA based its \$11 million adjustment.

IV. EXPENSES

A. Operating and Maintenance Expenses

Mr. Solecki described the procedures employed in preparing the Company's 1985 and 1986 Budgets, which provide the basis for PECO's claimed expenditures during the future test year, as follows (PECO St. 19, pp. 4-5):

Each year a detailed 24 month budget is prepared as a tool for managing and conducting the operations of the Company. This budget is prepared on a 'responsibility basis'. That is, following the Company's organization chart, specific responsibility areas are defined and each area then budgets those items which fall within their responsibility.

The budgeting process begins with the development of objectives, initial personnel requirements and assumptions and guidelines such as service dates for new units, retirements of old units, and inflation factors. These assumptions and guidelines in the form of an instruction letter are sent to each of the approximately 165 responsibility areas. Each area reviews its historic expense levels and significant events which will alter those levels, known cost changes and guidelines set forth in the instruction letter and develops their segment of the budget. Inflation factors which were 5.25% for 1985 and 6.4% for 1986 are only used where specific known cost changes are not available and the level of activity being budgeted is expected to remain essentially unchanged, except for inflation.

The completed responsibility budgets are reviewed by my staff in order to develop the overall Company budget. The budget is then presented to the Chairman of the Board and the President for their review and for submission to

the Board of Directors for their final approval. The budget process is usually completed and approved in January.

The Company's revised claim for total operating and maintenance expenses at present rates is \$1,646,682,000 (PECO Ex. TPH-2A, p. A-1 Revised).^{8/} The discussion below addresses those expense claims which parties to the proceeding have contested.

1. Inflation Adjustment

In developing expense levels for the 1985 and 1986 Budgets, PECO used a general inflation factor to account for known cost changes that were not available. Specifically, the Company applied inflation factors of 5.25% for 1985 and 6.4% for 1986 where the amount of the increase or decrease to a particular account was not known. PECO witness Hill provided a description of the Company's inflation factors, as follows:

...[T]he Company's corporate inflation factor is based on two elements, as shown in Mr. Solecki's direct testimony. Specifically, the Company's corporate inflation factor is a weighted average of estimates for the GNP implicit price deflator and wage rates, specifically those applicable to PECO labor. The Company's inflation rate is an arithmetic average of these two estimates.

PECO Stmt. 18C, p. 5.

The Trial Staff and GSA have proposed reductions in the Company's operating and expense claim to reflect a

^{8/} At pro forma proposed rates, the Company's revised claim is \$1,439,692.

lower rate of inflation based on the Gross National Product-Implicit Price Deflator (GNP-IPD) of 3.28% and 3.3%, respectively. Applying the GNP-IPD inflation rate instead of the "PECO-specific" inflation factor of 5.8% (average of 5.25% and 6.4%) to various operating accounts, the Trial Staff and GSA have recommended reductions in the Company's claim of \$6,782,000 and \$7,439,000, respectively.^{9/}

PECO does not challenge the employment of inflation factors based on the GNP-IPD; however, the Company contends that the parties incorrectly assumed that PECO's corporate inflation factor was applied to all components of the Company's Budgets. According to the Company's witnesses, PECO's inflation factor was applied only in the absence of known cost changes. PECO submits that the correct application of the GNP-IPD inflation rate to those accounts where the "PECO-specific" inflation rate of 5.8% was employed would result in a \$947,000 reduction to the Company's operating and maintenance expense claim which PECO concedes to and has incorporated into its final accounting exhibit. (PECO Ex. TPH-2A, p. D-10).

The ALJ, relying on the arguments presented by PECO, specifically, PECO's re-analysis which determined the exact accounts to which the "PECO-specific" inflation factor was applied, recommended that the proposed adjustments of both the Trial Staff and GSA be rejected. The ALJ recommended

^{9/} Employing an alternative approach to calculate the magnitude of its proposed adjustment, GSA recommends a downward adjustment to operating and maintenance expenses of \$1,741,164 (GSA Main Brief at p. 21). In its Reply Brief at p. 12, GSA submits that \$1,741,164 is most appropriate.

acceptance of the Company's adjustment of \$947,000, noting that it was already accounted for in the Company's final accounting exhibit.

We fully agree with the ALJ's recommendation. This Commission has repeatedly accepted the use of an inflation factor based on the GNP-Implicit Price Deflator, thereby rejecting the employment by PECO of a calculated or derived inflation factor. See e.g., Pa. P.U.C. v. Philadelphia Electric Company, R-842590 (January 25, 1985); Pa. P.U.C. v. Philadelphia Electric Company, R-832410 (April 27, 1984); Pa. P.U.C. v. Philadelphia Electric Company, R-822291 (November 23, 1983). Nothing in the instant record would warrant deviating from established Commission precedent regarding this matter. Finding the Company's revised claim to be reasonable, as it is based on current economic conditions, we shall adopt the ALJ's recommendation.^{10/}

Notwithstanding our adoption of the Company's revised claim which appropriately recognizes this Commission's preference for an inflation rate based upon the GNP-Implicit Price Deflator, we find it necessary to inform the Company of an inflation dollar tracking proposal which we adopted in a prior PECO-Gas Division proceeding. In Pa. P.U.C. v. PECO-Gas Division, R-832410 (April 27, 1984), the Commission, in adopting a Trial Staff proposal, stated:

^{10/} The OCA proposed an adjustment to the inflation portions of the Company's outage expense claim. The ALJ inappropriately mentioned and rejected the OCA's proposed adjustment in his discussion of Trial Staff and GSA inflation adjustments to total operating and maintenance expenses. See, R.D. at pp. 113-114. We shall properly address the OCA's proposed adjustment in our discussion of the Company's outage expense claim.

For future rate proceedings, Staff is requesting that PECO be required to track the dollars associated with its inflation factors. Staff explains its concerns, as follows:

It is not Staff's desire or intention to dictate to the company how to construct its inflation factor for budgetary purposes. What is of paramount concern to Staff is PECO's use of the inflation factor for ratemaking purposes where it cannot break out the dollars associated with the inflation rates. The effect of this inability to separate out inflation dollars is to stonewall the Commission's investigation and its ability to establish just and reasonable rates. Even in a situation involving a minimum increase, where the dollars associated with the claim are based on an excessive inflation rate the Commission has a right to such information. It must be recognized that even in such claims other factors may be involved and when a reasonable inflation rate is applied, these claims conceivably could have been decreased.

Main Brief, p. 50. We agree with the ALJ's recommendation and his rationale that:

[T]he paramount interest in our consideration is furtherance of the Commission's mandated duty to assure the public just and reasonable rates.

R.D. at p. 92. We shall adopt Staff's inflation dollar tracking proposal.

In light of the difficulty experienced by the parties in determining exactly when and where an inflation factor was applied, we will simply urge PECO here to properly show the dollars associated with its inflation factors in future rate proceedings.

2. Amortiation of Costs Associated
with Replacement of Transition
Tubes at Eddystone No. 1

According to the Trial Staff, the expenses incurred for the replacement of the transition tubes in the Eddystone No. 1 boiler should be amortized over a ten-year period, rather than the proposed two-year period in the Company's claim. Trial Staff asserts that a ten-year amortization period is more appropriate because it recognizes the extensive life span of the transition tubes (22.9 years). Trial Staff proposed to reduce the Company's claim by \$1,360,000.

The Company, in opposing Trial Staff's proposed ten-year amortization period, first argues that the Commission has accepted the practice of permitting the recovery of maintenance expenditures on an as-spent basis, that is, over a two-year period. Second, the Company argues that a ten-year amortization period is unprecedented in Pennsylvania regulatory practice. In this regard, PECO submits that expenses are generally amortized over three to five year periods. Finally, the Company asserts that Trial Staff's proposal effectively treats this expense as a capital item which, if accepted by the Commission, should be included in the Company's claimed rate base in order to provide a return on the expenditures for this project.

The ALJ, persuaded by the arguments of the Company, recommended rejection of Trial Staff's proposed adjustment and adoption of the Company's two-year amortization period. In its exception to the ALJ's recommendation, Trial Staff reiterates the merits of amortizing the expenditure over a ten-year period.

Notwithstanding the inherent benefit to ratepayers of a ten-year amortization period, our task is to balance the respective interests of the ratepayers, the utility and

its shareholders. We agree with the Company's argument that the transition tube replacement is the same type of maintenance expenditures that we have in the past allowed recovery on an as-spent basis. We find a two-year amortization period to be consistent with approved as-spent amortization periods. Additionally, we find a two-year amortization period more reasonable than a ten-year amortization period because it minimizes the lost time value of money.

Accordingly, the Trial Staff's proposed ten-year amortization period is rejected and the Company's two-year amortization period is approved.

Trial Staff's exception is thus denied.

3. Wage and Benefit Expense

PECO's claimed future test year labor costs were adjusted to reflect an August 1, 1985 5.4% increase in wages and benefits, and to annualize the effect of these increases which were not fully reflected in the 1985-1986 Budgets (PECO St. 18, pp. 22-23; Ex. TPH-2 and TPH-2A, p. D-5).^{11/} After applying a budgeted overtime percentage of 12.4% to the increase in regular payroll costs, the annualized effect of these increases, on a Company-wide basis, totals \$9,652,000, with \$5,695,000 being the total adjustment attributable to electric operations (PECO Ex. TPH-2A, p. D-5).

Trial Staff has proposed a downward adjustment of \$4,590,000 to PECO's claim for wages and benefits based upon an alleged differential in the actual and budgeted number of

^{11/} The Company asserts that it did not include in its claim the impact of the anticipated August 1, 1986 wage and benefit increase.

employees for the three-year period ended June 30, 1985. In support of its adjustment, Trial Staff cites Pa. P.U.C. v. Pennsylvania Electric Company, R-842771 (October 25, 1985) as authority for adjusting a company's wage expense claim to recognize the difference between actual and budgeted levels of employees.

The Company does not oppose Trial Staff's calculation of the number of employees in the test year, however, the Company asserts that its total wage and benefit expense claim reflects a number of components, including number of employees, level of overtime, and the amount of contract labor. Thus, PECO asserts that Trial Staff's adjustment is in error because it reflects only one component of the Company's total wage and benefit expense claim, i.e., the number of employees, while ignoring a number of other components.

Next, the Company argues that a proper comparison of actual and budgeted payroll dollars for the three-year period utilized by Trial Staff shows that actual payroll dollars have exceeded budgeted payroll dollars by 0.17%. On this basis, the Company concludes that Trial Staff's reliance on Pennsylvania Electric, supra, is misplaced. The Company's final argument is that it is not making a claim in this proceeding for a specific number of employees but instead, is making a claim for wage and benefit expenses which the Company notes it has been extremely accurate in budgeting.

Finding the premise for Trial Staff's proposed adjustment to be inappropriate for an adjustment to the Company's total wage and benefit expense claim because it did not reflect the "full picture", the ALJ recommended that Trial Staff's proposed adjustment be rejected. The ALJ, as further support for his recommended rejection of Trial Staff's adjustment, notes that the Company's total wage

expense levels over the last three years appears to be consistent.

Trial Staff has excepted, arguing that the absence of a variance between actual and budgeted payroll dollars over the last three years does not support the ALJ's rejection of Trial Staff's proposed adjustment. Trial Staff also argues, for the first time, that overtime expenses should not be considered in developing a normalized level of wage expense as such costs may have been abnormal.

Contrary to the assertion of Trial Staff, the absence of a variance between actual and budgeted payroll dollars over the last three years does in fact support the rejection of Staff's proposed adjustment. In this regard, the Company correctly notes that when actual to budgeted payroll for the three-year period examined by Witness Weakley is examined, the results show that actual total payroll is virtually identical to those dollars budgeted, and in fact exceeded budgeted payroll by 0.17%.

We also find support for the rejection of Trial Staff's proposed adjustment in the results of PECO's actual payroll expense for the first six months of the future test year which shows that actual payroll expenses have exceeded budgeted payroll by \$1,444,515 or 0.6% of budget.

Finally, we agree with the Company's assertion that all components of its wage and benefit expense claim must be considered to determine the appropriate level. We find the Company's claim to be reasonable and as such, it is adopted. Accordingly, the proposed adjustment of Trial Staff is rejected and, for the reasons stated above, its exception is denied.

4. Salem No. 1 Management Evaluation Program

The Company has claimed a two-year amortization of \$7,283,000^{12/} to recover expenses relating to a management audit.^{12/} PECO's witness Carroll explained the circumstances under which this audit was conducted, as follows (PECO St. 22 at 18-19):

At the time of the Salem No. 1 breaker incident, Public Service Electric and Gas Company (PSE&G) was questioned by the Nuclear Regulatory Commission on the Company's ability to operate and manage a nuclear facility. When PSE&G addressed this question, it took advantage of the timing to perform a complete management review of their procedures and policies with regard to nuclear power operation. PSE&G in conjunction with Management Analysis Company, a consultant hired for this project, developed an Action Plan for operation and management of their nuclear facilities.

Both the OCA and Trial Staff have proposed adjustments to the Company's operation and maintenance expense claim related to this audit. The Trial Staff's downward adjustment of \$3,484,000 would allow the company to recover only direct costs attributable to the outside consultant, Management Analysis Company (MAC). According to Trial Staff, PECO has failed to meet its burden of proof on the issue of the reasonableness and justness of the costs of those portions of the audit not attributable to MAC. Specifically, Trial Staff asserts that the Company did not provide a detailed breakdown of expenses or substantiation of the other costs, thus, PECO should be permitted to recover only the costs associated with its share of MAC participation or \$473,442.

^{12/} The Company's claim in this proceeding is \$3,642,000.

Although Trial Staff has proposed that PECO be allowed to recover only the costs associated with MAC, the OCA contends that the Company's claim should be rejected in its entirety. The basis for the OCA's proposed disallowance is two-fold. First, the OCA argues that the expenses are non-recurring because the impetus of the audit was the Company's imprudence relating to the Salem Unit 1 breaker incident and the NRC's questioning of PSE&G's management competence in the wake of that incident.

The OCA's second argument is that the recovery of these expenses would constitute impermissible retroactive ratemaking because the audit in question was conducted between March and August, 1983.

In response to the argument of Trial Staff, PECO submits that the Company was not requested by any party to supply a detailed breakdown of the non-MAC portion of its claim. Notwithstanding, PECO asserts that its witness provided a summary of these costs during his initial cross-examination (Tr. 416-17) and after learning of Trial Staff's concern, supplied a detailed breakdown and explanation of the nature and components of the Company's claim in his rebuttal testimony (PECO St. 22B, pp. 19-23) to which Trial Staff did not respond.

As to the OCA's arguments, the Company retorts that the scope of the audit went far beyond a review of the procedures related to the Salem breaker incidents and actually improved the operations at Salem Station to the benefit of ratepayers.

In recommending rejection of PECO's total claim, ALJ Matuschak was persuaded by the arguments of the OCA which established that (1) the audit was in response to the imprudent and unreasonable operation at the Salem plant and

(2) the expenses in question were incurred in the past and are non-recurring.^{13/}

We agree with the ALJ's recommendation that the Company's claim should be rejected. First, it should be emphasized that the expenses for which the Company is seeking recovery were incurred in the past, i.e., prior to the test year. This Commission has frequently held that previously incurred, non-recurring expenses may not generally be recovered from ratepayers. Thus, in Pa. P.U.C. v. Duquesne Light Co., 54 Pa. PUC 695 (1981) the Commission stated:

If not the first, the most widely accepted maxim of regulation is that it is prospective rather than retrospective looking. There have only been two areas in which the Commission has traditionally permitted the amortization of unusual recorded expenses: (1) the flood and storm damage; and, (2) rate case expense, both of which upon the basis that they are recurring in nature, although at significantly separated intervals.... In our view, the recorded results of operations, whether they be within or without a test year, are to be looked to for the purpose of providing guidance to the future, not for the purpose of correcting the ills of the past.

Id. at 718. The Company has not presented in this proceeding an argument which would dissuade us from our view towards expenses incurred in the past. We also agree with the ALJ's conclusion that any benefits from the audit that may have

^{13/} PECO excepted to the ALJ's recommendation incorporating by reference its arguments presented in the Company's Briefs.

flowed to the ratepayers were merely incidental. Therefore, we shall reject the Company's claim and, accordingly, adopt the OCA's downward adjustment of \$3,642,000.

The Company's exception is thus denied.

5. Amortization of Investments
in Three Uranium Mines

The Company seeks to recover over a five-year period its investment in the Sequoyah, Lee, and Homestake mining ventures which have been cancelled.^{14/} The Company notes that its claim in this proceeding is consistent with prior Commission allowances in that it was developed net of the actual revenues and net of related tax losses. In addition, the Company points out that it is not requesting in this proceeding a return on the unamortized balance (PECO St. 18A, pp. 10-11, PECO St. 18C, pp. 31-32). The total amount to be amortized is \$12,227,000 and the Company's claim in this proceeding is \$2,445,000.

The OCA opposes the Company's claim for these projects and has proposed that the Company's five-year amortization claim be disallowed. As support for its position, the OCA contends that the mining ventures in question are not now and have never been used or useful. Although acknowledging that PECO was permitted to amortize the costs of another earlier failed uranium mining project, the OCA submits that the Company should not be permitted to recover the costs of these additional mining ventures in this proceeding.

^{14/} The Sequoyah project was terminated effective September 15, 1985, and the Homestake project was abandoned on December 26, 1985. The Lee project was written-off in November, 1985.

Relying on the Company's arguments that the "used and useful" standard is applicable only to rate base treatment and that utility rates must reflect all prudent and reasonable costs, the ALJ recommended that the Company's claim of \$2,445,000 be allowed and that the OCA's proposed adjustment be rejected.^{15/}

We agree with the ALJ's recommendation. First, it should be emphasized that the OCA has not argued that the Company's investment in these projects were imprudent or unreasonable. Indeed, the undisputed evidence shows that in each instance, changed circumstances prevented completion of these projects. We are of the opinion that the Company's five-year amortization claim, which is identical to an amortization claim approved by the Commission in PECO's last rate proceeding,^{16/} represents an equitable balance of the interests of both ratepayers and shareholders. In this regard, the Company has requested only a return of its investment and not a return on its investment. Finding the Company's five-year amortization of the costs associated with these projects (\$12,227,000) to be proper and reasonable, it is approved as recommended by the ALJ. Accordingly, the OCA's proposed adjustment is rejected and its exception is denied.

^{15/} The OCA excepted to the ALJ's recommendation restating its arguments presented in its Main Brief at VIII-14 through VIII-16.

^{16/} In the Company's last proceeding at Docket No. R-842590, the Commission allowed the recovery of the Company's uranium investment in the Pioneer Uranium Project. (Order, p. 84).

6. Decommissioning Peach Bottom Unit No. 1

PECO has claimed a \$691,000 annual expense for contributions to a fund for decommissioning Peach Bottom Unit No. 1. PECO witness Wright explained the origins of Peach Bottom Unit No. 1 as follows (PECO St. 20A, p. 8):

Peach Bottom Unit No. 1 was built through the efforts of a consortium including PECO and 52 other companies, collectively called High Temperature Reactor Development Associates, Inc. (HTRDA). Each member of HTRDA contributed funds toward the design and construction of Peach Bottom Unit No. 1. The objective of the participating companies was to obtain technical knowledge, information, experience and training in the design, construction, maintenance and operation of a nuclear power plant.

Both the OCA and Trial Staff have proposed that PECO's claim for \$691,000 be denied. The OCA submits several arguments in support of its position.

First, the OCA argues that PECO has failed to explain either the work to be done or the costs involved. The OCA asserts that the only information on the costs of this work appeared in two footnotes to PECO Exh. NBM-1. Next, the OCA, after noting that a number of entities other than PECO ratepayers have benefitted from Peach Bottom Unit No. 1, argues that PECO has failed to explain the special circumstances of Peach Bottom Unit No. 1 or to show that it has explored whether other parties benefitting from that unit should contribute to these decommissioning costs. Finally, the OCA argues that since current ratepayers receive no benefit from Peach Bottom Unit No. 1, they (the current ratepayers) should not bear the costs.

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Peach Bottom Unit No. 1 was built through the efforts of a consortium including PECO and 52 other companies, collectively called High Temperature Reactor Development Associates, Inc. (HTRDA). Each member of HTRDA contributed funds toward the design and construction of Peach Bottom Unit No. 1. The objective of the participating companies was to obtain technical knowledge, information, experience and training in the design, construction, maintenance and operation of a nuclear power plant.

Both the OCA and Trial Staff have proposed that PECO's claim for \$691,000 be denied. The OCA submits several arguments in support of its position.

First, the OCA argues that PECO has failed to explain either the work to be done or the costs involved. The OCA asserts that the only information on the costs of this work appeared in two footnotes to PECO Exh. NBM-1. Next, the OCA, after noting that a number of entities other than PECO ratepayers have benefitted from Peach Bottom Unit No. 1, argues that PECO has failed to explain the special circumstances of Peach Bottom Unit No. 1 or to show that it has explored whether other parties benefitting from that unit should contribute to these decommissioning costs. Finally, the OCA argues that since current ratepayers receive no benefit from Peach Bottom Unit No. 1, they (the current ratepayers) should not bear the costs.

Trial Staff's arguments in support of the disallowance to the Company's claim are in essence identical to those of the OCA.

In addressing the contentions of the OCA and Trial Staff, the Company asserts (1) that it is not requesting a "second decommissioning" of Peach Bottom Unit No. 1, as the OCA claims; (2) that PECO ratepayers received all the benefits of Peach Bottom Unit No. 1 while paying only a portion of the capital costs; and (3) current ratepayers are receiving the benefits of Peach Bottom Units 2 and 3 which cannot be decommissioned without the completion of Unit 1.

The ALJ, persuaded by the fact that PECO was not precluded from seeking decommissioning costs prior to 1980 or subsequent to 1980^{17/} but failed to do so, recommended that the Company's claim be rejected. The ALJ was also persuaded by the OCA and Trial Staff argument that PECO's current ratepayers should not be required to bear the entire burden for the decommissioning when it appears that so many other members of the consortium which built the unit benefitted.

In excepting to the ALJ's recommendation, the Company incorporates by reference its arguments presented in its Main and Reply Briefs.

For the reasons set forth by the ALJ, we shall reject the Company's claim and adopt the proposed downward adjustment of \$691,000. The Company has not adequately

17/ PECO acknowledged the fact that Peach Bottom 1 was retired in 1974, however, the Company, as justification for its claim in this proceeding, argued that it was not until 1980 that the Commission allowed the recovery of decommissioning costs for a nuclear facility by an electric utility.

explained why its ratepayers should be solely responsible for the full costs of decommissioning Peach Bottom Unit No. 1 when the evidence in this proceeding demonstrates that several other entities (i.e., members of the consortium that built Peach Bottom 1) benefitted from Peach Bottom Unit No. 1.^{18/} We are not persuaded nor can we accept PECO's unsupported statement that the Company's ratepayers received all of the benefits of Peach Bottom Unit No. 1.

Additionally, the Company has not adequately justified the long delay in seeking recovery of decommissioning expenses at Peach Bottom Unit 1. In sum, PECO has failed to demonstrate the reasonableness of its claim, thus it is rejected. Accordingly, the ALJ's recommendation is adopted and the Company's exception is denied. We shall reduce the Company's decommissioning expenses by \$691,000.

7. Decommissioning Accruals For
Peach Bottom Units 2 and 3
and Salem Units 1 and 2

PECO's decommissioning claim anticipates that the decommissioning funds for the Peach Bottom Units 2 and 3 and the Salem Units 1 and 2 will be fully paid by the year 2008 which is the expiration date for the Nuclear Regulatory Commission (NRC) licenses on these plants. Trial Staff has proposed that the accrual of funds be extended to reflect the longer service life of the respective plants instead of

^{18/} See, e.g., PECO's contract with the Atomic Energy Commission which indicates that 52 utility companies contributed \$16.5 million toward the construction of Peach Bottom 1 in return for "technical knowledge, information and experience."

the license expiration date.^{19/} According to Staff, the license expiration date of 2008 is subject to possible extension upon request by the Company and since the units cannot operate without an NRC license, the accrual period should be extended to reflect the retirement dates of the plants rather than the license expiration date.

PECO contends that Staff's proposed adjustment is inconsistent with proposed NRC regulations which clearly states that it is the end of a unit's operating license and not the end of a facility's depreciable life which is the determining decommissioning criteria. Moreover, the Company asserts that Trial Staff's proposed adjustment is unnecessarily speculative with respect to PECO's intention to seek license extensions for its plants.

The ALJ recommended that PECO's decommissioning claim, which is based upon the current expiration dates of the NRC licenses for the respective plants, be adopted and that Trial Staff's adjustment be rejected. In excepting to the ALJ's recommendation, Trial Staff asserts that it is reasonable to assume that PECO will seek an extension of the license expiration date.

Notwithstanding Trial Staff's argument to the contrary, we consider the basis for Staff's adjustment to be quite speculative at this time. The Company has not indicated in this proceeding that it will in fact request an extension of the NRC license expiration date nor can we be certain, as Trial Staff appears to be, that the NRC will grant an extension if the Company made such a request.

^{19/} Staff has thus proposed a downward adjustment of \$1,037,000.

We find Trial Staff's proposed adjustment to be not only speculative but premature at this point, thus, it is rejected as recommended by the ALJ. Accordingly, the Company's claim for a five-year amortization of \$12,074,000 (\$2,415,000 in this proceeding) is approved and Staff's exception is denied.

8. Heaton-Bayberry Transmission Line

According to the OCA, the Company's claimed amortization of the engineering costs for the Heaton-Byberry Transmission Line should be disallowed because the project never served ratepayers and has not been pursued for the last ten years.^{20/} The OCA asserts that it is improper from a ratemaking perspective to allow the Company to reach back ten full years for recognition of expenditures for a project that never came to fruition (OCA St. 4 at 37). The OCA also contends that the "used and useful" doctrine prohibits the recovery of these expenditures.

In response to the assertions of the OCA, PECO argues that the Company's Electric Engineering Division only recently determined that the line would not be built. Moreover, PECO submits that this is the first proceeding after the write-off in which the Company has had an opportunity to claim an amortization for these unrecovered costs. Finally, PECO argues that the "used and useful" standard is a rate base standard and is, therefore, inapplicable to the Company's claim to recover the Heaton-Byberry engineering costs through an amortization allowance.

^{20/} The Heaton-Bayberry Transmission Line was suspended initially in 1976. Tr. 503).

The ALJ, stating that the Company should not be penalized for adjusting its operation to meet efficient operation, recommended that PECO's five-year amortization of \$445,000 be approved. The ALJ noted that the Company has requested out-of-pocket expenditures only, with no return on the same. In excepting to the ALJ's recommendation, the OCA reiterates its arguments presented in its Main Brief.

We agree with the ALJ's recommendation and his statement that the Company should not be penalized for abandoning the Heaton-Byberry Transmission Line. The OCA has not challenged the prudence of PECO's preliminary expenditures and the Company has sufficiently explained in this instance the reason for the delay in seeking the recovery of these expenses. Moreover, the write-off of this project was included in the adjusting entries offered by the Commission's Bureau of Audits in its recently completed property records audit.

We are of the opinion that the Company's five-year amortization of \$445,000 (\$89,000 in this proceeding), which is consistent with similar claims allowed in past rate cases, is reasonable and, as such, it is approved.

Accordingly, the OCA's proposed adjustment is rejected and its exception is denied.

9. Limerick Unit 2 Investigation Costs

The Company has requested amortization over a five-year period of \$5.5 million for the costs incurred in the Limerick 2 investigation. The OCA contends that the Company, as an alternative way to deal with these expenses for ratemaking purposes, should capitalize these costs over the life of Limerick Unit 2. Mr. Bleiweis noted that this alternative approach would have the following effect:

In this way, those who are supporting Limerick 2 in rates will pay all of the costs associated with that unit, including the costs of legal proceedings which were necessary to continue constructing the plant.

OCA St. 4 at 36.

The Company, in addressing the contention of the OCA, first argues that in PECO's last rate case at Docket No. R-842590, the Commission allowed recovery of similar expenses incurred in a recent ECR investigation through a two-year amortization allowance. Next, the Company asserts that the OCA's proposal to capitalize these costs would be unfair since it would impose additional costs after the Company has accepted the Commission's cost containment program. Finally, the Company argues that the scope of the Limerick 2 investigation was much broader than the specific costs for Limerick Unit No. 2 and included a wide range of topics.

Stating that it would be inequitable to ask current ratepayers to subsidize costs of a plant which does not serve them now, the ALJ recommended that the OCA's proposal to capitalize these costs be adopted.

The Company has excepted to the ALJ's recommendation to disallow the Company's amortization claim.

PECO correctly notes in its exception that the issue here is whether the Company should be allowed to recover the expenses incurred as a result of an investigation ordered by the Commission. This Commission has often stated that a utility is entitled to recover all reasonably incurred expenses through its rates. There is no evidence in this proceeding that the expenses claimed by PECO were

unreasonable, imprudently incurred or excessive in amount. Moreover, the OCA has not persuaded us that the novel treatment proposed by Mr. Bleiweis to capitalize the expenses is more equitable than the Company's claim to amortize the expenses over a reasonable five-year period.

We find the Company's claimed five-year amortization of the costs it incurred in the Limerick investigation (\$5.5 million) to be reasonable and as such, it is approved. Accordingly, the OCA's proposed adjustment and the ALJ's recommendation are rejected and the Company's exception is granted.

10. EEI Membership Dues

According to the Trial Staff, PECO's claim for EEI membership dues should be reduced by 25% to reflect a subcommittee preliminary report of the National Association of Regulatory Commissioners which suggests a disallowance of 25% to 33% of the dues for ratemaking purposes to reflect the political and lobbying activities.

PECO contends that it has received information from EEI which shows that approximately 2.7% of the EEI dues were or will be used for lobbying purposes; thus the Company argues that while an adjustment is appropriate, Staff's proposed adjustment is overstated.

Relying on Commission precedent,^{21/} the ALJ recommended that the Company's revised claim of \$627,000 be

^{21/} See e.g. Pa. P.U.C. v. Metropolitan Edison Co., R-842770 (October 24, 1985).

reduced by 25% or \$157,000.^{22/} We find the ALJ's recommendation to be appropriate, therefore, it is adopted.^{23/}

11. EEI Media Advertising

For the future test year, PECO has claimed \$272,000 for EEI media advertising program.

Trial Staff and the OCA have proposed adjustments which completely disallow this claim on the ground that these costs do not directly benefit PECO's customers. The Company does not oppose the disallowance of its claim (M.B. at 7-119), therefore, the proposed downward adjustment of \$272,000 is adopted.^{24/}

12. Keystone Alliance

To properly understand this issue and the proposed adjustments, a brief history of the case of Keystone Alliance v. PECO, Docket No. C-78080459, is essential. In August 1978, the Keystone Alliance filed a complaint against PECO regarding certain nuclear information, education, and advertising expenses. The case was litigated, and a Recommended Decision was entered on August 31, 1983. The Commission entered a final Order on September 4, 1985 which PECO appealed to the Commonwealth Court. On February 18, 1986, the Commission withdrew this Order and issued a Tentative Amended Order for

^{22/} The Company originally claimed a total of \$348,000 for EEI membership dues; however, this amount was subsequently increased to \$627,000.

^{23/} This adjustment shall be reflected within our Keystone Alliance adjustment, supra.

^{24/} This adjustment shall also be reflected within our Keystone Alliance adjustment, supra.

comment, and Exceptions were filed by PECO. No final Order has yet been entered at this time. Moreover, during the course of the Keystone Alliance case, the Company claimed these nuclear information education, and advertising expenses in all of its rate cases, including its two most recent cases at Docket Nos. R-822291 and R-842590. The claims were approved by Commission final Orders in these proceedings, and these expenses were recovered in rates.

Based upon the Commission's Orders in the Keystone Alliance case, the OCA and Trial Staff have proposed adjustments to disallow certain nuclear information, education, and advertising expenses. The OCA has proposed the following three downward adjustments to the Company's claim:

\$2,644,672 for the future test year
\$ 698,497 from the rates set at R-822291
\$ 773,471 from the rates set at R-842590
\$4,116,664 (OCA's total recommended expense
reduction)

The Trial Staff contends that PECO's claim should be reduced by \$5,931,000 to recognize the Tentative Order entered on February 18, 1986.

The Company correctly notes in its Main Brief that the reasonableness of these expenses was challenged by the OCA at Docket No. R-842590. In that PECO proceeding, we rejected the OCA's adjustment because a final order had not yet been adopted by the Commission in the Keystone Alliance proceeding (Order, p. 80). As stated above, the purpose of the Keystone Alliance case was to address the propriety of these expenses. As the Commission has not adopted a final Order in the Keystone Alliance proceeding (a Tentative Order was entered on February 18, 1986 and Exceptions were filed by PECO) we find it to be inappropriate to adjust the Company's claim in this proceeding to reflect the disallowance of the expenses incurred and approved in the Company's prior two

rate proceedings at Docket Nos. R-822291 and R-842590. Such action would clearly be premature and inconsistent with our decision at Docket No. R-842590 (Order, p. 90) wherein we deferred action until a final Order had been entered in the Keystone Alliance proceeding.

Having concluded that no adjustment for the Company's prior two rate cases is appropriate in this proceeding, we are left with the OCA's proposed disallowance of \$2,644,672 which represents the Company's test year claim in this proceeding for certain nuclear information, education, and advertising expenses. In the Company's Main Brief (pp. 7-116-119), PECO contends that a portion of the OCA's proposed adjustment represents allowable expenses relating to corporate communications and the TMI clean-up. The Company contends that the exclusion of these expenses would reduce the OCA's proposed adjustment to \$741,012 in this proceeding (PECO St. 181, pp. 4-5). The OCA does not object to the Company's quantification.

Notwithstanding the ALJ's recommendation to disallow \$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) which was partially based upon the Commission's Tentative Order in the Keystone Alliance case, we find the appropriate downward adjustment in this proceeding, as calculated by PECO, to be \$741,012 (PECO St. 181, pp. 4-5).

The exceptions of the Company and the OCA are granted to the extent consistent with our downward adjustment of \$741,012.

13. Rate Case Expense

Trial Staff's witness Jones has proposed to reduce the Company's claimed rate case expense by incorporating a five-year amortization of the costs of studies and analyses performed by management and technical consultants for the Company in this proceeding (TS St. LJ-1, pp. 1-3). The Company does not object to Witness Jones' methodology and has incorporated his five-year amortization into its final accounting exhibit (PECO Ex. TPH-2A, p. D-12A).

Trial Staff has also proposed that a special audit be conducted by the Commission's Audit Staff to examine PECO's general practices concerning rate case expenses.^{25/} This proposal for a special audit was presented for the first time in Trial Staff's Brief (Trial Staff Main Brief, pp. 91-92).

The ALJ, finding the Trial Staff's presentation of this issue to be inappropriate in that it denies PECO a fair opportunity to address the issue on the record and present evidence, recommended that Trial Staff's proposal for a special audit be rejected. The ALJ found precedent for his recommendation in Pa. P.U.C. v. Pennsylvania Power & Light Co., Docket No. R-822169, p. 48 (August 22, 1983) and Pa. P.U.C. v. PECO, Docket No. R-811626, p. 58 (May 21, 1982). The ALJ also found the Company's claim to be reasonable and recommended that it be approved.

^{25/} In the alternative, Staff submits that the Commission should direct special attention to this matter in PECO's next management audit.

For the reasons set forth by the ALJ, we shall adopt the Company's claim and reject Trial Staff's untimely proposal for a special audit of the rate case expenses in this proceeding.

14. Customer Account Expense

Trial Staff originally proposed to reduce the Company's claim for customer accounts expense by \$21,596,000 based upon a comparison of the amounts claimed by PECO in FERC Account Nos. 901-903 and 905 with those incurred by a group of five metropolitan utilities.^{26/} The proposed adjustment to PECO's customers accounts expense was subsequently reduced to \$17.6 million after Staff adjusted its calculation based upon the application of a 9.6 percent increase in the average costs experienced by Trial Staff's comparison group from 1983 to 1984.

In response to Trial Staff's proposed adjustment, PECO first argues that Trial Staff's comparative study fails to take into account significant differences in billing practices, legal requirements and accounting practices between PECO and the metropolitan utilities. The Company asserts that these differences drastically effect the level of an individual utility's customer accounts expense. For example, PECO asserts that this Commission's credit and collection policies are significantly more stringent than the collection and termination policies under which Detroit

^{26/} The metropolitan utilities are: Baltimore Gas and Electric; Boston Edison; Consolidated Edison of New York; Detroit Edison; and Commonwealth Edison of Chicago.

Edison and Baltimore Gas Electric operate^{27/} (PECO St. 18C, pp. 18-19). Additionally, PECO asserts that differences in meter reading and billing practices would generally act to reduce customer accounts expenses for the metropolitan utilities.

The Company's next argument is that Trial Staff's comparison study is completely irrelevant in the ratemaking context and is incapable of establishing a basis for a conclusion that PECO's level of customer accounts expense is unreasonable or inappropriate and should therefore be adjusted. PECO asserts that no sound conclusion can be drawn concerning a proper level of customer accounts expense for PECO from a gross comparison to the sample of other metropolitan utilities proffered by Trial Staff.

Finally, the Company argues that if corrections are made to recognize only a few of the aforementioned differences, PECO's customer accounts expenses would be comparable with Staff's group of metropolitan utilities.

In defending its use of data relating to the metropolitan utilities to determine a proper level of customer accounts expense for PECO, Trial Staff concludes: "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's Main Brief at p. 69).

^{27/} The Company submits that the Commission's stringent policy concerning termination rules and practices results in a higher level of customer accounts expense for PECO.

The ALJ, opining that Trial Staff's proposed adjustment was premised upon "simplistic, unreliable and unreasonable mathematical computation", recommended that Trial Staff's proposed adjustment of \$17.6 million be rejected. In recommending rejection of Trial Staff's proposed adjustment, the ALJ took issue with Trial Staff's assessment of the differences alluded to by the Company.

The Trial Staff has excepted to the ALJ's recommended rejection of its proposed adjustment and his disparaging comments concerning Trial Staff's comparative study. Trial Staff asserts that such methods of comparison are proper and, in fact, quite reasonable.

We agree with the ALJ's recommendation. First, it should be emphasized that the issue here is whether the Company's claim of \$64,266,000 for customer accounts expense is reasonable and appropriate. While it may be shown that PECO's customer accounts expense is higher than that of five other metropolitan utilities, that, in and of itself, does not establish a basis for a finding that PECO's customer accounts expense is unreasonable.

To this end, Trial Staff asserts that "the cities selected for comparison share similar characteristics in that they are situated in the northern section of the country and have a large urban population". (Trial Staff's Main Brief at p. 63). While these characteristics are in fact shared by PECO and the metropolitan utilities employed in Trial Staff's comparative study, significant differences exist which far outweigh these characteristics and in effect vitiates any meaningful conclusions. For example, PECO properly analyzed the selected metropolitan utilities and found differences in credit and collection policies, meter

reading, billing practices and accounting practices which all have some effect upon the level of customer accounts expense of an individual utility.^{28/}

It is our opinion that while PECO's customer accounts expenses do appear to be higher than some other utilities, Staff has failed to show that its proposed adjustment is reasonable and appropriate. Therefore, Staff's proposed adjustment of \$17.6 million is rejected as recommended by the ALJ. Accordingly, the Company's claim is approved and Trial Staff's exception is denied.

15. Outage Expense

Trial Staff and the OCA have both proposed downward adjustments to PECO's revised outage expense claim of \$24,010,000. Trial Staff's proposed \$5,494,000 expense adjustment is based upon a review of the Company's experienced and budgeted expense levels and their comparison with the Company's claim in this proceeding. The OCA's proposed \$646,000 expense adjustment is based upon the use of an inflation factor of 3.5% instead of the "PECO specific inflation factor" of 5.25% for 1985 and 6.4% for 1986.

In response to Trial Staff's utilization of a historic three-year period, the Company asserts that the period from July 1982 through June 1985 was an abnormal and unusual period at the Salem and Peach Bottom Stations. In this regard, the Company asserts that Trial Staff's historic period reflects less than four and one-third outages for

^{28/} We disagree with Trial Staff's suggestions that these differences in sum are "minor", "insignificant" and "minimal".

both Peach Bottom 2 and 3 (which is the normal number of outages for this period) and thereby understates the normalized level of outage expense.

In addressing the assertion of the OCA, PECO argues that the Company's revised outage expense claim does not include a "PECO-specific inflation factor" but properly employs the actual wage increase granted in August 1985 (5.4%) and an inflation rate based on the GNP-IPD (the composite of all witnesses' GNP-IPD). Thus, it is the Company's position that the OCA's proposed adjustment is reflected in the Company's revised outage expense claim which specifically excludes all "PECO-specific inflation factors".

Finding Trial Staff's proposed adjustment to be based upon a "questionable foundation"; namely, admittedly abnormal data, ALJ Matuschak's recommended that Trial Staff's adjustment be rejected and that the Company's claim be approved.^{29/}

In excepting to the ALJ's recommendation, Trial Staff argues that PECO's use of data from a prior rate case claim is inappropriate. Trial Staff contends that notwithstanding the drawbacks of the use of historic data, its analysis provides a sufficient and reasonable basis for an adjustment.

The OCA has also excepted, noting that the ALJ failed to discuss its proposed adjustment. The OCA submits that PECO's revised outage expense claim is contrary to this

^{29/} The ALJ failed to discuss the OCA's position on this issue. (See, R.D. pp. 135-136).

Commission's well-established policy on inflation factor calculations.

We have carefully reviewed the Company's outage expense claim, particularly PECO witness Carroll's recalculation as presented at PECO St. 22B, Schedule 3, pp. 1 and 2. Contrary to the argument of the OCA, we are unable to conclude that PECO violated this Commission's well-established policy by employing "PECO-specific inflation factors". In fact, the Company properly employed the 6.0% actual wage increase which was granted in August 1984, and the 5.4% wage increase which was granted in August 1985. We find no evidence that PECO's revised outage expense claim includes inflation factors which are "PECO-specific".

As to Staff's proposed adjustment, we concur with the ALJ that it is premised upon an abnormal and unusual historic period which should not be used as a basis for calculating an adjustment.

Therefore, the Company's revised claim is approved and the exceptions of the OCA and Staff are denied.

16. Damaged Nuclear Fuel Assemblies

Staff has proposed a downward adjustment of \$104,000 to the Company's expense claim for the amortization of damaged nuclear fuel assemblies. This adjustment represents interest on the Company's claim which Staff asserts is not properly recoverable as a rate case item (TS St. DPH-1, p. 7).

The Company has no objection to Staff's proposed adjustment. We find the downward adjustment of \$104,000 to be reasonable and as such, it is adopted as recommended by the ALJ.

17. PECO's Reserve Decommissioning Deficiency

Peco has included in its decommissioning expense claim, the collection of a reserve deficiency over a five-year period. PECO witness Wright provided the basis for the five-year amortization period as follows (PECO St. 20A, p. 3):

The development of the Company's first site specific decommissioning cost study has indicated that decommissioning costs are substantially higher than we estimated through the comparative analysis techniques utilized as the basis for previous claims. As a result, the magnitude of the prior accrual correction in this proceeding is unusually large.

Trial Staff has proposed that the prior accrual correction to nuclear decommissioning expense be amortized over the remaining plant life rather than over five years as proposed by PECO. In support of its downward adjustment of \$1,896,000, Trial Staff witness Mayer asserts (Trial Staff Statement MJM-1, p. 5):

My method is fair to all ratepayers both current and future. The Reserve Deficiency has developed as the result of a re-evaluation of decommissioning fund needs, as well as inadequate earnings of the fund historically to keep pace with the cost increases determined by that re-evaluation, and as such, is not the liability of any particular group of ratepayers. To charge only current ratepayers for this expense is simply unfair.

Persuaded by Staff's argument that PECO has not demonstrated that current ratepayers are solely responsible for the deficiency, the ALJ recommended that PECO's decommissioning claim be reduced by \$1,896,000. The ALJ concluded that PECO had not provided an adequate basis for assigning these costs exclusively to current ratepayers.

In excepting to the ALJ's recommendation, PECO incorporates by reference its arguments presented in its Main and Reply Brief.

For the reasons set forth by the ALJ, we shall adopt Trial Staff's downward adjustment of \$1,896,000. The Company has simply failed to establish a basis for assigning responsibility for this deficiency exclusively to current ratepayers. We find that the Company has not sustained its burden of proof on this issue. Specifically, the Company has not explained why it would be improper to recover the reserve deficiency over the life of the plant which corresponds with the period in which the benefits would inure to the ratepayers. Moreover, Trial Staff's proposal appropriately balances the interests of current and future ratepayers by spreading the costs over a longer period of time.

We find the Trial Staff's proposal to amortize the reserve deficiency over the life of the plant to be appropriate and as such, it is adopted. Accordingly, PECO's claim shall be reduced by \$1,896,000 and its exception is denied.

18. Refund at C-850128

The Company has proposed an adjustment in this proceeding to reflect, in base rates, the effect of the settlement at Docket No. C-850128. The settlement agreement was approved by the Commission on April 17, 1985.

The adjustment under the settlement agreement includes the amount of \$1,747,000 to be refunded, plus interest of \$319,000, for a total of \$2,066,000.

The Company recommends a two-year amortization of this amount in this proceeding.

We find the Company's recommendation to be appropriate. We shall reduce PECO's expense claim in this proceeding by \$1,033,000 which represents one-half of the total amount to be amortized.

V. DEPRECIATION EXPENSE

PECO has claimed an annual depreciation and salvage expense allowance of \$248,947,000 based on the adjusted book depreciation reserve and remaining life accrual rates. (PECO Ex. TPH-2A, pp. D-6, D-25, D-26 and D-27). The Company's claim is approximately \$89 million higher than the book depreciation for the future test year ending June 30, 1986, of \$160,239,000. The \$89 million figure reflects the net effect of the addition of \$103 million of Limerick 1 annual depreciation expense, offset by a reduction in claimed depreciation expense due to the planned life extensions from 35 to 50 years for Cromley Unit 1 and Eddystone Units 1 and 2, which were not reflected in the 1985 budgeted book depreciation. (PECO St. 21, pp. 12-13; Exs. AW-1, p. 18 and AW-3, p. 1).

The only depreciation expense issues raised in this proceeding are the proposals of GEC and PAIEUG to employ a sinking fund depreciation methodology.

GEC's witness Dr. Wilson recommended a depreciation sinking fund plan whereby, under a ten year plan, depreciation expense would be reduced below the straight line level in the early years of the plant's life, but would escalate annually, so that the total cost of the plant would be recovered over its useful life. Dr. Wilson's phase-in proposal modifies the sinking fund method by combining it with a phase-in and deferral of the revenue increases, so that the early year levels are further reduced from what they would be under the sinking fund and under the Company's proposal (GEC Statement 1-B).

Dr. Wilson stated that this combination is beneficial to ratepayers because it eliminates some of the extreme front loading of Limerick 1 costs and reduces the

initial rate shock attributable to Limerick 1. Assuming that the Company receives its entire revenue request, the combination phase-in and deferral with sinking fund would increase rates by \$160 million in the first year, compared to a first year increase in the Company's plan of \$227.3 million. Both of these figures of course would be reduced to reflect the Commission made reductions to the Company's revenue request.

PAIEUG witness Falkenberg also proposed that the sinking fund method for depreciation expense be used and he recommended a 6% rate which, this witness contends, is approximately the same inflation rate which PECO projects. PAIEUG argues that the use of straight line depreciation will make the carrying costs of Limerick Unit 1 highest during its early years of operation when capital costs grossly outweigh any potential benefit of forecasted fuel savings. (PAIEUG St. 1, p. 17). PAIEUG further contends that the sinking fund depreciation technique provides the Commission with a generally accepted accounting technique which, when applied to PECO, will more closely match current revenue requirements with the rate levels imposed upon the ratepayers. Finally, PAIEUG contends that the Commission's adoption of sinking fund depreciation now would not prevent it from converting PECO's depreciation to straight line in later years in the event PECO's financial requirements would necessitate such a switch.

PAIEUG also notes that this Commission approved a modified sinking fund depreciation technique in prior proceedings, i.e., Pennsylvania Public Utility Commission v. Pennsylvania Power & Light Company, 55 PUR 4th 185, 229-230 (1983), Pennsylvania Public Utility Commission v. Pennsylvania Power & Light Company, 65 PUR 4th 30, 48 (1985).

PECO counters the sinking fund depreciation proposals by arguing that the use of sinking fund depreciation harms ratepayers because it results in the deferral of massive amounts of capital recovery to the end of a plant's life, thereby increasing the total capital cost of Limerick to ratepayers and the risk of capital recovery. PECO states that under sinking fund depreciation, the revenue requirements for the last ten years of the plant's life are \$5.6 billion or almost 300% higher than under the Company's straight line depreciation methodology, and the total lifetime capital revenue requirement for Limerick 1 is \$22 billion or \$6.6 billion higher than under straight line depreciation.

The Company also contended that sinking fund depreciation will also very likely be found to be inconsistent with FASB 71 although the proponents of the sinking fund method do not share this conclusion. The Company argues that first, it clearly violates the proposed amendment to FASB 71 because it defers recovery of costs beyond ten years, and secondly, it in all likelihood violates existing FASB 71. Mr. Farling testified that sinking fund depreciation would most likely not be considered generally accepted accounting principles because (1) investor-owned electric utilities generally do not employ the sinking fund methodology in their financial reporting; and (2) sinking fund defers a very large portion of a plant's capital recovery to the very end of plant life and thereby creates a serious risk of non-recovery of capital. PECO also argues that since sinking fund depreciation is not a normal allocation of depreciation and creates a substantial risk of non-recovery, there is substantial uncertainty whether it would be acceptable to the SEC and to the accounting profession (PECO St. 16A, p. 6-7).

The ALJ concluded that the sinking fund depreciation proposal:

Would not be in compliance with FASB 71, would seriously affect the Company's cash flow, and would require larger rate increases to future ratepayers. In addition, the use of the sinking fund depreciation approach would impose financial risks.

Further, the suggested plans of GEC are premised on the Company's receiving its full requested rate increase. We see no merit in Mr. Wilson's sinking fund depreciation method, which is unprecedented for investor-owned electric utilities, creates a substantial risk of non-recovery of investment, increases the revenue requirement associated with Limerick by over \$6 billion over its life, and is not in accordance with generally accepted accounting principles.

(R.D., p. 173)

We fully concur with the recommendation of the ALJ. The use herein of the sinking fund depreciation method would seriously impact the Company's cash flow and would place larger rate increases upon future ratepayers, since the proposed depreciation methodology would substantially increase the revenue requirement associated with Limerick 1. Accordingly, the exceptions of GEC and of PAIEUG are denied.

VI. TAXES

The Company's claimed tax expense has not been challenged with the exception of: (1) normalization of construction overheads; (2) accumulated deferred State Income Taxes; (3) allocation of consolidated Federal Income Tax savings; and (4) treatment of the sale of Salem 2 tax benefits.

A. Normalization of Construction Overheads

The Company has normalized the Federal and State tax reductions attributable to pension costs and payroll and realty taxes related to construction work in progress. The Company claims \$9,578,000^{30/} for deferred taxes relating to capitalized pensions, taxes and benefits. These costs are recorded as CWIP; however, these expenses are currently deductible for Federal Income Tax purposes. PECO argues that these tax benefits should be normalized so that they will be flowed through to the ratepayers who pay the underlying expense over the life of the particular plant (PECO St. 23, pp. 4-6).

PECO contended that this tax treatment recognizes the true pattern of the Company's expenses, recognizing the tax deduction in the same period as the payment of the

<u>30/</u>	<u>Federal</u> \$(1,000)	<u>State</u> \$(1,000)	<u>Total</u> \$(1,000)
Capitalized Pension and Taxes	4,938	1,074	6,012
Capitalized Employee benefits	<u>2,929</u>	<u>637</u>	<u>3,566</u>
TOTAL	7,867	1,711	9,578

underlying expense by ratepayers; and is more equitable as between present and future ratepayers, as it assigns the tax deduction to that ratepayer class who must also defray the underlying expense. In addition, PECO argues that employment of normalization accounting for this expense improves cash flow, thus improving the quality of earnings and interest coverage ratios of the Company, and a reduction in the cost of attracting capital and the amount of capital which must be attracted.

Under PECO's treatment, the deferred tax balance is currently deducted from rate base.

Trial Staff witness Jeffrey M. Heverling proposed that the deferred taxes on capitalized overheads be flowed through to ratepayers, thereby reducing the provision for Deferred Income Taxes (Trial Staff St. JMH-1, p. 3-6; Trial Staff Ex. JMH-1, Schedules 1, 2, 3). Trial Staff also recommends that the Company's accumulated balance for deferred taxes relating to these capitalized items should be refunded to ratepayers over a five year period. (Trial Staff St. JMH-1, p. 5). The normalization of these expenses is not required by the Internal Revenue Code.

The OCA concurs with Trial Staff on this issue, arguing that flow-through of these deferred taxes is mandated under the "actual taxes" doctrine recited in Barasch v. Pa. P.U.C., 507 Pa. 496, 492 A.2d 94 (1985).

The ALJ accepted Trial Staff's and the OCA's treatment of deferred taxes relating to capitalized construction overheads, in accordance with Barasch, and as enunciated by this Commission in Pa. P.U.C. v. Metropolitan Edison Co., Docket No. R-842770 (October 25, 1985), wherein we stated:

[S]ince the advent of Barasch, flow through of state income tax benefits to ratepayers is now mandated by the Supreme Court.

Consequently, we agree with OCA's conclusion that "the allowance of normalization of capitalized overhead's violates the actual taxes paid doctrine" ...and that "the issue of the tax benefits for capitalized overheads falls squarely within the ambit of the Supreme Court's analysis concerning the normalization of state income tax benefits."

The ALJ has correctly applied the applicable legal precedent regarding the treatment of deferred taxes relating to capitalized overheads, in accordance with Barasch, and we will adopt his recommendation; however, as Trial Staff correctly observes in its Exceptions, the appropriate effect of the cost of service components of Trial Staff's adjustment is \$16,208,000, not the income adjustment of \$8,141,000 recommended by the ALJ. (R.O., p. 142). We agree with Trial Staff that this adjustment is classified as Deferred Income Taxes and therefore is not deductible in the calculation of current income taxes. Accordingly, these types of adjustments flow through to income on a one-for-one basis.

We further accept Trial Staff's presentation of the cost of service components of this adjustment as shown at p. 85 of Trial Staff Exceptions, as follows:

<u>Recommended Adjustment</u>	<u>Exhibit Reference</u>	<u>Rate Base</u>	<u>State Income Taxes</u>	<u>Federal Income Taxes</u>	<u>Expense Effect Upon Income</u>
		\$	\$	\$	\$
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 future test year	(JMH-1, SCH2)		-1,074	- 4,938	- 6,012
b) Deny annual claim for deferrals relative to capitalized employee benefit at 6/30/86 future test year	(JMH-1, SCH2)		- 637	- 2,929	- 3,566
c) Provide the first year of the five-year amortization of accumulated 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			<u>-2,999</u>	<u>-13,209</u>	<u>+16,208</u>

B. Deferred State Income Taxes

The Company has historically been permitted to collect deferred State Income Taxes in rates until most recently, when this Commission directed it to switch to flow-through at Pennsylvania Public Utility Commission v. Philadelphia Electric Company, 58 Pa. P.U.C. 743 (1985). Staff witness Heverling recommends that the Company flow-through to ratepayers over a five-year amortization period, these accumulated deferred State Income Taxes. Trial Staff witness Heverling testified as follows in support of the five year amortization period:

1. It provides a greater probability of returning the funds which the Company has held from prior rate collection, to

the ratepayers who originally paid those funds. (Obviously a greater amortization period such as remaining asset life, would significantly lessen this probability of matching the refund to the payor).

2. It provides the greatest benefit to the ratepayer over both the reasonably near future, in absolute dollars, and the long term future, on a present value basis.
3. It resembles the five year amortization procedure that the Commission has recognized as appropriate for returning excess deferred Federal income tax that resulted from the lowering of the corporate tax rate.

(Trial Staff Statement JMH-1, pg. 8, lines 1-16).

OCA witness Bleiweis also supported a five year amortization of the flow through to ratepayers of deferred State Income Taxes (OCA St. 4, p. 24).

PECO opposes Trial Staff's adjustment, urging that prior to the Company's last rate proceeding, the Commission had specifically permitted the Company to normalize State Income Taxes in its prior proceeding at Docket No. R-811626. As a result of its compliance with these orders, the Company has accumulated deferred State Income Taxes on its books which are being flowed back to ratepayers over the life of the particular property in accordance with the Commission's Orders in those prior proceedings. PECO contends that neither ratemaking policy or anything in the Supreme Court's opinion in Barasch requires that these deferred taxes be flowed through to ratepayers over a shorter time period. PECO also contends that the amortization of these deferred tax balances over a shorter period of time than over the associated life of the property amounts to retroactive ratemaking (PECO St. 23A, pp. 4-5).

The ALJ accepted the recommendation of Trial Staff and the OCA on the treatment of the deferred State taxes; and he adopted the OCA's computations and reduced PECO's expense by \$5,658,000, and also recommended that PECO's rate base must be increased by \$7,167,000. (R.D., p. 143). We agree with the ALJ that a five year amortization of the deferred state taxes is appropriate in accordance with our reasoning in Pa. P.U.C. v. Bell Telephone Company of Pennsylvania, Docket No. R-842779 (October 24, 1985).

In its Exceptions, Trial Staff contends that the amortization amount of \$5,658,000 is inappropriate and should be rejected in favor of Trial Staff's proposed amortization adjustment of \$7,832,000. Trial Staff claims the OCA calculation 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 rate-payers 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.

Trial 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.) Staff contends 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%.

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 Exhibit JMH-1, Schedule 5.)

Staff states that it is unable to determine the basis or calculation of the rate base adjustment of \$7,167,000 relative to this issue, and therefore contends 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%.

In summary, the following tabulation reflects Trial Staff's computations regarding the rate base, cost of service, income and revenue effects for deferred State income taxes:

<u>Recommended Adjustment</u>	<u>Exhibit Reference</u>	<u>Rate Base</u>	<u>State Income Taxes</u>	<u>Federal Income Taxes</u>	<u>Expense Effect Upon Income</u>
Accumulated State Deferred Income Taxes:		\$	\$	\$	\$
Provide the first year of the five-year amortization of accumulated deferred taxes:	(STMT JMH-1)	7,832	-7,832		7,832
Required adjustment to Federal reserve at 46% of State deferred	(STMT JMH-1)	-3,603		3,603	-3,603
Totals for Adjustment - Staff		<u>4,229</u>	<u>-7,832</u>	<u>3,603</u>	<u>4,229</u>

We find Trial Staff's computations proper, and accordingly accept the above calculations in our computations for the five year amortization of accumulated deferred State Income Taxes.

C. Consolidated Tax Savings

PECO files a consolidated Federal Income Tax return incorporating the operations of its wholly owned subsidiaries. To the extent that these subsidiaries experience tax losses, these losses are available to offset tax liability incurred by other parts of the consolidated system. The Company contends that since the losses incurred which gave rise to those tax deductions were incurred by PECO's shareholders and were not paid in any way by PECO ratepayers, it is inappropriate to reflect consolidated tax savings resulting from these tax losses in the income tax calculations in this proceeding.

OCA witness Bleiweis proposed to allocate to PECO an amount he believes represents PECO's share of tax savings resulting from the filing of a consolidated Federal Income tax return. This witness calculated an average annual tax loss of \$966,542 for the past two years for PECO's non-regulated wholly owned subsidiaries, which he believes should result in \$341,776 of tax savings to PECO electric operations (OCA St. 4, pp. 27-33).

The OCA's consolidated tax savings adjustment is essentially based on the tax losses, or negative taxable income, generated by Eastern Pennsylvania Exploration Company (EPEC), a PECO subsidiary. Mr. Bleiweis testified as follows in regard to EPEC:

During cross-examination of Mr. Sileo, it was noted that the company stated in its last two cases that EPEC was budgeted to be profitable. However, to date, EPEC remains in a loss position. IT is only fair that the PUC recognize the facts as they stand - this subsidiary has been in a loss position for at least five yars. Though losses have somewhat diminished, the hard facts are that, contrary to company budgets, the subsidiary remains unprofitable. Until the company can show that EPEC actually has made a profit, its continual losses should be recognized for ratemaking purposes. (OCA St. 4, pp. 31-32.)

Mr. Bleiweis's analysis allocates the tax savings generated by PECO subsidiaries which showed a loss in both 1983 and 1984, to those subsidiaries which showed positive taxable income in 1984. This allocation is based on the percentage each such positive income subsidiary contributed to the total income of all positive income subsidiaries in 1984. Mr. Bleiweis described this methodology as follows:

Schedule 8 details this calculation.
The basic methodology is to, first,

reflect two-year total taxable income or loss data for Philadelphia Electric Company and its subsidiaries (column 3). The two years utilized were 1983 and 1984 and the source of such data is the company's tax returns - Schedule M-1. A two year period should give a representative picture of the taxable status of the subsidiaries.

Second, average taxable income or loss is calculated for each subsidiary (column 5). Columns 6 and 7 then develop an allocation factor to be utilized in allocating the taxable loss back to those subsidiaries in a positive taxable situation over the two-year period. Column 6 shows an 89.19% allocation factor for PECO. Column 7 totals the average tax losses available from Adwin Equipment Co., Eastern Pennsylvania Development Co. and Eastern Pennsylvania Exploration Co.

After taking 46% of the adjusted total average tax losses, 89.19% of the tax savings is allocated to PECO and 86.18% is further allocated to the Electric Division to be utilized as a tax savings applicable to the current portion of the company's federal tax liability for ratemaking purposes.

* * *

Column 6 develops an allocation factor based upon only those subsidiaries in an average positive taxable position during the 1983-1984 time period. Therefore, each subsidiary in a positive taxable position only receives a pro rata share of the total average taxable losses of those subsidiaries in a negative taxable position.

(OCA St. 4 at 29-31.)

As noted above, Mr. Bleiweis conservatively used a two-year average to determine average taxable losses. He testified that this was appropriate because:

The use of a longer period of time would have distorted the average taxable losses of Eastern Pennsylvania Exploration Co., the principle source of taxable losses within PECO. Losses in years prior to 1983 were much higher than those in 1983 and 1984. Therefore, to be conservative, I utilized only those losses for the most recent two years.

(OCA St. 4 at 30.)

PECO contends that even if a consolidated tax savings adjustment is viewed as theoretically appropriate, no adjustment is factually supported in this case since \$965,195 or 99.9% of the tax losses identified by Mr. Bleiweis relate to tax losses of EPEC; and that this wholly owned subsidiary of PECO is a partner with one or more subsidiaries of other utility companies in five joint ventures engaged in natural gas exploration and drilling. PECO concludes therefore that any adjustment should be attributed to the gas operations of the Company to reflect the fact that the EPEC venture is solely related to the development of gas supplies for PECO's gas operations. Costs and benefits should be allocated to PECO divisions based upon the function served by the underlying venture. Thus, EPEC losses and gains if to be recognized in ratemaking should be reflected in gas operations and not electric operations (PECO St. 23A, pp. 6-7).

The Company observes that the Commission has recognized this point by refusing to adopt consolidated tax savings adjustments in PECO electric rate proceedings while recently adopting such an adjustment in a PECO gas proceeding; and that the Commission adopted a consolidated tax savings adjustment in its April 1984 Order in PECO's last gas rate proceeding (Pa. PUC. v. PECO - Gas Division, Docket No. R-832410 (April 27, 1984)), and only two months later, denied an OCA Petition for Reconsideration seeking a similar

adjustment in PECO's 1983 electric rate case (Pa. P.U.C. v. PECO, Docket No. R-822291, Order Upon Reconsideration (June, 1983)).

The ALJ adopted the OCA consolidated income tax adjustment of \$342,000 based upon his conclusion that "Tax savings resulting from a consolidated return must be reflected in PECO's rates", citing Barasch. We do not agree with the ALJ on this issue.

In Barasch, the Pennsylvania Supreme Court stated:

Our Courts have consistently held it to be improper to include, for ratemaking purposes, tax expenses, which, because of the filing of a consolidated return, are not actually payable. All tax savings arising out of participation in a consolidated return must be recognized in rate-making, otherwise we would be condoning the inclusion of fictitious expenses in the rates charged to the ratepayers.

507 Pa. at 568, 493 A.2d at 653.

Substantially all the tax losses which give rise to the consolidated tax savings are the direct result of the operations of EPEC engaged in natural gas exploration and drilling, and we agree with PECO that the benefit of this EPEC generated tax loss should be allocated to PECO's gas division operations. We do not interpret Barasch to preclude this conclusion since all appropriate tax savings will be recognized in the rate proceedings of the PECO gas division. Accordingly, we will reflect no consolidated tax savings in determining PECO's income tax expense in this proceeding.

1. Salem 2 Tax Benefits

In the last PECO base rate case, at Docket No. R-842590 (1985), we directed PECO to amortize to ratepayers a \$6.9 million payment it received from the Hercules Corporation as part of the sale of tax benefits from Salem Unit 2. The return to ratepayers mandated by the Commission was to be made over the course of twenty-nine years. (See Pa. P.U.C. v. Philadelphia Electric Co., 57 Pa. P.U.C. 743, at 809-811. In addition, we directed that the unamortized balance be removed from rate base because it does not represent investor-supplied funds.

In this proceeding, the Company has failed to reflect this Commission-ordered amortization of \$6.9 million payment to ratepayers and the corresponding rate base adjustment.

The OCA recommends that the Commission's decision in the last rate case be continued. Its adjustment results in an annual expense reduction of \$228,000 and a rate base reduction of \$6,098,000, the remaining unamortized balance.

The ALJ adjusted PECO's tax expense by the annual \$228,000 amortization, and made a rate base reduction of \$6,098,000 on account of the Salem 2 Tax Benefits. We concur with the recommendation of the ALJ.

VII. RATE OF RETURN

A. Introduction

A public utility is entitled to an opportunity to earn a fair rate of return on the fair value of its property. See Pennsylvania Gas & Water Co. v. Pa. P.U.C., 19 Pa. Commonwealth Ct. 214, 341 A.2d 239 (1975); Keystone Water Company White Deer District v. Pa. P.U.C., 19 Pa. Commonwealth Ct. 293, 302, 330 A.2d 873, 877 (1975); Riverton Consolidated Water Co. v. Pa. P.U.C., 186 Pa. Superior Ct. 1, 140 A.2d 114 (1958). Rate of return can be defined as:

. . . the amount of money a utility earns, over and above operating expenses, depreciation expenses, and taxes, expressed as a percentage of the legally established net valuation of utility property, the rate base. Included in the 'return' are interest on long-term debt, dividends on preferred stock, and earnings on common equity. In other words, the return is the money earned from operations which is available for distribution among the various classes of contributors of money capital.

Public Utility Economics, Paul J. Garfield and Wallace F. Lovejoy (1964), at 116. The return authorized must not be confiscatory, and must be based upon the evidence presented. Pittsburgh v. Pa. P.U.C., 165 Pa. Superior Ct. 519, 69 A.2d 844 (1949).

Although it is acknowledged that the fair rate of return and cost of capital are not always synonymous, we consider the "cost of capital" approach to be one of the important bases upon which fair rate of return is determined. Lower Paxton Twp. v. Pa. P.U.C., 13 Pa. Commonwealth Ct. 135, 317 A.2d 917 (1974); Pa. P.U.C. v. Duquesne Light Company, 54 Pa. PUC 695 (1981). In availing ourselves of this

generally accepted method of arriving at a fair rate of return, we, the ratemaking authority, first examine the utility's capital structure to identify the sources of the utility's capital and accompanying ratios. We then ascertain the cost of each component; namely, the cost of debt, determined essentially by the annual interest requirement of the utility's bonds, the cost of preferred stock, and, the cost of common stock (common equity), determined by the return required to sell such stock upon reasonable terms in the market. Pa. P.U.C. v. The Bell Telephone Company of Pennsylvania, 57 Pa. P.U.C. 639 (1983); Pa. P.U.C. v. Pennsylvania Power Company, 55 Pa. P.U.C. 552 (1982).

Regardless of the procedure employed in determining fair rate of return, we must exercise "informed judgement". As we stated in Pennsylvania Power:

The return finding should consider the financial costs being incurred, so that the utility has the opportunity to recover its present cost of capital or to attract needed capital at reasonable cost. A fair rate of return for a public utility, however, is not a matter which is to be determined by the application of a mathematical formula. It requires the exercise of informed judgment based upon an evaluation of the particular facts presented in each proceeding. There is no one precise answer to the question as to what constitutes a proper rate of return. The interests of the company and its investors are to be considered along with those of the customers, all to the end of assuring adequate service to the public at the least cost, while at the same time maintaining the financial integrity of the utility involved. (Emphasis supplied).

Moreover, we must adhere to the legal constraints which guide our decision.

In the landmark case of Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679 (1923), the United States Supreme Court addressed the issue of fair rate of return for a public utility. In Bluefield, the Court stated:

What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgement, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country in investments in other business undertakings which are attended by corresponding risk and uncertainties; but it has no constitutional rights to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and business generally.

Id. at 692693.

In establishing the standards to be applied in implementing the Federal Natural Gas Act, the United States Supreme Court, in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944), said:

The ratemaking process, under the Act, i.e., the fixing of 'just and reasonable'

rates, involves a balancing of the investor and the common interest . . . [R]egulation does not insure that the business shall produce net revenues.' (Citations omitted)

But such considerations aside, the investor interest has legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include services on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. The return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

Id. at 603.

As noted in these cases, we are required to approve as just and reasonable, rates which will produce revenues sufficient to enable the utility to recover all reasonable operating and maintenance expenses, depreciation and taxes. Additionally, the utility is entitled to have an opportunity to earn a fair rate of return on the capital invested in the enterprise. Pa. P.U.C. v. North Penn Gas Company, 55 Pa. P.U.C. 425 (1981). We stated in Pa. P.U.C. v. Philadelphia Electric Co., 52 Pa. P.U.C. 772 (1978):

Among the factors to be considered in determining a fair return are (1) the earnings which are necessary to assure confidence in the financial integrity of the utility and to maintain its credit standing; (2) the payment of dividends and interest; and (3) the amount of the investment, the size and nature of the utility, its business and

financial risks, and the circumstances attending its origin, development and operation.

Finally, we must engage in an appropriate balancing of the rates charged to the customers, for the service provided, with the return to which investors in the enterprise are entitled to have an opportunity to earn.

B. Capital Structure

PECO has claimed a capital structure in this proceeding consisting of 50.9% long term debt, 10.7% preferred stock and 38.4% common equity projected to June 30, 1986 (JFB-3, Schedule 1). As the ALJ observed, although there was some variance in the capital structure as to some of the parties, the OCA, GSA and Trial Staff finally accepted PECO's claimed capital structure. We agree with the ALJ that a capital structure consisting of 50.9% long-term debt, 10.7% preferred stock, and 38.4% common equity is appropriate for use in this proceeding in our determination of a fair rate of return for PECO.

C. Cost of Debt

PECO originally claimed a debt cost rate of 10.86% (PECO Ex. JFB-1, Updated Schedule 1, p. 1). This debt cost rate reflects the following:

1. Actual issuance of \$41 million of 10-1/2% Pollution Control Revenue Bonds in October 1985, not originally contemplated.
2. Actual issuance of \$250 million of 11-3/4% and \$150 million of 10-7/8% First Mortgage Bonds in November 1985, not originally contemplated.

3. Actual tender of \$78.096 million of 17-5/8%, \$76.131 million of 18-3/4%, and \$62.621 million of 18% First Mortgage Bonds in December 1985 for redemption, not originally intended.
4. Cancellation of plans to sell \$100 million of First and Refunding Mortgage Bonds for November of 1985. The Company plans to sell \$100 million of First Mortgage Bonds in May of 1986.
5. Proposed issuance of Debentures in the amounts of \$100 million in February 1986, \$225 million in April 1986, and \$225 million in June 1986, none of which was originally contemplated.
6. Proposed repayment of \$550 million of Limerick Revolving Credit Line derived from proceeds of the sale of new debentures in February, April and June, 1986. The Company did not propose originally to repay the \$550 million Limerick Revolving Credit Line.
7. Proposed call in July 1986 of \$46.904 million of 17-5/8% First Mortgage Bonds, not redeemed as a result of the tender offer in December 1985.

(PECO St. 28B, pp. 2-3).

Both Trial Staff and the OCA have accepted the Company's debt cost claims; however, GSA recommends a debt cost rate of 10.36%. GSA differs from the Company's claim in the following respects:

1. GSA employs a forecasted Treasury Bill yield of 7.15% in forecasting the effective costs of the floating rate notes. PECO employs 7.29% based upon Treasury Bill Future Contract yields. (GSA St. 1-A, pp. 2-3, Sch. 14).

2. The GSA recommends the disallowance of the \$550 million exchange of the Limerick Revolving Credit Agreement for an equal amount of long-term debentures. (GSA St. 1-A, p. 4). GSA witness Winter contends that current interest rates may continue or even decline as a result of possible downward changes in inflation from oil costs declines, adequate supplies of raw material and labor, Federal Reserve monetary policy and the possibility of an improvement in PECO's debt rating before the required repayment of the credit line starting in 1988. (GSA St. 1-A, pp. 4-5).
3. The current line of credit with an effective cost rate of 9.75% would be replaced under PECO's proposal with debentures costing 11.88%. (GSA St. 1-A, pp. 5-6).
4. The GSA proposal does not reflect amortization of the premium associated with the redemption of First Mortgage Bonds with cost rates of 17.62%, 19.75%, and 18%, not the associated adjustment to the principal amount of debt outstanding. (GSA St. 1-A, pp. 7-8). Although witness Winter agrees that the cost effective of redemption should be recovered by the Company, the witness contends that PECO method leads to excessive results. (GSA St. 1-A, pp. 8-10, R.D., pp. 91-92).

The ALJ concluded that the GSA proposal to employ U.S. Treasury Bill yields rather than future Treasury Bill yields as employed by the Company in determining the cost rate for the Company's floating rate pollution control notes, does not reflect the market expectations as well as future contract yields. We concur with the recommendation of the ALJ for the reason that GSA's recommendation relies on theoretical forecasts whereas the use of current yields

on future contracts is proper since this method reflects the composite market results of actual transactions by investors.

Regarding the refunding of the Limerick Credit Agreement, it is important to note that this agreement expires in 1988, and will have to be refinanced in any event. The Company currently had the opportunity to lock-in relatively low long-term interest rates. GSA contends that the cost rate difference is over 200 basis points, and that since interest cost rates have not shown an upward trend, the projected effects of an exchange of debentures for the Limerick Credit Agreement should not be reflected in the cost of debt for PECO.^{31/}

PECO contends that short-term interest rates are extremely volatile, and where it can lock-in a reasonable long-term interest rate and avoid the risk associated with short-term volatility, it is prudent for it to do so even where the long-term rate is somewhat higher than the interest rate being replaced. We find the Company's argument to be sound. Furthermore, \$450 million of the \$550 million credit agreement has in fact been refunded with long-term debt having a weighted composite effective yield of 11.12%.^{32/} This transaction reduces the Company's debt cost claim from 10.86% to 10.76%. (PECO Exceptions, p. 55).

In connection with the GSA position on recognition of the Company's \$2.441 million amortization relative to the premium for redeeming high coupon first mortgage bonds, we

^{31/} The current line of credit has an effective cost rate of 9.75%.

^{32/} The actual cost rate difference between the new debt issue and the effective cost rate of the current line of credit is 137 basis points.

find the Company's redemption to be reasonable, inasmuch as it lowers the Company's capital costs. The Company's rate-making treatment of the premium is identical to the treatment of gains or losses on the reacquisition of debt and the recovery of selling and issuance expense in connection with the issuance of long-term debt.

In accordance with the preceding discussion, we find a debt cost rate of 10.76% to be appropriate for PECO in this proceeding.

D. Preferred Stock

PECO claims a preferred stock cost rate of 10.50%, projected to June 30, 1986. Both the OCA and Trial Staff have accepted the Company's claim; however, the GSA recommends a preferred stock cost rate of 10.41%.

GSA's witness Winter contends that Mr. Brennan has overestimated the cost rate at which PECO's May 1986 preferred stock issuance will be issued. Mr. Winter states that preferred stock issuances typically sell at yields below those associated with a company's mortgage bonds (GSA St. 1A, Sch. 16), and that actual costs of preferred stock issuances by triple-B rated companies in December 1985, were only 9.5%. (GSA St. 1, p. 5). This witness concludes that actual data from the marketplace, along with recent actual yields on PECO's mortgage bonds, support his conclusion that a 10.10% cost rate is a reasonable estimate for the proposed issue's cost. (GSA St. No. 1A, pp. 10-11). Use of 10.10%, instead of the Company's figure of 11.8%, leads to GSA's 10.41% recommendation for the cost of PECO's preferred stock.

PECO's witness Brennan states that on PECO's last occasion of concurrently issued long-term debt and preferred

stock, the Company's preferred stock commanded an effective cost rate in excess of that demanded by the long-term debt issuance. (PECO Ex. JFB-1, Sch. 4-5). Further, PECO claims that GSA's contention that "BBB" rated utilities issued preferred stock for 9.5% in December 1985 is meaningless in light of PECO's greater investment risk than the average "BBB" rated utility.

On this issue, the ALJ concluded:

The Company has shown that recently (December 1984), when it issued preferred stock and long-term debt concurrently, preferred stock demanded a premium over and above that of long-term debt. Whether December 1984 is a totally accurate gauge of the cost rates to be faced by the projected issue is irrelevant, insofar as cost rates are concerned, but it does indicate the manner in which investors compare PECO's preferred stock to its long-term debt.

(R.D. p. 94).

We agree with the recommendation of the ALJ on this issue, and therefore find a cost rate for preferred stock of 10.50% for PECO in this proceeding.

E. Cost of Equity

The ALJ observed in the Recommended Decision (p. 95) that "...[The] determination [of the cost of common equity capital] involves a judgment of what return is necessary to enable the utility to attract capital to satisfy its service obligations. The conclusions arrived by the Commission, the utility, complainants and their experts, may vary greatly." The following tabulation reflects the substantial variation among the active parties concerning an appropriate cost of equity for PECO in this proceeding:

<u>Methodology*</u>	<u>PECO^{1/} Brennan</u> %	<u>OCA^{2/} Rothschild**</u> %	<u>GSA^{3/} Winter</u> %	<u>Trial Staff^{4/} O'Donnell</u> %
Discount				
Cash Flow	15.6	13.71	13.72-15.41	12.4-14.7
Risk Spread	16.25			12.3-13.8
Common Equity				
Cost	15.9	14.0	14.56	14.25

* Methodologies listed in the table are the methodologies given primary consideration by the individual parties and does not consider methodologies employed by the parties as testing tools.

** The OCA common equity cost rate is based upon the DCF method and judgement.

1/ PECO's common equity cost rate gives equal weight to the DCF method and the Risk Spread and is before adjusting for selling and issuance expense. (PECO St. 28B, pp. 13-15).

2/ The OCA's common equity cost rate is based upon Moody's 24 Electric Companies sub-group of non-nuclear construction electric utilities. (OCA St. 3, pp. 39-41).

3/ GSA's common equity cost rate is based upon recent macroeconomic conditions, market analysis of utility stocks, PECO's common stock, and an analysis of prospective cost of capital trends. GSA's recommendation is based on its DCF finding. (GSA Main Brief, pages 13-14).

4/ Trial Staff's common equity cost rate is based upon the DCF and Risk Spread methods and judgment. (TS Main Brief, Appendix B, Table III).

PECO witness Brennan recommended an equity cost rate of 15.9%^{33/} for PECO, relying primarily upon his Discounted Cash Flow ("DCF") (15.6%) calculation and a risk spread analysis (16.25%), before any recognition of selling and issuance expense. (PECO St. 28B, pp. 13-15). As a check on his PECO specific DCF and risk spread analysis, he performed the analyses for a barometer group of BBB rated electric utilities and derived an indicated equity cost rate of 14.9% (PECO St. 28B, p. 14). PECO further contends that it is unlikely it will achieve the return authorized in this proceeding due to attrition and regulatory lag; and that under the Company's revenue phase-in-plan, cash earnings will be significantly less in the first two years rates are in effect.

Trial Staff, through its witness Andrew R. O'Donnell recommended an equity cost rate for PECO 14.25%, based upon the midpoint of the lower end of a range of 14.0% to 15.0% (Trial Staff St. ARO-2, p. 6), relying primarily upon a DCF analysis for PECO, a DCF analysis for a barometer group of four electric companies^{34/} (12.4%-14.7%), and a risk spread analysis (12.3% to 13.8%). Mr. O'Donnell also included data for Moody's 24 Public Utilities. This witness also examined market price index ratios which are calculated by dividing the average of each year's high and low stock price by a base year's average high-low stock price and multiplying the result by a factor adjusting for stock splits (Trial Staff ARO-1, p. 11-2). Based upon this data, Mr. O'Donnell concluded that PECO's and the barometer group's market price

^{33/} Mr. Brennan's original DCF analysis produced an equity cost rate recommendation of 16.7%.

^{34/} Dayton Power and Light Co., Duquesne Light Co., Ohio Edison Company and Toledo Edison Co. (Trial Staff St. ARO-1, p. 6).

index generally has lagged behind the electric industry since 1974, producing expectations of low or negative dividend growth for both PECO and the barometer group, which is consistent with relatively higher experienced dividend yields.

The OCA's witness Rothchild recommended an equity cost rate for PECO of no more than 14%, based upon his use of a DCF analysis for those Moodys "24" group of electric companies without ongoing nuclear construction programs (OCA St. 3, p. 10). Mr. Rothchild's recommendation for an equity cost rate of 14% for PECO represents a cost rate without the risk associated with the completion of Limerick 2. This witness attributes .75% to be the risk associated with the completion of Limerick 2. He further recommends that the Company be allowed to recover this .75% risk differential through additional AFUDC accruals on Limerick 2, and that the additional AFUDC be added to the cost of this plant to be paid for by future ratepayers (OCA St. 3, pp. 11-12).

Although the GSA witness Winter originally recommended an equity cost rate for PECO of 15.6% (GSA St. 1, p. 6), he later updated this figure to 14.56% which represents the mid-point of a range between 13.72% and 15.41% (GSA St. No. 1A). He suggests that the Commission should revise his recommendation to reflect any significant trends recorded before the time of decision. This witness based his common equity cost recommendation for PECO on the DCF methodology; however, as a check on his findings, he performed two confirmatory studies of comparable risk securities and risk premiums between stocks and bonds. Mr. Winter's cost of equity recommendations are based upon: a review of recent macroeconomic conditions including expectations for, and recent trends in the rate of inflation, current Federal Reserve policy on monetary growth, and loan demand; a current market analysis of utility stocks in general, and PECO's

stock specifically; and an analysis of prospective cost of capital trends.

1. Discounted Cash Flow

The DCF analysis methodology is a market-based technique which is founded upon the principle that the present value is a discounted value reflecting the future anticipated payments which are comprised of cash flows in the form of anticipated future dividends and capital gains upon the sale of the investment. Pa. P.U.C. v. Metropolitan Edison Company, Docket No. R-822249 (October 19, 1983). In order to calculate the cost of equity under this methodology, the following formula is used: $\text{Cost of Equity} = \text{dividend yield} (\text{dividend} \div \text{market price of stock}) + \text{future growth}$.

a. The Company

PECO contends that it is considered by the investment community to be a riskier investment than the average BBB rated electric utility; that PECO's earnings/price ratio and dividend yield have been consistently higher than average BBB rated utility for several years, and PECO's stock has sold at a greater discount from book value compared to the barometer group, in spite of the fact that PECO's achieved earnings/book ratio is and has been higher than a barometer group of comparable operating electric companies (PECO St. 28, pp. 4-6).

Although PECO recognizes that recent improvements in the national economy and electric utility industry have created substantial improved earnings and stock price performance and lower inflation rates, lower interest rates and completion of major construction programs by certain electric utilities have created a climate for improved earnings performance in the near-term future, as evidenced by the

recent rise in the price of electric utility stocks. The Company maintains, however, that it must be that these recent increases in the price of stock are largely attributable to recent increases in expected future earnings growth and must be examined in that context in determining a proper common equity cost rate.

Mr. Brennan employed a dividend yield of 13.2% on the basis of four inputs: a spot yield calculation for January 27, 1986, both with and without reflecting the "next period" dividend, and a 52-week dividend yield calculation for the period ending December 31, 1985, again both with and without reflection of the "next period" dividend (PECO Ex. JFB-3, Updated Schedule 14). According to Mr. Brennan, the use of a "next-period" dividend in calculating the dividend yield reflects the assumption that some but not all investors expect PECO to grant a dividend increase the next period the stock is to be held. Mr. Brennan assumed a one-year dividend growth at 2.4% and, by including it in only two of his four inputs, gave one-half weight to this investor expectation (PECO St. 28B, p. 18).

Turning to the growth component of the DCF analysis, Mr. Brennan originally employed a 1.7% figure based on PECO's historic dividend growth rates for the 5 years ended 1984 and Value Line and Merrill Lynch forecasted earnings and dividend growth rate projections (PECO Ex. JFB-1, Schedule 15, p. 1).

During the course of this proceeding, several significant events occurred which PECO contends have influenced the Company's financial condition. The Commission entered a final Order allowing PECO to complete Limerick 2 under a cost containment program, and the Company accepted this proposal. Several investment firms abandoned their projection of a possible PECO dividend cut, and PECO's stock

price rose significantly. PECO, however, contends that a significant portion of this price increase was caused by an increase in investors' expectations of PECO future earnings growth, particularly since the Commission's Limerick 2 decision eliminated the prospect of an immediate dividend cut and since PECO's stock price increase of 26% was far greater than the 12.9% increase experienced by electric utilities in general. To reflect these changes, Mr. Brennan recalculated his original growth rate projection and revised it upward to 2.4%. (PECO St. 28B, pp. 17-18).

Although this witness originally employed a growth rate of 1.7%, he concluded that in the case of PECO, specifically, a higher growth rate must be in the mind of investors; however, he would not recommend an increase in the growth rate for the barometer group of four electric utilities.

Combining Mr. Brennan's updated growth rate (2.4%) with his updated dividend yield (13.2%) produces a DCF calculated cost rate of 15.6%.

b. Trial Staff

Trial Staff's witness O'Donnell derived a dividend yield of 13.7% and a growth rate range of 1%-2% (1.5% midpoint) under the DCF methodology. (Trial Staff Ex. ARO-1, Schedule 5, p. 3). The dividend yield was based upon PECO's then current \$2.20 dividend and the average of a spot and six-month average stock price.

Mr. O'Donnell's growth rate factors were taken from the Value Line Investment Survey, Solomon Brother's Electric Utility Monthly and Merrill Lynch's Quantitative Analysis (Trial Staff Ex. ARO-1, Schedule 4, p. 2).

In his direct testimony, Mr. O'Donnell's DCF calculation indicated a required rate of return on common equity for PECO of 14.7% to 15.7%, with the range of his barometer group being between 12.6% and 14.1% (Trial Staff St. ARO-1, p. 18; Trial Staff ARO-1, Schedule 5). In his updated and surrebuttal testimony (Trial Staff St. ARO-2), Mr. O'Donnell recalculated his DCF using updated financial information (Schedules 1, 2, 4 of Trial Staff ARO-2B) and calculated a return on common equity for PECO of 13.7 to 14.7%, with a range for his barometer group of 12.4 to 13.9 percent (Trial Staff St. ARO-2, p. 6).

c. OCA

OCA witness Rothschild, derived a recommended equity cost rate for PECO of no more than 14% (OCA St. 3, pp. 4 and 41), although in direct testimony, and based on data available at that time, he stated that a 14.75% cost rate would fully compensate PECO for its cost of common equity (OCA St. 3, p. 4).

Mr. Rothschild's original finding of 14.75% was supported by a DCF analysis performed on PECO-specific data. Specifically, Mr. Rothschild performed two analyses: one of which used data as of December 31, 1984; the other of which used data as of November 30, 1985. Mr. Rothschild then gave equal weight to these two analyses to develop a market-derived cost of equity for PECO of 14.31%. (OCA St. 3 at 43). Mr. Rothschild then added 40 basis points to this estimate to reflect financing costs, and rounded the result to 14.75%.

Mr. Rothschild's 14.75% recommendation was derived by using a dividend yield falling in the range of 13.97% (as of November 30, 1985) to 14.78% (as of December 31, 1984). (OCA St. 3, Schedule 4, page 1). Mr. Rothschild then adjusted

the dividend yield by between -0.05% and +0.04% to reflect growth in the next year. To this adjusted dividend yield, he added investor-expected growth of between -0.70% and +0.53%. His analysis, therefore, resulted in a market-derived cost of equity for PECO within the range of 13.46 to 15.11%.

In his original testimony, Mr. Rothschild stated his opinion that, under the Commission's Order in the Limerick 2 Investigation at Docket No. I-840381, it would be appropriate to exclude from the Company's present rate of return all additional risk associated with the construction of Limerick 2. (OCA St. 3 at 11-12). Mr. Rothschild calculated that, under his original analysis, Limerick 2 risk added approximately 75 basis points to PECO's market derived cost of equity. (OCA St. 3 at 4).

d. GSA

GSA's witness Winter originally recommended an equity cost rate of 15.6% based upon a two-stage DCF analysis of PECO. His calculation produced a dividend yield of 14.5%, a short-term growth rate of 0-1.0% and a long-term growth rate of 1.0-2% (GSA St. 1).

GSA's witness Winter observed that the quantification of PECO's cost of equity has been unusually difficult due to recent significant changes in both general costs of capital and the risk level associated with PECO's stock. He observed that interest rates generally dropped approximately 100 basis points between March and December of 1985 and additional declines have been recorded since that period (GSA St. No. 1, Schedule 4).

GSA also contends that PECO's more recent dividend yield has remained at 11.6% and has at times fallen below

11.0%. These more current yields compare with an average yield of 13.10% during the 16 week period ending February 7, 1986. (GSA St. No. 1A, p. 14). Mr. Winter concludes that yields in the range of 11.0% to 11.6% are more representative of actual current investor return requirements.

2. Risk Spread

Based on the risk spread analysis, the cost of equity for PECO can be determined by the cost of long term debt plus a risk premium to reflect the relative higher risk of common equity when compared with the cost of debt. The cost of debt, long term, is comprised of a "bare rent" for the use of capital and an inflation protection component. See Pennsylvania Public Utility Commission, et al. v. Philadelphia Electric Company; Docket No. R-842590 (January 25, 1985).

a. PECO

PECO witness Brennan employed a long-term debt cost rate for PECO of 11.75% based upon the cost rate incurred by the Company in issuing long-term First Mortgage Bonds in December 1985 (PECO St. 28B, pp. 3-4). The 11.75% debt cost rate of course reflects the inflation protection which investors, in general, factor into an appropriate debt cost rate at the time the debt is offered for sale.

In the second step in the development of the cost of equity under the risk premium methodology, Mr. Brennan developed an equity risk premium of 4.5%. This equity risk premium of 4.5% was developed from an analysis of comparative utility equity and debt cost rates for PECO, a barometer group of comparable BBB rated utilities, and a large 82 electric utility group. Since the risk premium varies with the cost of attracting long-term debt,

Mr. Brennan included in his analysis a period of relatively higher debt costs (1981-82) and relatively lower debt costs (1983-84). Based on this data, Mr. Brennan concluded that a risk premium of 4.5% was appropriate for PECO when the cost of attracting long-term debt was 12.5% (PECO St. 28, p. 39). In his rebuttal testimony, Mr. Brennan revised his cost of attracting new long-term debt downward to 11.75%, but did not revise his original 4.5% equity risk premium (PECO St. 28A, p. 14).

b. Trial Staff

Trial Staff witness O'Donnell, in his initial direct testimony, calculated a recommended cost of equity for PECO under the risk spread methodology in the range of 12.5% to 14.1% (Trial Staff St. ARO-1, p. 18; p. 1 of Schedule 6 of Trial Staff Ex. ARO-1). This witness later updated his calculations, and recommended a cost rate in the range of 12.3% to 13.8% under his methodology (Trial Staff St. ARO-2, p. 6; page 1 of Schedule 6 of Trial Staff Ex. ARO-2B).

Mr. O'Donnell used the bond yields, spreads, and other pertinent information taken from Moody's Bond Record and from Standard and Poor's Bond Guide. Spreads based on the yield to maturity of both agencies were averaged, and current and six month average spreads were calculated and averaged. Mr. O'Donnell used the average of the spot and six month average to be consistent with the yield time periods in his DCF analysis (Trial Staff St. ARO-1, p. 19, Schedule 6).

3. Discussion and Conclusion

As GSA witness Winter observed, the quantification of an appropriate cost of equity for PECO in this proceeding is somewhat more difficult than usual due to recent significant changes in both general costs of capital and the risk level associated with PECO's common stock. There has been a significant drop in interest rates during these proceedings, e.g., interest rates generally dropped approximately 100 basis points between March and December of 1985 and additional declines in interest rates have occurred since that period. (GSA St. No. 1, Sch. 4)

Common stock market prices for PECO and other electric utilities have increased substantially during this proceeding which of course impacts the yield factor in the DCF common equity cost equation. We also observe that there has been a generally sustained upswing in general stock market prices during this proceeding.

Turning our attention to the DCF methodology for determining the cost of equity for PECO, we find OCA witness Rothchild's DCF derived equity cost rate entirely too low for the reason that he has proposed to eliminate from his equity cost calculations, all risk associated with Limerick 2. Mr. Rothchild attributed .75% to the risk associated with the completion of Limerick 2. He also based his DCF analysis on those Moodys "24" group of electric companies having no ongoing nuclear construction programs.

We quote, with endorsement, the ALJ's discussion and conclusion regarding the propriety of establishing an equity cost rate for PECO without reflecting the risk of the Limerick 2 construction:

The cost of common equity is what investors expect it to be and, as such,

it does not lend itself to precise quantification. In this proceeding, two parties disregard money market based evaluations of PECO's common equity cost rate to remove, in part, the cost they view as associated with PECO's nuclear construction. This approach disregards the fact that PECO's cost of common equity should reflect the Company's reality and not some idealistic situation. Furthermore, if the adjustments of Limerick associated costs are accepted, there is nothing in the record that would indicate that investors would not require greater compensation for the resulting regulatory risk than they currently do for nuclear risk. The simple fact is that investors, as indicated by PECO's market/book value ratio for the last five years, view PECO's earnings as unsatisfactory.

(R.D., p. 100)

The OCA is actually urging that we not recognize PECO's actual cost of attracting capital in the market place. Investors' concerns regarding the risk of Limerick 2 construction are reflected in the market price of PECO stock. We conclude, as we did in Pa. P.U.C. v. Philadelphia Electric Company, Docket No. R-842590 (January, 1985), that our determination of PECO's cost of equity must reflect PECO's financial condition as it is perceived in the market place:

The ALJ recognized that the cost of PECO's common stock reflects the realities of the market place. In effect, the parties are requesting that we not recognize PECO's actual cost of attracting capital. It is apparent, however, that investors fears are reflected in the market price of PECO's stock as it would be in most stocks. Therefore, our decision on PECO's cost of common equity must account for PECO's financial condition, as it is perceived in the market place. In

addition to our concern that the methods of quantification are accurate, See Pa. P.U.C. v. Philadelphia Electric Company - Steam Division, 52 Pa. P.U.C. 260, 289 (1983), we are unpersuaded that the legal arguments presented by the parties substantiate these reductions. Accordingly, we shall not rely on the OCA's or City's common equity cost rate recommendations in reaching a final resolution of this issue. (Emphasis added.)

PECO witness Brennan employed a dividend yield of 13.2% based upon a spot yield calculation for January 27, 1986, and a 52-week dividend yield calculation for the period ending December 31, 1985. As GSA witness Winter observed, PECO's more recent dividend yield has remained at 11.6%, and has at times actually fallen below 11.0%. Mr. Winter concluded that yields in the range of 11.0% to 11.6% are more representative of actual current investor return requirements.

Trial Staff witness O'Donnell derived a dividend yield of 13.7% based upon PECO's \$2.20 dividend and the average of a spot and six-month average stock price.

The evidence before us for consideration indicates that PECO's dividend yield at the conclusion of hearings approximated 11.5%. It would thus appear that PECO's recommended derived yield of 13.2% and Mr. O'Donnell's derived yield of 13.7% are both on the high side. We, of course, do not consider it appropriate to place too great a reliance on spot prices, particularly at a time when there has been a general increase of stock prices in the market, since it is not likely that the downward trend in PECO's yield will continue indefinitely. We find an appropriate yield for DCF calculations to be in a range of 11.5% to 12.5%, and will utilize a yield factor of 12% which is at the mid-point of the range.

PECO contends that a significant portion of the recent increase in the market price of its common stock was caused by an increase in investors' expectations of PECO future earnings growth, particularly since our decision regarding Limerick 2 eliminated, says PECO, the prospect of an immediate cut in PECO's dividend; and because PECO's stock price increase of 16% was far greater than the 12.9% increase experienced by electric utilities in general. Mr. Brennan calculated a growth rate of 2.4% in his DCF determinations.

Trial Staff witness O'Donnell determined a growth rate of 1% to 2% based upon data from three investment advisory firms. GSA witness Winter also determined a growth rate of 1.0% to 2.9%, long term.

In our view, there may be a certain degree of correlation between the market price of stock and dividend and earnings growth. We agree with Mr. Brennan that the recent above average increase in the price of PECO's stock may reflect the investors' perception of prospective growth in the Company's earnings and dividends. Accordingly, we determine an appropriate growth factor to be 2.75% for PECO in our determination of the cost of equity in this proceeding.

Combining our finding of 12.00% for the yield component and 2.75% for the growth factor produces an equity cost of 14.75% for PECO under the DCF methodology.

Under the risk spread analysis, Mr. Brennan employed a long-term debt cost rate for PECO of 11.75% based upon the actual cost rate incurred by the Company when long-term First Mortgage Bonds were issued in December 1985.

Trial Staff witness O'Donnell used bond yields from Moody's Bond Record and from Standard and Poor's Bond Guide. He used an average of spot yields and a six-month average of yields.

We find a yield in the range of 11.5% to 12% to be appropriate.

Mr. Brennan determined a risk premium of 4.5% based upon an analysis of comparative utility and equity cost rates for PECO and two separate groups of utilities which covered a period of relatively higher debt costs (1981-1982) and relatively lower debt costs (1983-1984). This witness did not revise his recommended risk premium when he revised his cost of attracting new long-term debt downward to 11.75%. In our view, a reduction in the cost of long-term debt must, of necessity, reflect the investors' perception of less future inflation or at least of a lessened concern for increased inflation. This would indicate a reduction in the risk associated with holding or purchasing common stock when compared with long-term debt. We conclude that Mr. Brennan's 4.75% risk premium is excessive.

Based upon the evidence before us, we find a risk premium of 3.0% to be appropriate for our determinations under the risk spread methodology for cost of equity purposes. Combining our yield factor finding (11.5% to 12%) with our yield factor, 3.0%, produces an equity cost of 14.5% to 15%. For calculation purposes we find an equity cost rate under the risk spread analysis for PECO in this proceeding to be 14.75%.

Based on the foregoing, we find a common equity cost rate of 14.75%, which, when combined with our findings with respect to capital structure, cost of debt, and cost of preferred stock yields an overall fair return of 12.26% as shown following:

<u>Type of Capital</u>	<u>Ratio</u> %	<u>Cost Rate</u> %	<u>Weighted Cost</u> %
Debt	50.90	10.76	5.48
Preferred Stock	10.70	10.50	1.12
Common Stock	<u>38.40</u>	14.75	<u>5.66</u>
	<u>100.00</u>		<u><u>12.26</u></u>

VIII. ENERGY COST RATE REVISION

A. Resolution of the Salem Investigation

On October 30, 1985, this Commission issued an Opinion and Order in the case of Re Salem Nuclear Generating Station, 70 PUR 4th 568 (1985) ("Salem Order") wherein we addressed and resolved the issue concerning PECO's responsibilities for specific generating outages at Salem, Peach Bottom and Eddystone and determined the specific amounts of replacement power costs which should be borne by the rate-payers. We also addressed our concern with the demonstrated ability of the Company to properly administer its ECR in view of the \$151 million undercollection accumulated at the end of ECR No. 7. We concurred with the ALJ's opinion that PECO was not effectively administering its ECR, and we concluded that the present ECR mechanism provided no specific incentive for an electric utility to improve its generating plant performance. In order to rectify this situation, we directed that the Company's projected energy cost levels would be established in future rate proceedings, and that 20% of its actual energy costs will not be reconciled under Section 1307 of the Public Utility Code, 66 Pa. C.S. §1307.

In order to implement these modifications to PECO's ECR, the Company was directed to file a proposed ECR with its future rate filings. The new ECRs are to be established based on annual projections for a period of three perspective years. The new ECR filings were to include specific supporting information contained in Appendix B of the Salem Order, and we directed the ALJ assigned to the instant and future rate proceedings to address the following criteria in determining a proper energy cost level for PECO:

1. The historical performance of the Company's generating units.

2. The historical performance of comparable generating units operated by other utilities.
3. Projected performance of the Company's generating units.
4. Prudent and practical generating unit performance improvements planned or anticipated by the Company.
5. Projected energy/demand requirements of the Company and the PJM interconnect.

(Salem Order at 163)

Following a review of future ECR filings and supporting information submitted by the Company, the ALJ's recommendations, exceptions to the Recommended Decision and the record developed by the parties, the Commission will establish the level of energy costs to be recovered by the Company. Our Salem Order directed that these costs be charged to ratepayers on a levelized monthly basis and that these energy cost levels will remain in effect until revised levels are established by the Commission in future proceedings.

In order to provide the Company with an incentive to improve its generating plant performance, the Salem Order directed that the reconciliation of experienced and projected energy costs will be subject to the following provisions:

1. 80% of the experienced energy costs will be reconciled with the ECR projected energy costs on a twelve month basis, and any over/under recovery will be included in the "E" factor of the ECR.
2. 20% of the experienced energy costs will not be subject to reconciliation. To the extent that 20% of the experienced costs exceed the projected energy costs in the ECR, the excess costs will be borne by the Company, not the ratepayers. To the extent that 20% of the experienced energy costs are less than the level of

projected energy costs included in the ECR, such lesser amounts may be retained by the Company as a reward for operating its generating units in a more efficient and economical manner than was anticipated.

(Id., p. 164)

In order to lessen ratepayer confusion with regard to interpretation of electric bills, the Salem Order directed that all energy cost recovery shall be included in the base rate portion of PECO's customer billings. To provide useful information to PECO's ratepayers and to be consistent with the Commission's findings at page 9 of its Gas Cost Rate No. 5 Order, Docket No. M-78050055, (March 16, 1986), PECO was also directed to print on all bills rendered to residential customers the following statement:

"This bill includes _____ per KWH which is our average cost of energy generated or acquired for your use".

(Id.)

B. Unreconciled Energy Costs

The Company's response in this proceeding to the Commission's Salem Order is composed of two major elements. First, the Company presented extensive testimony in support of its position that either the existing ECR should be maintained in its current form, or that if an 80%/20% ECR is adopted in this proceeding, it should include a \$35 million limitation or "cap" on the dollar amount that could be gained or lost by shareholders or ratepayers in any twelve-month period. Second, if the 80%/20% ECR is adopted, the Company contends that it should be implemented within the existing ECR by adjusting the definition of the "E" factor to allow reconciliation for only 80% of experienced over/under collections.

The Company contends that maintaining or modifying the present ECR is preferable to developing energy cost levels in base rate proceedings because it would minimize the administrative burden placed on the Commission and the Company and would maintain a flexible system by which the Commission can respond to changing conditions in the energy market (PECO St. 18F, pp. 4-7).

The Staff proposes that the 20% non-reconciled energy costs be established and recovered in base rates through a three year normalization. Staff argues that base rate recovery is consistent with the spirit and provisions of the Salem Order and the motion which underlies the Order.

Staff also contends that if 20% of energy costs are not to be reconciled, they must be charged pursuant to 66 Pa. C.S. §1308 of the Public Utility Code, 66 Pa. C.S. §1308, and that the partial recovery of the 20% unreconciled energy costs through the ECR mechanisms is not permitted by Section 1307 of the Public Utility Code, 66 Pa. C.S. §1307. Trial Staff contends that Section 1307 provides that any rates charged pursuant to a sliding scale of rates must be fully reconciled.

PECO acknowledges that Section 1307 does give this Commission discretion not to allow full reconciliation of over/under collections citing Community Central Energy Corp. v. Pa. P.U.C., 51 Pa. Commonwealth Ct. 142, 413 A.2d 1197 (1980) wherein the Court stated:

"This appeal presents a very limited, but important, issue for our resolution. We must decide whether Section 307(e) of the Public Utility Law afforded the Public Utility Commission (Commission) the discretion, upon a showing of good reason, not to order full refunds of

over-collections of automatic adjustment clause revenues.

* * *

The key words for our consideration are eight words of Section 307(e). Do the words "Absent good reason being shown to the contrary" merely provide a basis for the Commission to have more than 60 days to issue its refund order, or do they provide the Commission with the discretion not to order full refunds of over-collections of automatic adjustment clause revenues?

Our reading of the statutory sentence in question leads us to conclude that Section 307(e) did provide the Commission with discretion as to the extent of refunds to be made to public utility patrons. The words "Absent good reason being shown to the contrary" were used to modify that portion of the sentence which immediately followed, i.e., "the commission shall . . . by order direct each such public utility to . . . refund to its patrons and amount . . ." this being so, we cannot allow ourselves to be concerned with contentions that the legislature intended something different. The Statutory Construction Act of 1972 instructs us that "[w]hen the words of a statute are clear and free from all ambiguity, the letter of it is not to be disregarded under the pretext of pursuing its spirit."

We note that Section 307(e) provided that, in proper cases, the commission should order any public utility to recover from its patrons an amount equal to undercollections of automatic adjustment clause revenues. In addition, the Commission was given the supervision of the administration by a utility of the method used by any utility in automatically adjusting its rates so as to decrease the likelihood of collection by a utility of amounts greater or less than that to which it was entitled. We consider these provisions of Section 307(e) to evidence the clear intent of the legislature to provide the Commission with supervisory

control and discretion in the area of
refunds to, or recoveries from, patrons
relative to the collection of automatic
adjustment clause revenues.

On January 23, 1986, Staff filed a Motion to Strike portions of the Company's testimony on the grounds that it constituted an improper collateral attack on the Commission's Salem Order.

On March 10, 1986, the ALJ issued a ruling on Staff's motion to Strike, stating in part:

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 could be meaningless, could be manipulated, and would fail to establish the effect intended.

However, nowhere in such assignment, do we read a mandate to review, modify, "second guess" or overrule the Commission's 80%/20% provision. Any attempt on our part to modify the Commission's ECR 8 Order, would be presumptuous and contrary to the Commission's assignment.

(Mimeo at page 9).

The ALJ sustained the Staff's Motion to Strike to the extent he excluded testimony on the Company's proposed \$35 million cap, but denied the Motion in regard to testimony removing the 20% non-reconcilable energy costs from base rate proceedings.

In his Recommended Decision, the ALJ adopts "the Company's ECRF revised ECR filings." He finds that the Staff's recommendation to establish the 20% energy cost component in a nine month rate proceedings would cause an "intolerable" lag in reflecting changes in energy costs from both the ratepayer and Company's point of view. If adopted,

the ALJ concludes that the Staff's proposal would expose both the Company and the ratepayer to serious risks of very substantial over or under collections.

We agree with Staff's position that the Company's various proposals are not consistent with our directives in the Salem Order. However, we adopt the ALJ's recommendation that all energy costs be charged through the ECR mechanism and that 20% of the Company's projected energy costs will not be subject to reconciliation or interim revisions.

Our decision to modify our position established in the Salem Order is based on the following findings. First, the issues involving fuel costs and generating plant performance do not receive adequate attention amid the numerous issues present in a base rate proceeding. Second, the nine month suspension period associated with base rate proceedings coupled with the time period between rate filings is too long a period of time to reconcile potentially volatile energy costs. As discussed by the ALJ, these lags in energy cost reconciliation could expose the Company and ratepayers to serious over and under collections. Third, the Commission is presently involved in a proposed rulemaking at Docket Nos. M-820504 et al. where the Commission intends to revise the existing ECR mechanism in order to provide electric utilities with incentives to encourage, among other things, efficient electric generation. We anticipate that the final Commission regulations that evolve from this rulemaking will provide a permanent mechanism to administer energy cost recovery. Until these regulations are established, we prefer to permit PECO to recover its energy costs through the ECR mechanism as modified supra.

The Commission is cognizant of the fact that the success of the 80%/20% incentive mechanism depends on the reasonableness of the Company's energy cost projections in

future ECR filings. The adoption of unrealistically high energy cost projections could remove the incentive for the Company to operate its plant efficiently and/or provide an excessive windfall for the Company. To this end, we will carefully review future ECR filings and will not hesitate to suspend and investigate these filings if we find the Company's energy cost projections to be unrealistic.

C. Nuclear Performance Standards

The GEC presented a three component nuclear performance plan in this proceeding. The first component involves a nuclear unit operating standard for all of the Company's nuclear units. The GEC witness Dr. Wilson suggested an average capacity factor of 65% with a "dead-band" of five percentage points on either side of the 65% standard. Within this ten percentage point range, the GEC proposed that the fuel and energy costs incurred by the Company would receive the standard cost recovery treatment, i.e., the 80%/20% methodology. All replacement power costs attributable to performance below the 60% average capacity factor would not be recovered from the ratepayers, but would be borne by the Company. At the other end of the range, one-half of the fuel and energy cost savings achieved by the Company for total nuclear unit performance in excess of a 70% average capacity factor would be retained by the Company. The GEC contends that this procedure would protect the ratepayers from the cost of unreasonably poor performance and would give the Company a positive incentive for higher performance. Performance within the ten point band would produce neither penalties nor rewards.

The ALJ rejected the GEC's proposal because it is not consistent with the Salem Order and it contains other flaws not disclosed by the ALJ.

We will not adopt the GEC's proposal at this time because it was not suggested for consideration in the Salem Order and, consequently, was not vigorously addressed by the parties in this proceeding. However, the Commission has had a strong interest in establishing performance standards for generating units, and these standards are a principal component of our proposed rulemaking at Docket No. M-820504. The GEC is an active party in that proceeding, and we will be carefully reviewing the role of performance standards in setting and reconciling energy cost rates in that proceeding.

D. Specific Tariff Revisions

1. Interim ECR Revisions

The Company has proposed that its "F" factor (projected energy costs) may be revised if the projected over/under collection for the remaining "E" factor reconciliation year exceeds 10% of the total estimated energy expense. This revision will be made on a prospective basis for the remaining months of the ECR computation year.

The Staff opposes the use of a specific threshold to automatically trigger a revision to the ECR and recommends that interim reviews be made on a twelve month basis rather than the remainder of the ECR period as advocated by the Company. Further, Staff recommends that the decision to review an ECR should be based on the "F" factor year rather than the "E" factor year as proposed by the Company. The Staff argues that the absence of a specific threshold will enable the Commission to retain the flexibility necessary to deal with particular situations as they arise. Staff points out that the Commission in its Gas Cost Rate No. 5 Order, Docket No. M-78050055, et. al (March 16, 1984) expressed its preference to "retain its flexibility" with respect to interim revisions of adjustment clause rates. In that same

Order, the Commission mandated that Gas Cost Rate (GCR) revisions should be done on a twelve month basis in order to minimize seasonal mismatches.

The Company counters the Staff's position by stating that the absence of a specific threshold would be subjecting the Company to various and conflicting interpretations as to when the ECR should be revised. The Company also argues that a twelve month prospective interim adjustment is appropriate and necessary for gas utilities due to the very highly seasonal pattern of gas sales. Since electric sales are far less seasonal than gas, it is unnecessary and inappropriate to adopt the additional complication of a twelve month interim revision.

We agree with the Company that the electric industry does not experience the seasonal variations in customer consumption that occur in the natural gas industry and therefore requiring the interim ECR adjustments to be spread over a twelve month recovery period may add an unnecessary complication to the ECR process. We adopt the Company's proposal to spread interim ECR adjustments over the remainder of the ECR computation year at this time. However, it may be necessary to modify this position depending on the magnitude of interim revision and the potential impact to various rate classes.

It appears that the Company's concern for a specific threshold to trigger an interim revision to the ECR is premised on the Company's belief that energy cost levels would be established in base rate or other proceedings as delineated in the Salem Order. Since the Commission has preserved almost all of the provisions of the Company's ECR mechanism, we do not see why a specific threshold is necessary. If the Company wants to establish a criteria for filing revisions to its ECR we will permit it; however, we will not be bound by this criteria in either our review and approval of interim ECR revisions proposed by the Company or

other parties, or the Commission's decision to initiate an interim revision to the ECR.

In determining the appropriateness of an ECR revision, the Commission will consider both the magnitude of the projected total over/under collection that will occur during the remaining F-factor year, as proposed by Staff, as well as the impact on the next ECR which will be determined by the projected over/under collection that will occur during the current "E" factor period, as proposed by the Company. The Company shall provide both projections in support of any future ECR revisions.

2. Revisions to the ECRF Formula

If the 80%/20% ECR is adopted by the Commission, the Company proposes to implement it by changing the existing definition of the "E" factor so that only 80% of the prior period over/under collection amount would be refunded/recovered in the current period.

Staff finds the Company's proposed ECR tariff revision to be insufficient and states that it "is confusing and would lead to misunderstandings on the part of persons not familiar with the tariff" (Staff Exceptions, p. 71). Staff has prepared a revised ECR formula that includes new variables that would delineate reconcilable and unreconcilable fuel costs.

Considering that we are permitting the Company to recover its energy costs through the ECR mechanism, subject to the 80%/20% criteria discussed supra, rather than through base rate proceedings as delineated in the Salem Order, we find the Company's ECR formula and "E" factor definition to be appropriate.

E. Projected Price of Oil

As part of its December 30, 1985 response to the Salem Order, the Company filed a projection of its energy costs for the first year the new ECRF would be in effect, i.e., June 27, 1986 - June 30, 1987. (PECO St. 18B, Schedule E-2, Exh. JJC-1). That projection was based upon operation and application of the Company's Prod Cost computer model in the same fashion as employed by the Company in the determination of its current ECR. This projection considers factors such as electric sales, capacity factors, operation of other PJM units, two-party purchases, and coal and oil prices.

Following interaction with the various parties to this proceeding, the Company late-filed a final revision to its projected costs (PECO Exh. JJC-3) pursuant to an on-the-record data request. All parties appear to accept the final projections, except for the Company's use of residual oil prices in the \$23.00 to \$24.00 per barrel range yielding an overall fuel cost of 15.898 mills/kwh.

The Staff recommends that we adopt the Company's projection if energy costs are to be set on an annual basis (as we have adopted Supra). If the Commission were to adopt a three year normalization of energy costs as prescribed in the Salem Order, then Staff recommends that the projected energy cost be normalized yielding an overall fuel cost of 16.414 mills/kwh.

The OCA argues that at the close of the record the Company had paid \$17 per barrel for residual oil and that no Company witness had testified that oil prices are to be significantly higher than this amount in the next twelve months. The OCA submits that the Company's ECR projections

should be based on a range of residual oil prices between (\$17.00 and \$20.00 per barrel).

The GEC also urges the Commission to adopt a lower projection for the price of oil in light of current market conditions.

We agree with the positions of the OCA and GEC and will require the Company to file its ECR employing the forecast presented in Exhibit JJC-3, except that the level of residual oil prices shall not exceed \$20 per barrel.

F. Filing Requirements

As discussed in the "Unreconciled Energy Costs" Section supra, the Commission will be carefully reviewing the energy cost projections prescribed by the Company in future ECR filings. To this end, we find it appropriate to delineate information that should support these filings. An initial list of Filing Requirements is attached to this Order as an Appendix.

Since this is the Commission's first experience with an ECR where a portion of actual energy costs will not be reconciled, it is likely that these requirements will be subject to future modifications.

IX. MISCELLANEOUS

A. Phase-In

The Company proposes to "phase-in" the rate increase requested in this proceeding over a three-year period by deferring billing and collection of a portion of the increase through the application of the Unrecovered Revenue Collection Rider ("URCR") set forth in Schedule 1 of the Direct Testimony of Mr. Raymond C. Williams (PECO St. 17). The Company's phase-in proposal provides for a three-step phase-in of the approved rate increase. Under the revenue increase requested by PECO, each step will increase rates by approximately 9.4% or \$223.6 million, so that the total proposed increase of 28.2% or \$670.7 million would be billed in the third year after the rate increase is granted. The amount of revenue not billed during the first three years of the phase-in would be collected over a three-year "phase-out" period beginning in the fourth year and continuing through the fifth and sixth years. The Company does not seek any recovery of carrying charges resulting from the deferral of revenue collection over the life of the plan (PECO St. 17, pp. 5-6).

The Company proposes to implement the phase-in plan by filing rates designed to produce the total approved rate increase with adjustment factors for each block of each rate to reflect the phase-in. These adjustment factors will be used to compute billings during years one and two. The Company will also compute the difference between the amount actually billed by application of the adjustment factors and the amount that would have been billed without a phase-in and record the difference as unrecovered revenue. The collection of unrecovered revenue will begin in the fourth year with a specific unrecovered revenue factor applicable to each rate block. The Company will precisely track the

recovery of revenue from each rate class and cease application of the factor when recovery is complete, thus assuring that the appropriate amount of unrecovered revenue will be collected from each rate classification (PECO St. 17, pp. 6-8).

PECO asserts that its proposed phase-in plan meets the requirements of the Exposure Draft amending the Financial Accounting Standards Board, Statement No. 71 (FASB 71).^{35/} Under Generally Accepted Accounting Principles (GAAP), revenues are normally recorded in the year received, and expenses are recorded in the year incurred. An exception to this rule is established for regulated utilities in FASB 71, which allows utilities to defer expenses or to record deferred revenue currently to reflect the actions of regulatory commissions where recovery of the expense or revenue is probable. The proposed amendment to FASB 71 requires that phase-in plans meet three requirements before this deferred accounting procedure will be permitted (PECO St. 16B, pp. 3-4): (1) the costs in question are deferred pursuant to a formal plan that has been agreed to by the regulator; (2) the plan specifies the timing of recovery of all costs

^{35/} As explained by Mr. Farling (PECO St. 16, pp. 6-9), accounting and financial reporting issues are resolved by application of GAAP. GAAP refers to the rules promulgated by the Financial Accounting Standards Board. The economic effects of regulation require different accounting for public utilities, and Statement of Financial Accounting No. 71, "Accounting for the Effects of Certain Types of Regulation," provides that accounting guidance.

In 1985, the FASB directed its staff to examine the application of FASB 71 to phase-in plans. The results of this examination are contained in the Exposure Draft of a proposed Statement of Financial Accounting Standards entitled "Regulated Enterprises - Accounting for Phase-In Plans, Abandonments, and Disallowances of Plant Costs - An Amendment of Statement 71," issued by the FASB on December 19, 1985.

that will be deferred under the plan; and (3) all costs deferred under the plan are scheduled for recovery within 10 years of the date when the deferrals begin. PECO concludes that its plan meets these requirements (PECO St. 16, p. 8); and therefore it will be permitted to recognize in its current income statements revenue deferred for later collection under the phase-in plan.

PECO also contends that its phase-in plan is consistent with and even more beneficial to ratepayers than plans adopted in other jurisdictions, since many of these plans are comparable in length to PECO's, but all provide for the recovery of carrying charges on the deferred revenue.^{36/}

1. City of Philadelphia Phase-In Plan

City of Philadelphia witness Gregory A. Palast has proposed two alternative phase-in plans. Witness Palast's first proposal is a seventeen-year plan that would phase-in

^{36/} See, e.g., Re Union Electric Co., 65 PUR4th 218, 274-277 (Ill. Commerce Comm'n 1985) (four-year phase-in and two-year phase-out approved of a 45.6% increase in rates with full recovery of carrying charges on deferred amounts); Re Iowa-Illinois Gas & Electric Co., 56 PUR4th 361, 372-377 (Ill. Commerce Comm'n 1983) (four-year phase-in and three-year phase-out with full recovery of carrying charges on deferred amounts); Re Union Electric Co., 66 PUR4th 202, 284-286 (Mo. Pub. Serv. Comm'n 1985) (46% increase phased-in over six years, deferred revenue and carrying charges recovered in years seven and eight). Similarly, Idaho Power Company has proposed a three-year phase-in plan of its requested 27% rate increase to reflect the inclusion in rate base of its Valmy 2 coal unit, with full recovery of carrying charges. In addition, New Orleans Public Service Company has proposed a four-year phase-in plan associated with its 35% requested increase for its share of Grand Gulf 1 with recovery of the deferred revenues and carrying charges.

the allowed rate increase over seven-years and allow for recovery of the deferred revenue over a subsequent ten-year period with no provision for the recovery of carrying charges on the deferred amounts (City St. 2, pp. 7-8). His second proposal entails a ten-year plan that would phase-in the rate increase over five years and allow recovery of deferred revenue in the subsequent five years and would prohibit any interim base rate or ECR increases for the ten-year plan period (City St. 2A, p. 5).

Witness Palast asserts that the proposed amendment to FASB 71 should not be considered by the Commission because (1) the Commission should not be bound by financial accounting and reporting requirements in establishing rates; (2) non-compliance with FASB 71 is of no significance because reduced reported earnings can be explained in notes to the Company's financial statements and therefore will have no impact on investors; and (3) the proposed amendment to FASB 71 has not been adopted and likely will not be adopted in its present form.

2. Governor's Energy Council Phase-In Plan

GEC witness John W. Wilson proposes a ten-year phase-in deferral plan along with the use of sinking fund depreciation for Limerick 1. The GEC plan also allows for recovery of carrying charges on the revenue unbilled over the life of the plan. Witness Wilson also discussed other alternative phase-in plans in his direct testimony but stated that the plan discussed above is his preferred approach (Tr. 3251).

GEC contends that the Company's revenue phase-in plan produces excess cost recovery because it fails to recognize the annual reductions in revenue requirements caused by straight line depreciation for Limerick Unit 1 and common plant.

3. PAIEUG Phase-In Plan

PAIEUG witness Falkenberg proposes to establish rates in this proceeding based on the average Limerick revenue requirement for the next six years, excluding 50% of common plant, and with the use of sinking fund depreciation for Limerick (PAIEUG St. RJF, pp. 5-13). This witness contends that PECO's phase-in proposal ignores the fact that certain known and measurable changes will occur in PECO's cost-of-service during this time period. The driving force behind these known and measurable changes will be the reduction in PECO's rate base attributable to depreciation and deferred income taxes related to Limerick Unit 1. PAIEUG Stmt. No. 1, p. 7.

4. UCC/UP Phase-In Plans

UUC/UP also have advanced three alternative phase-in proposals. UUC/UP witness Chernick recommends a "value-based pricing" plan which would include the cost of Limerick 1 in rates only up to the level of annual Limerick 1 energy savings. Mr. Chernick proposed:

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 made several suggestions providing for future adjustments of rates to reflect increased benefits of Limerick I. Mr. Chernick specifically suggested:

- (1) A new rate case when benefits of Limerick so justify.
- (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.)

5. ALJ Phase-In Plan

The ALJ concluded that the most reasonable and acceptable plan for phase-in of the rate increase adopted in this proceeding is that providing for a three-year phase-in plan with a three year recovery period, without recovery of carrying charges by PECO on the deferred revenues. We concur with the recommendation of the ALJ for the following reasons:

1. Although we are not bound to act in accordance with FASB approved accounting principles, we should not ignore the principles if to do so could have severe consequences upon PECO and its ratepayers. If a phase-in plan does not comply with FASB 71, no unrecovered revenue could be recognized in the Company's reported earnings and financial indicators. Moreover, a phase-in plan which violates the 10 year limit of FASB 71 would create an unacceptable degree of uncertainty in the minds of the investment community whether PECO would ever recover the deferred revenues. This would increase PECO's investment risk and increase its cost of capital to the detriment of ratepayers.

2. City of Philadelphia's first proposal must be rejected because it would destroy the Company's financial integrity under both the existing and proposed financial reporting requirements of FASB 71. Furthermore, the City assumes that the full amount of the rate increase will be granted by the Commission. However, the impact on the ratepayers under our revenue allowance is substantially less than that assumed by the City. If the FASB 71 amendment is adopted and the City's plan were accepted, there would be no current recognition of the deferred revenue in the Company's financial statements. This could result in the downgrading of PECO's securities, which would significantly impair the Company's ability to attract capital and would be detrimental to the Company's ratepayers as well as its investors.

3. Similarly, GEC's phase-in plan would not be in compliance with FASB 71, would seriously affect the Company's cash flow, and would require larger rate increases to future ratepayers.

4. A three-year revenue phase-in plan, together with a substantial reduction in the revenue increase proposed

by PECO should lessen the economic impact on PECO customers and the service territory.

5. We agree with PECO that PAIEUG's proposed phase-in plan, based on the average Limerick revenue requirement for the next six years, together with the use of sinking fund depreciation for Limerick 1 should be rejected because it is fundamentally inconsistent with established ratemaking principles. The Company has not reached beyond the end of the future test year to incorporate, over a six year period, future sales, expenses, including depreciation expense, or rate base additions or retirements. PAIEUG's contention regarding decreased depreciation expenses during the phase-in period ignores the fact that the Company has made no claim for increased costs which very well may be incurred by PECO during the phase-in and phase-out period. From a historical perspective, it appears that the Company may likely experience such increased costs.

6. We agree with PECO that since it has agreed to forego the recovery of carrying charges on the deferred revenues, the phase-in period should not exceed that recommended by the ALJ. Any longer phase-in period would severely impact PECO financially unless carrying charge recovery would be authorized which would, of course, result in larger rate increases for future ratepayers.

B. Guarantee of Limerick 1 Energy Savings

The OCA, through the testimony of Thomas E. Knudsen, has proposed that PECO not be permitted to recoup from ratepayers any shortfall between the level of Limerick 1 energy savings incorporated by PECO in this rate case and the level of energy savings actually achieved while the rates from this case remain in effect. The OCA contends that if ratepayers must support all or a substantial portion

of Limerick 1 in rates, they should be assured that they will actually receive the level of energy savings which PECO has included as an offset to the proposed base rate increase in this case.

The OCA states that the primary reason for proposing such a guarantee in this case 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.

The OCA witness expressed these concerns:

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)

In order to compensate the Company for the additional risk being imposed by an energy savings guarantee, the OCA proposal would permit the Company to retain 50 percent of any energy savings generated by Limerick 1 over and above the level projected. Mr. Knudsen testified:

I view my recommendation in this case as an interim one. For purposes of this case I am incorporating the Company's proposed base rate fuel roll-out in its entirety. As I proposed in the Salem Unit #2 case, however, I would further propose that the Company not be permitted to recover through future ECR's any replacement power costs resulting from the Company's failure to achieve its estimated Limerick Unit #1 energy savings. As the Commission ordered in the Salem Unit #2 case, I would propose that, while this guarantee is in effect, the Company be permitted to retain one-half of any additional Limerick Unit #1 energy savings over and above those projected by the Company.

(OCA St. 7 at 29)

PECO witness, Thomas P. Hill, Jr., asserted that energy savings guarantees were inappropriate, and that such a guarantee is patently inconsistent with traditional rate-making principles. He testified:

In addition, an energy savings guarantee is inconsistent with the establishment of all other elements of the ratemaking formula. For example, the Company receives no guarantee that it will earn its Commission-allowed return in recent years. Similarly, ratepayers should not receive any guaranteed operating level for a particular generating unit.

(PECO St. 18D at 12)

PAIEUG proposes that the Commission require the Company to guarantee either a 65% capacity factor for Limerick 1 or a \$207 million fuel savings guarantee. PAIEUG recognizes that PECO cannot control the rapid decline in world oil prices, but asserts that PECO can exert considerable managerial and operational control over the Limerick

Station's generation in order to achieve a 65% capacity factor.

The City of Philadelphia similarly proposes that the Company guarantee the \$207 million fuel savings that would result from the plant operating at a 65% capacity factor beyond the first two years of operation.

The ALJ recommended that the proposals to require PECO to guarantee the \$207 million fuel savings from Limerick 1 be rejected for, inter alia, the reasons that "Energy costs are dependent on a wide variety of factors unrelated to the operation of Limerick 1, which would be beyond the Company's control, e.g., purchased power costs, absolute changes in fuel prices, sales levels, etc." (R.D. p. 179).

We agree with the recommendation of the ALJ that a guarantee of the Limerick fuel savings is not appropriate in this proceeding. There has been considerable mention of the fact that we required PECO to guarantee the Salem No. 2 fuel savings; however, PECO voluntarily agreed to such a fuel savings guarantee. In this proceeding, unlike the situation regarding Salem 2, we have in place an energy cost rate mechanism whereby PECO will have a strong incentive to accurately forecast its projected energy costs as well as to operate all of its generating plants in an efficient manner. The fact that PECO will not be guaranteed full recovery of twenty percent of its projected energy costs is, in our view, a sufficient incentive to assure the efficient operation of its generating plants, including Limerick 1. We are also mindful of the fact that PECO will not fully recover the revenues authorized in this proceeding until the end of the full six year period.

X. RATE STRUCTURE

A. Cost of Service Study

A utility company develops a cost of service study for the purpose of allocating production, transmission, and distribution plant and expenses to the various customer classes in a manner which reflects the responsibility of each class for the incurrence of those costs. ALJ Matuschak offers the following accurate and concise description of the significant features of a cost of service study:

A cost of service study consists of three basic parts: functionalization, classification, and allocation. Costs are first functionalized based upon the function for which they are incurred, e.g., production, transmission or distribution of electricity. Each function is then classified as customer-related, demand-related, energy-related or some combination of the three.

* * *

Once costs are so classified, they are allocated to the various customer classes based upon the number of customers, demand or energy usage of the particular class.

(R.D. page 148)

The ALJ describes the study provided by the Company in this proceeding as follows:

In PECO's cost of service study, production and transmission plant and their related expenses are classified as demand related and are allocated on the basis of class contribution to PECO's summer coincident system peak. The system peak employed by the Company is the average of the monthly peaks for the four summer months of June, July, August

and September. Distribution plant and related expenses are directly assigned to the responsible rate class where possible. Remaining distribution costs are assigned as either customer-related or demand-related costs. Fuel expense is allocated on the basis of class energy usage. Allocation of expenses other than production, transmission, distribution and fuel is based upon the allocation factors used for other similar expenses or composite allocation factors.

(R.D. page 148)

Various parties have raised objections to certain aspects of PECO's cost of service study. However, before we take up those issues, we consider it important to observe that the Commission has historically viewed cost of service studies as having an important but limited role in rate structure determinations. We recognize that a considerable amount of judgement is inherent in such studies, and, in this regard we stated in Pa. P.U.C. v. Duquesne Light Co., Docket No. R-821945 (January 27, 1983):

[A] cost of service study is one of the most subjective elements in any rate case. The methods used for classifying items of plant and expense between demand, customer and energy components are far from being an exact science. Cost of service studies are more accurately characterized as engineering art.

This Commission has historically recognized the cost of service study for what it is: a useful tool for testing the reasonableness of the proposed allocation of the revenue requirement. Rarely, if ever, is revenue requirement allocated strictly on the basis of cost of service results.

(Opinion and Order, p. 73.)

1. Production and Transmission Plant

As noted earlier, PECO's cost of service study classifies production and transmission costs as demand related, and allocates these costs to the various customer classes based upon the contribution of each class to system peak demand. For the purpose of its study, PECO has determined its peak demand based upon the four summer coincident peaks ("4CP method") since it is a strong summer peaking company. According to PECO, its allocation of production and transmission costs is appropriate since it reflects the fact that such costs are fixed and do not vary with the level of class energy usage. As for its use of the 4CP method, the Company contends that it sends appropriate price signals to the customer classes encouraging them to reduce their summer demand.

Four Complainants in this proceeding have strenuously opposed PECO's allocation of production and transmission costs under the 4CP method. These Complainants are OCA (Main Brief, pp. IX 2 - IX 17), UUC/UP (Brief, pp. 42-52), PBUUG (Main Brief, pp. 12-17), and CEPA (Main Brief, pp. 10-11). All contend that PECO's study reflects only one feature of base load generating facilities; that is, the requirement to meet system peak, and ignores the fact that such plant is built to also produce energy cost savings. These Complainants have proposed that a significant portion of PECO's production and transmission costs be allocated on an energy basis.

The Company contends that those Complainants who oppose its allocation of production and transmission costs have ignored the fact that the 4CP method is only one part of the cost of service study. PECO argues that its study, as a whole, fully reflects the energy saving aspects of base

load plant since the energy savings produced by those facilities, which do vary with usage, are allocated on an energy basis.

ALJ Matuschak recommends that the Commission find in the Company's favor on this issue. He notes that, in the past the Commission has approved PECO's 4CP method and the resulting allocation of production and transmission costs (R.D. page 151). As for the proposals advanced by the various parties who oppose the Company's study, he concludes:

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.

(R.D. page 153)

We cannot agree with the ALJ on this issue, and we will not specifically endorse the Company's cost of service study in this proceeding. The fact that we have approved the 4CP method in previous PECO rate cases does not mean that it must be approved here. The arguments of those parties opposed to the Company's study persuades us that there may be merit in allocating a portion of the production and transmission costs on an energy basis. This is especially true in light of the placing in service of Limerick 1. In its Exceptions (pp. 34-36) UUC/UP demonstrates that Limerick 1, which is the driving force behind PECO's requested rate increase, was built not just to maintain system reliability, but to also generate energy savings. As

for the Company's contention that its study fully reflects energy savings, we note with favor the OCA's assertion that:

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.

(OCA Exceptions, page 63)

Keeping in mind the limited purpose for which we use cost of service study results, we will not approve any particular methodology in this proceeding. It appears, however, that the technique espoused by the OCA, which is known as the Peak and Average Demand Method, may best reflect the way PECO's system is planned and the manner in which production and transmission costs are incurred. The OCA describes the significant features of its method as follows:

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.

(OCA Exceptions, page 61)

We find it appropriate to direct PECO, for the purpose of its next general rate increase filing, to develop its cost of service study based upon the Peak and Average Demand Method, and to use the results of that study to test the reasonableness of its proposed revenue allocation.

2. Classification of Distribution Costs

In its cost of service study PECO has classified distribution system costs as either demand or customer related. In order to determine how the costs should be apportioned, the Company has used what is called the predominant minimum size approach. Under this method, the Company attempts to determine the cost of a distribution system which would be necessary to serve its customers regardless of their demand for electricity. These costs are allocated to the customer component, and any additional costs are then classified as demand related. According to PECO, this method "properly reflects the real world conditions as they exist on PECO's system" (PECO Initial Brief, pages 7-159). The Company contends that its approach is consistent with the Electric Utility Cost Allocation Manual published by the National Association of Regulatory Commissioners. PECO also notes that the Commission has approved its method in its two most recent rate proceedings (PECO St. 24A, pp. 6-8).

OCA, City, and CEPA oppose the Company's allocation of distribution system costs. These parties contend that PECO's method classifies too great a portion of distribution costs as customer related. They all proposed alternatives which would increase the allocation of such costs to the demand component (Main Briefs, OCA pp. IX 17 -IX 21, City pp. 39-41, CEPA pp. 12-14).

ALJ Matuschak recommends adoption of the Company's position, based primarily upon past Commission approvals of PECO's method.

We find that opposing parties have cast considerable doubt upon the reasonableness of the Company's allocation of distribution costs. In this regard we are

particularly impressed with the following arguments advanced by the OCA:

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.

* * *

Due to the fact that PECO's measure of customer costs on the distribution system includes such a large demand component, the Company's allocation process serves to double count the demand responsibility of smaller customers.

(OCA Main Brief, pp. IX 18 - IX 20)

We will direct PECO to undertake a detailed study for the purpose of re-examining its method for determining customer class responsibility for distribution system costs.

3. PAIEUG Weather Adjustment

PAIEUG contends that the Company has erred by not making a weather adjustment to the 1984 peak load data used in developing its 1986 cost of service study (PAIEUG Main Brief, pp. 50-53). The PAIEUG position on this issue is supported by U.S. Steel.

ALJ Matuschak finds in favor of PECO here and states:

The PAIEUG adjustment is based upon a misconception of the Company's methodology, is incomplete, and is inconsistent with prior Commission precedent and cost of service presentations by PAIEUG witnesses in prior rate proceedings.

(R.D. page 155)

We agree with the ALJ that the PAIEUG proposal should be rejected. However our determination is based primarily upon our understanding of PECO's methodology and the relatively minor impact a weather adjustment would have upon the study results. We find persuasive PECO's argument that:

. . .the Company does not develop the 1986 peak loads employed in its cost of service study directly from 1984 peak load data. Rather, the 1986 peak loads are determined by applying the ratio of 1984 peak loads to 1984 annual sales, to 1986 weather normal sales to develop 1986 peak load data. Since it is the ratio of 1984 peak to 1984 sales that is employed, any impact of weather is significantly reduced as it affects both the peak load and sales data.

(PECO Initial Brief, page 7-155)

This reasoning, together with our previously stated view concerning the limited value of cost of service study results, leads us to the conclusion that a weather adjustment is not required.

4. Time-of Use Allocation of Energy Related Costs

The City recommends that the Commission direct PECO to incorporate time-of-use considerations when allocating energy related costs in its next cost of service study. According to the City, PECO incurs different energy

costs to meet the needs of peak and off-peak customers, and the rates they are charged should reflect those differences (City Exceptions, page 8).

We are not convinced that the City has presented a valid issue here. The City suggests, in its Main Brief (page 41), that PECO should reflect the actual costs incurred by the Company in supplying energy to a particular customer.

We are not sure how the Company's cost of service study could be redesigned to accommodate such a proposal, and the City has provided no guidance on this point. We reject the City's recommendation.

B. Class Revenue Allocation

The Company has proposed that the rate increase be allocated to the various customer classes on an equal percentage basis, including fuel costs. PECO's position is supported by all parties to this proceeding except two. PAIEUG and U.S. Steel contend that any rate increase should be spread across the board excluding fuel costs.

PECO asserts that its proposed revenue allocations were developed with the following objectives in mind:

1. to narrow the gap between class rates of return in the system average rate of return;
2. to avoid any disruptive changes in the pattern of rates which would unduly affect any one customer class;
3. to recognize the significant size of the rate increase requested in this proceeding; and
4. to be consistent to the maximum degree possible with the general approach

approved by the Commission in prior
Company rate proceedings.

(PECO Initial Brief, pp. 7-162 to 7-163.)

The ALJ recommends acceptance of the Company's proposal, finding that it is consistent with the cost of service study which he approves. The ALJ also determines that PECO's revenue allocation will promote conservation and off-peak usage and that it is consistent with prior Commission rate orders. (R.D. page 159).

We have not accepted the Company's cost of service study in this proceeding, however, we do agree with the ALJ that the Company's proposed allocation of the rate increase should be approved. We find that the Company's plan best fulfills its stated objectives, which were quoted earlier, and with which we agree.

PAIEUG argues that PECO's allocation should be rejected because it is not consistent with prior Commission actions. In the last three PECO rate proceedings the Commission approved the allocation of the rate increase among the customer classes excluding all fuel related revenues. PAIEUG suggests that the Commission is now bound by its action in those proceedings (PAIEUG Exceptions, pp. 10-12).

The Commission is not bound by its determinations in prior cases, especially when changing circumstances indicate that a different course should be pursued. The Company carefully considered excluding fuel for the purpose of its revenue allocation proposal in this case, but rejected it due to the large increase that would be imposed on the residential class.

We find that PECO's reasoning and its proposed on this point are sound. We also agree with the OCA's arguments in response to the PAIEUG position. In its Reply Exceptions, at pages 49 and 50, the OCA states:

PAIEUG's proposed zero fuel increase is inappropriate for this rate case. The OCA recognizes that a zero-fuel approach was used in certain prior PECO rate cases as a means to close the alleged disparity between residential and other classes' rates of return. Such additional closure is not necessary in this case and, in fact, would not even be achieved by a zero-fuel based allocation.

* * *

A zero-fuel based allocation would move HT even further from 100% of system average. OCA St. 8A at 4-5. Further, it would achieve this result by increasing overall residential rates by a substantially higher percentage than for Rate HT.

The Company's proposed allocation of the revenue increase is approved.

C. Proposed Tariff Revisions

Various parties, including the Company, have proposed adjustments to existing tariff schedules which have become issues in this proceeding.

1. SEPTA and Amtrak Rates

In compliance with a Commission directive PECO has, for the purpose of this proceeding, performed separate cost of service studies for SEPTA and Amtrak. The results of the studies indicate that these customers should be removed from the HT class. The Company has proposed to establish separate rate classifications for SEPTA and Amtrak,

designated as Rates EP-S and EP-A, respectively, which it contends are designed to yield the cost of providing service to these customers (PECO Initial Brief, page 7-171).

No party has challenged the proposed removal of SEPTA and Amtrak from the HT class. However, SEPTA and Amtrak contend that only one rate should be established which would apply to them both. In other words, Rates EP-S and EP-A should be consolidated into one Electric Propulsion Rate.

The Company believes that separate rates are appropriate for SEPTA and Amtrak. PECO contends that distinct rate schedules will "more precisely track the cost of serving these customers and reflect differences in their load characteristics" (PECO Initial Brief, page 7-172).

ALJ Matuschak agrees with and recommends approval of the Company's position on this issue.

In their Exceptions (pp. 3-5) SEPTA and Amtrak assert that, contrary to PECO's statement, they exhibit very similar cost characteristics and load patterns. SEPTA and Amtrak correctly note that:

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 unreasonable 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 Exceptions, pages 4-5)

We agree with SEPTA and Amtrak on this issue and observe that the Company has not attempted to rebut their position in its Reply Exceptions. Accordingly, we will direct the Company to file one rate schedule for application to both SEPTA and Amtrak.

2. Rate HT Tail Block

PAIEUG has proposed a reduction to the Rate HT energy charge in the tail block from 3.75¢ per kwh, as proposed by PECO, to 3.18¢ per kwh. PAIEUG asserts that such an adjustment is appropriate in order to minimize demand cost recovery in the tail block. (PAIEUG Main Brief, page 45).

PECO argues that PAIEUG's proposal is based upon a calculation error which, if corrected, destroys all support for the proposed adjustment (PECO Initial Brief, page 7-179).

The ALJ agrees with PECO (R.D. page 166).

PAIEUG acknowledges its calculation error, but contends that this does not impact upon its position that demand cost recovery in the tail block of Rate HT should be minimized.

Our review indicates that, while not completely eliminated, the recovery of demand costs in the tail block of Rate HT has been minimized under PECO's proposal. We

also find that adoption of PAIEUG's proposal would result in an approximate 95% increase in the Rate HT demand charge, which is clearly unreasonable.

Accordingly, we adopt the recommendation of ALJ Matuschak and reject the exception of PAIEUG.

3. Demand Ratchet

The Company includes in its HT and PD rates a mechanism called a demand ratchet. Under this device, the bills for HT and PD customers, during October through May, are calculated on the customer's actual demand or 80% of its summer peak demand, whichever is greater.

PECO justifies its use of the demand ratchet with the following reasoning:

The purpose of the ratchet is to encourage reduction in summer demand, and indeed, the demand ratchet is the principal means by which a price signal is communicated to HT and PD customers to discourage summer demand. The benefits of these demand reductions are two-fold: lower energy costs and reduced need to add new capacity (PECO St. 24A, pp. 15-16).

The ratchet also ensures that the Company will at least recover a portion of the costs it incurs when customers add a kw of demand during the summer.

(PECO Initial Brief, page 7-180)

The Company also observes that the demand ratchet has been part of its tariff since 1969. The Commission has approved it in subsequent PECO rate proceedings, and its action has been upheld on appeal (PECO Initial Brief, page 7-180).

UUC/UP and PBUUG contend that the demand ratchet is unfair and discriminatory and should be eliminated. In the alternative, UUC/UP argues that the ratchet should be reduced to perhaps 65% (Main Brief, UUC/UP pp. 64-75, PBUUG pp. 23-26).

ALJ Matuschak accepts the Company's reasoning and recommends rejection of the proposals to eliminate the demand ratchet.

In its Exceptions, UUC/UP charges that the ALJ has essentially ignored the voluminous testimony and exhibits presented on this issue. It goes on to repeat the arguments which it made in its Brief regarding the inherent unfairness and discriminatory aspects of the HT and PD demand ratchets. UUC/UP alleges that the demand ratchet grossly overcollects revenues from HT and PD customers, and, while the benefits of the demand ratchet are enjoyed by all PECO customers, the cost of those benefits fall only on the HT and PD customers (UUC/UP Exceptions, pp. 57-62).

We do not find the demand ratchet to be unfair. We consider the demand ratchet necessary to assure recovery of most of the cost imposed on PECO's system by the addition of demand in the summer. The Company notes that,

. . . the cost imposed by the addition of 1kw demand in the summer is \$366.73. Without the ratchet the Company would recover only \$124.24 from the customer who added the demand and the remainder would be recovered from other customers. With the ratchet, the Company is assured recovery of at least \$323.02 which, although less than the full cost, is at least a substantial portion of the cost. If the demand ratchet were eliminated, the Company would simply have to increase the HT demand charge to recover revenue lost from application of the ratchet,

which would result in other customers not responsible for the addition of peak demand paying for the cost imposed by other customers who do add peak demand during the summer months.

(PECO Reply Brief, page 7-44)

We agree and also find that reducing the demand ratchet, the UUC/UP alternative, would serve only to reduce the ratio of cost recovery.

As for the charge that the demand ratchet is discriminatory, we observe that PECO's other rate classes have similar mechanisms which are designed to encourage summer demand reductions. The elimination of the demand ratchet from Rates HT and PD would discriminate against these other classes of service.

We agree with the ALJ that the proposals to eliminate the HT and PD demand ratchets must be rejected. Accordingly, we deny the exception of UUC/UP.

4. Residential "Essential Use" Rate Blocks

The OCA and CEPA have proposed the establishment of essential use blocks for Rates R and RH. Under their proposal, the first 350 kwh used for regular residential customers, the first 750 kwh used by water heating customers, and the first 1500 kwh used in winter by space heating customers would receive a significantly lesser rate increase than higher use residential customers. OCA and CEPA contend that low-income residential ratepayers would and should benefit from a reduced charge in the initial block of the residential rate.

PECO contends that the OCA and CEPA proposals are inappropriate because the essential use blocks would penalize high-use low-income customers while benefitting low-use

high-income customers. The Company sets forth the following argument on this point:

These proposals are premised on the assumption that there is a correlation between income level and electric usage. The available evidence simply does not support this conclusion. As a result, the OCA/CEPA proposal would charge larger than average increases to many low-income customers and would provide less than average increases to many customers who do not require any assistance. Fully 62% of the regular residential ratepayers on the Company's Customer Assistance Program have usage above 400 kilowatt hours per month. Thus, a limitation of the increase to the first 350 kwh of usage will not be effective and would in fact penalize low-income customers with high usage and benefit high-income, low-usage customers.

(PECO Reply Brief, page 7-46)

ALJ Matuschak agrees with PECO's position on this issue. He also notes that the Commission rejected a proposal in the Pennsylvania Power & Light Company rate structure investigation at R-830374, which was virtually identical to the OCA and CEPA plan here.

We agree with the ALJ that the proposal to establish essential use rate blocks for residential customers should be rejected. The arguments advanced by OCA and CEPA in their Exceptions simply do not convince us that their proposal should be adopted. It may well be that there is a correlation between income level and electric usage on average. However, even if we were to adopt the OCA and CEPA statistics in this case, it is clear that there are many customers who will not fit the average. In other words, there are many low-income customers who have high energy usage, and perhaps a greater number of high or median

income customers with lower than average consumption. We cannot escape the conclusion that the OCA and CEPA proposal might result in harm to those low-income customers who need the most assistance, and that it would help many customers who have absolutely no need of the benefit.

Therefore, the exceptions of the OCA and CEPA are denied.

XI. CONCLUSION

In accordance with our resolution of the issues in this proceeding, we conclude that PECO is entitled to an opportunity to earn income available for return of \$735,203,000 applicable to its electric operations. PECO is authorized to establish rates designed to produce \$2,852,071,000 in annual electric operating revenues. The increase in annual operating revenues herein authorized is \$350,797,000 which is to be phased in over a three year period; THEREFORE,

IT IS ORDERED:

1. That Philadelphia Electric Company not place into effect the rates contained in Supplement No. 15 to its Tariff Electric-Pa. P.U.C. No. 26, the same having been found to be unjust, unreasonable and, therefore, unlawful.

2. That Philadelphia Electric Company is hereby authorized to file tariffs or tariff supplements containing rates, provisions, rules and regulations, consistent with our findings herein, designed to produce annual operating electric revenues of not in excess of \$2,852,071,000, exclusive of revenues to be derived from the State Tax Adjustment Surcharge revenues; provided however, that the \$350,797,000 annual revenue increase herein authorized must be phased-in over a three year period, with deferred revenues being recovered in the fourth, fifth and sixth year.

3. That said tariffs or tariff supplements may be filed upon less than statutory notice, and, pursuant to the provisions of 52 Pa. Code §3.32(b), the tariffs or tariff supplements may be filed to be effective for service rendered on and after the date of entry of this Opinion and Order.

4. That the tax surcharge shall be computed in accordance with the State Tax Adjustment Surcharge Order of March 10, 1970, as revised.

5. That Philadelphia Electric Company shall file detailed calculations with the tariff filing which shall demonstrate to the Commission's satisfaction that the filed rates comply with this Opinion and Order.

6. That Philadelphia Electric Company shall comply with all other directives contained in this Opinion and Order which are not the subject of an individual directive in the proceeding Ordering Paragraphs, as fully as if they were the subject of a specific Ordering Paragraph.

7. That except as herein granted, the exceptions of all parties to the Recommended Decision are denied.

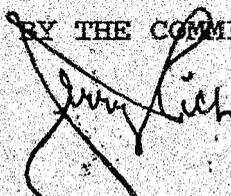
8. That the several complaints filed by various parties to this proceeding, including those which were consolidated with Docket No. R-850152, are granted or denied consistent with this Opinion and Order.

9. That except as herein modified, the Recommended Decision of Administrative Law Judge Matuschak is adopted as the decision of this Commission.

10. That upon the filing of tariff revisions acceptable to the Commission as being in compliance with this Opinion and Order and upon Commission approval of the tariff revisions, the inquiry and investigation at Docket

No. R-850152, et al., shall be terminated and the record marked closed.

BY THE COMMISSION,

A handwritten signature in cursive script, appearing to read "Jerry Rich", is written over the printed text "BY THE COMMISSION,".

Jerry Rich
Secretary

(SEAL)

ORDER ADOPTED: June 26, 1986

ORDER ENTERED: June 27, 1986

TABLE I

PHILADELPHIA ELECTRIC COMPANY

INCOME SUMMARY

(000)

	Pro Forma Present Rates	Commission Adjustments	Adjusted Proposed Rates	Commission Increase	Total Revenue
Operating Revenue	\$2,501,993	\$0	\$2,501,993	\$350,797 **	\$2,852,790
Deductions					
O&M Expenses	\$1,646,682	(\$8,336)	\$1,638,346	(\$206,990)**	\$1,431,356
Depreciation	\$261,163	(\$26,831)	\$234,332		\$234,332
Taxes					
Income	\$59,549 *	\$23,553 *	\$89,102 *	\$274,105	\$357,207
Other	\$87,264	\$0	\$87,264	\$7,016	\$94,280
Total Deductions	\$2,054,658	(\$11,614)	\$2,043,044	\$74,131	\$2,117,175
Net Income	\$447,335	\$11,614	\$458,949	\$276,666	\$735,615

Rate Base	\$6,943,888	(\$943,763)	\$6,000,125	
Commission Return			12.26%	

Commission Return

	Capital Structure	Cost	Weighted Cost
Long-Term Debt	50.90%	10.76%	5.48%
Short-Term Debt	0.00%	0.00%	0.00%
Preferred Stock	10.70%	10.50%	1.12%
Common Equity	38.40%	14.75%	5.66%
Total	100.00%		12.26%

* Includes deferred taxes and ITC adjustments.

** The Commission's revenue increase has been reduced by \$211,214 and the final O&M expense level has been reduced by \$206,990 to reflect the Company's proposed fuel cost savings resulting from the operation of Limerick I.

TABLE II

PHILADELPHIA ELECTRIC COMPANY

SUMMARY OF ADJUSTMENTS

(\$000)

	Rate Base	Revenue	Expense	Depreciation	Taxes- Other 2.00%	State Tax 6.97674%	Federal Tax 46.00%
Cash Working Capital taxes	(\$1,940)						
Interest Expense	\$5,512						
Preferred Dividends	(\$11)						
O&M Expense	(\$513)						
Salem Unit No.1	(\$4,380)						
50% Limerick Common Plant							
Plant	(\$631,859)			(\$16,918)		\$3,121	\$19,142
Depreciation Reserve	\$6,340						
Excess Tax Depreciation	\$23,142						(\$15,923)
ITC Allocation							\$853
Keystone Coal Inventory	(\$300)						
Oil Inventory	(\$1,784)						
Limerick Delay							
Plant	(\$368,900)			(\$9,978)		\$1,773	\$10,873
Depreciation Reserve	\$3,739						
Excess Tax Depreciation	\$13,146						(\$9,045)
ITC Allocation							\$485
Salem Unit No.2	(\$6,098)						
Accumulated Def. State Taxes *	\$3,055					(\$5,658)	\$2,603
Capitalized Overheads & Taxes	\$16,208					(\$2,999)	(\$13,209)
Refund at R-822291 +	\$880			\$65			
Decomm. Peach Bottom No.1			(\$691)			\$48	\$296
Management Audit - Salem No.1			(\$3,642)			\$254	\$1,558
Amort. Damaged Nuclear Fuel			(\$104)			\$7	\$45
Decomm. Reserve Deficiency			(\$1,896)			\$132	\$811
Refund at C-850128			(\$1,033)			\$72	\$442
Keystone Alliance			(\$742)			\$52	\$317
Salem No.2 Tax Benefits			(\$228)			\$16	\$98
Interest Expense*						\$3,840	\$23,549
	(\$943,763)	\$0	(\$8,336)	(\$26,831)	\$0	\$658	\$22,895

TABLE II - CONTINUED

The Commission has adopted the adjustment proposed by the OCA modified by the methodology proposed by the Staff.
 † This adjustment is the result of the Commission's Opinion and Order at Docket No. R-822291 adopted June 26, 1986.

#Interest Expense

Commission Rate Base	\$6,000,125
Weighted Cost of Debt	0.0548
<hr/>	
Commission Interest Expense	\$328,807
Company Claim	\$383,840
<hr/>	
Adj. Interest Claim	\$55,033
State Income Tax Rate	0.0697674
<hr/>	
State Tax Adjustment	\$3,840
<hr/>	
Adj. Interest Claim	\$55,033
State Tax Adjustment	\$3,840
<hr/>	
Net Adj. Interest Claim	\$51,193
Federal Income Tax Rate	0.46
<hr/>	
Federal Tax Adjustment	\$23,549
<hr/>	

PHILADELPHIA ELECTRIC COMPANY

CASH WORKING CAPITAL - TAXES

	Company Pro Forma Taxes	Commission Adjustments	Deferred Taxes	Taxes at Present Rates	Commission Revenue Increase	Total Taxes	Lag Days	Lag Dollars
Federal Income Tax	\$28,080	\$22,895	\$35,804	\$86,779	\$235,679	\$322,458	47.0	\$15,155,526
State Income Tax	\$14,142	\$658	\$8,657	\$22,457	\$38,426	\$61,883	63.6	\$3,935,759
Taxes Other Than Income Ad Valorem Tax	\$133,244			\$133,244	\$15,786	\$149,030	-30.8	(\$4,590,124)
	\$170,336			\$170,336		\$170,336	26.2	\$1,842,803
	\$245,802	\$23,553	\$44,461	\$313,816	\$209,891	\$603,707		\$16,343,764

Average Lag in Payment of Taxes: 27.1

Average Lag Days in Receipt
of Revenues

46.0

Average Lag Days in Payment
of Taxes

27.1

Net Average Lag Days

18.9

Working Capital Adjustment

Daily Tax Expense

\$1,654

Working Capital Requirement

\$31,261

Company Claim

\$33,201

Commission Adjustment

(\$1,940)

TABLE IV

PHILADELPHIA ELECTRIC COMPANY

CASH WORKING CAPITAL - ACCRUED INTEREST

Commission Rate Base	\$6,000,125
Weighted Cost of Debt	5.48%

Annual Interest Expense	\$328,807

Average Lag Days in Receipt of Revenue	46.0
---	------

Average Lag Days in Payment in Payment of Interest	82.6
---	------

Net Average Lag Days	-36.6
----------------------	-------

Working Capital Adjustment

Daily Interest Expense	\$901
Interest Offset to Working Capital	(432,977)
Company Claim	(438,489)

Commission Adjustment	\$5,512
	=====

TABLE V

PHILADELPHIA ELECTRIC COMPANY

CASH WORKING CAPITAL - PREFERRED DIVIDEND

Commission Rate Base	\$6,000,125
Weighted Cost of Preferred	1.12%
Annual Preferred Expense	<u>\$67,201</u>
Average Lag in Receipt of Revenue	46.0
Average Lag in Payment of Preferred Dividend	45.6
Net Average Lag Days	<u>-0.4</u>
<u>Working Capital Adjustment</u>	
Daily Preferred Expense	\$184
Preferred Offset to Working Capital	\$74
Company Claim	\$85
Preferred Offset to Working Capital	<u>(\$11)</u>
Commission Adjustment	=====

TABLE VI

PHILADELPHIA ELECTRIC COMPANY

CASH WORKING CAPITAL - EXPENSES

	Pro Forma Expenses	Commission Adjustments	Adjusted Expenses	Lag Days	Lag Dollars
Payroll	\$280,834		\$280,834	10.5	\$2,948,757
Net Interchange	\$224,512		\$224,512	35.0	\$7,857,920
Nuclear Fuel	\$136,823	(\$104)	\$136,719	46.5	\$6,357,434
Coal	\$84,660		\$84,660	31.2	\$2,641,392
Coal Freight Bills	\$16,766		\$16,766	15.0	\$251,490
Oil	\$120,360		\$120,360	19.3	\$2,322,948
Benefits	\$25,470		\$25,470	1.8	\$45,846
Pensions	\$29,648		\$29,648	15.0	\$444,720
Other Invoices	\$374,770	(\$8,232)	\$366,538	15.4	\$5,644,685
A&G Expenses and Rents	\$87,912		\$87,912	15.4	\$1,959,845
Total	\$1,381,755	(\$8,336)	\$1,373,419		\$29,869,037

Average Lag Days in Payment of Expenses: 21.7

Average Revenue Lag Days	46.0
Average Expense Lag Days	21.7
Net Average Lag Days	24.3

Working Capital Adjustment

Daily 'Cash' Expense	\$3,763
Net Lag Days	24.3
Working Capital Requirement	\$91,441
Company Claim	\$91,954
Commission Adjustment	(\$513)

APPENDIX - FILING REQUIREMENTS

- A. The Company shall file, 90 days prior to the effective date of each proposed energy cost rate, a tentative estimate of the ECR factor for the next computation year.

On or before June 1 of each year, the Company shall submit to the Commission a final proposed annual energy cost rate factor to become effective with service rendered on and after July first, unless otherwise modified by the Commission.

The above filing requirements shall be reflected in the Company's Tariff as filed with the Commission.

- B. The Company shall supply in both its tentative and final ECR filing information and data including, but not limited to, the following:

(1) Energy Supply Mix and Energy Price Projections.

Projections for the energy supply mix and energy prices will be made for the ECR year¹ showing the contribution to total projected jurisdictional energy demand in the ECR year made by each of the energy sources. The energy supply mix projection is also to be disaggregated into monthly estimates for the ECR year.

- (i) Projections for the energy supply mix and energy prices are to be disaggregated from the energy sources with that contributed by each unit and station for both the total ECR period and the monthly estimates.
- (ii) In developing the projections for the energy supply mix and respective energy prices, the following information is to be supplied:
- (a) A description of the methodology used in making the projections (indicate the type of production cost model used and give a detailed description of the algorithm).
- (b) A statement of the following input and output to the production cost model: unit performance data, unit cost data and load data.
- (c) A report showing any changes, as well as the rationale for such changes, in the ECR period production cost program input data with the input data utilized in production cost programs for a five year period ending with the historic test period.

¹The "ECR year" data shall be based on projected data for the twelve month period that the ECR will be in effect. The "historic test period" data will consist of data for the twenty-four months immediately preceding the beginning of the ECR. (This data will necessarily include estimates for the latter months of the period.)

(2) Actual Unit Data Report.

- (i) For each of the company's generating units, provide the following information under the heading of "Actual Unit Data Report": the unit number, unit name, commercialization data, fuel type, nameplate capacity, architect/engineer, constructor, steam system supplier and the turbine supplier.
- (ii) The actual unit data report is also to contain the following additional information for each generating unit: gross maximum capacity, gross dependable capacity, net maximum capacity, planned outage factor, seasonal derating factor, unit derating factor, equivalent availability factor, gross capacity factor, equivalent forced outage rate, average gross operating heat rate and average gross operating cost. This data is to be supplied as projected for the ECR year as well as for the five years ending with the historic test period.

(3) Comparison of Unit Performance Data Report.

- (i) Compare the ECR year's projected unit performance with the unit's actual performance for the five years ending with the historic test period. This comparison should include: planned outage factors, equivalent availability factors, gross capacity factors, average gross operating heat rates and average gross operating costs.

(4) Generating Unit Performance Improvements

- (i) A report detailing all Company efforts designed to improve system generating efficiency.

(5) Purchased and Interchange Power

- (i) Provide for the historic test period and the ECR year, the source, KWHs and cost of all interchange and purchased power.

The foregoing list is not all-inclusive and may be expanded to include other information and data as deemed necessary.

STATEMENT OF POSITION OF COMMISSIONER BILL SHANE

Re: Pa. P.U.C. v. Philadelphia Electric Co.
R-850152
JUN-86-ALJ-133

The pastoral letter on the U. S. economy drafted by the Roman Catholic Bishops has stated that any economic policy must be judged by what it does to and for the poor. What PECO is seeking to do to its customers (rich and poor alike) is increase their rates by \$670.6 million. In addition to other adjustments, I think that the Commission must do something for PECO's customers -- mandate that PECO guarantee the projected energy savings from the operation of Limerick Unit I.

The Administrative Law Judge refused to guarantee the energy savings because, in his opinion, such a guarantee would be "inconsistent with fundamental ratemaking principles" (Recommended Decision, p. 178). In reality, it is the energy cost rate (ECR) mechanism which is the ^{an} exception to traditional ratemaking principles. For the most part, rates are based upon projections of costs and conditions, but the ECR permits utilities to recover their actual energy costs, not the projected costs. I believe that this mechanism promotes inefficiency; therefore, I have advocated an "80/20 split," in which 20% of PECO's projected energy costs would not be subject to reconciliation. With regard to Limerick I, I believe the Commission should go further and require a guarantee of the projected Limerick fuel savings of \$208 million per year. This step is necessary to allocate ^{part} the risks associated with large, base-load nuclear plants.



While it is doubtful whether the low fuel costs of Limerick will outweigh its enormous capital cost over the life of the plant, a guarantee of Limerick's fuel savings will afford at least some protection to PECO's ratepayers. Without such a guarantee, PECO's ratepayers face the prospect not only of paying for Limerick, but of paying higher energy costs if there is an extended outage at Limerick. Recent data supplied by PECO reveals that the guarantee of Salem Unit II's fuel savings in the last PECO rate case saved ratepayers approximately \$29.5 million.

In summary, a guarantee of the projected fuel cost savings is consistent with ratemaking principles and is necessary for a sharing of risks between the company and its ratepayers.

Bill Shane

BILL SHANE
COMMISSIONER

DATED: 6/4/82